

**Volume 39, No. 14, Pages 12262 to 13107,
November 8 – December 2, 2024**

FCC Record

**A comprehensive compilation of decisions,
reports, public notices and other documents
of the Federal Communications Commission
of the United States.**



FCC Record

Volume 39, No. 14, Pages 12262 to 13107, November 8 – December 2, 2024



FEDERAL COMMUNICATIONS COMMISSION

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PUBLIC NOTICE

Federal Communications Commission
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Washington, DC 20554

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Internet: www.fcc.gov
TTY: 888-835-5322

DA 24-1120

Released: November 8, 2024

ENFORCEMENT BUREAU ANNOUNCES 2024 MVPD EEO AUDITS

On November 8, 2024, the Enforcement Bureau issued the third set of Equal Employment Opportunity (EEO) audit letters for 2024, which were sent to randomly selected multichannel video programming distributors (MVPDs). In accordance with sections 73.2080(f)(4) and 76.77(d) of the Commission's rules,¹ the Commission annually audits the EEO programs of randomly selected broadcast licensees and MVPDs. Each year, approximately five percent of all broadcast stations and MVPDs are selected.²

A list of the MVPD employment units included in this audit and the text of the November 8, 2024 letter appear on the following pages, which are also located at the Enforcement Bureau's EEO headline page at: <https://www.fcc.gov/enforcement/eb-eo/equal-employment-opportunity-headlines>. Responses to the audit letter are due no later than December 9, 2024, and must be submitted via the Commission's Electronic Comment Filing System (ECFS) in Docket Number 24-563, which can be found at: <http://apps.fcc.gov/ecfs>. MVPD employment units in the states of Florida, Georgia, North Carolina, South Carolina, Tennessee and Virginia impacted by the disruption caused by Hurricanes Helene or Milton do not need to request an extension, and may respond by January 8, 2025, if they find the additional time necessary. In addition, MVPD employment units in the impacted areas may contact the Enforcement Bureau to discuss options if unique circumstances prevent them from responding to their audits by this extended deadline.

Please be advised that, in contrast with past practice, the Enforcement Bureau will no longer issue letters to MVPDs upon completion of our review of audit responses. If questions arise during staff review, the Enforcement Bureau will contact the employment unit.

Enforcement Bureau Contact: EB-EEO@fcc.gov or 202-418-1450

- FCC -

¹ 47 CFR §§ 73.2080(f)(4), 76.77(d).

² The Enforcement Bureau sent EEO audit letters to broadcasters earlier this year. *See Enforcement Bureau Commences 2024 EEO Audits*, Public Notice, DA 24-179, 2024 WL 1270129 (EB Mar. 22, 2024). *See also, Enforcement Bureau Continues 2024 EEO Audits*, Public Notice, DA 24-1075, 2024 WL 4565440 (EB Oct. 18, 2024).



Federal Communications Commission
Washington, D.C. 20554

November 8, 2024

Attn: Employment Unit ID # XXXXX

1. In accordance with 47 CFR § 76.77(d), employment unit # XXXXX (the Unit) has been randomly selected for an audit of its Equal Employment Opportunity (EEO) program. A copy of section 76.77 of the Federal Communications Commission (FCC or Commission) rules as well as other rules referenced in this letter are available here: <https://www.fcc.gov/enforcement/eb-eo/equal-employment-opportunity-rules>.

2. Audit Data Requested.

(a) If the Unit has fewer than six full-time employees (defined by section 76.75(h) as employees regularly assigned to work 30 hours a week or more), it must provide only a list of the Unit's full-time employees identified by job title (no personal names should be provided), the number of hours each is regularly assigned to work per week, and a response to paragraph 2(b)(vi) below.

(b) If the Unit employs six or more full-time employees, it must provide the following information in response to this letter, including an explanation regarding any information the Unit is unable to provide:

(i) The Unit's most recent EEO program information, described in 47 CFR § 76.1702(b), which was required to be placed in the Unit's public file by October 1, 2024 (2024 EEO Public File Report). If the Unit maintains a website, provide its website address. If the Unit's 2024 EEO Public File Report is not posted to that website, as required by 47 CFR § 76.1702(b), explain why the report is not so posted. If the Unit does not maintain a website, but its corporate site contains a link to a site pertaining to the Unit, identify the corporate website address where the Unit's 2024 EEO Public File Report is linked.

(ii) For each full-time position filled during the period covered by the 2024 EEO Public File Report, or since acquisition of the Unit (if such acquisition occurred during that period), dated copies of all advertisements, bulletins, letters, faxes, e-mails, or other communications announcing the position, as described in 47 CFR § 76.75(c)(3). However, to reduce the burden of responding to this audit, if a job notice was sent to multiple sources, the Unit may provide: (1) documentation showing one such notice was sent; (2) a list of the sources to which the Unit sent the notice; and (3) a statement confirming notices to all additional sources used to announce the vacancy were retained, as required by section 76.75(c). Include, however, copies of all job announcements sent to any organization (identified separately from other sources) that has notified the Unit that it wants to be notified of its job openings, as described in 47 CFR § 76.75(b)(1)(ii).

(iii) The date that each full-time position was filled during the period covered by the 2024 EEO Public File Report and the recruitment source that referred the hire, as described in 47 CFR § 76.75(c)(6).

(iv) In accordance with 47 CFR § 76.75(c)(5), the total number of interviewees for each vacancy, and the referral source for each interviewee for all full-time unit vacancies filled during the period covered by the 2024 EEO Public File Report.

(v) Dated documentation demonstrating the Unit's performance of recruitment initiatives described in 47 CFR § 76.75(b)(2) during the period covered by the 2024 EEO Public File Report, such as participation at job fairs, events with educational institutions, and mentoring and training programs for staff. Specify the Unit personnel involved in each such recruitment initiative. Also, provide the Unit's total number of full-time employees and state whether the population of the market in which the Unit is located is 250,000 or more. Based upon these two factors, determine and state whether the unit is required to perform one or two recruitment initiatives within a 12-month period, pursuant to 47 CFR § 76.75(b)(2). If the Unit performed more than the required number of initiative activities, it may provide documentation for only the required amount in its response, i.e., one or two points worth. If any documentation provided appears inadequate, e.g., it is not dated or does not clearly prove the Unit's participation, the Commission may ask for additional verification.

(vi) Any pending or resolved complaints involving the Unit filed during the past five years before any body having competent jurisdiction under federal, state, territorial or local law, alleging unlawful discrimination in the employment practices of the Unit on the basis of race, color, religion, national origin, age, or sex. For each such complaint, provide: (1) a brief description of the complaint(s); (2) the persons involved; (3) the date the complaint was filed; (4) the court or agency before which it is pending or was resolved; (5) the file or case number; and (6) the disposition and date thereof or current status. Note that the Unit must report all complaints, regardless of their status or disposition.

(vii) In accordance with 47 CFR § 76.75(f), a description of the Unit's efforts to analyze its recruitment program to ensure that it is effective in achieving broad outreach and how the unit has addressed any problems found as a result of such analysis.

(viii) In accordance with 47 CFR § 76.75(g), a description of the Unit's efforts to analyze its EEO policies and employment practices to examine seniority, promotions, pay, benefits, selection techniques, and tests to ensure that they provide equal opportunity and do not have a discriminatory effect and, if the Unit has one or more union agreements, a description of how the unit cooperates with each union to ensure EEO policies are followed for the Unit's union-member employees and job applicants. Address any problems found as a result of this 47 CFR § 76.75(g) analysis and how the Unit has resolved them.

3. Procedures.

(a) **The response to this audit letter must be received by the Commission by no later than December 9, 2024.** Do NOT send paper copies of your response. Responses must be submitted via the Commission's Electronic Comment Filing System (ECFS), found at <http://apps.fcc.gov/ecfs>, in Docket Number 24-563. ECFS assistance is available by contacting the ECFS Help Desk at (202) 418- 0193 or via e-mail at ECFSHelp@fcc.gov.

(b) The accuracy and completeness of the response must be certified by an authorized officer, partner or other principal of the owner of the Unit. To knowingly and willfully make any false statement or conceal any material fact in response to this audit is punishable by fine or imprisonment (*see* 18 U.S.C. § 1001; *see also* 47 CFR § 1.17), and/or forfeiture (47 U.S.C. § 503). Absent an extension of time, failure to respond to this audit letter by December 9, 2024, is also punishable by sanctions in accordance with 47 CFR § 76.77(f) and may result in a certification that the unit is not in compliance with the Commission's EEO rules for 2024.

(c) Any extension of time must be requested at least five days prior to the aforementioned deadline (via e-mail to EB-EEO@fcc.gov), should indicate the additional time the Unit believes it needs to complete its response (not to exceed 15 days), and will be granted only upon a showing of good cause. Unless and

until an extension is granted, the original deadline remains in effect. MVPD employment units in the states of Florida, Georgia, North Carolina, South Carolina, Tennessee and Virginia impacted by the disruption caused by Hurricanes Helene or Milton do not need to request an extension, and may respond by January 8, 2025, if they find the additional time necessary. In addition, MVPD employment units in the impacted areas may contact the Enforcement Bureau to discuss options if unique circumstances prevent them from responding to their audits by this extended deadline.¹

(d) Upon receipt, audit responses will be reviewed for completeness. If any questions arise or there are missing materials, EEO staff will contact you. The Enforcement Bureau no longer issues letters to licensees upon completion of our review of audit responses.

4. Should you have any questions about your response, please contact EEO staff of the Investigations & Hearings Division in the Commission's Enforcement Bureau at EB-EEO@fcc.gov or (202) 418-1540 at least five business days prior to the December 9, 2024 response deadline. Thank you for your cooperation.

¹ Any waiver request will be forwarded to Media Bureau for consideration.

NOVEMBER 8, 2024 MVPD EEO AUDIT

#	Unit ID #	MSO	Operator	County	State
1	05491	VYVE BROADBAND J, LLC.	VYVE BROADBAND J, LLC.	Claiborne	TN
2	11984	SUDDENLINK COMMUNICATIONS	CEQUEL COMMUNICATIONS, LLC	Pope	AR
3	1847	CABLE ONE, INC.	CABLE ONE, INC.	Labette	KS
4	4242	T.V. SERVICE, INC.	T.V. SERVICE, INC.	Knott	KY
5	931260	BENDCABLE	BENDCABLE	Deschutes	OR
6	12301	GRANDE COMMUNICATIONS LLC	GRANDE COMMUNICATIONS LLC	Nueces	TX
7	1599	MASSILLON CABLE TV INC	MASSILLON CABLE TV INC	Stark	OH
8	11346	MEDIACOM COMMUNICATIONS CORPORATION	MEDIACOM COMMUNICATIONS CORPORATION	Marshall	IL
9	12753	DALTON UTILITIES	DALTON UTILITIES	Whitfield	GA
10	7677	BROADSTRIPE	WAVEDIVISION I, LLC	King	WA
11	13527	CHARTER COMMUNICATIONS	TIME WARNER CABLE	Bexar	TX
12	11802	COGECO US (PENN), LLC D/B/A BREEZELINE	COGECO US (PENN), LLC D/B/A BREEZELINE	Cambria	PA
13	12887	SHENANDOAH CABLE TELEVISION, LLC	SHENANDOAH CABLE TELEVISION, LLC	Johnson	KY
14	EUID99004	CLARITY TELECOM, LLC	BLUEPEAK FIBER	Denver	CO
15	EUID99013	UNITED SERVICES, INC.	UNITED SERVICES, INC.	Nodaway	MO
16	7429	HAEFELE TV INC.	HAEFELE TV INC.	Tioga	NY
17	12240	TEL-STAR CABLEVISION, INC.	TEL-STAR CABLEVISION, INC.	Woodford	IL

NOVEMBER 8, 2024 MVPD EEO AUDIT

#	Unit ID #	MSO	Operator	County	State
18	11676	COMCAST CABLE COMMUNICATIONS, LLC.	COMCAST CABLE COMMUNICATIONS, LLC.	Cobb	GA
19	11	SCHURZ COMMUNICATIONS, INC.	ANTIETAM CABLE TELEVISION, LLC	Washington	MD
20	10881	COX COMMUNICATIONS	COXCOM, LLC	Tulsa	OK
21	502017	KNOLOGY, INC.	KNOLOGY, INC.	Muscogee	GA
22	0001	GIGGLE FIBER	GIGGLE FIBER	Los Angeles	CA
23	122231	ELECTRIC POWER BOARD OF CHATTANOOGA	EPB FIBER OPTICS	Hamilton	TN
24	4232	STANDARD TABACCO CO. INC.	STANDARD TABACCO CO. INC.	Mason	KY
25	4862	SERVICE ELECTRIC CABLEVISION	SERVICE ELECTRIC CABLEVISION	Berks	PA
26	11843	MID-RIVERS TELEPHONE COOPERATIVE, INC.	MID-RIVERS TELEPHONE COOPERATIVE, INC.	McCone	MT
27	11825	CENTRACOM INTERACTIVE	CENTRAL TELCOM SERVICES	Sanpete	UT
28	693505	WEHCO VIDEO, INC.	HOPE COMMUNITY TV, INC.	Hempstead	AR
29	12281	SHENANDOAH CABLE TELEVISION, LLC	SHENANDOAH CABLE TELEVISION, LLC	Campbell	VA
30	1265	HARLAN COMMUNITY TELEVISION, INC.	HARLAN COMMUNITY TELEVISION, INC.	Harlan	KY



PUBLIC NOTICE

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DA No. 24-1128

Report No. SAT-01870

Friday November 8, 2024

Satellite Licensing Division and Satellite Programs and Policy Division Information

Actions Taken

The Commission, by its Space Bureau, took the following actions pursuant to delegated authority. The effective date of these actions is the release date of this Notice, except where an effective date is specified.

SAT-AMD-20240725-00161	E	S3193	Xplore Inc.	
Amendment				
Grant of Authority				Effective Date: 11/06/2024

Nature of Service: Earth Exploration Satellite Service

See ICFS File No. SAT-LOA-20240401-00072 for a description of the actions taken.

SAT-AMD-20240921-00202	E	S3193	Xplore Inc.	
Amendment				
Grant of Authority				Effective Date: 11/06/2024

Nature of Service: Earth Exploration Satellite Service

See ICFS File No. SAT-LOA-20240401-00072 for a description of the actions taken.

SAT-LOA-20240401-00072	E	S3193	Xplore Inc.	
Launch and Operating Authority				
Grant of Authority				Effective Date: 11/06/2024

Nature of Service: Earth Exploration Satellite Service

On November 6, 2024, the Satellite Programs and Policy Division, granted, with conditions, a license to Xplore Inc. to deploy and operate one satellite, XCUBE-1, in low-Earth, non-geostationary orbit. The satellite will be deployed to an altitude of 510 kilometers (+/- 25 kilometers) and inclination of 45 degrees (+/- 1 degree). Xplore is authorized to operate in the Earth exploration-satellite service in the 8025-4200 MHz (space-to-Earth) band, and to conduct telemetry, tracking, and command in the 2025-2110 MHz (Earth-to-space) and 2200-2290 MHz (space-to-Earth) bands. This application was granted under the streamlined small satellite procedures, 47 CFR § 25.122.

SAT-MOD-20240513-00101	E	S2785	Intelsat License LLC	
Modification				12/13/2024 - 12/13/2029
Granted in Part / Denied in Part				Effective Date: 11/06/2024

Nature of Service: Fixed Satellite Service

On November 6, 2024, the Satellite Programs and Policy Division granted, with conditions, the request of Intelsat US LLC for modification of the license for its Intelsat 14 space station to extend the license term through April 30, 2032. Intelsat 14 operates at the 45.0° W.L. orbital location in the 3700-4200 MHz (space-to-Earth), 11.45-11.95 GHz (space-to-Earth) and 5925-6425 MHz (Earth-to-space) and 14.0-14.5 GHz (Earth-to-space) frequency bands. Intelsat conducts telemetry, tracking and command for Intelsat 14 using the following center frequencies: 3704 MHz, 3705 MHz, 3709 MHz, and 3710 MHz (space-to-Earth); and 5927 MHz and 5932 MHz (Earth-to-space).

SAT-STA-20241004-00213	E	S2133	Alascom, Inc.
Special Temporary Authority			
Grant of Authority			Effective Date: 11/05/2024

Application listed as granted in ICFS to reflect continuing operations pursuant to section 1.62 of the Commission's rules. 47 CFR § 1.62.

SAT-STA-20241017-00230	E	S2347	SES Americom, Inc.
Special Temporary Authority			
Grant of Authority			Effective Date: 11/01/2024

Nature of Service: Fixed Satellite Service

On November 1, 2024, the Satellite Programs and Policy Division granted, with conditions, special temporary authority to SES Americom, Inc., for a period of up to 60 days to (1) conduct telemetry, tracking and command (TT&C) operations necessary to drift the AMC-6 space station from the 139° W.L. orbital location to the 135.05° W.L. orbital location and maintain AMC-6 at the new orbital location; and (2) provide fixed-satellite service with AMC-6 at the 135.05° W.L. orbital location using the 3700-4200 MHz and 11.7-12.2 GHz (space-to-Earth), and 5925-6425 MHz, 13.75-14.0 GHz, and 14.0-14.5 GHz (Earth-to-space) frequency bands. TT&C will be conducted using the following center frequencies: 3700.5 MHz, 4199.5 MHz, 11702.0 MHz, and 12198.0 MHz (space-to-Earth); and 6423.5 MHz (Earth-to-space).

SAT-STA-20241101-00245	E	S2133	AT&T Enterprises, LLC
Special Temporary Authority			
Grant of Authority			Effective Date: 11/05/2024

On November 5, 2024, the Satellite Programs and Policy Division granted, with conditions, special temporary authority to Alascom, Inc., for an additional period of up to 30 days, to conduct telemetry, tracking, and command (TT&C) operations necessary to de-orbit the SPACEWAY-2 satellite. Specifically, Alascom is authorized to conduct TT&C necessary to: (1) drift SPACEWAY-2 from the 138.9° W.L. to the 138.75° W.L. orbital location; (2) maintain the satellite at that location with an east/west station keeping tolerance of +/- 0.1°; and (3) de-orbit the satellite from the 138.75° W.L. orbital location. TT&C is conducted using the following center frequencies: 19701.75 MHz and 19702.75 MHz (space-to-Earth); and 29503.9063 MHz and 29511.7188 MHz (Earth-to-space).

For more information concerning this Notice, contact the Satellite Licensing Division and Satellite Programs and Policy Division at (202) 418-0719.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act	)	WC Docket No. 23-62
	)	
Rates for Interstate Inmate Calling Services	)	WC Docket No. 12-375

ORDER

Adopted: November 8, 2024

Released: November 8, 2024

Revised *September 2024 Annual Reports Public Notice* Reply Comment Date: December 9, 2024

Revised *2024 IPCS Notice* Reply Comment Date: December 17, 2024

Revised 60-Day PRA *2024 IPCS Order* Comment Date: January 7, 2025

By the Chief, Wireline Competition Bureau:

1. By this Order, the Wireline Competition Bureau (Bureau) of the Federal Communications Commission (Commission) finds good cause to grant the following extensions of time for three separate comment filing deadlines in the above-captioned proceedings: the filing deadline for reply comments to the *September 2024 Annual Reports Public Notice*¹ is extended from November 18, 2024 to December 9, 2024; the filing deadline for reply comments on the *2024 IPCS Notice*² is extended from November 19, 2024 to December 17, 2024; and the filing deadline for comments in response to the 60-day Paperwork Reduction Act (PRA) notice for the *2024 IPCS Order*³ is extended from December 24, 2024 to January 7, 2025.

2. On July 22, 2024, the Commission released the *2024 IPCS Order*. In that item, the Commission implemented the expanded authority granted to the Commission by the Martha Wright-Reed Just and Reasonable Communications Act of 2022,⁴ adopting comprehensive reforms that will significantly reduce the financial burdens that incarcerated people face to communicate with their loved ones. In the accompanying *2024 IPCS Notice*, the Commission sought comment on a number of related

¹ *Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act; Rates for Interstate Inmate Calling Services*, WC Docket Nos. 23-62, 12-375, Public Notice, DA 24-918 (WCB/CGB Sept. 11, 2024) (*September 2024 Annual Reports Public Notice*); Federal Communications Commission, Notice and Request for Comments on *September 2024 Annual Reports Public Notice*, 89 FR 80449 (Oct. 3, 2024).

² *Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act; Rates for Interstate Inmate Calling Services*, WC Docket Nos. 23-62 and 12-375, Report and Order, Order on Reconsideration, Clarification and Waiver, and Further Notice of Proposed Rulemaking, FCC 24-75 (rel. July 22, 2024) (*2024 IPCS Order* or *Order*, *2024 IPCS Reconsideration Order*, or *2024 IPCS Notice*); Federal Communications Commission, Notice and Request for Comments on *2024 IPCS Notice*, 89 FR 77065 (Sept. 20, 2024).

³ Federal Communications Commission, Notice and Request for PRA Comments on *2024 IPCS Order*, 89 FR 85209 (Oct. 25, 2024).

⁴ Martha Wright-Reed Just and Reasonable Communications Act of 2022, Pub. L. No. 117-338, 136 Stat. 6156 (2022) (Martha Wright-Reed Act or Act).

outstanding issues.⁵ The filing deadlines for the *2024 IPCS Notice* were set at October 21, 2024 for initial comments and November 19, 2024 for reply comments.⁶ The Commission separately released a 60-day PRA notice for the *2024 IPCS Order*, which was published in the Federal Register on October 25, 2024 establishing a December 24, 2024 deadline for filing comments regarding that PRA notice.⁷ Additionally, the Bureau and the Consumer and Governmental Affairs Bureau (Bureaus) released a public notice on September 11, 2024 inviting supplemental comment to refresh and expand upon the record regarding the Commission's IPCS annual reporting and certification requirements in light of the rules adopted by the Commission in the *2024 IPCS Order*.⁸ The Federal Register published this public notice on October 3, 2024, setting a November 4, 2024 deadline for filing comments and a November 18, 2024 deadline for filing reply comments.⁹

3. On October 25, 2024, the Wright Petitioners, the Benton Institute for Broadband and Society, the Pennsylvania Prison Society, United Church of Christ Media Justice Ministry, Public Knowledge, and Stephen A. Rahe (collectively, the "Public Interest Parties") filed a motion to extend the deadline for reply comments on the *2024 IPCS Notice* by 30 days to December 17, 2024.¹⁰ Movants assert that an additional grant of time would "ensure interested parties have sufficient time to respond to the significant issues raised in the record and provide the Commission with richer and more valuable analysis" and "will facilitate the compilation of a complete record."¹¹ They argue, *inter alia*, that related deadlines for IPCS Annual Report comments, IPCS Annual Report reply comments, Further Notice of Proposed Rulemaking reply comments, Paperwork Reduction Act comments, and deadlines for comments and replies on Petitions for Reconsideration¹² are all stacked together, and that congested "[d]eadlines in such close proximity involving these complicated issues will likely pose certain challenges to some commenters."¹³ They argue that extension of the *2024 IPCS Notice* reply comment deadline "will allow interested parties to fully evaluate and respond to issues raised in the comments while also responding to the other issues at play in this docket." They request the additional time to help address the "multiple overlapping comment periods and deadlines within the next thirty days."¹⁴

4. On November 1, 2024, Securus Technologies filed comments supporting the Public Interest Parties' motion and requesting additional, related filing deadline extensions. Securus requests (1)

⁵ *2024 IPCS Notice* at 313-19, paras. 608-625.

⁶ *Wireline Competition Bureau Announces Effective Dates for the 2024 Incarcerated People's Communications Services Order and Comment Dates for the 2024 Incarcerated People's Communications Services Further Notice of Proposed Rulemaking*, WC Docket Nos. 23-62 and 12-375, Public Notice, DA 24-969 (rel. Sept. 20, 2024).

⁷ Federal Communications Commission, Notice and Request for Comments on *2024 IPCS Order*, 89 FR 85209 (Oct. 25, 2024).

⁸ *September 2024 Annual Reports Public Notice*.

⁹ The Bureaus had previously sought comment on proposed changes to the IPCS annual reports in the *August 2023 Annual Reports Public Notice. Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act; Rates for Interstate Inmate Calling Services*, WC Docket Nos. 23-62, 12-375, Public Notice, DA 23-656 (WCB/CGB Aug. 3, 2023) (*August 2023 Annual Reports Public Notice*).

¹⁰ The Public Interest Parties, Motion for Extension of Time, WC Docket Nos. 23-62 and 12-375, at 1 (filed Oct. 25, 2024), <https://www.fcc.gov/ecfs/document/1025251886194/1> (Public Interest Parties Motion for Extension).

¹¹ Public Interest Parties Motion for Extension at 3-4.

¹² *Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act; Rates for Interstate Inmate Calling Services*, WC Docket Nos. 23-62 and 12-375, Public Notice, Report No. 3221 (OMD Oct. 28, 2024); Federal Communications Commission, Notice of Petitions for Reconsideration of Action in Rulemaking Proceeding, 89 FR 88695 (Nov. 8, 2024) (Petitions for Reconsideration Notice).

¹³ Public Interest Parties Motion for Extension at 3.

¹⁴ *Id.* at 1, 3.

an extension of the filing deadline for reply comments on the *September 2024 Annual Reports Public Notice* from November 18, 2024 to December 9, 2024, (2) an extension of the filing deadline for the *2024 IPCS Further Notice* from November 19, 2024 to December 17, 2024; and (3) an extension of the filing deadline for comments on the 60-day PRA notice for the *2024 IPCS Order* from December, 24, 2024 to January 10, 2025.¹⁵

5. While extensions of time are not to be routinely granted,¹⁶ in this instance, we agree with the Public Interest Parties and Securus that an extension of the *2024 IPCS Notice* reply comment deadline will allow parties to provide us with more fulsome comments that will facilitate the compilation of a complete record in this proceeding, without causing undue delay to the Commission's consideration of these issues.¹⁷ As the Public Interest Parties rightly predict, the Commission subsequently announced comment and reply comment dates for Petitions for Reconsideration related to the *2024 IPCS Order*, which are due on November 25, 2024 and December 5, 2024 respectively.¹⁸ These newly-announced comment deadlines add to the legitimate concerns raised by the Public Interest Parties and Securus with respect to overlapping filing timeframes on the various different, but related notices in this proceeding.

6. We also concur with the concerns raised by Securus regarding allowing parties more time to file reply comments on the *September 2024 Annual Reports Public Notice* and comments on the 60-day PRA notice of the *2024 IPCS Order*. Securus argues that these filing deadlines effectively compete with other filing deadlines in this proceeding, noting that, in addition to general concerns regarding multiple filing deadline congestion, IPCS providers are also required to make various changes to their operations to implement the requirements adopted in the *2024 IPCS Order* that will become effective on November 19, 2024.¹⁹ We conclude that Securus's request for an extension of the deadline to file reply comments on the *September 2024 Annual Reports Public Notice* will not materially impede the adoption of revised IPCS annual reports requirements. While we agree with the Public Interest parties that it is important to move quickly to revise the Annual IPCS Reports,²⁰ we also recognize the importance of and value in getting thorough record comments upon which to rely.

7. We also conclude that Securus's request for an extension of the filing deadline for comments on the 60-day PRA notice of the *2024 IPCS Order* is warranted. We grant Securus's request only in part, however, by extending the comment deadline two additional weeks rather than Securus' requested 17-day extension in the interest of ensuring a timely effective date of the *2024 IPCS Order*'s rules. Two additional weeks should provide parties sufficient time to prepare their PRA comments.

8. Accordingly, IT IS ORDERED, pursuant to sections 0.204, 0.291, and 1.46 of the Commission's rules, 47 CFR §§ 0.204, 0.291, and 1.46 that the Motion for Extension of Time filed by the Public Interest Parties on October 25, 2024 is GRANTED and the deadline for filing reply comments on the *2024 IPCS Notice* IS EXTENDED to December 17, 2024.

9. IT IS ALSO ORDERED that the request to extend the deadline for filing reply comments

¹⁵ Securus Comments at 3.

¹⁶ 47 CFR § 1.46.

¹⁷ Public Interest Parties Motion for Extension at 3; *see also* Securus Comments at 3-4. The Commission has previously found an extension warranted under similar circumstances. *See, e.g., Incarcerated People's Communications Services; Implementation of the Martha Wright-Reed Act*, Order, 38 FCC Rcd 5064 at 5066, para. 6 (WCB 2023) (granting an extension of time for reply comments in part due to overlapping filing deadlines).

¹⁸ Petitions for Reconsideration Notice, 89 FR 88695.

¹⁹ Securus Comments at 2 (noting that compliance with requirements that will be effective on November 19, 2024 will require that "thousands of contracts must be renegotiated, operations revised, and new procedures and processes developed").

²⁰ Public Interest Parties Motion for Extension at 3.

on the *September 2024 Annual Reports Public Notice* filed by Securus on November 1, 2024 IS GRANTED and the deadline for filing reply comments on the *September 2024 Annual Reports Public Notice* IS EXTENDED to December 9, 2024.

10. IT IS ALSO ORDERED that the request to extend the deadline for filing comments on the 60-day Paperwork Reduction Act notice for the *2024 IPCS Order* filed by Securus on November 1, 2024 IS PARTIALLY GRANTED and the deadline for filing comments on the 60-day PRA notice for the *2024 IPCS Order* IS EXTENDED to January 7, 2025.

11. To request materials in accessible formats (such as Braille, large print, electronic files, or audio format), send an e-mail to: fcc504@fcc.gov, or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice) or (202) 418-0432 (TTY).

12. For further information concerning this proceeding, please contact Erik Raven-Hansen, Pricing Policy Division, Wireline Competition Bureau, (202) 418-1532, Erik.Raven-Hansen@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Trent Harkrader
Chief
Wireline Competition Bureau



Federal Communications Commission

Enforcement Bureau
Investigations and Hearings Division
45 L Street, NE
Washington, DC 20554

November 8, 2024

DA 24-1130

VIA E-MAIL

Mr. Issa Asad
Chief Executive Officer
Q Link Wireless LLC
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Dania, FL 33004
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VIA E-MAIL and HAND DELIVERY

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Re: Notice of suspension and initiation of debarment proceeding
File No. EB-IHD-24-00037461

Dear Messrs. Asad, Nakahata, and Feder:

The Enforcement Bureau (Bureau) of the Federal Communications Commission (Commission or FCC) has received notice of the conviction of Q Link Wireless, LLC (Q Link or Company) for conspiring to commit offenses against the United States, specifically, (a) wire fraud, (b) theft of government funds, and (c) defrauding the United States, in violation of 18 U.S.C. §§ 1343, 641, and 371, respectively, all in connection with fraudulent claims against the federal Lifeline program (Lifeline program).¹ The

¹ Any further reference in this letter to "conviction" refers to Q Link's guilty plea agreement and factual proffer in *United States v. Q Link Wireless LLC*, Criminal Docket No. 1:24-cr-20363-RAR, Plea Agreement (S.D. Fla., filed Oct. 15, 2024) (Plea Agreement). See also *Lifeline and Link Up Reform and Modernization*, WC Docket No. 11-42, CC Docket No. 96-45, WC Docket No. 03-109, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656 (2012) (*Lifeline Reform Order*).

conspiracy involved submitting and causing to be submitted “false and fraudulent claims to the FCC Lifeline program for [Q Link] customers who were not using their cellphones according to the FCC usage rules.”² Consequently, pursuant to 47 C.F.R. § 54.8(e)(1), this letter constitutes official notice of Q Link’s suspension from the Lifeline program and all federal universal service support mechanisms as set forth below.³

Effective immediately upon receipt of this letter, Q Link is prohibited from participating in or receiving any benefit associated with the Lifeline program as well as any other program funded by federal universal service support mechanisms.

The Bureau hereby is also commencing a proceeding to debar Q Link from future participation in all federal universal support mechanisms.⁴ The Commission is required by its rules to debar Q Link “absent extraordinary circumstances,” notwithstanding any criminal process to which Q Link is subject.⁵

I. Notice of Suspension

Any corporation that has “defrauded the government or engaged in similar acts through activities associated with or related to the [Lifeline program]” may be prohibited from receiving the benefits associated with that program.⁶ The Lifeline program is a government program that provides support to eligible telecommunications carriers (ETCs) that in turn offer discounts on telephone and broadband service for eligible low-income consumers.⁷ An ETC may receive reimbursement in connection with the Lifeline program only if it certifies as part of its reimbursement request that it is in compliance with the Lifeline rules.⁸

Q Link has participated in the Lifeline program since 2012. On October 15, 2024, Q Link pleaded guilty to “conspiring to defraud and commit offenses against the United States in connection with a years-long scheme to steal over \$100 million from a celebrated federal program providing discounted

² *United States v. Q Link Wireless LLC*, Criminal Docket No. 1:24-cr-20363-RAR, Factual Proffer, at 3 (S.D. Fla., filed Oct. 15, 2024) (*Proffer*).

³ 47 C.F.R. § 54.8.

⁴ *Id.*; 47 C.F.R. § 0.111 (delegating to the Bureau authority to resolve universal service suspension and debarment proceedings). In 2007, the Commission extended the debarment rules to apply to all federal universal service support mechanisms, including Lifeline. See *Comprehensive Review of the Universal Service Fund Management, Administration, & Oversight*, Report and Order, 22 FCC Rcd 16372, 16410–12 (2007) (*Program Management Order*) (renumbering Section 54.521 of the universal service debarment rules as Section 54.8 and amending subsections (a)(1), (a)(5), (c), (d), (e)(2)(i), (e)(3), (e)(4), and (g)).

⁵ 47 C.F.R. § 54.8(b); *Plea Agreement* at 3–4.

⁶ *Program Management Order*, 22 FCC Rcd at 16387, para. 32. The Commission’s debarment rules define a “person” as “[a]ny individual, group of individuals, corporation, partnership, association, unit of government or legal entity, however organized.” 47 C.F.R. § 54.8(a)(6).

⁷ See *Lifeline Reform Order*, *supra* note 1, 27 FCC Rcd at 6662–67, paras. 11–18; see also 47 C.F.R. §§ 54.400–54.424.

⁸ See 47 C.F.R. § 54.407(d).

phone service to people in need.”⁹ Q Link’s misleading practices, deceptive call activity, falsified documents and threatening customer service scripts coerced customers into accepting Lifeline services and agreeing to remain its customers.¹⁰ Q Link knew that the Lifeline usage requirements required it to disenroll and stop seeking reimbursement for customers who had not used their cellphones in a 45-day window (90-day window for 2016), yet it continued to bill the Lifeline program for Q Link customers that were no longer eligible because they were not using, and in some instances, no longer even had their cellphones.¹¹ Between 2013 and 2019, Q Link received \$618,736,494 from the Lifeline program.¹² Approximately 21 percent of Q Link’s payments during this period were due to its fraudulent scheme.¹³

Pursuant to Section 54.8(b) of the Commission’s rules,¹⁴ Q Link’s conviction requires the Bureau to suspend it, absent extraordinary circumstances, from: (a) participating in any activities associated with or related to the Lifeline program, including receiving funds or discounted services through the Lifeline program, or consulting with, assisting, or advising applicants or service providers regarding the Lifeline program; and (b) participating in any activities associated with or related to all federal universal service support mechanisms.¹⁵ Q Link’s suspension becomes effective upon either (i) its receipt of this letter, or (ii) publication of the suspension in the Federal Register, whichever occurs first.¹⁶

In accordance with the Commission’s suspension and debarment rules, Q Link may contest this suspension or its scope by filing arguments, with any relevant documents, within thirty (30) calendar days of its receipt of this letter or publication of the suspension in the Federal Register, whichever occurs first.¹⁷ Such requests, however, will not ordinarily be granted.¹⁸ The Bureau may reverse or further limit the scope of a suspension only upon a finding of extraordinary circumstances.¹⁹ The Bureau will decide any request to reverse or modify a suspension within ninety (90) calendar days of its receipt of such request.²⁰

⁹ UNITED STATES ATTORNEY’S OFFICE, SOUTHERN DISTRICT OF FLORIDA, Press Release, *Nationwide Telecommunications Provider and its CEO Plead Guilty to Massively Defrauding Federal Government Programs Meant to Aid the Needy*, October 15, 2024, <https://www.justice.gov/usao-sdfl/pr/nationwide-telecommunications-provider-and-its-ceo-plead-guilty-massively-defrauding> (last visited Oct. 22, 2024).

¹⁰ *Proffer*, *supra* note 2, at 2-5.

¹¹ *See generally Proffer*, *supra* note 2.

¹² *Id.* at 6.

¹³ *Id.*

¹⁴ 47 C.F.R. § 54.8(a)(4); *see Program Management Order*, *supra* note 4, 22 FCC Rcd at 16387, para. 32.

¹⁵ 47 C.F.R. §§ 54.8(a)(1), (d).

¹⁶ *Id.* § 54.8(e)(1).

¹⁷ *Id.* § 54.8(e)(4).

¹⁸ *Id.*

¹⁹ *Id.* § 54.8(f).

²⁰ *Id.* §§ 54.8(e)(5), (f).

II. Initiation of Debarment Proceedings

In addition to Q Link's immediate suspension from all universal service support mechanisms as described above, including the Lifeline program, its conviction is cause for debarment as defined in Section 54.8(c) of the Commission's rules.²¹ Therefore, pursuant to Section 54.8(b) of the Commission's rules, Q Link's conviction requires the Bureau to commence debarment proceedings against it.²²

As with the suspension process, Q Link may contest the proposed debarment or its scope by filing arguments and any relevant documentation within thirty (30) calendar days of receipt of this letter or its publication in the Federal Register, whichever occurs first.²³ The Bureau, in the absence of extraordinary circumstances, will notify Q Link of its decision to debar within ninety (90) calendar days of receiving any information it may have filed.²⁴ If the Bureau decides to debar the Company, its decision will become effective upon either Q Link's receipt of a debarment notice or publication of the decision in the Federal Register, whichever occurs first.²⁵

If and when Q Link's debarment becomes effective, it will be prohibited from participating in activities associated with or related to all federal universal service support mechanisms, including the Lifeline program, for at least three years from the date of debarment.²⁶ The Bureau may set a longer debarment period or extend an existing debarment period if necessary to protect the public interest.²⁷ Pursuant to the Commission's rules, should Q Link choose to contest the scope or length of any such debarment, it must file arguments and any relevant documentation within thirty (30) calendar days of receipt of notice or publication in the Federal Register of such debarment, whichever is earlier.²⁸

²¹ "Causes for suspension and debarment are conviction of or civil judgment for attempt or commission of criminal fraud, theft, embezzlement, forgery, bribery, falsification or destruction of records, making false statements, receiving stolen property, making false claims, obstruction of justice and other fraud or criminal offense arising out of activities associated with or related to the schools and libraries support mechanism, the high-cost support mechanism, the rural healthcare support mechanism, and the low-income support mechanism." *Id.* § 54.8(c). Associated activities "include the receipt of funds or discounted services through [the federal universal service] support mechanisms, or consulting with, assisting, or advising applicants or service providers regarding [the federal universal service] support mechanisms." *Id.* § 54.8(a)(1).

²² *Id.* § 54.8(b), (e)(1).

²³ *Id.* § 54.8(e)(3).

²⁴ *Id.* § 54.8(e)(5).

²⁵ *Id.* The Commission may reverse a debarment, or may limit the scope or period of debarment, upon a finding of extraordinary circumstances, following the filing of a petition by you or an interested party or upon motion by the Commission. *Id.* § 54.8(f).

²⁶ *Id.* § 54.8(d), (g). We note that under the Plea Agreement Q Link shall not participate, directly or indirectly, in any program administered by the FCC as of the time of sentencing currently scheduled for January 15, 2025. Plea Agreement, *supra* note 1, at para. 8

²⁷ 47 C.F.R. § 54.8(g).

²⁸ *Id.* § 54.8(e)(4).

III. Non- Compliance

In the *2012 Lifeline Order*, the Commission implemented a compliance plan requirement for any carrier that is seeking to become an ETC without offering service, at least in part, over its own facilities.²⁹ In its Lifeline compliance plan, a carrier must describe and adhere to certain protections designed to protect consumers and the Universal Service Fund.³⁰ The Lifeline compliance plan must: (1) outline the measures the carrier will take to comply with program rules, including requirements related to enrollment, submitting claims for reimbursement, materials related to certifications, and program integrity safeguards, and (2) provide a detailed description of how the carrier offers service, the geographic areas in which it offers service, and a description of the carrier's corporate structure and Lifeline service plan offerings.³¹ Q Link submitted a Lifeline compliance plan to receive forbearance from the statute's facilities requirement, and that Lifeline compliance plan was approved on August 8, 2012.³²

Following an investigation led by the Department of Justice, on October 14, 2024, Q Link pleaded guilty to conspiring to defraud and commit related offenses in connection with a scheme involving the Lifeline program which indicates Q Link has violated and is not in compliance with the terms of its compliance plan. The Commission is also aware that [REDACTED]

Corporate operations related to the control of an ETC are material aspects of a Lifeline compliance plan.³³ As such, any change to the control of a non-facilities-based ETC without prior approval from the Wireline Competition Bureau is a violation of the Lifeline compliance plan requirement.³⁴

²⁹ See 47 U.S.C. § 214(c)(1)(a); see also *Lifeline and Link Up Reform and Modernization; Lifeline and Link Up: Federal-State Joint Board on Universal Service; Advancing Broadband Availability Through Digital Literacy Training*, WC Docket Nos. 11-42, 03-109, 96-45, and 12-23, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, 6813, para. 368 (2012) (*2012 Lifeline Order*) (establishing the Lifeline compliance plan requirement as a condition to receiving forbearance from the statute's requirement that ETCs offer service at least in part over their own facilities).

³⁰ *2012 Lifeline Order*, 27 FCC Rcd at 6816, para. 379.

³¹ *Id.*

³² See *Wireline Competition Bureau Approves the Compliance Plans for Birch Communications, Boomerang Wireless, IM Telecom, Q Link Wireless, and TAG Mobile*, WC Docket Nos. 09-197 and 11-42, Public Notice, 27 FCC Rcd 9184 (WCB 2012).

³³ See *Wireline Competition Bureau Reminds Carriers of Eligible Telecommunications Carrier Designation and Compliance Plan Approval Requirements for Receipt of Federal Lifeline Universal Service Support*, WC Docket Nos. 09-197 and 11-42, Public Notice, 29 FCC Rcd 9144, 9145 (WCB 2014).

³⁴ See *id.*

Please direct any response as follows:

If sent by messenger or hand delivery, or by commercial overnight mail (other than U.S. Postal Service Priority Mail, Priority Mail Express, and Priority Mail), the response must be sent to Marlene H. Dortch, Secretary, Federal Communications Commission, to the attention of Christopher J. Sova, Acting Chief, Investigations and Hearings Division, Enforcement Bureau, Federal Communications Commission, 9050 Junction Drive, Annapolis Junction, MD, 20701. Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD, 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

If sent by First-Class Mail, Priority Mail Express, or Priority Mail, the response must be sent to Christopher J. Sova, Acting Chief, Investigations and Hearings Division, Enforcement Bureau, Federal Communications Commission, 45 L Street, NE, Washington, DC 20554.

You must also transmit an electronic copy of the response and all Documents produced with the response via e-mail to IHDTelecom@fcc.gov. The electronic copy shall be produced in a format that allows the Commission to access and use it, together with instructions and all other materials necessary to use or interpret the data, including record layouts, data dictionaries, and a description of the data's source. If you have any questions, please contact Christina Thomas at Christina.Thomas@fcc.gov or (202) 418-1879.

Sincerely,



Christopher J. Sova
Acting Chief
Investigations and Hearings Division
Enforcement Bureau

cc: Fred Theobald, Universal Service Administrative Company (via e-mail)
Matthew Menchel, Esq., Kobre & Kim LLP (via e-mail)
Michael Sherwin, Esq., Kobre & Kim LLP (via e-mail)
Evelyn Sheehan, Esq., Kobre & Kim LLP (via e-mail)



Federal Communications Commission

Enforcement Bureau
Investigations and Hearings Division
45 L Street, NE
Washington, DC 20554

November 8, 2024

DA 24-1131

VIA E-MAIL

Mr. Issa Asad
Chief Executive Officer
Q Link Wireless LLC
499 E Sheridan St., Ste 400
Dania, FL 33004
issa@quadrantholdings.com

VIA E-MAIL and VIA HAND DELIVERY

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SFeder@jenner.com

Re: Notice of suspension and initiation of debarment proceeding
File No. EB-IHD-24-00037459

Dear Messrs. Asad, Nakahata, and Feder:

The Enforcement Bureau (Bureau) of the Federal Communications Commission (Commission or FCC) has received notice of your conviction for conspiring to commit offenses against the United States, specifically, (a) wire fraud, (b) theft of government funds, and (c) defrauding the United States, in violation of 18 U.S.C. §§ 1343, 641, and 371, respectively, all in connection with fraudulent claims against the federal Lifeline program (Lifeline program).¹ The conspiracy involved submitting and

¹ Any further reference in this letter to "your conviction" refers to your guilty plea agreement and factual proffer in *United States v. Issa Asad*, Criminal Docket No. 1:24-cr-20363-RAR, Plea Agreement (S.D. Fla., filed Oct. 15, 2024) (Plea Agreement). See also *Lifeline and Link Up Reform and Modernization*, WC Docket No. 11-42, CC

causing to be submitted “false and fraudulent claims to the FCC Lifeline program for [Q Link] customers who were not using their cellphones according to the FCC usage rules.”² Consequently, pursuant to 47 C.F.R. § 54.8, this letter constitutes official notice of your suspension from the Lifeline program and all federal universal service support mechanisms.³

Effective immediately upon receipt of this letter, you are prohibited from participating in or receiving any benefit associated with the Lifeline program as well as any other program funded by federal universal service support mechanisms.

The Bureau hereby is also commencing a proceeding to debar you from future participation in all federal universal support mechanisms.⁴ The Commission is required by its rules to debar Q Link “absent extraordinary circumstances, notwithstanding any criminal process to which you are subject.”⁵

I. Notice of Suspension

Any person that has “defrauded the government or engaged in similar acts through activities associated with or related to the [Lifeline program]” may be prohibited from receiving the benefits associated with that program.⁶ The Lifeline program is a federal government program that provides support to eligible telecommunications carriers (ETCs) that in turn offer discounts on telephone and broadband service for eligible low-income consumers.⁷ An ETC may receive reimbursement in connection with the Lifeline program only if it certifies as part of its reimbursement request that it is in compliance with the Lifeline rules.⁸

Since 2012, you served as the Chief Executive Officer of Q Link Wireless LLC (Q Link). On October 15, 2024, and your company, Q Link pleaded guilty to “purposely defraud[ing] two critical federal programs helping individuals and businesses suffering financial hardship, unlawfully taking hundreds of millions of dollars for [your] own use and profit, while obstructing the United States’ ability

Docket No. 96-45, WC Docket No. 03-109, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656 (2012) (*Lifeline Reform Order*).

² *United States v. Issa Asad*, Criminal Docket No. 1:24-cr-20363-RAR, Factual Proffer, at 3 (S.D. Fla., filed Oct. 15, 2024) (*Proffer*).

³ 47 C.F.R. § 54.8.

⁴ *Id.*; 47 C.F.R. § 0.111 (delegating to the Bureau authority to resolve universal service suspension and debarment proceedings). In 2007, the Commission extended the debarment rules to apply to all federal universal service support mechanisms, including Lifeline. See *Comprehensive Review of the Universal Service Fund Management, Administration, & Oversight*, Report and Order, 22 FCC Rcd 16372, 16410–12 (2007) (*Program Management Order*) (renumbering Section 54.521 of the universal service debarment rules as Section 54.8 and amending subsections (a)(1), (a)(5), (c), (d), (e)(2)(i), (e)(3), (e)(4), and (g)).

⁵ 47 C.F.R. § 54.8(b); *Plea Agreement* at 3.

⁶ *Program Management Order*, 22 FCC Rcd at 16387, para. 32. The Commission’s debarment rules define a “person” as “[a]ny individual, group of individuals, corporation, partnership, association, unit of government or legal entity, however organized.” 47 C.F.R. § 54.8(a)(6).

⁷ See *Lifeline Reform Order*, *supra* note 1, 27 FCC Rcd at 6662–67, paras. 11–18; see also 47 C.F.R. §§ 54.400–54.422.

⁸ See 47 C.F.R. § 54.407(d).

to help people who . . . needed it.”⁹ Your misleading practices, deceptive call activity, falsified documents and threatening customer service scripts, directed at Q Link customers, coerced them into accepting Lifeline services and agreeing to remain Q Link customers.¹⁰ Although the Lifeline usage rules required Q Link to disenroll and stop seeking reimbursement for customers who had not used their cellphones in a 45-day window (90-day window for 2016), you continued to bill the Lifeline program for Q Link customers that you knew were no longer eligible because they were not using, and in some instances, no longer even had their cellphones.¹¹ From 2013 to 2021, you personally amassed over \$15,000,000 through your fraudulent Lifeline schemes.¹² Between 2013 and 2019, Q Link received \$618,736,494 from the Lifeline program, 21 percent of which resulted from fraudulent Lifeline claims.¹³

Pursuant to Section 54.8(b) of the Commission’s rules,¹⁴ your conviction requires the Bureau to suspend you from: (a) participating in any activities associated with or related to the Lifeline program, including receiving funds or discounted services through the Lifeline program, or consulting with, assisting, or advising applicants or service providers regarding the Lifeline program; and (b) participating in any activities associated with or related to all federal universal service support mechanisms.¹⁵ Your suspension becomes effective upon either your receipt of this letter or publication of the suspension in the Federal Register, whichever occurs first.¹⁶

In accordance with the Commission’s suspension and debarment rules, you may contest this suspension or its scope by filing arguments, with any relevant documents, within thirty (30) calendar days of its receipt of this letter or publication of the suspension in the Federal Register, whichever occurs first.¹⁷ Such requests, however, will not ordinarily be granted.¹⁸ The Bureau may reverse or limit the scope of a suspension only upon a finding of extraordinary circumstances.¹⁹ The Bureau will decide any request to reverse or modify a suspension within ninety (90) calendar days of its receipt of such request.²⁰

⁹ UNITED STATES ATTORNEY’S OFFICE, SOUTHERN DISTRICT OF FLORIDA, Press Release, *Nationwide Telecommunications Provider and its CEO Plead Guilty to Massively Defrauding Federal Government Programs Meant to Aid the Needy*, October 15, 2024, <https://www.justice.gov/usao-sdfl/pr/nationwide-telecommunications-provider-and-its-ceo-plead-guilty-massively-defrauding> (last visited October 22, 2024).

¹⁰ *Proffer*, *supra* note 2, at 2-4.

¹¹ *See generally Proffer*, *supra* note 2.

¹² *Id.* at 5.

¹³ *Id.* at 6.

¹⁴ 47 C.F.R. § 54.8(a)(4); *see Program Management Order*, *supra* note 4, 22 FCC Rcd at 16387, para. 32.

¹⁵ 47 C.F.R. §§ 54.8(a)(1), (d).

¹⁶ *Id.* § 54.8(e)(1).

¹⁷ *Id.* § 54.8(e)(4).

¹⁸ *Id.*

¹⁹ *Id.* § 54.8(f).

²⁰ *Id.* §§ 54.8(e)(5), (f).

II. Initiation of Debarment Proceedings

In addition to your immediate suspension from all universal service support mechanisms, including the Lifeline program, your conviction is cause for debarment as defined in Section 54.8(c) of the Commission's rules.²¹ Therefore, pursuant to Section 54.8(b) of the Commission's rules, your conviction requires the Bureau to commence debarment proceedings against you.²²

As with the suspension process, you may contest the proposed debarment or its scope by filing arguments and any relevant documentation within thirty (30) calendar days of receipt of this letter or its publication in the Federal Register, whichever occurs first.²³ The Bureau, in the absence of extraordinary circumstances, will notify you of its decision to debar within ninety (90) calendar days of receiving any information it may have filed.²⁴ If the Bureau decides to debar the you, its decision will become effective upon either your receipt of a debarment notice or publication of the decision in the Federal Register, whichever occurs first.²⁵

If and when your debarment becomes effective, you will be prohibited from participating in activities associated with or related to all federal universal service support mechanisms, including the Lifeline program for at least three years from the date of debarment.²⁶ The Bureau may set a longer debarment period or extend an existing debarment period if necessary to protect the public interest.²⁷ Pursuant to the Commission's rules, should you choose to contest the scope or length of any such debarment, you must file arguments and any relevant documentation within thirty (30) calendar days of receipt of notice or publication in the Federal Register of such debarment, whichever is earlier.²⁸

²¹ "Causes for suspension and debarment are conviction of or civil judgment for attempt or commission of criminal fraud, theft, embezzlement, forgery, bribery, falsification or destruction of records, making false statements, receiving stolen property, making false claims, obstruction of justice and other fraud or criminal offense arising out of activities associated with or related to the schools and libraries support mechanism, the high-cost support mechanism, the rural healthcare support mechanism, and the low-income support mechanism." *Id.* § 54.8(c). Associated activities "include the receipt of funds or discounted services through [the federal universal service] support mechanisms, or consulting with, assisting, or advising applicants or service providers regarding [the federal universal service] support mechanisms." *Id.* § 54.8(a)(1).

²² *Id.* § 54.8(b).

²³ *Id.* § 54.8(e)(3).

²⁴ *Id.* § 54.8(e)(5).

²⁵ *Id.* The Commission may reverse a debarment, or may limit the scope or period of debarment, upon a finding of extraordinary circumstances, following the filing of a petition by you or an interested party or upon motion by the Commission. *Id.* § 54.8(f).

²⁶ *Id.* § 54.8(d), (g). We note that under the Plea Agreement Q Link shall not participate, directly or indirectly, in any program administered by the FCC as of the time of sentencing currently scheduled for January 15, 2025. Plea Agreement, *supra* note 1, at para. 8

²⁷ 47 C.F.R. § 54.8(g).

²⁸ *Id.* § 54.8(c)(4).

III. Non- Compliance

In the *2012 Lifeline Order*, the Commission implemented a compliance plan requirement for any carrier that is seeking to become an ETC without offering service, at least in part, over its own facilities.²⁹ In its Lifeline compliance plan, a carrier must describe and adhere to certain protections designed to protect consumers and the Universal Service Fund.³⁰ The Lifeline compliance plan must: (1) outline the measures the carrier will take to comply with program rules, including requirements related to enrollment, submitting claims for reimbursement, materials related to certifications, and program integrity safeguards, and (2) provide a detailed description of how the carrier offers service, the geographic areas in which it offers service, and a description of the carrier's corporate structure and Lifeline service plan offerings.³¹ Q Link submitted a Lifeline compliance plan to receive forbearance from the statute's facilities requirement, and that Lifeline compliance plan was approved on August 8, 2012.³²

Following an investigation led by the Department of Justice, on October 14, 2024, Q Link pleaded guilty to conspiring to defraud and commit related offenses in connection with a scheme involving the Lifeline program which indicates Q Link has violated and is not in compliance with the terms of its compliance plan. The Commission is also aware that

Corporate operations related to the control of an ETC are material aspects of a Lifeline compliance plan.³³ As such, any change to the control of a non-facilities-based ETC without prior approval from the Wireline Competition Bureau is a violation of the Lifeline compliance plan requirement.³⁴

²⁹ See 47 U.S.C. § 214(e)(1)(a); see also *Lifeline and Link Up Reform and Modernization; Lifeline and Link Up; Federal-State Joint Board on Universal Service; Advancing Broadband Availability Through Digital Literacy Training*, WC Docket Nos. 11-42, 03-109, 96-45, and 12-23, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656, 6813, para. 368 (2012) (*2012 Lifeline Order*) (establishing the Lifeline compliance plan requirement as a condition to receiving forbearance from the statute's requirement that ETCs offer service at least in part over their own facilities).

³⁰ *2012 Lifeline Order*, 27 FCC Rcd at 6816, para. 379.

³¹ *Id.*

³² See *Wireline Competition Bureau Approves the Compliance Plans for Birch Communications, Boomerang Wireless, IM Telecom, Q Link Wireless, and TAG Mobile*, WC Docket Nos. 09-197 and 11-42, Public Notice, 27 FCC Rcd 9184 (WCB 2012).

³³ See *Wireline Competition Bureau Reminds Carriers of Eligible Telecommunications Carrier Designation and Compliance Plan Approval Requirements for Receipt of Federal Lifeline Universal Service Support*, WC Docket Nos. 09-197 and 11-42, Public Notice, 29 FCC Rcd 9144, 9145 (WCB 2014).

³⁴ See *id.*

Mr. Asad
November 8, 2024
Page 6

Please direct any response as follows:

If sent by messenger or hand delivery, or by commercial overnight mail (other than U.S. Postal Service Priority Mail, Priority Mail Express, and Priority Mail), the response must be sent to Marlene H. Dortch, Secretary, Federal Communications Commission, to the attention of Christopher J. Sova, Acting Chief, Investigations and Hearings Division, Enforcement Bureau, Federal Communications Commission, 9050 Junction Drive, Annapolis Junction, MD, 20701. Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD, 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

If sent by First-Class Mail, Priority Mail Express, or Priority Mail, the response must be sent to Christopher J. Sova, Acting Chief, Investigations and Hearings Division, Enforcement Bureau, Federal Communications Commission, 45 L Street, NE, Washington, DC 20554.

You must also transmit an electronic copy of the response and all Documents produced with the response via e-mail to 1HDT@fcc.gov. The electronic copy shall be produced in a format that allows the Commission to access and use it, together with instructions and all other materials necessary to use or interpret the data, including record layouts, data dictionaries, and a description of the data's source. If you have any questions, please contact Christina Thomas at Christina.Thomas@fcc.gov or (202) 418-1879.

Sincerely,



Christopher J. Sova
Acting Chief
Investigations and Hearings Division
Enforcement Bureau

cc: Fred Theobald, Universal Service Administrative Company (via e-mail)
Matthew Menchel, Esq., Kobre & Kim LLP (via e-mail)
Michael Sherwin, Esq., Kobre & Kim LLP (via e-mail)
Evelyn Sheehan, Esq., Kobre & Kim LLP (via e-mail)



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information: 202-418-0500

Internet: www.fcc.gov

DA 24-1132

Released: November 8, 2024

**APPLICATIONS FILED FOR THE
TRANSFER OF CONTROL OF FRONTIER COMMUNICATIONS PARENT, INC. TO
VERIZON COMMUNICATIONS INC.**

PLEADING CYCLE ESTABLISHED

WC Docket No. 24-445

Comments Due: December 9, 2024

Reply Comments Due: December 24, 2024

By this Public Notice, the Wireline Competition Bureau, Office of International Affairs, and Wireless Telecommunications Bureau seek comment from interested parties on a series of applications filed by Frontier Communications Parent, Inc. (Frontier) and Verizon Communications Inc. (Verizon) (together, Applicants).¹ Applicants request Commission consent under sections 214 and 310(d) of the Communications Act of 1934, as amended (the Act),² and sections 1.948, 63.03-04, 63.18, and 63.24 of the Commission's rules,³ to transfer control of the authorizations and licenses held by wholly owned subsidiaries of Frontier to Verizon through a merger transaction (the Transaction). Under this Transaction, if approved, Verizon would acquire 100% of Frontier and its subsidiaries. Following this merger, Frontier will be the surviving entity and become a wholly owned, direct subsidiary of Verizon; the Licensees will become indirect, wholly owned subsidiaries of Verizon.

Applicants

Frontier, a publicly-traded Delaware corporation, currently owns and operates more than 50 incumbent local exchange carriers (LECs) and a small number of competitive LECs in 25 states throughout the country.⁴ Through its interexchange carrier (IXC) subsidiaries, Frontier also provides

¹ Joint Application for Consent to Transfer Control of Domestic and International Authority Pursuant to Section 214, WC Docket No. 24-445 (filed Oct. 11, 2024) (Lead Application). Applicants also filed applications to transfer control of Frontier's wireless licenses. The licenses and authorizations subject to the applications are listed in Attachment A of this Public Notice. The wholly owned subsidiaries of Frontier identified in Attachment A to this Public Notice as holding the domestic and international section 214 authority and wireless licenses are collectively referred to as the Licensees.

² See 47 U.S.C. §§ 214, 310(d).

³ 47 CFR §§ 1.948, 63.03-04, 63.18, 63.24.

⁴ See Lead Application at 2, 8-9, and Exh. A (International and Domestic Authorizations Being Transferred). Frontier's current service territories are located in Alabama, Arizona, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Michigan, Minnesota, Mississippi, Nebraska, Nevada, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Utah, West Virginia, and Wisconsin. Frontier also

intrastate, interstate, and international long-distance service on a resale basis in each of the states where Frontier operates as an incumbent LEC.⁵ Frontier itself does not provide any domestic telecommunications services or hold any international section 214 authorizations.⁶ Applicants state that Frontier, acting through its operating subsidiaries, provides communications services to urban, suburban, and rural communities in its service areas.⁷ Applicants further state that Frontier's operating subsidiaries offer residential consumers, businesses, and wholesale customers a broad range of communications services available as distinct products or in bundles that include data and Internet services, voice services, video services, access products, advanced hardware/network solutions, and other services.⁸

Verizon is a publicly traded Delaware corporation in which no individual or entity, including foreign owners, holds a 10% or greater ownership interest. Through its subsidiaries, it provides competitive LEC and IXC services in all 50 states (and competitive LEC services in the District of Columbia) and serves as an incumbent LEC in all or portions of the following states/jurisdictions: Connecticut, Delaware, Maryland, Massachusetts, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, Virginia, and the District of Columbia.⁹ Verizon also operates as a nationwide provider of commercial mobile wireless and fixed wireless broadband services.¹⁰ Verizon does not itself provide any domestic telecommunications services or hold any international section 214 authorizations.¹¹ The Verizon companies offer data, video, and voice services and solutions on their networks and platforms.¹² Applicants state that following the Transaction, Verizon will directly hold a 100% equity and voting interest in Frontier and that no other individual or entity will hold directly or indirectly a 10% or greater equity and/or voting interest in Licensees.¹³

Description of the Transaction

On September 4, 2024, Verizon and Frontier entered into an Agreement and Plan of Merger under which Verizon will acquire 100% of Frontier and its subsidiaries. The Transaction will occur through the merger of Frontier with France Merger Sub Inc., a wholly owned subsidiary of Verizon created for purposes of the Transaction.¹⁴ Following this merger, Frontier will be the surviving entity and will become a wholly owned, direct subsidiary of Verizon; the Licensees will become indirect, wholly owned subsidiaries of Verizon.¹⁵ After closing, the Licensees will continue to hold their section 214 authorizations and wireless radio service licenses.¹⁶

serves a *de minimis* number of customers in Virginia, which are served by its cross-state border facilities in West Virginia. See Lead Application at n.4.

⁵ *Id.* at 2 and Exh. A.

⁶ *Id.* at 5, 8.

⁷ *Id.* at 3.

⁸ *Id.* at 3, 8.

⁹ *Id.* at 9.

¹⁰ *Id.*

¹¹ *Id.* at 5, 8.

¹² *Id.* at 3.

¹³ *Id.* At 6 and Exh. D (Post-Close Ownership of Frontier and Licensees).

¹⁴ *Id.* at 3.

¹⁵ *Id.*

¹⁶ *Id.*

The majority of the Licensees to be transferred are currently eligible telecommunications carriers (ETCs) and will continue to be ETCs post-Transaction.¹⁷ Certain of the Licensees currently receive universal service high-cost support. Applicants assert that the Transaction will not result in any changes to the management, technology, debts, or other matters that would compromise the support recipients' ability to meet their USF high cost service obligations.¹⁸ Frontier would, upon grant of the Application by the Commission, transfer to Verizon Rural Digital Opportunity Fund (RDOF) obligations and all related past and future RDOF funding associated with the Transaction.

Statement of Public Interest

Applicants assert that grant of the Transaction will serve the public interest, convenience, and necessity by allowing Verizon to build on Frontier's efforts to upgrade and expand its fiber network and address challenges that risk Frontier's continued success, including the financial condition of the Frontier operating subsidiaries.¹⁹

Applicants assert that Frontier faces obstacles to its continued growth and long-term competitiveness.²⁰ After emerging from bankruptcy in 2021, Frontier shifted to a "fiber-first strategy" and targeted passing 10 million locations nationwide with fiber by 2026.²¹ Applicants explain that while Frontier is currently on track to completing its plan—having passed 7.2 million locations as of August 2024—it does not have funding in place for further investment or additional fiber buildouts beyond that point.²² Moreover, they state that Frontier has incurred a significant amount of indebtedness as a result of its efforts. From 2021 through June 2024, Frontier invested \$4.1 billion upgrading and expanding its fiber network and will need to expend more in 2025 and 2026 to complete its plans to pass 10 million locations.²³ According to Applicants, Frontier's current debt level may impact its ability to obtain additional debt or equity financing on favorable terms, which will make it harder for Frontier to keep investing in fiber at the level necessary to compete and meet the needs of its customers.²⁴ Applicants contend that Verizon is managerially, technically, and financially well-qualified to complete the acquisition, assume ownership and control of Frontier's operating subsidiaries, and operate Licensees and Frontier's network.²⁵ Applicants assert that with a market capitalization of approximately \$185 billion, and revenues of approximately \$134 billion and free cash flow of \$18.7 billion in 2023, Verizon has the financial qualifications to undertake the transaction and operate the Frontier companies and assets.²⁶ Moreover, as the former owner of most of Frontier's facilities, Applicants contend that Verizon is uniquely familiar with portions of Frontier's network, the service areas, and customers at issue.²⁷

¹⁷ Lead Application at 12.

¹⁸ Lead Application at 11.

¹⁹ *Id.* at Exh. C (Public Interest Statement) at 2-4.

²⁰ *Id.* at 2.

²¹ *Id.*

²² *Id.* at 2-3.

²³ *Id.*

²⁴ *Id.* at 3.

²⁵ *Id.* at 5.

²⁶ *Id.* at 6.

²⁷ *Id.*

In addition to its financial challenges, Applicants assert that Frontier also faces challenges competing against a growing number of communications service providers.²⁸ They state that Frontier does not offer bundled service offerings, such as home broadband with mobile wireless service,²⁹ which Applicants assert that they will be able to do after the transaction is complete.³⁰ They state that unlike Frontier, Verizon will also offer a “voluntary, nationwide low-income pricing option” that will enhance affordability of home Internet service for eligible customers.³¹ Moreover, Applicants state that Verizon will continue to make mobile wireless service available to customers in Frontier’s territory, as well as offer fixed wireless service in parts of Frontier’s territory.

Applicants further contend the Transaction will not impact either company’s plans under NTIA’s Broadband Equity, Access, and Deployment (BEAD) program—both companies are evaluating BEAD and other broadband opportunities independently of one another, and following closing, Verizon has stated that it will honor all commitments Frontier has made in any broadband grants or deployment programs, including BEAD.³²

Finally, Applicants assert that the Transaction will not result in competitive harm.³³ Applicants contend that none of the local Frontier incumbent LEC operations to be acquired by Verizon in the Transaction materially overlap with any of Verizon’s existing incumbent LEC exchanges.³⁴ Applicants further contend that their incumbent LEC “geographic services areas are complementary, and with only de minimis exceptions, Frontier and Verizon do not compete for customers in the provision of wired mass-market services, nor do they have any plans to significantly do so in the future.”³⁵ While Applicants acknowledge some overlaps of fiber facilities for non-mass-market uses, such as Verizon’s deployment of fiber facilities in some portions of Frontier’s territory used to support Verizon’s wireless network and to serve a small number of business customers, they maintain that such facilities are not related to fiber-to-the-premises facilities to service consumers.³⁶

GENERAL INFORMATION

The applications identified herein have been found, upon initial review, to be acceptable for filing. The Commission reserves the right to return any application if, upon further examination, it is determined to be defective and not in conformance with the Commission’s rules and policies.

Interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS).

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing ECFS at <http://apps.fcc.gov/ecfs/>.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing.
 - Filings can be sent by hand or messenger deliver, by commercial courier, or by the U.S.

²⁸ *Id.* at 3.

²⁹ *Id.*

³⁰ *Id.* at 13.

³¹ *Id.* at 12.

³² *Id.* at 6-7.

³³ *Id.* at 1, 18.

³⁴ *Id.* at 9.

³⁵ *Id.*

³⁶ *Id.* at 9-10.

Postal Service. **All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.**

- Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street, NE, Washington, DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

In addition, e-mail one copy of each pleading to each of the following:

- 1) Randall Sifers, Competition Policy Division, Wireline Competition Bureau, randall.sifers@fcc.gov;
- 2) David Krech, Office International Affairs, david.krech@fcc.gov;
- 3) Nadja Sodos-Wallace, Wireless Telecommunications Bureau, Nadja.SodosWallace@fcc.gov;
- 4) Halie Peacher, Wireless Telecommunications Bureau, Halie.Peacher@fcc.gov; and
- 5) Jim Bird, Office of General Counsel, jim.bird@fcc.gov.

The proceeding in this Notice shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b), 47 CFR § 1.1206(b). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

To allow the Commission to consider fully all substantive issues regarding the application in as timely and efficient a manner as possible, petitioners and commenters should raise all issues in their initial filings. New issues may not be raised in responses or replies.³⁷ A party or interested person seeking to raise a new issue after the pleading cycle has closed must show good cause why it was not possible for it to have raised the issue previously. Submissions after the pleading cycle has closed that seek to raise new issues based on new facts or newly discovered facts should be filed within 15 days after

³⁷ See 47 CFR § 1.45(c).

such facts are discovered. Absent such a showing of good cause, any issues not timely raised may be disregarded by the Commission.

For further information, please contact Randall Sifers at (202) 418-2325.

ATTACHMENT A

SECTION 214 AUTHORIZATIONS

A. International

The applications for consent to the transfer of control of certain international section 214 authorizations have been assigned the file numbers listed below.

<u>File Number</u>	<u>Authorization Holder</u>	<u>Authorization Number</u>
ITC-T/C-20241014-00165	Citizens Telecommunications Company of California Inc.	ITC-214-20080219-00078
ITC-T/C-20241014-00164	Commonwealth Telephone Enterprises, LLC	ITC-214-19960726-00343
ITC-T/C-20241014-00163	Frontier California Inc.	ITC-214-10080219-00063
ITC-T/C-20241014-00162	Frontier Communications of America, Inc.	ITC-214-19971202-00753 ITC-214-20001121-00680
ITC-T/C-20241014-00161	Frontier Communications of the Carolinas LLC	ITC-214-20090528-00564
ITC-T/C-20241014-00160	Frontier Communications of the Southwest Inc.	ITC-214-20090528-00563
ITC-T/C-20241014-00159	Frontier Communications Online Long Distance Inc.	ITC-214-20090528-00565
ITC-T/C-20241014-00158	Frontier Florida LLC	ITC-214-20080219-00064
ITC-T/C-20241014-00157	Frontier Midstates Inc.	ITC-214-20080219-00081
ITC-T/C-20241014-00156	Frontier North Inc.	ITC-214-20080219-00082
ITC-T/C-20241014-00155	Frontier Southwest Incorporated	ITC-214-20080219-00077
ITC-T/C-20241014-00154	Frontier West Virginia Inc.	ITC-214-20080219-00071
ITC-T/C-20241014-00153	GVN Services d/b/a/ Global Valley Long Distance	ITC-214-20020225-00113
ITC-T/C-20241014-00152	SNET America, Inc.	ITC-214-19930716-00119 ITC-214-19950215-00064 ITC-MOD-20041129-00487

B. Domestic

Applicants filed an application to transfer control of domestic section 214 authority held by Frontier's wholly owned operating subsidiaries in connection with the proposed transaction – WC Docket No. 24-445.³⁸ Applicants are not seeking streamlined processing for the domestic 214 application under section 63.03-63.04 of the Commission's rules.³⁹

Entity	Place of Organization	Type of Organization	Provider Type	ETC
Citizens Telecommunications Company of California Inc.	California	Corporation	ILEC	Yes
Citizens Telecommunications Company of Illinois	Illinois	Corporation	ILEC	Yes
Citizens Telecommunications Company of Minnesota LLC	Delaware	Limited Liability Company	ILEC	Yes
Citizens Telecommunications Company of Nebraska	Delaware	Corporation	ILEC	Yes
Citizens Telecommunications Company of Nevada	Nevada	Corporation	ILEC	Yes
Citizens Telecommunications Company of New York, Inc.	New York	Corporation	ILEC	Yes
Citizens Telecommunications Company of Tennessee L.L.C.	Delaware	Limited Liability Company	ILEC	Yes
Citizens Telecommunications Company of the White Mountains, Inc.	Delaware	Corporation	ILEC	Yes
Citizens Telecommunications Company of Utah	Delaware	Corporation	ILEC	Yes
Citizens Telecommunications Company of West Virginia	West Virginia	Corporation	ILEC	Yes
Citizens Utilities Rural Company, Inc.	Delaware	Corporation	ILEC	Yes
Commonwealth Telephone Company LLC	Pennsylvania	Limited Liability Company	ILEC	Yes
CTE Telecom, LLC	Pennsylvania	Limited Liability Company	IXC	No
CTSI, LLC	Pennsylvania	Limited Liability Company	CLEC	No
Frontier California Inc.	California	Corporation	ILEC	Yes
Frontier Communications – Midland, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications of America, Inc.	Delaware	Corporation	IXC	No

³⁸ See Lead Application at Exh. A, 2-4 for Frontier's operating subsidiaries offering blanket domestic section 214 authority.

³⁹ See Lead Application at 10; 47 CFR §§ 63.03-04.

Entity	Place of Organization	Type of Organization	Provider Type	ETC
Frontier Communications of Ausable Valley, Inc.	New York	Corporation	ILEC	Yes
Frontier Communications of Breezewood, LLC	Pennsylvania	Limited Liability Company	ILEC	Yes
Frontier Communications of Canton, LLC	Pennsylvania	Limited Liability Company	ILEC	Yes
Frontier Communications of DePue, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications of Georgia, LLC	Georgia	Limited Liability Company	ILEC	Yes
Frontier Communications of Illinois, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications of Indiana LLC	Indiana	Limited Liability Company	ILEC	Yes
Frontier Communications of Iowa, LLC	Iowa	Limited Liability Company	ILEC	Yes
Frontier Communications of Lakeside, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications of Lakewood, LLC	Pennsylvania	Limited Liability Company	ILEC	Yes
Frontier Communications of Michigan, Inc.	Michigan	Corporation	ILEC	Yes
Frontier Communications of Minnesota, Inc.	Minnesota	Corporation	ILEC	Yes
Frontier Communications of Mississippi, LLC	Mississippi	Limited Liability Company	ILEC	Yes
Frontier Communications of Mt. Pulaski, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications of New York, Inc.	New York	Corporation	ILEC	Yes
Frontier Communications of Orion, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications of Oswayo River, LLC	Pennsylvania	Limited Liability Company	ILEC	Yes
Frontier Communications of Pennsylvania, LLC	Pennsylvania	Limited Liability Company	ILEC	Yes
Frontier Communications of Rochester, Inc.	Delaware	Corporation	ILEC	Yes
Frontier Communications of Seneca-Gorham, Inc.	New York	Corporation	ILEC	Yes
Frontier Communications of Sylvan Lake, Inc.	New York	Corporation	ILEC	Yes

Entity	Place of Organization	Type of Organization	Provider Type	ETC
Frontier Communications of the Carolinas LLC	Delaware	Limited Liability Company	ILEC	Yes
Frontier Communications of the South, LLC	Alabama	Limited Liability Company	ILEC	Yes
Frontier Communications of the Southwest Inc.	Delaware	Corporation	ILEC	Yes
Frontier Communications of Thorntown LLC	Indiana	Limited Liability Company	ILEC	Yes
Frontier Communications of Virginia, Inc.	Virginia	Corporation	ILEC	Yes
Frontier Communications of Wisconsin LLC	Wisconsin	Limited Liability Company	ILEC	Yes
Frontier Communications Online and Long Distance Inc.	Delaware	Corporation	IXC	No
Frontier Communications – Prairie, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Communications – Schuyler, Inc.	Illinois	Corporation	ILEC	Yes
Frontier Dallas TX Fiber 1 LLC	Delaware	Limited Liability Company	CLEC	No
Frontier Florida LLC	Florida	Limited Liability Company	ILEC	Yes
Frontier Midstates Inc.	Georgia	Corporation	ILEC	Yes
Frontier North Inc.	Wisconsin	Corporation	ILEC	Yes
Frontier Southwest Incorporated	Delaware	Corporation	ILEC	Yes
Frontier Telephone of Rochester, Inc.	New York	Corporation	ILEC	Yes
Frontier West Virginia Inc.	West Virginia	Corporation	ILEC	Yes
Navajo Communications Company, Inc.	New Mexico	Corporation	ILEC	Yes
Ogden Telephone Company	New York	Corporation	ILEC	Yes
SNET American, Inc.	Connecticut	Corporation	IXC	No
The Southern New England Telephone Company	Connecticut	Corporation	ILEC	Yes

SECTION 310(d) APPLICATIONS

The applications for consent to the assignment and transfer of control of licenses under section 310(d) have been assigned the file numbers listed below.

Wireless Licenses

<u>ULS File Number</u>	<u>Licensee</u>	<u>Lead Call Sign</u>
0011253400 ⁴⁰	Citizens Telecommunications Company of California Inc.	KLR825
0011255861	Navajo Communications Company, Inc.	KNKL556
0011255859	Frontier Southwest Incorporated	KG4012
0011255858	Frontier North Inc.	KQK40
0011255857	Frontier Florida LLC	WQIX281
0011255856	Frontier Communications of the Southwest Inc.	KNB36
0011255854	Frontier Communications Holdings, LLC	WRAU425
0011255851	Frontier California Inc.	KF5881
0011255849	Citizens Utilities Rural Company, Inc.	KNLW337
0011255845	Citizens Telecommunications Company of Utah	KFI82
0011255841	Citizens Telecommunications Company of the White Mountains, Inc.	KPR50
0011255837	Citizens Telecommunications Company of Tennessee LLC	WAU236
0011255835	Citizens Telecommunications Company of New York, Inc.	KEH87
0011255829	Citizens Telecommunications Company of Nevada	KYJ80

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⁴⁰ Applicants have designated this as the lead application for the wireless licenses.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
BLEU 24 COMMUNICATIONS, LLC	)	Facility ID No. 130765
	)	NAL/Acct. No. 202441420016
Low Power Television Station	)	FRN: 0028987949
WEYW-LP, Key West, FL	)	LMS File No. 0000252516
	)	

**MEMORANDUM OPINION AND ORDER AND
NOTICE OF APPARENT LIABILITY FOR FORFEITURE**

Adopted: November 12, 2024**Released: November 12, 2024**

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. The Media Bureau (Bureau) has before it the application for license to cover of Bleu 24 Communications, LLC (Bleu or Licensee), licensee of low power television (LPTV) station WEYW-LP, Key West, Florida (WEYW or Station). In this *Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture (NAL)*, we find that Bleu apparently willfully violated section 73.3598(a)¹ of the Commission's rules (Rules) by failing to timely file a license to cover application (License App), and willfully and repeatedly violated section 73.1745(a) of the Rules² and section 301 of the Communications Act of 1934, as amended (Act),³ by engaging in unauthorized operation. Based upon our review of the facts and circumstances before us, we conclude that Bleu is apparently liable for a monetary forfeiture in the amount of six thousand five hundred dollars (\$6,500).

II. BACKGROUND

2. WEYW-LP is an LPTV station licensed on channel 19.⁴ Following its purchase of the Station in July 2020,⁵ the Station went silent on July 31, 2020, and Bleu filed an application for minor modification seeking to relocate the Station to a new tower location that was granted a day later on April 15, 2021, with an expiration date of April 15, 2024.⁶ On February 9, 2024, the Media Bureau's Video Division (Division) issued a Letter of Inquiry (LOI) seeking information concerning the Station's

¹ 47 CFR § 73.3598(a). At the time the station should have filed its license to cover application, 47 CFR § 74.788 was the controlling rule for TV translator stations relating to construction and the requirement to file a license to cover. Effective October 24, 2022, 47 CFR § 74.788 (2022) was eliminated and found by the Commission to be duplicative with 47 CFR § 73.3598. See 87 FR 58200, Oct. 24, 2022; *In the Matter of Amend. of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission's Rules Related to Low Power Television and Television Translator Stations*, Order and Sixth Notice of Proposed Rulemaking, 37 FCC Rcd 8173 (2022); 47 CFR § 74.780(bbb) (making 47 CFR § 73.3598 applicable to all TV translator and LPTV stations). To the extent necessary, we also find that the Licensee violated 47 CFR § 74.788 (2022).

² 47 CFR § 73.1745(a).

³ See 47 U.S.C. § 301.

⁴ See CDBS File No. BLDLTL-20131108AEZ

⁵ See CDBS File No. BALDTL-20200513AAI.

⁶ See LMS File No. 0000143465 (Minor Mod CP).

operational status based on representations made in the Station's license renewal application.⁷ In the LOI the Division requested information to determine whether the Station had been silent since July 31, 2020 and whether its license had thereby automatically expired pursuant to section 312(g) of the Act.⁸ Having not received a response to the LOI, and following repeated follow-up phone and e-mail inquiries by Division staff, on April 5, 2024, the Division cancelled the Station's license and the Minor Mod CP and dismissed the Renewal App, concluding that the Station had been silent since July 31, 2020 and its license automatically expired pursuant to section 312(g) of the Act on July 31, 2021.⁹

3. Bleu subsequently sought reconsideration of the cancellation of the Station's license and Minor Mod CP, reinstatement of its Renewal App, and permission to file an application for license to cover. In its Petition for Reconsideration, Bleu provided evidence demonstrating that the Station's Minor Mod CP facilities were constructed and began operating on July 18, 2021, thirteen days prior to its one-year silent anniversary, and that the Station had continuously operated until it received the Cancellation Letter on April 5, 2024.¹⁰ Bleu conceded that it failed to timely-file an application for license to cover.¹¹

4. On August 16, 2024, the Division issued a letter granting Bleu's Petition, and reinstated the Station's license, Minor Mod CP and pending Renewal App.¹² The Division found that, although Bleu failed to timely file an application for license to cover when it completed construction of the Minor Mod CP facilities in July 2021 (well before the April 2024 expiration date of the Minor Mod CP), Bleu provided sufficient evidence to demonstrate that the Station was constructed in accordance with the parameters set forth in its Minor Mod CP and had been continuously operated from July 18, 2021 through April 5, 2024 when the Station's license was canceled.¹³ As instructed by the Division, Bleu has filed a license to cover application and the Station has resumed operations.¹⁴

⁷ See LMS File No. 0000123545 (Renewal App).

⁸ Letter to Bleu 24 Communications, LLC from Barbara A Kreisman, Chief, Video Division (Feb. 9, 2024) a copy of which is available on the Station's main LMS facility page (Facility ID No. 130765). Section 312(g) of the Act provides that if a broadcast station fails to transmit broadcast signals with its authorized facilities for any consecutive 12-month period, then the station license granted for the operation of that broadcast station expires at the end of that period, notwithstanding any provision, term, or condition of the license to the contrary..... See 47 U.S.C. § 312(g).

⁹ See Letter to Bleu 24 Communications, LLC from Barbara A. Kreisman, Chief, Video Division (Apr. 5, 2024) (Cancellation Letter) a copy of which is available on the Station's main LMS facility page (Fac. ID No. 130765).

¹⁰ Petition For Reconsideration of Bleu 24 Communications, LLC filed May 6, 2024 (Petition) and supplemented June 10, 2024 (Supplement 1) and June 20, 2024 (Supplement 2) copies of which are available at LMS Pleading Nos. 0000244408, 0000245996, and 0000246449.

¹¹ Petition at 1.

¹² See Letter to Bleu 24 Communications, LLC from Barbara A. Kreisman, Chief, Video Division (Aug. 16, 2024) (Reinstatement Letter) a copy of which is available on the Station's main LMS facility page (Fac. ID No. 130765).

¹³ *Id.* at 3.

¹⁴ The Station was canceled on April 5, 2024, 10 days prior to expiration of the Minor Mod CP – April 15, 2024. As such, the construction permit was reinstated and “tolled” for 10 days from the date of reinstatement. However, on August 26, 2024, counsel for Bleu requested an extension of time to file the license to cover application. The Division, on its motion, waived all applicable Commission's rules and provided Bleu until August 29, 2024, to file an application for license to cover. On August 29, 2024, Bleu filed its application for license to cover. See LMS File No. 0000252516 (License App). Further, Bleu informed Division staff that it was not able to resume operations by August 29, 2024, because it was unable to access the Station's transmitter site and arrangements would need to be made to provide electricity and internet access to the transmitter site. The Division provided Bleu additional time to resume operation which finally occurred on September 23, 2024. License App at Amendment - Resumption of Operations.

III. DISCUSSION

5. This *NAL* is issued pursuant to section 503(b)(1)(B) of the Act.¹⁵ Under that provision, a person who is found to have willfully or repeatedly failed to comply with any provision of the Act or any rule, regulation, or order issued by the Commission shall be liable to the United States for a forfeiture penalty.¹⁶ Section 312(f)(1) of the Act defines willful as “the conscious and deliberate commission or omission of [any] act, irrespective of any intent to violate” the law.¹⁷ The legislative history to section 312(f)(1) of the Act clarifies that this definition of willful applies to both sections 312 and 503(b) of the Act,¹⁸ and the Commission has so interpreted the term in the section 503(b) context.¹⁹ Section 312(f)(2) of the Act provides that “[t]he term ‘repeated,’ when used with reference to the commission or omission of any act, means the commission or omission of such act more than once or, if such commission or omission is continuous, for more than one day.”²⁰

6. *Apparent Violations.* Bleu concedes that it failed to timely file a license to cover as required by section 73.3598(a) of the Rules.²¹ Bleu admits that it failed to timely submit an application for license to cover after completing construction due to an administrative oversight.²² It is well settled that administrative oversight is not an excuse for failure to comply with the Commission’s rules.²³ Further, from July 18, 2021, when it began operating pursuant to the Minor Mod CP facilities, until April 5, 2024, when it ceased operations pursuant to the Cancellation Letter, Bleu did not have a valid license to operate and thereby engaged in unauthorized operation for more than two and a half years in violation of sections 73.1745(a) of the Rules and 301 of the Act.²⁴ We therefore find that Bleu has apparently violated the Rules and the Act and is apparently liable for forfeiture.

7. *Proposed Forfeiture Amount.* The Commission’s *Forfeiture Policy Statement* and section 1.80(b)(10) of the Rules establish a base forfeiture amount of \$3,000 per violation for the failure to file a required form.²⁵ The guidelines also specify a base forfeiture amount of \$10,000 per violation for

¹⁵ 47 U.S.C. § 503(b)(1)(B).

¹⁶ *Id.* See also 47 CFR § 1.80(a)(1).

¹⁷ 47 U.S.C. § 312(f)(1).

¹⁸ See H.R. Rep. No. 97-765, 97th Cong. 2d Sess. 51 (1982).

¹⁹ See *Southern California Broad. Co.*, Memorandum Opinion and Order, 6 FCC Rcd 4387, 4388, para. 5 (1991), *recon. denied*, Memorandum Opinion and Order, 7 FCC Rcd 3454 (1992).

²⁰ 47 U.S.C. § 312(f)(2).

²¹ 47 CFR § 73.3598(a).

²² Petition at 3.

²³ See, e.g., *Southern California Broadcasting Co.*, Memorandum Opinion and Order, 6 FCC Rcd 4387, para. 3 (1991), *recon. denied*, 7 FCC Rcd 3454 (1992) (stating that “inadvertence . . . is at best, ignorance of the law, which the Commission does not consider a mitigating circumstance”) (internal cite omitted); see also *Townsquare Media of El Paso, Inc.*, Notice of Apparent Liability for Forfeiture, 35 FCC Rcd 6661, 6665, para. 5 and n. 37 (EB 2020) (“It is immaterial whether . . . violations were inadvertent, the result of ignorance of the law, or the product of administrative oversight.”) (internal cites omitted).

²⁴ See 47 CFR § 73.1745(a) and 47 U.S.C. § 301. We consider all operations since September 23, 2024 to be authorized so long as the Station is operating pursuant to the parameters set forth in its pending license to cover application.

²⁵ See *Forfeiture Policy Statement and Amendment of Section 1.80(b) of the Rules to Incorporate the Forfeiture Guidelines*, Report and Order, 12 FCC Rcd 17087, 17113-15 (1997) (*Forfeiture Policy Statement*), *recon. denied*, Memorandum Opinion and Order, 15 FCC Rcd 303 (1999); 47 CFR § 1.80(b)(11), note to paragraph (b)(11), Table 1. See also *Clear Channel*, 26 FCC Rcd at 7157 (“We note that the staff may also issue Notices of Apparent Liability for ‘failure to file a required form’ as authorized by Section 503(b)(1)(B) of the Act and Section 1.80 of the Rules, for such violations of covering license application filing deadlines or take other enforcement action.”).

construction and operation without an instrument of authorization for the service.²⁶ In determining the appropriate forfeiture amount, we may adjust the base amount upward or downward by considering the factors enumerated in section 503(b)(2)(E) of the Act, including “the nature, circumstances, extent and gravity of the violation, and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and such other matters as justice may require.”²⁷

8. In this case, Bleu failed to file a timely license to cover for the Station when it completed construction of the facility set forth in its Minor Mod CP, and engaged in unauthorized operation of the Station for more than two and a half years by operating without a valid instrument of authorization. Taking into consideration all of the factors required by section 503(b)(2)(E) of the Act, the *Forfeiture Policy Statement*, and section 1.80 of the Rules we find it is appropriate to reduce the proposed forfeiture from the base forfeiture amount because of the Station is an LPTV station, which provides a secondary service.²⁸ While in other cases we have fined other LPTV licensees \$3,500 for similar violations,²⁹ we believe an increased amount is warranted here given the lengthy period of time (over two years) the Station engaged in unauthorized operation compared to those other cases. Stations are only permitted to commence operation pursuant to a valid instrument of authorization and we find the Licensee’s failure represents extreme disregard, or at best ignorance, of Commission’s licensing processes and the Act itself. Accordingly, we propose a forfeiture in the amount of \$6,500.

9. In light of the facts and circumstances discussed above we also find that forfeiture is a sufficient sanction for Bleu’s apparent violations and we will act upon the License App by separate action upon the conclusion of this forfeiture proceeding.³⁰

IV. ORDERING CLAUSES

10. Accordingly, **IT IS ORDERED**, pursuant to section 503(b) of the Act, and sections 0.61, 0.204, 0.283 and 1.80 of the Rules,³¹ Bleu 24 Communications, LLC. is hereby **NOTIFIED** of its **APPARENT LIABILITY FOR FORFEITURE** in the amount of six thousand five hundred dollars (\$6,500) for its apparent willful violation of sections 73.3598(a) the Rules and apparent willful and repeated violation of section 73.1745(a) of the Rules and section 301 of the Act.³²

11. **IT IS FURTHER ORDERED**, pursuant to section 1.80 of the Commission’s rules,³³ that, within thirty (30) days of the release date of this *NAL*, Bleu 24 Communications, LLC **SHALL PAY**

²⁶ A broadcast station requires an authorization from the Commission to operate. See 47 U.S.C. § 301.

²⁷ 47 U.S.C. § 503(b)(2)(E); see also *Forfeiture Policy Statement*, 12 FCC Rcd at 17100; 47 CFR § 1.80(b)(11), note to paragraph (b)(11), Table 3.

²⁸ See, e.g., *Southwest Colorado TV Translator Association*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, 36 FCC Rcd 18042 (MB 2021) (reducing a forfeiture for late-filed application for license to cover and four months unauthorized operations given the station’s secondary status) (paid Jan. 20, 2022); *KAZT, LLC*, Memorandum Opinion and Order and Notice of Apparent Liability, 36 FCC Rcd 15530 (MB 2021) (reducing a forfeiture for late-filed application for license to cover and unauthorized operations given the station’s secondary status) (paid Nov. 30, 2021).

²⁹ Compare *supra* n.28 (reducing proposed forfeitures for late-filed applications for late-filed license to cover and unauthorized operations of less than one year to \$3,500) with *The Estate of Ettie Clark*, Memorandum Opinion and Order and Notice of Apparent Liability, 37 FCC Rcd 4111 (MB 2022) (finding that although the station is secondary, a forfeiture in the amount of \$6,500 was warranted given the lengthy period of time the station engaged in unauthorized operation) (paid Apr. 19, 2022).

³⁰ We will act upon the pending Renewal App by separate action.

³¹ 47 U.S.C. § 503(b); 47 CFR §§ 0.61, 0.204, 0.283 and 1.80.

³² 47 CFR § 73.3598(a); 73.1635(a); 73.1745(a); 47 U.S.C. § 301.

³³ 47 CFR § 1.80.

the full amount of the proposed forfeiture or **SHALL FILE** a written statement seeking reduction or cancellation of the proposed forfeiture.

12. Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using CORES (the Commission's online payment system),³⁴ or by wire transfer. Payments by check or money order to pay a forfeiture are no longer accepted. **Notification that payment has been made must be sent on the day of payment by e-mail to Shaun.Maher@fcc.gov and VideoNAL@fcc.gov.** Below are instructions that payors should follow based on the form of payment selected:³⁵

- Payment by wire transfer must be made to ABA Number 021030004, receiving bank TREAS/NYC, and Account Number 27000001. A completed Form 159 must be faxed to the Federal Communications Commission at 202-418-2843 or e-mailed to RROGWireFaxes@fcc.gov on the same business day the wire transfer is initiated. Failure to provide all required information in Form 159 may result in payment not being recognized as having been received. When completing FCC Form 159, enter the Account Number in block number 23A (call sign/other ID), enter the letters "FORF" in block number 24A (payment type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN).³⁶ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.
- Payment by credit card must be made by using the Commission's Registration System (CORES) at <https://apps.fcc.gov/cores/userLogin.do>. To pay by credit card, log-in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select "Manage Existing FRNs | FRN Financial | Bills & Fees" from the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the "Open Bills" tab and find the bill number associated with the NAL/Acct. No. The bill number is the NAL Acct. No. (e.g., NAL/Acct. No. 1912345678 would be associated with FCC Bill Number 1912345678). After selecting the bill for payment, choose the "Pay by Credit Card" option. Please note that there is a \$24,999.99 limit on credit card transactions.
- Payment by ACH must be made by using the Commission's Registration System (CORES) at <https://apps.fcc.gov/cores/paymentFrnLogin.do>. To pay by ACH, log in using the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select "Manage Existing FRNs | FRN Financial | Bills & Fees" on the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the "Open Bills" tab and find the bill number associated with the NAL/Acct. No. The bill number is the NAL/Acct. No. (e.g., NAL/Acct. No. 1912345678 would be associated with FCC Bill Number 1912345678). Finally, choose the "Pay from Bank Account" option. Please contact the appropriate financial institution to confirm the correct Routing Number and the correct account number from which payment will be made and verify with that financial institution that the designated account has authorization to accept ACH transactions.

13. The written response seeking reduction or cancellation of the proposed forfeiture, if any, must include a detailed factual statement supported by appropriate documentation and affidavits pursuant to sections 1.16 and 1.80(g)(3) of the Rules, 47 CFR §§ 1.16 and 1.80(g)(3). The written response must be filed with the Office of the Secretary, Federal Communications Commission, 45 L Street, NE, Washington, DC 20554, Barbara A. Kreisman, Chief, Video Division, Media Bureau, and **MUST**

³⁴ Payments made using CORES do not require the submission of an FCC Form 159.

³⁵ For questions regarding payment procedures, please contact the Financial Operations Group Help Desk by phone at 1-877-480-3201 (option #6), or by e-mail at ARINQUIRIES@fcc.gov.

³⁶ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

INCLUDE the NAL/Acct. No. referenced above. **A copy must also be emailed to VideoNAL@fcc.gov to assist in processing the response.**

- Filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. All filings must be addressed to the Secretary, Federal Communications Commission.
 - Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.³⁷
 - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
 - Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street, NE, Washington, DC 20554.

14. The Commission will not consider reducing or canceling a forfeiture in response to a claim of inability to pay unless the respondent submits: (1) federal tax returns for the most recent three-year period; (2) financial statements prepared according to generally accepted accounting practices (GAAP); or (3) some other reliable and objective documentation that accurately reflects the respondent's current financial status. Any claim of inability to pay must specifically identify the basis for the claim by reference to the financial documentation submitted. Inability to pay, however, is only one of several factors that the Commission will consider in determining the appropriate forfeiture, and we have discretion to not reduce or cancel the forfeiture if other prongs of section § 503(b)(2)(E) of the Communications Act of 1934, as amended, support that result.³⁸

15. Requests for full payment of the forfeiture proposed in this *NAL* under the installment plan should be sent to: Associate Managing Director-Financial Operations, 45 L Street, NE, Washington, DC 20554.³⁹ Requests can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service in the manner specified above. A copy of the request must also be sent to VideoNAL@fcc.gov. Questions regarding payment procedures should be directed to the Financial Operations Group Help Desk by phone, 1-877-480-3201 (option #6), or by e-mail at ARINQUIRIES@fcc.gov.

16. **IT IS FURTHER ORDERED** that copies of this *NAL* shall be sent by First Class and Certified Mail, Return Receipt Requested, to Bleu 24 Communications, LLC, 819 SW 10 Avenue, Miami, Florida 33130 as well as by e-mail to jtomas@samotconsulting.com and to Bleu's counsel, Aaron P. Shainis, Esq., Shainis & Peltzman, Chartered, 1850 M Street NW, Suite 240, Washington, DC 20036 as e-mailed to aaron@s-plaw.com.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

³⁷ Hand-delivered or messenger delivered paper filings continue to NOT be accepted at FCC Headquarters.

³⁸ See 47 U.S.C. 503(b)(2)(E); *Adrian Abramovich*, Forfeiture Order, 33 FCC Rcd 4663, 4678-79, paras. 44-45 (2018).

³⁹ See 47 CFR § 1.1914.

THIRTEENTH SEMI-ANNUAL REPORT OF THE
FEDERAL COMMUNICATIONS COMMISSION TO
CONGRESS ON UNITED STATES-BASED FOREIGN
MEDIA OUTLETS

FOR THE PERIOD APRIL 12, 2024 TO
OCTOBER 11, 2024

Submitted Pursuant to
Public Law No. 115-232

The Federal Communications Commission (Commission) hereby submits this Thirteenth Semi-Annual Report to Congress on United States-Based Foreign Media Outlets pursuant to the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (NDAA).¹ The NDAA requires certain media outlets to file reports with the Commission and, in turn, for the Commission to provide a report to Congress summarizing those filings. Consistent with the statute, the previous report, covering the period October 13, 2023 to April 11, 2024, was transmitted to Congress prior to May 9, 2024.² This thirteenth report, covering April 12, 2024, to October 11, 2024, is hereby transmitted to Congress within six months of the previous report, or by November 9, 2024.³

Background. In 2018, Congress passed the NDAA, which added a new section 722 to the Communications Act of 1934 (Communications Act) requiring that all “United States-based foreign media outlet[s]” submit to the Commission a report containing: 1) the name of such outlet; and 2) a description of the relationship of such outlet to the foreign principal of such outlet, including a description of the legal structure of such relationship and any funding that such outlet receives from such principal.⁴ The NDAA provides that the term “United States-based foreign media outlet” means an entity that (a) produces or distributes video programming (as defined in section 602 of the Communications Act) that is transmitted, or intended for transmission, by a multichannel video programming distributor (as defined in such section) to consumers in the United States;⁵ and (b) would be an agent of a foreign principal for purposes of the Foreign Agents Registration Act of 1938 (FARA) but for section 1(d) of FARA.⁶ The Department of Justice has adopted regulations implementing FARA, including definitions of statutory terms.⁷

Section 611(b)(1) of FARA provides that “a government of a foreign country and a foreign political party” are included in the definition of a “foreign principal.”⁸ Section 611(d) of FARA in turn

¹ John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, §1085(a) (2018) (NDAA).

² *Twelfth Semi-Annual Report to Congress on United States-Based Foreign Media Outlets*, Report, DA-24-442 (MB May 9, 2024). The first report was transmitted to Congress within 90 days of enactment of the NDAA, or by November 11, 2018. *First Semi-Annual Report to Congress on United States-Based Foreign Media Outlets*, Report, 33 FCC Rcd 11160 (MB Nov. 9, 2018).

³ NDAA §1085(b) (codified at 47 U.S.C. § 624(b)).

⁴ 47 U.S.C. § 624(a).

⁵ 47 U.S.C. § 624(d)(2). The Communications Act defines the term “video programming” as “programming provided by, or generally considered comparable to programming provided by, a television broadcast station.” 47 U.S.C. § 522(20). The term “multichannel video programming distributor” means “a person such as, but not limited to, a cable operator, a multichannel multipoint distribution service, a direct broadcast satellite service, or a television receive-only satellite program distributor, who makes available for purchase, by subscribers or customers, multiple channels of video programming.” 47 U.S.C. § 522(13).

⁶ 22 U.S.C. §§ 611(b)(1) & (d).

⁷ See 5 CFR §§ 5.1, *et seq.*; *id.* § 5.100.

⁸ 47 U.S.C. § 624(d)(1); 22 U.S.C. § 611(b)(1). Section 611(c) of FARA provides that, except “as provided in subsection (d) of this section, the term ‘agent of a foreign principal’ means--(1) any person who acts as an agent, representative, employee, or servant, or any person who acts in any other capacity at the order, request, or under the direction or control, of a foreign principal or of a person any of whose activities are directly or indirectly supervised, directed, controlled, financed, or subsidized in whole or in major part by a foreign principal, and who directly or through any other person--(i) engages within the United States in political activities for or in the interests of such

states that the “term ‘agent of a foreign principal’ does not include any news or press service or association organized under the laws of the United States or of any State or other place subject to the jurisdiction of the United States, or any newspaper, magazine, periodical, or other publication for which there is on file with the United States Postal Service information in compliance with section 3611 of Title 39, published in the United States, solely by virtue of any bona fide news or journalistic activities, including the solicitation or acceptance of advertisements, subscriptions, or other compensation therefor, so long as it is at least 80 per centum beneficially owned by, and its officers and directors, if any, are citizens of the United States, and such news or press service or association, newspaper, magazine, periodical, or other publication, is not owned, directed, supervised, controlled, subsidized, or financed, and none of its policies are determined by any foreign principal defined in subsection (b) of this section, or by any agent of a foreign principal required to register” under FARA.⁹

The NDAA also requires that “[n]ot later than 90 days after the date of the enactment of this section, and not less frequently than every 6 months thereafter, the Commission shall transmit to Congress a report that summarizes the contents of the reports submitted by United States-based foreign media outlets under subsection (a) during the preceding 6-month period.”¹⁰ On September 11, 2024, the Commission released a Public Notice reiterating its ongoing obligations under the NDAA and directing United States-based foreign media outlets subject to the NDAA reporting requirements to submit reports to the Commission’s established e-mail inbox by October 11, 2024.¹¹ The Commission set this deadline to enable it to comply with the NDAA’s requirement that it submit a Report to Congress “not less frequently than every 6 months.”¹² The Commission also stated that, in compliance with the NDAA, it would make publicly available on its website each submission by a United States-based foreign media outlet no later than the earlier of (1) 30 days after the outlet submits its report to the Commission or (2) the date on which the Commission transmits its report to Congress.¹³

Submissions. The Commission did not receive any registrations in the six-month period between April 12, 2024, and October 11, 2024, including in response to its September Public Notice.

foreign principal; (ii) acts within the United States as a public relations counsel, publicity agent, information-service employee or political consultant for or in the interests of such foreign principal; (iii) within the United States solicits, collects, disburses, or dispenses contributions, loans, money, or other things of value for or in the interest of such foreign principal; or (iv) within the United States represents the interests of such foreign principal before any agency or official of the Government of the United States; and (2) any person who agrees, consents, assumes or purports to act as, or who is or holds himself out to be, whether or not pursuant to contractual relationship, an agent of a foreign principal as defined in clause (1) of this subsection.” 22 U.S.C. § 611(c).

⁹ 22 U.S.C. § 611(d).

¹⁰ 47 U.S.C. § 624(b).

¹¹ *Media Bureau Reminds United States-based Foreign Media Outlets of Next Semi-Annual Disclosure Deadline*, Public Notice, DA 24-929 (MB Sept. 11, 2024). The Public Notice reminded respondents that the contents of their reports were subject to general requirements of accuracy of representations made to the Commission contained in the United States Code, 18 U.S.C. § 1001.

¹² *Id.* at 3. As discussed above, the statute requires covered entities to file reports with the Commission on an ongoing basis, not less frequently than every six months. It similarly requires the Commission to report to Congress the results of those submissions not less frequently than every six months thereafter. *Id.*

¹³ *Id.* at 3, citing 47 U.S.C. § 624(c).

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
CCB License, LLC	)	FRN: 0028383891
	)	NAL/Acct. No. 202441420018
For Application for License for	)	Facility ID No. 39269
Digital Replacement Translator for Television	)	LMS File No. 0000246857
Station WISH-TV, Indianapolis, Indiana	)	

ORDER

Adopted: November 19, 2024

Released: November 19, 2024

By the Chief, Video Division, Media Bureau:

1. In this Order, we adopt the attached Consent Decree entered into by the Video Division, Media Bureau (Bureau) and CCB License, LLC (Licensee), licensee of WISH-TV, Indianapolis, Indiana (Station). The Consent Decree resolves issues arising from the Bureau's review of the captioned application for license to cover construction (Application) of a digital replacement translator (DRT) for the Station. In particular, the Consent Decree resolves the Bureau's investigation into the Licensee's willful violation of section 73.3598(a)¹ of the Commission's rules (Rules) for failing to file a timely Application and its willful and repeated violation of section 73.1745(a) of the Rules² and section 301 of the Communications Act of 1934, as amended (Act),³ by engaging in unauthorized operation of the DRT. We find that adoption of the Consent Decree permits action on the Application, subject to certain terms and conditions,

2. The Bureau and Licensee have negotiated the terms of the attached Consent Decree in which Licensee stipulates that it violated sections 73.3598(a) and 73.1745(a) of the Rules and section 301 of the Act. Pursuant to the Consent Decree the Licensee agrees to, among other things, make a civil penalty payment to the United States Treasury in the amount of eight thousand five hundred dollars (\$8,500) and implement a compliance plan to ensure future compliance with the Rules.

3. After reviewing the terms of the Consent Decree, we find that the public interest will be served by its approval and by terminating all pending proceedings relating to the Bureau's consideration of potential violations of the Rules. Based on the record before us, we also conclude that grant of the

¹ 47 CFR § 73.3598(a). At the time the Station should have filed its license to cover application, 47 CFR § 74.788 was the controlling rule for DRT stations relating to construction and the requirement to file a license to cover. Effective October 24, 2022, 47 CFR § 74.788 (2022) was eliminated and found by the Commission to be duplicative with 47 CFR § 73.3598. See 87 FR 58200, Oct. 24, 2022; *In the Matter of Amend. of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission's Rules Related to Low Power Television and Television Translator Stations*, Order and Sixth Notice of Proposed Rulemaking, 37 FCC Rcd 8173 (2022); 47 CFR § 74.780(bbb) (making 47 CFR § 73.3598 applicable to all TV translator and LPTV stations). To the extent necessary, we also find that the Licensee violated 47 CFR § 74.788 (2022).

² 47 CFR § 73.1745(a).

³ 47 U.S.C. § 301.

Station's Application, as captioned above, is appropriate.⁴ In accordance with the Consent Decree, we grant the Application conditioned upon satisfaction of the Civil Penalty and consistent with all other terms set forth in the Consent Decree. A copy of the Consent Decree is attached hereto and incorporated by reference.

4. **ACCORDINGLY, IT IS ORDERED** that, pursuant to section 4(i) of the Communications Act of 1934, as amended,⁵ and by the authority delegated by sections 0.61, 0.204, 0.283, and 1.93(b) of the Rules,⁶ the Consent Decree attached hereto **IS ADOPTED** without change, addition, or modification, and incorporated by reference.

5. **IT IS FURTHER ORDERED** that, the investigation by the Bureau regarding the matters discussed above **IS TERMINATED**.

6. **IT IS FURTHER ORDERED** that, the application of CCB License, LLC for license to cover construction of a DRT for the Station, as captioned above, **SHALL BE GRANTED consistent with the terms and conditions of the attached Consent Decree**.

7. **IT IS FURTHER ORDERED** that copies of this Order and Consent Decree shall be sent, by First Class and Certified Mail, Return Receipt Requested, to CCB License, LLC, 1950 N. Meridian Street, Indianapolis, IN 46202 with a copy also sent to Licensee's representative, DuJuan A. McCoy, by e-mail to dujuan@dmmlc.tv. A copy shall also be sent to Licensee's legal representative: Daniel Kirkpatrick, Esq., Fletcher, Heald & Hildreth, PLC, 1300 North 17th Street, 11th Floor, Arlington, VA 22209 and sent by e-mail to kirkpatrick@fhhlaw.com.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

⁴ Because the DRT construction permit had not yet been cancelled in LMS, the Station was able to file a license to cover application against the expired DRT construction permit. Cancellation of a Station's construction permit and deletion of its call sign by Bureau staff in the Licensing and Management System (LMS) is an administrative function and does not constitute an official Commission action nor require any affirmative cancellation by the Commission. See 47 CFR § 73.3598(e). As a result, failure by Bureau staff to cancel a construction permit in LMS does not result in an expired construction permit remaining valid. We find on our own motion that, based on the specific facts and circumstances presented here, waiver of section 73.3598(e) is warranted and we accept for processing the Application. A waiver is appropriate where the particular facts would make strict compliance inconsistent with the public interest and deviation from the general rule would relieve hardship, promote equity, or produce a more effective implementation of overall policy on an individual basis. *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) and *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), cert. denied, 409 U.S. 1072 (1972); 47 CFR § 1.3 (waiver for good cause shown). See e.g., *Clear Channel Broadcasting Licenses, Inc.*, Memorandum Opinion and Order, 26 FCC Rcd 7153, 7157, para 11 (2011) (upholding as proper the Bureau's practice of processing a late-filed covering license application for facilities fully completed by the construction deadline through the waiver process); *Cranesville Block Company, Inc.*, Letter Order, 27 FCC Rcd 2018, 2019-20 (MB 2012) (dismissing a petition for reconsideration of an expired construction permit as procedurally improper and treating it instead as a request for waiver).

⁵ 47 U.S.C. §§ 154(i).

⁶ 47 CFR §§ 0.61, 0.204, 0.283, and 1.93(b).

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
CCB License, LLC	)	FRN: 0028383891
	)	NAL/Acct. No. 202441420018
For Application for License for	)	Facility ID No. 39269
Digital Replacement Translator for Television	)	LMS File No. 0000246857
Station WISH-TV, Indianapolis, Indiana	)	

CONSENT DECREE

I. INTRODUCTION

1. The Video Division, Media Bureau of the Federal Communications Commission (hereafter “Bureau,” as defined below) and CCB License, LLC (hereafter “Licensee,” as defined below), by their authorized representatives, hereby enter into this Consent Decree for the purpose of terminating the Bureau’s investigation into the Licensee’s willful violation of section 73.3598(a)¹ and willful and repeated violation of section 73.1745(a) of the Commission’s rules (hereafter “Rules” as defined below)² and section 301 of the Communications Act of 1934, as amended (hereafter “Act” as defined below),³ by engaging in unauthorized operation of a digital replacement translator (hereafter “DRT” as defined below) for television station WISH-TV, Indianapolis, Indiana (hereafter “WISH-TV” or “Station” as defined below). To resolve these matters, the Licensee agrees to pay a civil penalty payment to the United States Treasury in the amount of eight thousand five hundred dollars (\$8,500) and to implement a comprehensive Compliance Plan to ensure its future compliance with certain part 73 and 74 technical filing rules (hereafter “Technical Filing Rules” as defined below). The Bureau agrees to terminate its investigation, and grant the Station’s above-captioned pending license application, subject to the terms and conditions set forth below.

II. DEFINITIONS

2. For the purposes of this Consent Decree, the following definitions shall apply:
- (a) “Act” means the Communications Act of 1934, as amended, 47 U.S.C. § 151 *et seq.*
 - (b) “Adopting Order” means an Order of the Bureau adopting the terms of this Consent Decree without change, addition, deletion, or modification.
 - (c) “Application” means the application of CCB License, LLC for license for digital replacement translator for television station WISH-TV, Indianapolis, Indiana (Facility ID No. 39269), LMS File No. 0000246857.

¹ 47 CFR § 73.3598(a). At the time the station should have filed its license to cover application, 47 CFR § 74.788 was the controlling rule for digital replacement translator (DRT) stations relating to construction and the requirement to file a license to cover. Effective October 24, 2022, 47 CFR § 74.788 (2022) was eliminated and found by the Commission to be duplicative with 47 CFR § 73.3598. See 87 FR 58200, Oct. 24, 2022; *In the Matter of Amend. of Parts 73 and 74 of the Commission’s Rules to Establish Rules for Digital Low Power Television and Television Translator Stations, Update of Parts 74 of the Commission’s Rules Related to Low Power Television and Television Translator Stations*, Order and Sixth Notice of Proposed Rulemaking, 37 FCC Rcd 8173 (2022); 47 CFR § 74.780(bbb) (making 47 CFR § 73.3598 applicable to all TV translator and LPTV stations). To the extent necessary, we also find that the Licensee violated 47 CFR § 74.788 (2022).

² 47 CFR § 73.1745(a).

³ 47 U.S.C. § 301.

- (d) “Bureau” means the Media Bureau of the Federal Communications Commission.
- (e) “Commission” or “FCC” means the Federal Communications Commission and all of its bureaus and offices.
- (f) “Compliance Plan” means the processes and procedures developed by the Licensee in an effort to ensure compliance with the “Technical Filing Rules” as defined herein.
- (g) “Covered Employees” means all employees, volunteers, and agents of the Licensee, who are responsible for performing, supervising, overseeing, or managing activities related to timely filing of all applications as required by the part 73 and 74 Technical Filing Rules.
- (h) “Division” means the Media Bureau’s Video Division.
- (i) “DRT” means digital replacement translator.
- (j) “Effective Date” means the date by which both the Bureau and the Licensee have signed the Consent Decree.
- (k) “Investigation” means the Bureau’s examination of Licensee’s apparent violations of sections 73.3598(a), 74.788, and 73.1745(a) of the Rules and section 301 of the Act.
- (l) “Technical Filing Rules” means the following rules set forth in Title 47, Parts 73 and 74 of the Code of Federal Regulations:
 - 47 CFR § 73.1635 – Special Temporary Authorizations (STA).
 - 47 CFR § 73.1690 Modification of transmission systems.
 - 47 CFR § 73.1740 Minimum operating schedule.
 - 47 CFR § 73.1745 Unauthorized operation.
 - 47 CFR § 73.1750 Discontinuance of operation.
 - 47 CFR § 73.3533 Application for construction permit or modification of construction permit.
 - 47 CFR § 73.3536 Application for license to cover construction permit.
 - 47 CFR § 73.3538 Application to make changes in an existing station.
 - 47 CFR § 73.3544 Application to obtain a modified station license.
 - 47 CFR § 73.3598 Period of construction.
 - 47 CFR § 74.787 Licensing.
- (m) “Licensee” or “CCB” means CCB License, LLC and its affiliates, subsidiaries, predecessors-in-interest, and successors-in-interest.
- (n) “Parties” means the Licensee and the Bureau, each of which is a “Party.”
- (o) “Rules” means the Commission’s regulations found in Title 47, Parts 73 and 74 of the Code of Federal Regulations.
- (p) “Station” means WISH-TV, Indianapolis, Indiana (Facility ID No. 39269) and any related facilities licensed or authorized under its facility identification number, including DRTs and STAs.
- (q) “STA” means special temporary authorization.

III. BACKGROUND

3. On November 27, 2019, the Bureau granted the DRT construction permit with an expiration date of November 27, 2022. However, CCB failed to file an application for license to cover and the DRT construction permit expired on its own terms pursuant to section 73.3598(e) of the Rules.⁴ WISH-TV commenced operations of its DRT facility on channel 26 pursuant to program test authority on March 3, 2020, but failed to submit an application to cover its DRT facility until June 25, 2024 – more than four years after commencing operations and eighteen months after the underlying construction permit for the DRT expired.⁵ Section 73.3598(a) of the Rules requires that an application for license must be filed upon completion of construction, which CCB failed to do for over four years.⁶ Further, operation of the DRT facility without a license constituted unauthorized operation pursuant to section 73.1745(a) of the Rules⁷ and section 301 of the Act.⁸

4. With its Application the Licensee filed a petition for reconsideration seeking reinstatement of the expired construction permit for the DRT and permission to file a late license application.⁹ In its Request, the Licensee stated that, “due to administrative oversight, no covering license application was filed” at the time it began operating its DRT facility in March 2020.¹⁰ The Licensee explained that the license application was due to be filed in March 2020 at the time that the COVID-19 pandemic was just beginning and the filing of the license application was “overlooked.”¹¹ Licensee stated that it “takes its obligations to comply with Commission Rules seriously and has a long history of compliance.”¹² The Licensee noted that the DRT facility is currently in operation, and “numerous viewers in the Indianapolis area rely o(n) the DRT for improved over-the-air reception of WISH-TV’s . . . local news programming and other service offerings.”¹³ According to the Licensee forcing it to terminate operations of its DRT, “would disserve these viewers and would be inconsistent with the public interest and with Commission precedent.”¹⁴

5. In consideration of the unique facts and circumstances presented, the Licensee’s history of compliance, and the Licensee’s agreement to pay a civil penalty and implement a compliance plan to prevent future violations of the Technical Filing Rules, the Bureau has negotiated the terms of this Consent Decree with the Licensee that terminates the Investigation and grants the Application, subject to the terms and conditions set forth below. The Licensee has agreed to pay a civil penalty in the amount of

⁴ 47 CFR § 73.3598(e). At the time the station should have filed its license to cover application, 47 CFR § 74.788(b) was the controlling rule for DRT stations relating to construction and expiration of construction permits. Effective October 24, 2022, 47 CFR § 74.788 (2022) was eliminated and found by the Commission to be duplicative with 47 CFR § 73.3598. *See supra* n.1.

⁵ *See Adopting Order* at n.4 (discussing CCB’s ability to file a late license to cover even though its permit expired and granting waiver of 47 CFR 73.3598(e) in order to process the pending Application).

⁶ 47 CFR § 73.3598(a).

⁷ 47 CFR § 73.1745(a).

⁸ 47 U.S.C. § 301. *See, e.g., The Estate of Ettie Clark*, Memorandum Opinion and Order and Notice of Apparent Liability, 37 FCC Rcd 4111 (MB 2022) (finding that the licensee’s failure to file a timely license to cover application for the station resulted in unauthorized operation) (paid Apr. 19, 2022).

⁹ *See Request to Reinstate CP and Accept Late-Filed License Application*, LMS File No. 0000246847 (Request).

¹⁰ *Id.* at 1.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

Eight Thousand Five Hundred dollars (\$8,500) to the U.S. Treasury and maintain a Compliance Plan designed to ensure its future compliance with the Technical Filing Rules.

IV. TERMS OF AGREEMENT

6. **Adopting Order.** The Parties agree that the provisions of this Consent Decree shall be incorporated by reference by the Bureau in an Adopting Order without change, addition, deletion, or modification.

7. **Jurisdiction.** The Licensee agrees that the Bureau has jurisdiction over it and the matters contained in this Consent Decree and has the authority to enter into and adopt this Consent Decree.

8. **Effective Date.** The Parties agree that this Consent Decree shall become effective on the Effective Date, as defined herein. As of the Effective Date, the Parties agree that this Consent Decree shall have the same force and effect as any other order of the Commission.

9. **Violations.** The Parties agree that any violation of the Adopting Order or the terms of this Consent Decree, in whole or in part, shall constitute a separate violation of a Commission order, entitling the Commission, or its delegated authority to exercise any rights and remedies attendant to the enforcement of a Commission order.

10. **Admission of Liability.** The Licensee admits, for the purpose of this Consent Decree and for Commission civil enforcement purposes, that its actions described in Paragraph 3 were willful and repeated violations of the Technical Filing Rules. By entering into this Consent Decree, the Licensee makes no other admission of liability of any Communications Law, and the Bureau makes no finding of any other liability or violation.

11. **Termination of Investigation.** In express reliance on the covenants and representations in this Consent Decree and to avoid further expenditure of public resources, the Bureau agrees to terminate the Investigation and to take the actions specified in Paragraph 16. In consideration for the termination of the Investigation, the Licensee agrees to the terms, conditions, and procedures contained herein, including the actions specified in Paragraphs 14 and 17 of this Consent Decree.

12. The Bureau further agrees that, in the absence of new material evidence, that it will not use the facts developed in the Investigation through the Effective Date, or the existence of this Consent Decree, to institute, on its own motion or in response to any petition to deny or other third-party objection, any new proceeding, formal or informal, or take any action on its own motion against the Licensee concerning the matters that were the subject of the Investigation. The Bureau also agrees that, in the absence of new material evidence, it will not use the facts developed in the Investigation through the Effective Date, or the existence of this Consent Decree, to institute on its own motion any proceeding, formal or informal, or to set for hearing the question of the Licensee's basic qualifications to be a Commission licensee or to hold Commission licenses or authorizations.¹⁵

13. **Subsequent Investigations.** This Consent Decree shall not prevent the Commission or its delegated authority from investigating new evidence of noncompliance by the Licensee with the Rules or Act or from adjudicating complaints or other adjudicatory pleadings filed by third parties against the Licensee for alleged violations of the Rules or Act or for any alleged misconduct, regardless of when such misconduct took place. Further, except as expressly provided herein, the Licensee acknowledges that the Commission and its delegated authority (including the Bureau) retains the discretion and authority to propose sanctions against the Licensee, including the issuance of notices of apparent liability for forfeiture, for any apparent willful and/or repeated violation by the Licensee of the Rules or Act. The Commission's adjudication of any complaints or potential violations will be based solely on the record developed in subsequent proceedings. The Licensee also acknowledges that the Commission or its delegated authority may consider its admission of liability in this Consent Decree in proposing any future forfeiture against the Licensee in the event the Licensee is determined to have apparently committed a

¹⁵ See 47 CFR § 1.93(b).

violation of the Act, the Rules, or of any orders of the Commission after the Effective Date, whether related to the Technical Filing Rules or otherwise.¹⁶

14. **Civil Penalty.** The Licensee agrees to make a civil penalty payment to the United States Treasury in the amount of Eight Thousand Five Hundred Dollars (\$8,500) within thirty (30) calendar days after the Effective Date. It also acknowledges and agrees that upon execution of this Consent Decree, the Civil Penalty shall become a “Claim” or “Debt” as defined in section 3701(b)(1) of the Debt Collection Improvement Act of 1996.¹⁷ **The Licensee shall send electronic notification of payment to Shaun Maher at Shaun.Maher@fcc.gov and VideoCompliance@fcc.gov on the date payment is made.** Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using CORES (the Commission’s online payment system),¹⁸ or by wire transfer. Payment should be made, in its entirety, under NAL account number 202441420018. Payments by check or money order are no longer accepted. Below are instructions that the Licensee should follow based on the form of payment selected:¹⁹

- Payment by wire transfer must be made to ABA Number 021030004, receiving bank TREAS/NYC, and Account Number 27000001. A completed FCC Form 159 must be faxed to the Federal Communications Commission at 202-418-2843 or e-mailed to RROGWireFaxes@fcc.gov on the same business day the wire transfer is initiated. Failure to provide all required information in Form 159 may result in payment not being recognized as having been received. When completing FCC Form 159, enter the Account Number in block number 23A (202441420011), enter the letters “FORF” in block number 24A (payment type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN).²⁰ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.
- Payment by credit card must be made by using the Commission’s Registration System (CORES) at <https://apps.fcc.gov/core/userLogin.do>. To pay by credit card, log-in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select “Manage Existing FRNs | FRN Financial | Bills & Fees” from the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the “Open Bills” tab and find the bill number associated with the NAL/Acct. No. The bill number is the NAL Acct. No. (e.g., NAL/Acct. No. 202441420018 would be associated with FCC Bill Number 202441420018). After selecting the bill for payment, choose the “Pay by Credit Card” option. Please note that there is a \$24,999.99 limit on credit card transactions.
- Payment by ACH must be made by using the Commission’s Registration System (CORES) at <https://apps.fcc.gov/core/paymentFrnLogin.do>. To pay by ACH, log in using the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select “Manage Existing FRNs | FRN Financial | Bills & Fees” on the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the “Open Bills” tab and find the bill number associated with the NAL/Acct. No. The bill

¹⁶ Pursuant to section 503(b)(2)(E) of the Act, in exercising its forfeiture authority, the Commission may consider, among other things, “any history of prior offenses” by the licensee. 47 U.S.C. § 503(b)(2)(E). See *Forfeiture Policy Statement and Amendment of Section 1.80 of the Rules to Incorporate the Forfeiture Guidelines*, Report and Order, 12 FCC Rcd 17087 (1997), recon. denied, 15 FCC Rcd 303 (1999); 47 CFR § 1.80(b)(11), Table 3.

¹⁷ Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321, 1358 (Apr. 26, 1996).

¹⁸ Payments made using CORES do not require the submission of an FCC Form 159.

¹⁹ For questions regarding payment procedures, please contact the Financial Operations Group Help Desk by phone at 1-877-480-3201 (option #6), or by e-mail at ARINQUIRIES@fcc.gov.

²⁰ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

number is the NAL/Acct. No. (e.g., NAL/Acct. No. 202441420011 would be associated with FCC Bill Number 202441420011). Finally, choose the “Pay from Bank Account” option. Please contact the appropriate financial institution to confirm the correct Routing Number and the correct account number from which payment will be made and verify with that financial institution that the designated account has authorization to accept ACH transactions.

15. **Event of Default.** The Parties agree that an Event of Default shall occur upon the failure by the Licensee to pay the full amount of the Civil Penalty on or before the due date specified in Paragraph 15. After an Event of Default has occurred under this Consent Decree, the unpaid amount of the Civil Penalty shall accrue interest, computed using the U.S. Prime Rate in effect on the date of the Event of Default plus 4.75%, from the date of the Event of Default until payment in full. Upon an Event of Default, the then unpaid amount of the Civil Penalty, together with interest, any penalties permitted and/or required by the law, including but not limited to 31 U.S.C. § 3717 and administrative charges, plus the costs of collection, litigation, and attorneys’ fees, shall become immediately due and payable, without notice, presentment, demand, protest, or notice of protest of any kind, all of which are waived by the Licensee.

16. **Grant of Application.** In the Adopting Order, the Bureau has determined that grant of the Application is in the public interest, convenience, and necessity, and consistent with 47 U.S.C. § 309(k). The Bureau agrees to grant the Application for a full license term of eight years from the prior license expiration date concurrent with adoption of this Consent Decree. The license renewal authorization will be conditioned on compliance with all the terms and conditions of this Consent Decree, including the terms of Paragraph 14 of this Consent Decree.

17. **Compliance Plan.** For purposes of settling the matters set forth herein, the Licensee agrees that it shall develop and implement a Compliance Plan to ensure future compliance with the Technical Filing Rules, including, but not limited to the timely filing of all required license applications. The Compliance Plan shall apply to the Station, as defined in Paragraph 2(p) of this Consent Decree. The Compliance Plan shall contain, at a minimum, the following elements:

18. **Compliance Officer.** Within thirty (30) calendar days after the Effective Date, the Licensee shall designate a person on a paid or volunteer basis to serve as a Compliance Officer and to discharge the duties set forth below. The Compliance Officer shall report directly to Licensee’s Board of Directors, President, or equivalent senior officer(s) on a regular basis, and shall be responsible for implementing and administering the Compliance Plan, keeping the Compliance Plan updated with the current Technical Filing Rules, and ensuring that the Licensee complies with the terms and conditions of the Compliance Plan and Consent Decree. Prior to the implementation date of the Compliance Plan, the Compliance Officer shall obtain knowledge of the Technical Filing Rules. The name and contact information (mailing address, phone number, and e-mail address) of the Compliance Officer must be submitted to the Bureau within thirty (30) calendar days after the Effective Date by electronic mail at VideoCompliance@fcc.gov. In the event of a change in the Compliance Officer, the Licensee shall designate a new Compliance Officer and inform the Bureau by electronic mail at VideoCompliance@fcc.gov within thirty (30) calendar days of the change. The notification must include the name and contact information (physical mailing address, phone number, and e-mail address) of the new Compliance Officer.

19. **Compliance Manual.** Within sixty (60) calendar days after the Effective Date, the Compliance Officer shall develop and distribute a “Compliance Manual” to all Covered Employees. The Compliance Officer shall distribute a Compliance Manual that they have personally prepared or one that has been prepared by a third party, such as a trade association or a law firm. The Compliance Manual shall:

- (a) thoroughly explain the requirements embodied in the Technical Filing Rules;
- (b) contain Operating Procedures that Covered Employees must follow to help ensure the Licensee’s compliance with the Technical Filing Rules. The Operating Procedures shall

include internal procedures and policies specifically designed to ensure that the Licensee's Station files all required applications in a timely manner and otherwise maintains full, complete, and up to date information contained therein. The Operating Procedures shall also include a compliance checklist that describes the steps that a Covered Employee must follow to ensure compliance with the Technical File Rules.

- (c) be reviewed at least every six months by the Compliance Officer and revised as necessary to ensure that the information set forth therein remains current, complete, accurate, and effective. The Compliance Officer shall distribute any revisions to the Compliance Manual within five (5) business days of any updates to all Covered Employees.

20. **Compliance Training Program.** The Licensee shall establish and implement a Compliance Training Program on compliance with the Technical Filing Rules. As part of the Compliance Training Program, Covered Employees shall be advised of the Licensee's obligation to provide an annual Compliance Report and report noncompliance as required by Paragraphs 21 and 22 and shall be instructed on how to report noncompliance to the Compliance Officer. All Covered Employees shall receive initial training under the Compliance Training Program within ninety (90) calendar days after the Effective Date, except that any person who becomes a Covered Employee at any time after such initial training is provided shall receive training under the Compliance Training Program within thirty (30) calendar days after the date they become a Covered Employee. The Compliance Officer shall provide the Compliance Training Program to all Covered Employees on at least an annual basis, and shall review and revise the Compliance Training Program, as necessary, to ensure that it remains current, complete, and effective.

21. **Compliance Report.** The Licensee shall submit a Compliance Report to the Bureau one year after the Effective Date and annually thereafter on the anniversary of the Effective Date through the Termination Date as defined in Paragraph 23. The Compliance Report shall contain a certification of compliance with the Technical Filing Rules during the previous year. The Compliance Report shall include a certification by the Compliance Officer stating that the Compliance Officer has personal knowledge that Licensee: (i) has established and implemented the Compliance Plan; (ii) has utilized the Operating Procedures since the implementation of the Compliance Plan; and (iii) is not aware of any instances of noncompliance with the terms and conditions of this Consent Decree beyond those reported under Paragraph 22. For any instance of noncompliance, including those already reported to the Bureau under Paragraph 22, the Compliance Officer must explain (i) the steps that Licensee has taken or will take to remedy such noncompliance, including the schedule on which proposed remedial actions will be taken, and (ii) the steps that have or will be taken to prevent the recurrence of any such noncompliance, including the schedule on which such preventative action will be taken. The Compliance Officer's certification must comply with section 1.16 of the Rules and be subscribed to as true under penalty of perjury.²¹ The Bureau may, within its sole discretion, require the Licensee to submit documentation or material that supports the certification being provided by the Compliance Officer. The Compliance Report shall be submitted to Division staff at VideoCompliance@fcc.gov.

22. **Reporting Noncompliance.** The Licensee shall report any instance of noncompliance with the Rules, and any instance of noncompliance with any applicable terms and conditions of this Consent Decree within ten (10) calendar days after discovery of such noncompliance. Such reports shall include a detailed explanation of: (i) each such instance of noncompliance, including the date(s) the noncompliance occurred; (ii) the steps that the Licensee has taken or will take to remedy such noncompliance, including the schedule on which such actions will be taken; and (iii) the steps that the Licensee has taken or will take to prevent the recurrence of any such noncompliance, including the schedule on which such preventative action will be taken. All reports of noncompliance shall be submitted to Division staff at VideoCompliance@fcc.gov.

23. **Termination Date.** The obligations to which the Licensee is subject pursuant to this Consent Decree shall terminate following grant of the Station's next license renewal application

²¹ 47 CFR § 1.16.

(“Termination Date”), provided the Bureau is satisfied that the Licensee has demonstrated substantial compliance with its obligations. If the Bureau is not satisfied that the Licensee has demonstrated substantial compliance with its obligations, the Bureau may, within its sole discretion and authority, extend the Termination Date for an additional term.

24. **Placement of Consent Decree in Online Public Inspection File.** Within 30 days of the Effective Date the Licensee shall place in the Station’s public inspection file (OPIF) a copy of this Consent Decree in the folder entitled “FCC Investigations or Complaints.” The Consent Decree shall be retained in the Station’s OPIF until grant of the Station’s next license renewal application.²²

25. **Waivers.** As of the Effective Date, the Licensee waives any and all rights it may have to seek administrative or judicial reconsideration, review, appeal, or stay, or to otherwise challenge or contest the validity of this Consent Decree and the Adopting Order. The Licensee shall retain the right to challenge Commission interpretation of the Consent Decree or any terms contained herein. If either Party (or the United States on behalf of the Commission) brings a judicial action to enforce the terms of the Consent Decree or Adopting Order, neither the Licensee nor the Commission shall contest the validity of the Consent Decree or the Adopting Order, and the Licensee shall waive any statutory right to a trial *de novo*. The Licensee hereby agrees to waive any claims it may have under the Equal Access to Justice Act²³ relating to the matters addressed in this Consent Decree.

26. **Severability.** The Parties agree that if any of the provisions of the Consent Decree shall be held unenforceable by any court of competent jurisdiction, such unenforceability shall not render unenforceable the entire Consent Decree, but rather the entire Consent Decree shall be construed as if not containing the particular unenforceable provision or provisions, and the rights and obligations of the Parties shall be construed and enforced accordingly.

27. **Invalidity.** In the event that this Consent Decree in its entirety is rendered invalid by any court of competent jurisdiction, it shall become null and void and may not be used in any manner in any legal proceeding.

28. **Subsequent Rule or Order.** The Parties agree that if any provision of this Consent Decree conflicts with any subsequent Rule or Order adopted by the Commission (except an order specifically intended to revise the terms of this Consent Decree to which the Licensee does not expressly consent) that provision will be superseded by such Rule or Order.

29. **Successors and Assigns.** The Licensee agrees that the provisions of this Consent Decree shall be binding on its successors, assigns, and transferees unless otherwise mutually agreed to by the Parties.

30. **Final Settlement.** The Parties agree and acknowledge that this Consent Decree shall constitute a final settlement between the Parties with respect to the Investigation.

31. **Modifications.** This Consent Decree cannot be modified without the advance written consent of both Parties.

32. **Paragraph Headings.** The headings of the paragraphs in this Consent Decree are inserted for convenience only and are not intended to affect the meaning or interpretation of this Consent Decree.

33. **Authorized Representative.** Each Party represents and warrants to the other that it has full power and authority to enter into this Consent Decree. Each person signing this Consent Decree on

²² See 47 CFR § 73.3526(e)(10) (requiring stations to place in their OPIF “[m]aterial relating to FCC investigation or complaint” and instructing that such material “be retained until the applicant, permittee, or licensee is notified in writing that the material may be discarded”).

²³ See 5 U.S.C. § 504; 47 CFR §§ 1.1501-1.1530.

behalf of a Party hereby represents that he or she is fully authorized by the Party to execute this Consent Decree and to bind the Party to its terms and conditions.

34. **Counterparts.** This Consent Decree may be signed in counterparts (including electronically or by facsimile). Each counterpart, when executed and delivered, shall be an original, and all of the counterparts together shall constitute one and the same fully executed instrument.

Federal Communications Commission

By:

Barbara A. Kreisman
Chief, Video Division
Media Bureau

November 19, 2024

CCB License, LLC

By:

DuJuan McCoy, CEO
CCB License, LLC

November 18, 2024



PUBLIC NOTICE

Federal Communications Commission
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Washington, DC 20554

News Media Information 202-418-0500
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DA 24-1136

Released: November 15, 2024

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU AND WIRELESS TELECOMMUNICATIONS BUREAU FURTHER MODIFY TEMPORARY FILING FREEZE ON THE ACCEPTANCE AND PROCESSING OF CERTAIN PART 90 APPLICATIONS FOR THE 4940–4990 MHZ BAND

WP Docket No. 07-100

Consistent with the Commission’s October 18, 2024 decision in the *Eighth Report and Order* in this proceeding, the Public Safety and Homeland Security Bureau and the Wireless Telecommunications Bureau (Bureaus) hereby modify the temporary filing freeze on the acceptance and processing of certain applications in the 4940–4990 MHz (4.9 GHz) band.¹ The Bureaus initially imposed the freeze on September 8, 2020, to maintain a stable spectral environment in the 4.9 GHz band while the Commission considered changes to the service rules governing operations in the band.² Specifically, the Bureaus suspended the acceptance of: (1) applications for new licenses authorizing operations of any kind (geographic area or permanent fixed site operations) in the 4.9 GHz band; and (2) applications to modify existing licenses authorizing operations in the 4.9 GHz band, unless otherwise excepted.³

The Bureaus subsequently modified the freeze on October 21, 2021, pursuant to the *2021 Order on Reconsideration*,⁴ to allow those with existing 4.9 GHz licenses to modify those licenses, whether for permanent fixed sites or geographic areas, as permitted under the rules.⁵ Specifically, the Bureaus accepted: (1) applications filed by incumbent 4.9 GHz licensees to modify existing licenses in the 4.9 GHz band, whether for permanent fixed sites or geographic areas; and (2) applications filed by incumbent 4.9 GHz licensees for new permanent fixed site operations located within their licensed service areas.⁶

¹ *Amendment of Part 90 of the Commission’s Rules*, WP Docket No. 07-100, Eighth Report and Order, FCC 24-114 (2024) (*Eighth Report and Order*).

² *Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Announce Temporary Filing Freeze on the Acceptance and Processing of Certain Part 90 Applications for the 4940–4990 MHz Band*, WP Docket No. 07-100, Public Notice, 35 FCC Rcd 9522 (PSHSB/WTB 2020) (*Freeze Public Notice*) (regarding affected services and spectrum the freeze applies “only to applications pertaining to licenses in the Private Mobile Radio Service, specifically those for the Public Safety 4940–4990 MHz Band (radio service code PA)”).

³ *Id.* at 9522–23 (listing “affected applications” subject to the freeze and “excepted applications” not subject to the freeze).

⁴ *Amendment of Part 90 of the Commission’s Rules*, WP Docket No. 07-100, Order on Reconsideration and Eighth Further Notice of Proposed Rulemaking, 36 FCC Rcd 15032, 15036, para. 9 (2021) (*2021 Order on Reconsideration or Eighth Further Notice*).

⁵ *Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Modify Temporary Filing Freeze on the Acceptance and Processing of Certain Part 90 Applications for the 4940–4990 MHz Band*, WP Docket No. 07-100, Public Notice, 36 FCC Rcd 15185 (PSHSB/WTB 2021) (*First Freeze Modification Public Notice*).

⁶ *Id.* at 15186 (listing “excepted applications” not subject to the freeze).

In the *Seventh Report and Order*, the Commission established a comprehensive and coordinated nationwide approach to managing the 4.9 GHz band.⁷ As part of this approach, the Commission added a Band Manager,⁸ and modified its rules to allow for the collection of granular data on public safety operations in the 4.9 GHz band.⁹ The Commission directed the Bureaus to make any necessary enhancements to ULS, to obtain any necessary review under the Paperwork Reduction Act, and to announce by public notice when ULS is prepared to accept the more granular data on public safety operations in the 4.9 GHz band.¹⁰ In addition, pending resolution of issues raised in the *Ninth Further Notice*, the Commission retained the freeze for all applicants who are not already 4.9 GHz licensees.¹¹

In the *Eighth Report and Order*, the Commission determined that the 4.9 GHz Band Manager, once selected, will be eligible to apply for a nationwide overlay license and authorized to enter into a sharing agreement with the First Responder Network Authority (FirstNet).¹² In connection with this decision, the Commission reinstated the freeze as it applies to incumbent licensees that was lifted pursuant to the *2021 Order on Reconsideration* and the subsequent *First Freeze Modification Public Notice*.¹³ The Commission further directed the Bureaus to implement this change to the freeze within 30 days of adoption of the *Eighth Report and Order*.¹⁴ The Commission clarified that this freeze shall not apply to any necessary filings associated with issuance of the Band Manager's nationwide overlay license.¹⁵

Accordingly, and effective immediately, we hereby modify the 4.9 GHz band licensing freeze in two ways. First, we remove from the list of "excepted applications" certain applications that the *Freeze Modification Public Notice* previously excepted, and we reincorporate them into the list of "affected applications:"

- (1) applications filed by incumbent 4.9 GHz licensees to modify existing licenses in the 4.9 GHz band, whether for permanent fixed sites or geographic areas; and
- (2) applications filed by incumbent 4.9 GHz licensees for new permanent fixed site operations located within their licensed service areas.

⁷ See *Amendment of Part 90 of the Commission's Rules*, WP 07-100, *Seventh Report and Order* and *Ninth Further Notice of Proposed Rulemaking*, 38 FCC Rcd 704 (2023) (*Seventh Report and Order* or *Ninth Further Notice*).

⁸ See *id.* at 711, para. 20.

⁹ See *id.* at 717–18, paras. 33–34; 47 CFR § 90.1207(f).

¹⁰ See *Seventh Report and Order*, 38 FCC Rcd at 717, para. 34. In the *Eighth Report and Order*, the Commission announced newly created radio service codes PB (public safety licensees performing base/mobile, mobile-only or temporary fixed operations) and PF (public safety licensees operating fixed links) associated with the granular data collection. *Eighth Report and Order*, FCC 24-114, at 37, para. 58. As directed by the Commission in the *Seventh Report and Order*, the Bureaus will release a public notice announcing when ULS is prepared to accept the more granular data on public safety operations in the 4.9 GHz band. See *Seventh Report and Order*, 38 FCC Rcd at 717, para. 34.

¹¹ See *Seventh Report and Order*, 38 FCC Rcd at 731, para. 70.

¹² *Eighth Report and Order*, FCC 24-114, at 2, para. 1.

¹³ *Id.* at 36, para. 55. In the *Eighth Report and Order*, the Commission retained the freeze for all applicants who are not already 4.9 GHz licensees because "issuing licenses to new entrants before the Commission has collected granular data from incumbent licensees would further complicate the spectrum environment and undermine the Band Manager's flexibility to provide for efficient use of this spectrum." *Id.* at 35–36, paras. 53, 55; see also *First Freeze Modification Public Notice*.

¹⁴ *Eighth Report and Order*, FCC 24-114, at 36, para. 55.

¹⁵ *Id.* at 36, para. 55. The freeze applies to affected applications unless otherwise excepted below, and unless incumbents are filing certain types of applications to comply with the granular data collection.

Second, we add certain other applications to the list of “excepted applications:”

- (1) applications with radio service codes PB and PF filed by incumbent 4.9 GHz licensees that reflect *existing* authorized use of the 4.9 GHz band in accordance with the Commission’s collection of granular licensing data pursuant to section 90.1207(e)–(g);¹⁶ and
- (2) any necessary filings associated with issuance of the Band Manager’s nationwide overlay license.

Because this is the second modification of the freeze, for clarity, we provide the complete, updated lists of affected applications and excepted applications below.

Affected services and spectrum. The freeze modified by this Public Notice applies only to applications pertaining to licenses in the Private Mobile Radio Service, specifically those for the Public Safety 4940–4990 MHz Band (radio service codes PA, PB, and PF).

Affected applications. Effective immediately and until further notice, the Bureaus will not accept: (1) an application, whether filed by an incumbent 4.9 GHz licensee or filed by an entity who does not already have existing 4.9 GHz band license, for a new license authorizing operations of any kind (geographic area or permanent fixed site operations) in the 4.9 GHz band, except as provided for below; or (2) an application to modify an existing license authorizing operations in the 4.9 GHz band, whether for permanent fixed sites or geographic areas, except as provided for below. Any such applications that are filed on or after the date of this Public Notice will be dismissed without prejudice. Pending applications that remain subject to the freeze, as well as future applications that are subject to the freeze, will be either dismissed without prejudice, or if accompanied by a waiver request, reviewed pursuant to our waiver standard as appropriate.¹⁷ Notwithstanding the implementation of this freeze, a geographic area licensee may continue to deploy mobile units, base stations, and temporary fixed stations within its license area, as such actions do not require the filing of an application with the Commission.¹⁸ The Bureaus retain jurisdiction to manage and implement the freeze in the future.¹⁹

Excepted applications. This freeze does not apply to applications that would not destabilize the licensing landscape, including: (1) applications to renew existing licenses without modification; (2) applications that seek to modify existing licenses by deleting frequencies or fixed sites; (3) applications that seek to modify existing licenses by changing technical parameters in a manner that does not expand the station’s spectral or geographic coverage, such as decreases in bandwidth, power level, or antenna height; (4) applications to assign or transfer licenses; (5) notices of construction for permanent fixed site licenses or consummation of assignments or transfers; (6) requests for extensions of time to construct or consummate previously granted assignment or transfer applications; (7) applications to cancel licenses; (8) applications for special temporary authority for short-term operations; and (9) applications from geographic area licensees that require individual licensing under rule section 90.1207(b);²⁰ (10) applications with radio service codes PB and PF filed by incumbent 4.9 GHz licensees that reflect *existing* authorized use of the 4.9 GHz band in accordance with the Commission’s collection of granular licensing data pursuant to section 90.1207(e)–(g); and (11) any necessary filings associated with issuance of the Band Manager’s nationwide overlay license.

¹⁶ 47 CFR § 90.1207(e)–(g).

¹⁷ 47 CFR § 1.925; *see also Freeze Public Notice*, 35 FCC Rcd at 9523.

¹⁸ *See* 47 CFR § 90.1207(b), (c).

¹⁹ *Eighth Report and Order*, FCC 24-114, at 36, para. 55.

²⁰ 47 CFR § 90.1207(b)(1)(i)–(iii) (Commission rules state subject to section 90.1209, a 4940–4990 MHz band license gives the licensee authority to construct and operate any number of base stations anywhere within the area authorized by the license, but a station is required to be individually licensed if “(i) International agreements require coordination; (ii) Submission of an environmental assessment is required under § 1.1307 of this chapter; or (iii) The station would affect areas identified in § 1.924 of this chapter.”).

Modification of the freeze is procedural and, therefore, not subject to the notice and comment and effective date requirements of the Administrative Procedure Act.²¹ We find good cause for not delaying the effective date of the freeze modification pending publication of this Public Notice in the Federal Register, because delay would undermine the purpose of the modification. Specifically, the Commission stated that its decision to reinstate the freeze on expansions, additions to, or modification of other technical parameters applicable to incumbent licensees is necessary in light of its decision to enable expanded public safety access to the band through the Band Manager's nationwide overlay license and a sharing agreement with FirstNet.²²

Waiver Requests. Applicants continue to have the option to submit requests for waiver of this freeze on a case-by-case basis pursuant to section 1.925 of the Commission's rules.²³ Any waiver request would need to demonstrate why it is justified by special circumstances and consistent with the public interest, including the policies behind the rules that may be applicable to the band. While we will review each waiver request on a case-by-case basis, we encourage applicants to document their state or local authority to operate, and to address the existing use of 4.9 GHz band spectrum by other state or local entities in the same jurisdiction.

Additional Information. For further information regarding this Public Notice, please contact Thomas Eng, Public Safety and Homeland Security Bureau, at (202) 418-0019 or Thomas.Eng@fcc.gov; or Halie Peacher, Mobility Division, Wireless Telecommunications Bureau at (202) 418-0514 or Halie.Peacher@fcc.gov.

Action by the Public Safety and Homeland Security Bureau and the Wireless Telecommunications Bureau.

-FCC-

²¹ See 5 U.S.C. § 553(b)(A), (d); *see also, e.g., Neighborhood TV Co. v. FCC*, 742 F.2d 629, 637–38 (D.C. Cir. 1984) (holding that the Commission's filing freeze is a procedural rule not subject to the notice and comment requirements of the Administrative Procedure Act); *Buckeye Cablevision, Inc. v. United States*, 438 F.2d 948, 952–53 (6th Cir. 1971); *Kessler v. FCC*, 326 F.2d 673, 680–82 (D.C. Cir. 1963).

²² *Eighth Report and Order*, FCC 24-114, at 36, para. 54.

²³ 47 CFR § 1.925; *see also Freeze Public Notice*, 35 FCC Rcd at 9523.



**Federal Communications Commission
Washington, D.C. 20554**

November 14, 2024

DA 24-1138

SMALL ENTITY COMPLIANCE GUIDE

**Amendments to Part 9 of the Commission's Rules Concerning Facilitating Implementation of
Next Generation 911 Services (NG911)**

FCC 24-78

PS Docket Nos. 21-479, 18-64

Released July 19, 2024

In accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide in the above referenced docket and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule, or it may clarify or update the text of the Guide. Please direct comments and recommendations, or requests for further assistance, to the FCC's Consumer Center:

1-888-CALL-FCC (1-888-225-5322)

Videophone: 1-844-4-FCC-ASL (1-844-432-2275)

Fax: 1-866-418-0232

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I. OBJECTIVES OF THE PROCEEDING

In the *Facilitating Implementation of Next Generation 911 Services (NG911) Report and Order (Report and Order)*,¹ the Commission took steps that will advance the nationwide transition to Next Generation 911 (NG911). The Commission adopted rules that will require wireline providers, Commercial Mobile Radio Service (CMRS) providers, covered text providers, providers of interconnected Voice over Internet Protocol (VoIP) services, and providers of Internet-based Telecommunications Relay Service (Internet-based TRS) (collectively “originating service providers” or “OSPs”) to take actions to start or continue the transition to NG911 in coordination with 911 Authorities.²

Like communications networks generally, dedicated 911 networks are evolving from Time Division Multiplexing (TDM)-based circuit-switched architectures to Internet Protocol (IP)-based architectures. With the transition to NG911, legacy 911 networks will be replaced by IP-based technologies and applications, which provide new capabilities and improved interoperability and system resilience. Some states have experienced delays in communications providers connecting to these IP-based NG911 networks, a factor slowing the transition to NG911. In addition, as a result of these delays, state and local 911 authorities incur prolonged costs because of the need to maintain both legacy and IP networks during the transition. Managing 911 traffic on both legacy and IP networks at the same time may also result in increased vulnerability and risk of 911 outages. The rules adopted in the *Report and Order* help resolve the causes of such delays by presumptively addressing cost allocation between OSPs and 911 Authorities for implementation of NG911, while allowing a 911 Authority to adopt an alternative cost arrangement. Thus, the rules create a consistent NG911 transition framework at the national level, while also affording flexibility to 911 Authorities to modify the transition framework at the state, regional, local, territorial, or Tribal level. The rules implement a two-phased approach to guide the transition to NG911. Each phase is initiated by a 911 Authority submitting a valid request to OSPs, within the jurisdiction where the 911 Authority is located, for the OSPs to comply with the rules’ NG911 requirements.

The rules adopted in the *Report and Order* are intended to expedite the NG911 transition and help ensure that the nation’s 911 system functions effectively and reliably, with advanced capabilities. NG911 will facilitate interoperability and system resilience, improve connections between 911 call centers, and support the transmission of text, photos, videos, and data to public safety answering points (PSAPs) by individuals seeking emergency assistance.

II. COMPLIANCE REQUIREMENTS

The new NG911 requirements for OSPs are codified in part 9, subpart J (47 CFR §§ 9.27–9.34). To facilitate the implementation of NG911, the following subsections provide information regarding the applicability and compliance obligations of subpart J: § 9.27 Applicability, scope, and purpose; § 9.28 Definitions; § 9.29 Next Generation 911 transition requirements; § 9.30 Next Generation 911 implementation deadlines; § 9.31 Valid requests for delivery of 911 traffic in Internet Protocol-based formats; § 9.32 Designation of NG911 Delivery Points; § 9.33 Cost responsibilities; and § 9.34 Modification of NG911 requirements by mutual agreement. The pertinent compliance requirements are detailed below.

¹ *Facilitating Implementation of Next Generation 911 Services (NG911); Location-Based Routing for 911 Calls*, PS Docket Nos. 21-479 and 18-64, Report and Order, FCC 24-78, 2024 WL 3507091 (July 19, 2024) (*Report and Order*).

² 911 Authority” is “[a] State, territorial, regional, Tribal, or local governmental entity that operates or has administrative authority over all or any aspect of a communications network for the receipt of 911 traffic at NG911 Delivery Points and for the transmission of such traffic from that point to PSAPs.” 47 CFR § 9.28.

A. Applicability, Scope, and Purpose (47 CFR § 9.27)

A wireline, CMRS, covered text, VoIP, or Internet-based TRS provider (collectively OSPs) will be considered to have delivered 911 traffic to a PSAP if the OSP's 911 traffic is delivered to NG911 Delivery Points designated by the 911 Authority and the other requirements in subpart J are satisfied.

B. NG911 Requirements (47 CFR §§ 9.29–9.34)

NG911 Transition Requirements for OSPs (47 CFR § 9.29)

The rules adopt a two-phase approach for NG911 transition requirements. Each phase is initiated by a 911 Authority submitting a valid request to OSPs to comply with the NG911 requirements. OSPs must comply with the NG911 rules for the relevant phase by the deadlines described in this section.

- **Phase 1 Requirements (47 CFR § 9.29(a))**

In Phase 1 of the transition, OSPs must deliver 911 traffic in IP format to NG911 Delivery Points designated by 911 Authorities, such as an Emergency Services IP network (ESInet) or similar designated point. All Phase 1 requirements must be completed in order to progress to Phase 2. Upon receipt of a 911 Authority's Phase 1 valid request, an OSP must:

- (1) Deliver all 911 traffic bound for the relevant PSAPs in the IP-based Session Initiation Protocol (SIP) format requested by the 911 Authority;
- (2) Obtain and deliver 911 traffic to enable the ESInet and other NG911 network facilities to transmit all 911 traffic to the destination PSAP;
- (3) Deliver all such 911 traffic to NG911 Delivery Points designated by the 911 Authority pursuant to section 9.32 of the Commission's rules; and
- (4) Complete connectivity testing to confirm that the 911 Authority receives 911 traffic in the IP-based SIP format requested by the 911 Authority.

- **Phase 2 Requirements (47 CFR § 9.29(b))**

In Phase 2 of the transition, OSPs must deliver traffic in fully compliant NG911 format to include information that enables routing to the correct PSAP, as well as caller location information, in the IP SIP header of the IP-delivered 911 call. Upon receipt of a 911 Authority's Phase 2 valid request, an OSP must:

- (1) Have completed all of the Phase 1 requirements;
- (2) Deliver all 911 traffic bound for the relevant PSAPs to NG911 Delivery Points designated by the 911 Authority pursuant to section 9.32 of the Commission's rules in the IP-based SIP format that complies with NG911 commonly accepted standards identified by the 911 Authority, including having location information embedded in the call signaling using Presence Information Data Format – Location Object (PIDF-LO) or the functional equivalent;
- (3) Install and put into operation all equipment, software applications, and other infrastructure, or acquire all services, necessary to use a LIS or its functional equivalent for the verification of its customer location information and records; and

(4) Complete connectivity testing to confirm that the 911 Authority receives 911 traffic in the IP-based SIP format that complies with the identified NG911 commonly accepted standards.

NG911 Implementation Deadlines for OSPs (47 CFR § 9.30)

The implementation deadlines for the NG911 requirements depend upon the type of OSP. Non-rural wireline providers, nationwide CMRS providers, covered text providers, and interconnected VoIP providers have the same compliance timeframes. Similarly, Rural Incumbent Local Exchange Carriers (RLECs), non-nationwide CMRS providers, and Internet-based TRS providers have the same compliance timeframes.

- Non-rural wireline providers, nationwide CMRS providers, covered text providers, and interconnected VoIP providers are required to:
 - Comply with the Phase 1 requirements by six months after receiving a Phase 1 valid request from a 911 Authority; and
 - Comply with the Phase 2 requirements by six months after receiving a Phase 2 valid request from a 911 Authority.
 - If the 911 Authority's Phase 2 valid request is made before the OSP is compliant with the Phase 1 requirements or is made before the Phase 1 implementation deadline, the OSP must comply with the Phase 2 requirements six months after the earlier of (A) the date when the OSP is compliant with the Phase 1 requirements or (B) six months after receiving a Phase 1 valid request from a 911 Authority.
- RLECs, non-nationwide CMRS providers, and Internet-based TRS providers are required to:
 - Comply with the Phase 1 requirements by 12 months after receiving a Phase 1 valid request from a 911 Authority; and
 - Comply with the Phase 2 requirements by 12 months after receiving a Phase 2 valid request from a 911 Authority.
 - If the 911 Authority's Phase 2 valid request is made before the OSP is compliant with the Phase 1 requirements or is made before the Phase 1 implementation deadline, the OSP must comply with the Phase 2 requirements 12 months after the earlier of (A) the date when the OSP is compliant with the Phase 1 requirements or (B) 12 months after receiving a Phase 1 valid request from a 911 Authority.

Valid Requests for Delivery of 911 Traffic in IP-based Formats (47 CFR § 9.31)

Each of the two phases of the NG911 requirements is initiated by a 911 Authority submitting a valid request to the OSP(s) to comply with the NG911 requirements. The following rules set forth what constitutes a valid request for each phase, and steps for how an OSP may challenge a 911 Authority's request.

- **Phase 1 Valid Request (47 CFR § 9.31(a))**

To make a Phase 1 valid request, a 911 Authority must:

- (1) Certify that it has installed and placed into operation all of the infrastructure needed to receive 911 traffic in an IP-based SIP format and transmit such traffic to the PSAP(s) connected to it;
- (2) Certify that it has obtained commitments from any ESInet provider, NGCS provider, and/or call handling equipment provider needed to facilitate and complete connectivity testing within the compliance timeframe applicable to the OSPs;
- (3) Certify that it is authorized to submit a valid request for the NG911 network to receive 911 traffic in an IP-based SIP format;
- (4) Identify the NG911 Delivery Point(s) designated in section 9.32 of the Commission's rules; and
- (5) Provide notification to the OSP that includes the information and certifications set forth in section 9.31(a)(1)–(4) of the Commission's rules. Notification by the 911 Authority via a registry made available by the Commission in accordance with requirements established in connection therewith, or any other written notification reasonably acceptable to the OSP, shall constitute sufficient notification for purposes of this paragraph.

- **Phase 2 Valid Request (47 CFR § 9.31(b))**

To make a Phase 2 valid request, a 911 Authority must:

- (1) Certify that it has installed and placed into operation all of the infrastructure needed to receive 911 traffic in an IP-based SIP format that complies with NG911 commonly accepted standards and transmit such traffic to the PSAP(s) connected to it;
- (2) Certify that its ESInet is connected to a fully functioning NGCS network that can provide access to a Location Validation Function and interface with a Location Information Server or its functional equivalent provided by the OSP;
- (3) Certify that it has obtained commitments from any ESInet provider, NGCS provider, and/or call handling equipment provider needed to facilitate and complete connectivity testing within the compliance timeframe applicable to the OSP;
- (4) Certify that it is authorized to submit a valid request for the NG911 network to receive 911 traffic in an IP-based SIP format that complies with NG911 commonly accepted standards;
- (5) Identify the NG911 Delivery Point(s) designated in section 9.32 of the Commission's rules (detailed below); and
- (6) Provide notification to the OSP that includes the information and certifications listed in 1 through 5 above for valid a Phase 2 request. Notification by the 911 Authority via a registry made available by the Commission in accordance with requirements established in connection therewith, or any other written notification reasonably acceptable to the OSP, shall constitute sufficient notification for compliance purposes.

- **OSP's Petitions Challenging 911 Authorities' Requests (47 CFR § 9.31(c))**

Within 60 days of the receipt of a Phase 1 or 2 request from a 911 Authority, an OSP may submit a petition to the FCC's Public Safety and Homeland Security Bureau (PSHSB) asserting that the 911 Authority's request does not satisfy a condition for a Phase 1 or Phase 2 valid request. PSHSB may review the petition and determine whether to pause the implementation deadline for that OSP, affirm the request of the 911 Authority as valid, or take other action as necessary.

- (1) The petition process shall be subject to the procedural requirements set forth in sections 1.41, 1.45, and 1.47 of the Commission's rules.
- (2) The petition must be in the form of an affidavit signed by a director or officer of the OSP, documenting:
 - (i) The basis for the OSP's assertion that the 911 Authority's request does not satisfy one or more of the conditions for a Phase 1 or Phase 2 valid request;
 - (ii) Each of the specific steps the OSP has taken to implement the Phase 1 requirements or the Phase 2 requirements;
 - (iii) The basis for the OSP's assertion that it cannot make further implementation efforts until the 911 Authority satisfies the conditions for a Phase 1 or Phase 2 valid request; and
 - (iv) The specific steps that remain to be completed by the OSP and, to the extent known, the 911 Authority or other parties before the OSP can implement the Phase 1 or Phase 2 requirements.
- (3) All affidavits must be correct. The OSP's director or officer who signs the affidavit has the duty to personally determine that the affidavit is correct. If the affidavit is incorrect, he or she, as well as the OSP, may be subject to enforcement action.
- (4) An OSP may not file an inadequate or incomplete petition. If an OSP's petition is inadequate and/or incomplete and the OSP has not met its obligations at the time of the relevant deadline, the OSP may be considered noncompliant with the applicable rules as if the petition had not been filed.
- (5) An OSP that challenges a 911 Authority's valid request must describe all steps taken toward implementing the Phase 1 requirements or the Phase 2 requirements that are not dependent on the readiness of the 911 Authority.
- (6) The 911 Authority may file an opposition to the OSP's petition, and the OSP may file a reply to the opposition in accordance with section 1.45 of the Commission's rules. A copy of the document (petition, opposition, or reply) must be served on the other party (911 Authority or OSP) at the time of the filing in accordance with section 1.47 of the Commission's rules.

Designation of NG911 Delivery Points (47 CFR § 9.32)

Under the rules, a 911 Authority may designate one or more NG911 Delivery Points where OSPs must deliver 911 traffic to the ESInet pursuant to section 9.29 of the Commission's rules, provided that each NG911 Delivery Point is located in the same state or territory as the PSAPs connected to the ESInet, and the 911 Authority or the ESInet provides facilities at the input to the NG911 Delivery Point to receive 911 traffic in accordance with the applicable phase (i.e., Phase 1 or Phase 2).

Cost Responsibilities (47 CFR § 9.33)

OSPs are responsible for the costs of complying with the applicable Phase 1 and Phase 2 requirements assigned to them, including the costs of:

- (1) Transmitting 911 traffic to NG911 Delivery Points;
- (2) Delivering 911 traffic in the required IP-based SIP format at each phase, including the cost of IP conversion using a Legacy Network Gateway or the functional equivalent, if necessary; and
- (3) Obtaining and delivering location and routing information using Automatic Location Information (ALI)/Automatic Number Identification (ANI) databases, selective routers, or other means at Phase 1, and using LIS functionalities or other equivalent means at Phase 2.

OSPs are not responsible for the costs of furnishing, maintaining, or upgrading NG911 Delivery Points, ESInets, NGCS networks, or PSAPs.

Modification of NG911 Requirements by Mutual Agreement (47 CFR § 9.34)

911 Authorities and OSPs can establish terms different from the NG911 requirements in sections 9.29–9.33 of the Commission’s rules by mutual consent.

- If a 911 Authority and an OSP enter into such an agreement, the OSP must notify the FCC of the agreement within 30 days of the date when the agreement is executed.
- The notification must identify with specificity each requirement in the rules that is impacted by the agreement, and must state with specificity how the terms of the agreement differ from each impacted rule.
- The same notification is required if a 911 Authority and OSP amend, modify, or terminate their agreement.

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The *Report and Order* contains new or additional reporting and recordkeeping requirements for 911 Authorities and OSPs in sections 9.31(a)–(c) and 9.34(a)–(b) of the Commission’s rules.³

- For the valid request process, a 911 Authority is required to provide certain information and certify its technology readiness suitable to the appropriate phase via written notification transmitted to the OSPs or via an FCC registry.
- The Commission permits OSPs to challenge 911 Authorities’ requests for Phase 1 and/or 2 using a formal petition process that includes submission of a petition that meets certain requirements to the Commission.
- As part of the transition to NG911, OSPs and 911 Authorities have the flexibility to agree to terms different from the NG911 requirements, as well as to amend, modify, or terminate their

³ The FCC directed PSHSB to set up and maintain a centralized, voluntary electronic registry for Phase 1 and Phase 2 requests by 911 Authorities. 911 Authorities have the option of using the voluntary electronic registry to notify OSPs of Phase 1 and Phase 2 requests, instead of or in addition to notifying OSPs directly, and OSPs are responsible for monitoring this central registry for any such requests.

agreement(s). If an OSP enters into such an agreement, Commission notification detailing the terms and conditions as described above is required within 30 days of the execution of the agreement, or within 30 days of the agreement being amended, modified, or terminated.

IV. IMPLEMENTATION DATE

The effective date of the rules in part 9, subpart J is November 25, 2024. The rules in 47 CFR §§ 9.31(a)–(c) and 9.34(a)–(b) contain recordkeeping and reporting requirements that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act. Compliance with 47 CFR §§ 9.31(a)–(c) and 9.34(a)–(b) of the rules will not be required until after OMB approval. The Commission will publish a notice in the Federal Register announcing OMB approval and the relevant compliance date(s).

V. INTERNET LINKS

A copy of the *Report and Order* is available at:

<https://www.fcc.gov/document/fcc-takes-action-expedite-transition-next-generation-911-0>.

A copy of the *Erratum* is available at:

<https://www.fcc.gov/ecfs/search/search-filings/filing/109050800610437>.

A copy of the *Second Erratum* is available at:

<https://www.fcc.gov/ecfs/search/search-filings/filing/1003168980251>.

A copy of the Federal Register summary of the *Report and Order* is available at:

<https://www.federalregister.gov/documents/2024/09/24/2024-18603/facilitating-implementation-of-next-generation-911-services-ng911-location-based-routing-for>.

A copy of the Federal Register Correction document is available at:

<https://www.federalregister.gov/documents/2024/10/17/2024-23894/facilitating-implementation-of-next-generation-911-services-ng911-location-based-routing-for>.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of

DISH Wireless L.L.C., an indirect subsidiary of
EchoStar CorporationFile No.: EB-SED-23-00034905
CD Acct. No.: 202532100001
FRN: 0027852722

ORDER

Adopted: November 21, 2024**Released: November 21, 2024**

By the Acting Chief, Enforcement Bureau:

1. The Enforcement Bureau of the Federal Communications Commission (Commission) has entered into a Consent Decree to resolve its investigation into whether DISH Wireless L.L.C., an indirect subsidiary of EchoStar Corporation (collectively, DISH),¹ complied with its obligation to deploy vertical location technology—either dispatchable location or z-axis information—for wireless 911 calls in each of the top 25 cellular market areas where it launched 5G Voice over New Radio (VoNR) service.² Failure to deploy 911 vertical location technology limits first responders' ability to locate callers in emergencies and prevents the Commission from fulfilling its mission with regard to public health and safety. To settle this matter, DISH will pay a \$100,000 civil penalty.

2. After reviewing the terms of the Consent Decree and evaluating the facts before us, we find that the public interest would be served by adopting the Consent Decree and terminating the referenced investigation regarding DISH's compliance with the vertical location requirements of the 911 rules as set forth in section 9.10(i)(2)(ii) and (iii) of the Commission's rules.³

3. In the absence of material new evidence relating to this matter, we do not set for hearing the question of DISH's basic qualifications to hold or obtain any Commission license or authorization.⁴

4. Accordingly, **IT IS ORDERED** that, pursuant to section 4(i) of the Act, 47 U.S.C. § 154(i), and the authority delegated by sections 0.111 and 0.311 of the Commission's rules, 47 CFR §§ 0.111, 0.311, the attached Consent Decree **IS ADOPTED** and its terms incorporated by reference.

5. **IT IS FURTHER ORDERED** that the above-captioned matter **IS TERMINATED**.

¹ DISH Wireless L.L.C. is a limited liability company and a wholly owned, indirect subsidiary of DISH Network Corporation (DNC). DNC was a publicly held corporation incorporated under the laws of Nevada that, on December 31, 2023, merged into EchoStar Corporation. Response to Supplemental Letter of Inquiry from DISH Wireless L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau at 2 (Jan. 17, 2024) (on file in EB-SED-23-00034905).

² 47 CFR § 9.10(i)(2)(ii)-(iii).

³ *Id.*

⁴ *See id.* § 1.93(b).

6. **IT IS FURTHER ORDERED** that a copy of this Order and Consent Decree shall be sent by first class mail and certified mail, return receipt requested, to Alison Minea, Vice President and Associate General Counsel, Regulatory Affairs, DISH Wireless L.L.C., 5701 S. Sante Fe Drive, Littleton, Colorado 80120.

FEDERAL COMMUNICATIONS COMMISSION

Peter S. Hyun
Acting Chief
Enforcement Bureau

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

DISH Wireless L.L.C., indirect subsidiary of
EchoStar Corporation

File No.: EB-SED-23-00034905
CD Acct. No.: 202532100001
FRN: 0027852722

CONSENT DECREE

1. The Enforcement Bureau (Bureau) of the Federal Communications Commission (Commission or FCC) and DISH Wireless L.L.C., an indirect subsidiary of EchoStar Corporation (collectively, DISH), by their authorized representatives, hereby enter into this Consent Decree for the purpose of terminating the Bureau's Investigation into whether DISH violated section 9.10(i)(2)(ii) and (iii) of the Rules. Those rules required Commercial Mobile Radio Service (CMRS) providers to deploy dispatchable location or z-axis technology in the top 25 cellular market areas (CMAs) and to submit a compliance certification within 60 days after each required deployment.¹ To resolve this matter, DISH agrees to the terms and conditions below and to pay a \$100,000 civil penalty.

I. DEFINITIONS

2. For the purposes of this Consent Decree, the following definitions shall apply:
- (a) "Act" means the Communications Act of 1934, as amended.²
 - (b) "Adopting Order" means an order of the Bureau adopting the terms of this Consent Decree without change, addition, deletion, or modification.
 - (c) "Bureau" means the Enforcement Bureau of the Federal Communications Commission.
 - (d) "CD Acct No." means account number 202532100001, associated with payment obligations described in paragraph 13 of this Consent Decree.
 - (e) "Commission" and "FCC" mean the Federal Communications Commission and all of its bureaus and offices.
 - (f) "Communications Laws" means collectively, the Act, the Rules, and the published and promulgated orders and decisions of the Commission to which DISH is subject by virtue of its business activities, including but not limited to section 9.10(i) of the Rules.
 - (g) "DISH" means DISH Wireless L.L.C., its indirect parent, EchoStar Corporation, and their affiliates, subsidiaries, predecessors-in-interest, and successors-in-interest.³

¹ 47 CFR § 9.10(i)(2)(ii)-(iii).

² 47 U.S.C. § 151 *et seq.*

³ DISH Wireless L.L.C. is a limited liability company and a wholly owned, indirect subsidiary of DISH Network Corporation (DNC). DNC was a publicly held corporation incorporated under the laws of Nevada that, on December 31, 2023, merged into EchoStar Corporation. Response to Supplemental Letter of Inquiry from DISH (continued....)

- (h) “Effective Date” means the date by which both the Bureau and DISH have signed the Consent Decree and the Bureau has released an Adopting Order.
- (i) “Investigation” means the investigation commenced by the Bureau in EB-SED-23-00034905 regarding whether DISH violated section 9.10(i)(2)(ii) and (iii) of the Rules.
- (j) “Parties” means DISH and the Bureau, each of which is a “Party.”
- (k) “PSAP” means Public Safety Answering Point as defined in section 9.3 of the Rules.⁴
- (l) “Rules” means the Commission’s regulations found in Title 47 of the Code of Federal Regulations.
- (m) “Test Bed” means the independently administered and transparent process to test location technologies to be used in meeting the Commission’s location accuracy requirements as described in section 9.10(i)(3)(i) of the Rules.⁵

II. BACKGROUND

3. The Commission has taken important steps to ensure that PSAPs and first responders can accurately identify the location of wireless 911 callers when a caller is indoors. In the November 2019 *Fifth Report and Order*, the Commission adopted a 911 vertical location z-axis accuracy metric, requiring Commercial Mobile Radio Service (CMRS) providers to provide PSAPs with a z-axis accuracy of 3 meters above or below the handset (i.e., plus or minus 3 meters) for 80% of wireless E911 calls made from z-axis capable devices.⁶ The Commission also required CMRS providers to deliver z-axis information to PSAPs based on Height Above Ellipsoid (HAE)⁷ and also to provide to PSAPs floor level information, where such information is available.⁸ In the July 2020 *Sixth Report and Order*, the Commission expanded the compliance options for CMRS providers choosing to deploy z-axis technology to meet the April 2021 vertical location benchmarks.⁹ Section 9.10(i)(2)(ii)(F) of the Rules required non-nationwide CMRS providers to deploy vertical location technology—either dispatchable location or z-axis information—for wireless 911 calls in each of the top 25 CMAs by April 3, 2022, and in each of the top 50 CMAs by April 3, 2024.¹⁰ Section 9.10(i)(2)(iii) of the Rules required non-nationwide CMRS providers to certify that they are in compliance with the requirement to deploy dispatchable location or z-

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Wireless L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau at 2 (Jan. 17, 2024) (on file in EB-SED-23-00034905) (January 17, 2024 Response).

⁴ See 47 CFR § 9.3.

⁵ See *id.* § 9.10(i)(3)(i).

⁶ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, 34 FCC Rcd 11592 (2019), *corrected by* Erratum (PSHSB Jan. 15, 2020) (*Fifth Report and Order*); see also 47 CFR § 9.10(i)(2)(ii)(H).

⁷ HAE represents distance (height) between any given point and a globally defined reference ellipsoid. For this purpose, HAE represents altitude between the wireless devices that makes the 911 call and a globally defined World Geodetic System 1984 (WGS-84) reference ellipsoid. See *Fifth Report and Order* at 11608, para. 32 & n.134.

⁸ *Id.*

⁹ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Sixth Report and Order and Order on Reconsideration, 35 FCC Rcd 7752, 7784, para. 73 (2020), *corrected by* Erratum (PSHSB Oct. 29, 2020) (*Sixth Report and Order*).

¹⁰ 47 CFR § 9.10(i)(2)(ii)(F).

axis technology in each top 25 CMA by June 3, 2022, and to certify that they are in compliance with the requirement to deploy dispatchable location or z-axis technology in each top 50 CMA by June 3, 2024.¹¹

4. On January 24, 2023, DISH launched 5G Voice over New Radio (VoNR) service in Dallas, Texas, and Houston, Texas, without deploying vertical location technology—neither dispatchable location nor z-axis information—for wireless 911 calls.¹² Both Dallas, Texas, and Houston, Texas, are top 25 CMAs.¹³ After launching VoNR service on January 24, 2023, in Dallas, Texas, and Houston, Texas, DISH continued to launch VoNR service in top 25 CMAs and top 50 CMAs without deploying vertical location technology.¹⁴ According to DISH, as of March 6, 2024, DISH had deployed and was making available z-axis location information to PSAPs associated with wireless 911 calls received on its voice network.¹⁵ DISH stated that, as of March 6, 2024, it had deployed both Apple’s Hybridized Emergency Location (HELO) and Google’s Enhanced Location Service (ELS) device-based hybrid (DBH) z-axis location information technologies that were validated in the Test Bed.¹⁶ On April 5, 2024, DISH certified that it was in compliance with the Commission’s vertical location accuracy requirements in each of the top 50 CMAs where DISH provided VoNR wireless services.¹⁷

5. On March 3, 2023, the Bureau issued a Letter of Inquiry (LOI) to DISH directing DISH to provide the Bureau with a sworn written response to a series of questions relating to DISH’s compliance with section 9.10(i)(2)(ii) and (iii) of the Rules, and the Bureau issued follow-up questions on May 9, 2023; August 3, 2023; October 6, 2023; January 2, 2024; January 10, 2024; March 18, 2024; and May 15, 2024.¹⁸ DISH responded to each of the Bureau’s inquiries.¹⁹

¹¹ *Id.*

¹² Response to Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, at 15 (Apr. 3, 2023) (on file in EB-SED-23-00034905) (LOI Response).

¹³ *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259, Appendix B, List of Top 50 Most Populous Cellular Market Areas (2015).

¹⁴ Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, at 5-7 (Jan. 9, 2024) (on file in EB-SED-23-00034905) (January 9, 2024 Response).

¹⁵ Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, at 2 (Mar. 25, 2024) (March 25, 2024 Response).

¹⁶ *Id.* at 2; *CTIA Stage Zb Filing (Redacted) 6-2-2022*, PS Docket No. 07-114, at 1 (June 2, 2022), <https://www.fcc.gov/ecfs/search/search-filings/filing/10602197662551> (“We are proud to report the testing validates that device-based hybrid (DBH) z-axis location technology solutions, Google’s Android Emergency Location Service (ELS) and Apple’s Hybridized Emergency Location (HELO), together achieve ± 3-meter accuracy for at least 80 percent of wireless 9-1-1 calls.”).

¹⁷ Certification of Compliance with FCC Requirements on 911 Location Accuracy, DISH Wireless L.L.C., PS Docket No. 17-78 (Apr. 5, 2024).

¹⁸ Letter of Inquiry from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Mar. 3, 2023); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (May 9, 2023 12:59 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Aug. 3, 2023 10:57 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Oct. 6, 2023 13:25 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Jan. 2, 2024 9:53 EST); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Jan. 10, 2024 15:23 EST); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Mar. 18, 2024 11:17 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (May 15, 2024 16:48 EDT) (all on file in EB-SED-23-00034905).

¹⁹ LOI Response, *supra* note 12; Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau (May 12, 2023); Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau (Aug. 17, 2023) (continued....)

6. DISH and the Bureau subsequently engaged in settlement negotiations. To settle this matter, DISH and the Bureau enter into this Consent Decree and agree to the following terms and conditions.

III. TERMS OF AGREEMENT

7. **Adopting Order.** The provisions of this Consent Decree shall be incorporated by the Bureau in an Adopting Order.

8. **Jurisdiction.** DISH agrees that the Bureau has jurisdiction over it and the matters contained in this Consent Decree and has the authority to enter into and adopt this Consent Decree.

9. **Effective Date; Violations.** The Parties agree that this Consent Decree shall become effective on the Effective Date as defined herein. As of the Effective Date, the Parties agree that this Consent Decree shall have the same force and effect as any other order of the Commission.

10. **Termination of Investigation.** In express reliance on the covenants and representations in this Consent Decree and to avoid further expenditure of public resources, the Bureau agrees to terminate the Investigation. In consideration for the termination of the Investigation, DISH agrees to the terms, conditions, and procedures contained herein. The Bureau further agrees that, in the absence of new material evidence, it will not use the facts developed in the Investigation through the Effective Date, or the existence of this Consent Decree, to institute any new proceeding on its own motion against DISH concerning the matters that were the subject of the Investigation, or to set for hearing the question of DISH's basic qualifications to be a Commission licensee or hold Commission licenses or authorizations based on the matters that were the subject of the Investigation.²⁰

11. **Admission.** DISH admits for the purpose of this Consent Decree and for Commission civil enforcement purposes, and in express reliance on the provisions of paragraph 10 herein, that its actions described in paragraph 4 herein are a true and accurate description of the facts underlying the Investigation..

12. **Section 208 Complaints; Subsequent Investigations.** Nothing in this Consent Decree shall prevent the Commission or its delegated authority from adjudicating complaints filed pursuant to section 208 of the Act²¹ against DISH or its affiliates for alleged violations of the Act, or for any other type of alleged misconduct, regardless of when such misconduct took place. The Commission's adjudication of any such complaint will be based solely on the record developed in that proceeding. Except as expressly provided in this Consent Decree, this Consent Decree shall not prevent the Commission from investigating new evidence of noncompliance by DISH with the Communications Laws.

13. **Civil Penalty.** DISH will pay a civil penalty to the United States Treasury in the amount of one hundred thousand dollars (\$100,000) within thirty (30) calendar days of the Effective Date. DISH acknowledges and agrees that upon execution of this Consent Decree, the Civil Penalty shall become a "Claim" or "Debt" as defined in 31 U.S.C. § 3701(b)(1).²² Upon an Event of Default, all procedures for

(Continued from previous page) _____
2023); Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau (Oct. 13, 2023); January 9, 2024 Response, *supra* note 14; January 17, 2024 Response, *supra* note 3; March 25, 2024 Response, *supra* note 15; Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, (Mar. 29, 2024); Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, (May 22, 2024) (all on file in EB-SED-23-00034905).

²⁰ See 47 CFR § 1.93(b).

²¹ 47 U.S.C. § 208.

²² Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321, 1358 (Apr. 26, 1996).

collection as permitted by law may, at the Commission's discretion, be initiated. DISH shall send electronic notification of payment to EB-SED-Response@fcc.gov on the date said payment is made. Payment of the Civil Penalty must be made by credit card using the Commission's Registration System (CORES) at <https://apps.fcc.gov/cores/userLogin.do>, ACH (Automated Clearing House) debit from a bank account, or by wire transfer from a bank account. The Commission no longer accepts Civil Penalty payments by check or money order. Below are instructions that payors should follow based on the form of payment selected:²³

- Payment by wire transfer must be made to ABA Number 021030004, receiving bank TREAS/NYC, and Account Number 27000001. In the OBI field, enter the FRN(s) captioned above and the letters "FORF". In addition, a completed Form 159²⁴ or printed CORES form²⁵ must be faxed to the Federal Communications Commission at 202-418-2843 or e-mailed to RROGWireFaxes@fcc.gov on the same business day the wire transfer is initiated. Failure to provide all required information in Form 159 or CORES may result in payment not being recognized as having been received. When completing FCC Form 159 or CORES, enter the Account Number in block number 23A (call sign/other ID), enter the letters "FORF" in block number 24A (payment type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN).²⁶ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.
- Payment by credit card must be made by using CORES at <https://apps.fcc.gov/cores/userLogin.do>. To pay by credit card, log-in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select "Manage Existing FRNs | FRN Financial | Bills & Fees" from the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the "Open Bills" tab and find the bill number associated with the CD Acct. No. The bill number is the CD Acct. No. with the first two digits excluded (e.g., CD 1912345678 would be associated with FCC Bill Number 12345678). After selecting the bill for payment, choose the "Pay by Credit Card" option. Please note that there is a \$24,999.99 limit on credit card transactions.
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²³ For questions regarding payment procedures, please contact the Financial Operations Group Help Desk by phone at 1-877-480-3201 (option #6).

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15. **Interest, Charges for Collection, and Acceleration of Maturity Date.** After an Event of Default has occurred under this Consent Decree, the then unpaid amount of the Civil Penalty shall accrue interest, computed using the U.S. Prime Rate in effect on the date of the Event of Default plus 4.75%, from the date of the Event of Default until payment in full. Upon an Event of Default, the then unpaid amount of the Civil Penalty, together with interest, any penalties permitted and/or required by the law, including but not limited to 31 U.S.C. § 3717 and administrative charges, plus the costs of collection, litigation, and attorneys' fees, shall become immediately due and payable, without notice, presentment, demand, protest, or notice of protest of any kind, all of which are waived by DISH.

16. **Waivers.** As of the Effective Date, DISH waives any and all rights it may have to seek administrative or judicial reconsideration, review, appeal or stay, or to otherwise challenge or contest the validity of this Consent Decree and the Adopting Order. DISH shall retain the right to challenge Commission interpretation of the Consent Decree or any terms contained herein. If either Party (or the United States on behalf of the Commission) brings a judicial action to enforce the terms of the Consent Decree or the Adopting Order, neither DISH nor the Commission shall contest the validity of the Consent Decree or the Adopting Order, and DISH shall waive any statutory right to a trial *de novo*. DISH hereby agrees to waive any claims it may otherwise have under the Equal Access to Justice Act²⁷ relating to the matters addressed in this Consent Decree.

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²⁷ See 5 U.S.C. § 504; 47 CFR §§ 1.1501-1.1530.

25. **Counterparts.** This Consent Decree may be signed in counterpart (including electronically or by facsimile). Each counterpart, when executed and delivered, shall be an original, and all of the counterparts together shall constitute one and the same fully executed instrument.

Peter S. Hyun
Acting Chief
Enforcement Bureau

Date

Alison Minea
Vice President and Associate General Counsel, Regulatory Affairs
DISH Wireless L.L.C.

Date

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

DISH Wireless L.L.C., indirect subsidiary of
EchoStar Corporation

File No.: EB-SED-23-00034905
CD Acct. No.: 202532100001
FRN: 0027852722

CONSENT DECREE

1. The Enforcement Bureau (Bureau) of the Federal Communications Commission (Commission or FCC) and DISH Wireless L.L.C., an indirect subsidiary of EchoStar Corporation (collectively, DISH), by their authorized representatives, hereby enter into this Consent Decree for the purpose of terminating the Bureau's Investigation into whether DISH violated section 9.10(i)(2)(ii) and (iii) of the Rules. Those rules required Commercial Mobile Radio Service (CMRS) providers to deploy dispatchable location or z-axis technology in the top 25 cellular market areas (CMAs) and to submit a compliance certification within 60 days after each required deployment.¹ To resolve this matter, DISH agrees to the terms and conditions below and to pay a \$100,000 civil penalty.

I. DEFINITIONS

2. For the purposes of this Consent Decree, the following definitions shall apply:
- (a) "Act" means the Communications Act of 1934, as amended.²
 - (b) "Adopting Order" means an order of the Bureau adopting the terms of this Consent Decree without change, addition, deletion, or modification.
 - (c) "Bureau" means the Enforcement Bureau of the Federal Communications Commission.
 - (d) "CD Acct No." means account number 202532100001, associated with payment obligations described in paragraph 13 of this Consent Decree.
 - (e) "Commission" and "FCC" mean the Federal Communications Commission and all of its bureaus and offices.
 - (f) "Communications Laws" means collectively, the Act, the Rules, and the published and promulgated orders and decisions of the Commission to which DISH is subject by virtue of its business activities, including but not limited to section 9.10(i) of the Rules.
 - (g) "DISH" means DISH Wireless L.L.C., its indirect parent, EchoStar Corporation, and their affiliates, subsidiaries, predecessors-in-interest, and successors-in-interest.³

¹ 47 CFR § 9.10(i)(2)(ii)-(iii).

² 47 U.S.C. § 151 *et seq.*

³ DISH Wireless L.L.C. is a limited liability company and a wholly owned, indirect subsidiary of DISH Network Corporation (DNC). DNC was a publicly held corporation incorporated under the laws of Nevada that, on December 31, 2023, merged into EchoStar Corporation. Response to Supplemental Letter of Inquiry from DISH (continued....)

- (h) “Effective Date” means the date by which both the Bureau and DISH have signed the Consent Decree and the Bureau has released an Adopting Order.
- (i) “Investigation” means the investigation commenced by the Bureau in EB-SED-23-00034905 regarding whether DISH violated section 9.10(i)(2)(ii) and (iii) of the Rules.
- (j) “Parties” means DISH and the Bureau, each of which is a “Party.”
- (k) “PSAP” means Public Safety Answering Point as defined in section 9.3 of the Rules.⁴
- (l) “Rules” means the Commission’s regulations found in Title 47 of the Code of Federal Regulations.
- (m) “Test Bed” means the independently administered and transparent process to test location technologies to be used in meeting the Commission’s location accuracy requirements as described in section 9.10(i)(3)(i) of the Rules.⁵

II. BACKGROUND

3. The Commission has taken important steps to ensure that PSAPs and first responders can accurately identify the location of wireless 911 callers when a caller is indoors. In the November 2019 *Fifth Report and Order*, the Commission adopted a 911 vertical location z-axis accuracy metric, requiring Commercial Mobile Radio Service (CMRS) providers to provide PSAPs with a z-axis accuracy of 3 meters above or below the handset (i.e., plus or minus 3 meters) for 80% of wireless E911 calls made from z-axis capable devices.⁶ The Commission also required CMRS providers to deliver z-axis information to PSAPs based on Height Above Ellipsoid (HAE)⁷ and also to provide to PSAPs floor level information, where such information is available.⁸ In the July 2020 *Sixth Report and Order*, the Commission expanded the compliance options for CMRS providers choosing to deploy z-axis technology to meet the April 2021 vertical location benchmarks.⁹ Section 9.10(i)(2)(ii)(F) of the Rules required non-nationwide CMRS providers to deploy vertical location technology—either dispatchable location or z-axis information—for wireless 911 calls in each of the top 25 CMAs by April 3, 2022, and in each of the top 50 CMAs by April 3, 2024.¹⁰ Section 9.10(i)(2)(iii) of the Rules required non-nationwide CMRS providers to certify that they are in compliance with the requirement to deploy dispatchable location or z-

(Continued from previous page)

Wireless L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau at 2 (Jan. 17, 2024) (on file in EB-SED-23-00034905) (January 17, 2024 Response).

⁴ See 47 CFR § 9.3.

⁵ See *id.* § 9.10(i)(3)(i).

⁶ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Fifth Report and Order and Fifth Further Notice of Proposed Rulemaking, 34 FCC Rcd 11592 (2019), corrected by Erratum (PSHSB Jan. 15, 2020) (*Fifth Report and Order*); see also 47 CFR § 9.10(i)(2)(ii)(H).

⁷ HAE represents distance (height) between any given point and a globally defined reference ellipsoid. For this purpose, HAE represents altitude between the wireless devices that makes the 911 call and a globally defined World Geodetic System 1984 (WGS-84) reference ellipsoid. See *Fifth Report and Order* at 11608, para. 32 & n.134.

⁸ *Id.*

⁹ *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Sixth Report and Order and Order on Reconsideration, 35 FCC Rcd 7752, 7784, para. 73 (2020), corrected by Erratum (PSHSB Oct. 29, 2020) (*Sixth Report and Order*).

¹⁰ 47 CFR § 9.10(i)(2)(ii)(F).

axis technology in each top 25 CMA by June 3, 2022, and to certify that they are in compliance with the requirement to deploy dispatchable location or z-axis technology in each top 50 CMA by June 3, 2024.¹¹

4. On January 24, 2023, DISH launched 5G Voice over New Radio (VoNR) service in Dallas, Texas, and Houston, Texas, without deploying vertical location technology—neither dispatchable location nor z-axis information—for wireless 911 calls.¹² Both Dallas, Texas, and Houston, Texas, are top 25 CMAs.¹³ After launching VoNR service on January 24, 2023, in Dallas, Texas, and Houston, Texas, DISH continued to launch VoNR service in top 25 CMAs and top 50 CMAs without deploying vertical location technology.¹⁴ According to DISH, as of March 6, 2024, DISH had deployed and was making available z-axis location information to PSAPs associated with wireless 911 calls received on its voice network.¹⁵ DISH stated that, as of March 6, 2024, it had deployed both Apple’s Hybridized Emergency Location (HELO) and Google’s Enhanced Location Service (ELS) device-based hybrid (DBH) z-axis location information technologies that were validated in the Test Bed.¹⁶ On April 5, 2024, DISH certified that it was in compliance with the Commission’s vertical location accuracy requirements in each of the top 50 CMAs where DISH provided VoNR wireless services.¹⁷

5. On March 3, 2023, the Bureau issued a Letter of Inquiry (LOI) to DISH directing DISH to provide the Bureau with a sworn written response to a series of questions relating to DISH’s compliance with section 9.10(i)(2)(ii) and (iii) of the Rules, and the Bureau issued follow-up questions on May 9, 2023; August 3, 2023; October 6, 2023; January 2, 2024; January 10, 2024; March 18, 2024; and May 15, 2024.¹⁸ DISH responded to each of the Bureau’s inquiries.¹⁹

¹¹ *Id.*

¹² Response to Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, at 15 (Apr. 3, 2023) (on file in EB-SED-23-00034905) (LOI Response).

¹³ *Wireless E911 Location Accuracy Requirements*, Fourth Report and Order, 30 FCC Rcd 1259, Appendix B, List of Top 50 Most Populous Cellular Market Areas (2015).

¹⁴ Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, at 5-7 (Jan. 9, 2024) (on file in EB-SED-23-00034905) (January 9, 2024 Response).

¹⁵ Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, at 2 (Mar. 25, 2024) (March 25, 2024 Response).

¹⁶ *Id.* at 2; *CTIA Stage Zb Filing (Redacted) 6-2-2022*, PS Docket No. 07-114, at 1 (June 2, 2022), <https://www.fcc.gov/ecfs/search/search-filings/filing/10602197662551> (“We are proud to report the testing validates that device-based hybrid (DBH) z-axis location technology solutions, Google’s Android Emergency Location Service (ELS) and Apple’s Hybridized Emergency Location (HELO), together achieve ± 3-meter accuracy for at least 80 percent of wireless 9-1-1 calls.”).

¹⁷ Certification of Compliance with FCC Requirements on 911 Location Accuracy, DISH Wireless L.L.C., PS Docket No. 17-78 (Apr. 5, 2024).

¹⁸ Letter of Inquiry from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Mar. 3, 2023); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (May 9, 2023 12:59 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Aug. 3, 2023 10:57 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Oct. 6, 2023 13:25 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Jan. 2, 2024 9:53 EST); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Jan. 10, 2024 15:23 EST); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (Mar. 18, 2024 11:17 EDT); E-mail from Spectrum Enforcement Division, FCC Enforcement Bureau, to DISH Wireless, L.L.C. (May 15, 2024 16:48 EDT) (all on file in EB-SED-23-00034905).

¹⁹ LOI Response, *supra* note 12; Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau (May 12, 2023); Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau (Aug. 17, 2023) (continued....)

6. DISH and the Bureau subsequently engaged in settlement negotiations. To settle this matter, DISH and the Bureau enter into this Consent Decree and agree to the following terms and conditions.

III. TERMS OF AGREEMENT

7. **Adopting Order.** The provisions of this Consent Decree shall be incorporated by the Bureau in an Adopting Order.

8. **Jurisdiction.** DISH agrees that the Bureau has jurisdiction over it and the matters contained in this Consent Decree and has the authority to enter into and adopt this Consent Decree.

9. **Effective Date; Violations.** The Parties agree that this Consent Decree shall become effective on the Effective Date as defined herein. As of the Effective Date, the Parties agree that this Consent Decree shall have the same force and effect as any other order of the Commission.

10. **Termination of Investigation.** In express reliance on the covenants and representations in this Consent Decree and to avoid further expenditure of public resources, the Bureau agrees to terminate the Investigation. In consideration for the termination of the Investigation, DISH agrees to the terms, conditions, and procedures contained herein. The Bureau further agrees that, in the absence of new material evidence, it will not use the facts developed in the Investigation through the Effective Date, or the existence of this Consent Decree, to institute any new proceeding on its own motion against DISH concerning the matters that were the subject of the Investigation, or to set for hearing the question of DISH's basic qualifications to be a Commission licensee or hold Commission licenses or authorizations based on the matters that were the subject of the Investigation.²⁰

11. **Admission.** DISH admits for the purpose of this Consent Decree and for Commission civil enforcement purposes, and in express reliance on the provisions of paragraph 10 herein, that its actions described in paragraph 4 herein are a true and accurate description of the facts underlying the Investigation..

12. **Section 208 Complaints; Subsequent Investigations.** Nothing in this Consent Decree shall prevent the Commission or its delegated authority from adjudicating complaints filed pursuant to section 208 of the Act²¹ against DISH or its affiliates for alleged violations of the Act, or for any other type of alleged misconduct, regardless of when such misconduct took place. The Commission's adjudication of any such complaint will be based solely on the record developed in that proceeding. Except as expressly provided in this Consent Decree, this Consent Decree shall not prevent the Commission from investigating new evidence of noncompliance by DISH with the Communications Laws.

13. **Civil Penalty.** DISH will pay a civil penalty to the United States Treasury in the amount of one hundred thousand dollars (\$100,000) within thirty (30) calendar days of the Effective Date. DISH acknowledges and agrees that upon execution of this Consent Decree, the Civil Penalty shall become a "Claim" or "Debt" as defined in 31 U.S.C. § 3701(b)(1).²² Upon an Event of Default, all procedures for

(Continued from previous page) _____
2023); Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau (Oct. 13, 2023); January 9, 2024 Response, *supra* note 14; January 17, 2024 Response, *supra* note 3; March 25, 2024 Response, *supra* note 15; Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, (Mar. 29, 2024); Response to Supplemental Letter of Inquiry from DISH Wireless, L.L.C., to Spectrum Enforcement Division, FCC Enforcement Bureau, (May 22, 2024) (all on file in EB-SED-23-00034905).

²⁰ See 47 CFR § 1.93(b).

²¹ 47 U.S.C. § 208.

²² Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321, 1358 (Apr. 26, 1996).

collection as permitted by law may, at the Commission's discretion, be initiated. DISH shall send electronic notification of payment to EB-SED-Response@fcc.gov on the date said payment is made. Payment of the Civil Penalty must be made by credit card using the Commission's Registration System (CORES) at <https://apps.fcc.gov/cores/userLogin.do>, ACH (Automated Clearing House) debit from a bank account, or by wire transfer from a bank account. The Commission no longer accepts Civil Penalty payments by check or money order. Below are instructions that payors should follow based on the form of payment selected:²³

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Peter S. Hyun
Acting Chief
Enforcement Bureau

Date

Alison Minea
Vice President and Associate General Counsel, Regulatory Affairs
DISH Wireless L.L.C.

Date



**Federal Communications Commission
Washington, DC 20554**

November 14, 2024

DA 24-1140

SMALL ENTITY COMPLIANCE GUIDE

**Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the
Emergency Alert System**

FCC 23-88

PS Docket Nos. 15-91; 15-94

Released October 20, 2023

In accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide in the above referenced docket and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule, or it may clarify or update the text of the Guide. Please direct comments and recommendations, or requests for further assistance, to the FCC's Consumer Center:

1-888-CALL-FCC (1-888-225-5322)

Videophone: 1-844-4-FCC-ASL (1-844-432-2275)

Fax: 1-866-418-0232

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I. OBJECTIVES OF THE PROCEEDING

In the *Third Report and Order*, the Federal Communications Commission (Commission) adopted rules to empower alert originators to enhance the utility of Wireless Emergency Alerts (WEA) as an alerting tool, making WEA more accessible and enabling WEA to provide more personalized alerts. Specifically, the rules require commercial mobile service (CMS) providers that participate in WEA (Participating CMS Providers) to support the display of a pre-scripted alert messages that are pre-installed and stored in the mobile device (which are referred to herein as “templates”). Participating CMS Providers must support templates for the 13 most commonly-spoken languages in the United States in addition to English, and American Sign Language (ASL).¹ These rules will make WEA messages more accessible to more people, ultimately enabling WEA to save more lives through timely alerts and warnings.

The Commission’s new rules also require Participating CMS Providers’ WEA-capable mobile devices to support the presentation of maps in WEA messages showing the recipient’s geographic position relative to the emergency incident using the device’s native mapping application. This allows alert originators to personalize alerts, spurring people to take protective action more quickly and to understand whether an alert applies to them. Participating CMS Providers must also support up to two end-to-end WEA tests, per county or county equivalent, per year, that consumers receive by default, subject to certain conditions. This new testing rule will allow alerting authorities to better understand WEA’s reliability, speed, and accuracy, and promote the use of WEA as a tool for raising public awareness about emergencies likely to occur.

Additionally, the new rules require all CMS Providers to refresh their election of whether to participate in WEA by submitting information about their participation status in a WEA Database. This WEA Database will be a Commission hosted public-facing interactive portal where CMS providers submit information about the availability of WEA on their networks, and where the public and alert originators can assess the extent to which WEA is available in their geographic area and on the devices on which they rely. CMS Providers’ submissions will attest to whether they participate in WEA “in whole,”² “in part,”³ or do not participate at all. This requirement will equip alerting authorities with information that allows them to prepare for reliable emergency communications during disasters. Overall, the actions taken by the Commission in the *Third Report and Order* will highlight, broaden and improve access to, and enhance the public safety benefits of WEA.

II. COMPLIANCE REQUIREMENTS

The new rules adopted by the *Third Report and Order* are summarized below.

A. Improving WEA Accessibility for People with Disabilities and People Who Primarily Speak Languages Other Than English and Spanish (47 CFR §§ 10.480(b); 10.500(e)(1) and (2))

- Participating CMS Providers must support multilingual WEA through the use of alert message templates translated into the most commonly spoken languages in the United States.

¹ *Wireless Emergency Alerts; Amendments to Part 11 of the Commission’s Rules Regarding the Emergency Alert System*; PS Docket Nos. 15-91 and 15-94, Third Report and Order, FCC 23-88, at p. 9, para. 14, 2023 WL 8543463, at *5 (Oct. 20, 2023) (*WEA Third Report and Order*).

² 47 CFR § 10.10(k).

³ *Id.* § 10.10(l).

- When an alerting authority chooses to send a multilingual Alert Message, the WEA-capable mobile device must be able to extract and display the relevant template in the subscriber's default language, if available, for the following languages:

- Spanish;
- Chinese;
- Tagalog;
- Vietnamese;
- Arabic;
- French;
- Korean;
- Russian;
- Haitian Creole;
- German;
- Hindi;
- Portuguese; and
- Italian.

- If the default language for a WEA-capable mobile device is set to a language that is not among those supported by templates, the device must present the English-language version of the alert.

- Templates must be pre-installed and stored on the mobile device.

- Participating CMS Providers' WEA-capable mobile devices must support templates in ASL.

- Participating CMS Providers' WEA-capable mobile devices must provide subscribers with the ability to opt-in to receive ASL alerts because ASL is not a language to which a mobile device can be set to default.
- Participating CMS Providers must override the preferred language setting and cause alerts to be extracted in ASL when a consumer elects to receive alerts in ASL.

The Commission's Public Safety and Homeland Security Bureau (Bureau) will develop the specific implementation parameters for template-based alerting, including developing the templates. The deadline for complying with these requirements will be set after the Bureau adopts an Order that establishes the implementation parameters.

B. WEA-Capable Mobile Devices Must Support WEA Messages that Link to a Mapping Application on the Recipients Mobile Device (47 CFR § 10.500(i))

- Participating CMS Providers must support the presentation of location-aware maps on devices that have location services enabled, have access to a native mapping application, has granted location permissions to its native mapping application, and where the alert's target area is defined by a circle or polygon.

- The map displayed on the mobile device must include the overall geographic area, the contour of the area subject to the emergency alert within the geographic area, and the alert recipient's location relative to these geographic areas.

- Participating CMS Providers' WEA-capable mobile devices must clearly present the map or the option to access the map concurrent with the alert message.

The Commission expects industry to consult with mobile accessibility experts in the process of standardizing and developing this functionality to determine whether there are advances in technology that would allow location information in the map, as well as the user's location, to be accessible to screen readers.

C. Annual End-to-End “WEA Performance and Public Awareness Tests” (47 CFR § 10.350(d))

- Participating CMS Providers must support up to two end-to-end WEA test per county, per year, that consumers receive by default.
- Alerting authorities may use any Alert Message classification for these tests.
- Prior to conducting a test, an alerting authority must take the following steps:
 - Conduct outreach and notify the public before the test that live event codes will be used, but that no emergency is occurring;
 - To the extent technically feasible, state in the test message that the event is “only a test;”
 - Coordinate the test among Participating CMS Providers, and with state and local emergency authorities, the relevant State Emergency Communications Committee (SECCs), and first responder organizations; and
 - Provide in widely accessible formats notification to the public that the test is only a test, and is not a warning about an actual emergency.
- Alert originators can conduct additional tests provided that those test messages are sent only to consumers who proactively opt-in to receive them.

D. Establishment of FCC WEA Database (47 CFR § 10.210)

- All CMS Providers are required to refresh their WEA election status in a FCC-hosted electronic WEA database.
- CMS Providers must specify whether they participate in WEA as follows:
 - “In whole,” meaning they have agreed to transmit WEA Messages in a manner consistent with FCC technical requirements throughout their entire geographic area and all the mobile devices they offer are WEA-capable;
 - “In part” meaning that they offer WEA but not to their entire geographic service and/or not all of the mobile devices they offer are WEA-capable; or
 - Not at all.
- WEA disclosures must include:
 - The name and WEA participation status of the CMS provider and its subsidiaries, plus any “doing business as” names used by the CMS provider or its subsidiaries under which they offer wireless service to the public;
 - The geographic area where they offer WEA; and
 - A list of all the mobile devices they offer at the point of sale, indicating for each such device whether it is WEA-capable.

- If a CMS Provider's WEA service area is the same as its wireless voice coverage area, then the provider can simply attest to that fact in their WEA election submission.
- If a CMS Providers' WEA service area is not the same as its wireless voice coverage area, then the CMS Provider must submit a geospatial data file compatible with the WEA Database describing their WEA service area.
- CMS Providers following their election status refresh must use the WEA Database to notify the Commission of withdrawal or any changes to their election to participate in WEA.

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The rules adopted in the *Third Report and Order* contain new or modified information collection requirements for recordkeeping and/or reporting by CMS Providers associated with WEA availability. Participating CMS Providers are required to submit information relating to WEA database filings and disclosures, provide multilingual support for WEA alert messages, present location aware mapping on devices, and support up to two annual WEA performance and public awareness tests conducted by alerting authorities. The details and specifics of the reporting and recordkeeping requirements required by the *Third Report and Order* are discussed in Section II of this guide under the Compliance Requirements.

IV. IMPLEMENTATION DATE

The rules in the *Third Report and Order* shall become effective as of December 15, 2026, subject to several exceptions. The amendment(s) to 47 CFR § 10.350(d) requiring Participating CMS Providers to support up to two end-to-end WEA tests per county, per year that consumers receive by default, received approval from the Office of Management and Budget (OMB) on May 29, 2024, and became effective on July 17, 2024. Following approval from OMB on August 9, 2024 of the amendment to 47 CFR § 10.210(a) requiring CMS Providers to refresh their WEA participation election by entering required information into the FCC's WEA Database, CMS Providers must do so within 90 days of the Bureau's publication of a public notice announcing that the WEA Database is ready to accept filings.

The amendment(s) to 47 CFR § 10.500(e) requiring Participating CMS Providers to support multilingual alert templates will become effective 30 months after publication in the Federal Register of the Bureau Order adopting implementation parameters for multilingual alerting templates. The effective date for the amendments to 47 CFR §§ 10.210(b) - (d), and 10.480(a) and (b) are delayed indefinitely. The Commission will publish notice in the Federal Register announcing the effective dates of the delayed amendments.

V. INTERNET LINKS

A copy of the *Third Report and Order*, is available at:
<https://docs.fcc.gov/public/attachments/FCC-23-88A1.pdf>.

A copy of the Federal Register Summary of the *Third Report and Order* is available at:
<https://www.federalregister.gov/documents/2023/12/15/2023-27236/emergency-alert-system-wireless-emergency-alerts>.

A copy of the Federal Register publication announcing the effective date of the amendments to 47 CFR § 10.350(d) is available at: <https://www.federalregister.gov/documents/2024/06/17/2024-13194/emergency-alert-system-wireless-emergency-alerts>.

The Bureau's webpage compiling relevant information is available at:
<https://www.fcc.gov/public-safety-and-homeland-security/policy-and-licensing-division/alerting/general/wireless>.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov

DA 24-1141

Released: November 14, 2024

WIRELESS TELECOMMUNICATIONS BUREAU GRANTS 900 MHZ BROADBAND SEGMENT APPLICATIONS

WT Docket No. 17-200

By this Public Notice, the Wireless Telecommunications Bureau (Bureau) announces the grant of five 900 MHz broadband segment license applications (see Appendix). On May 13, 2020, the Commission realigned the 900 MHz band to make available six megahertz of low-band spectrum for the development of critical wireless broadband technologies and services, while reserving the remaining four megahertz of spectrum for continued narrowband operations.¹ In accordance with the *900 MHz Report and Order*,² the Bureau began accepting 900 MHz broadband segment applications on May 27, 2021.³

The Bureau finds the 900 MHz broadband segment applications listed in the Appendix to be complete and in conformance with the Commission's rules. No petitions to deny these applications were filed, and the applications sufficiently demonstrate conformance with the eligibility conditions (Eligibility Certification) and requirements for transitioning the 900 MHz band in the particular county requested (Transition Plan).⁴ Furthermore, the Commission has received full anti-windfall payments for the licenses listed in the Appendix, as required by section 27.1503(c)(2).⁵ Therefore, the Bureau finds that granting the applications for the 900 MHz broadband segment licenses listed in the Appendix serves the public interest, convenience, and necessity.

Accordingly, by this Public Notice, we announce the grant of the licenses listed in the Appendix. We grant these licenses pursuant to section 309(a) of the Communications Act, 47 U.S.C. § 309(a), and sections 0.131 and 0.331 of the Commission's rules, 47 CFR §§ 0.131, 0.331. These new 900 MHz broadband licensees may begin operation in the applicable counties, subject to protection of covered incumbents.⁶

¹ *Review of the Commission's Rules Governing the 896–901/935–940 MHz Band*, WT Docket No. 17-200, Report and Order, Order of Proposed Modification, and Order, 35 FCC Rcd 5183 (2020) (*900 MHz Report and Order*).

² *Id.* at para. 113.

³ See *Wireless Telecommunications Bureau to Accept 900 MHz Broadband Segment Applications Beginning May 27, 2021*, WT Docket No. 17-200, Public Notice, 36 FCC Rcd 7377 (WTB 2021) (*900 MHz Broadband Segment Applications Public Notice*).

⁴ 47 CFR § 27.1503; see also *900 MHz Broadband Segment Applications Public Notice*, Attach. A.

⁵ 47 CFR § 27.1503(c)(2).

⁶ A Covered Incumbent is any 900 MHz site-based licensee in the broadband segment that is required under section 90.621(b) to be protected by a broadband licensee with a base station at any location within the county, or any 900 MHz geographic-based SMR licensee in the broadband segment whose license area completely or partially overlaps the county. 47 CFR § 27.1501(g).

We remind licensees that they should review the Commission's part 27 rules and all Commission orders and public notices establishing rules and policies for the 900 MHz band.⁷ Each licensee is solely responsible for complying with all FCC rules and regulations associated with these licenses.

This Public Notice includes one appendix, which is included at the end of this document:

Appendix – 900 MHz Broadband Segment Licenses Granted – Sorted by Licensee

Applicants who have questions concerning this Public Notice may contact Morgan Mendenhall of the Wireless Telecommunications Bureau, Mobility Division, (202) 418-0154, morgan.mendenhall@fcc.gov.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice).

-FCC-

APPENDIX

⁷ See 47 CFR pt. 27; see also *900 MHz Report and Order*, 35 FCC Rcd 5183; *900 MHz Broadband Segment Applications Public Notice*.

900 MHZ BROADBAND SEGMENT LICENSES

APPLICATIONS GRANTED

SORTED BY LICENSEE

Licensee Name	File Number	FRN	Market/County Number (FIPS)	Market Description	Mandatory Relocation ⁸
PDV Spectrum Holding Company, LLC	0011253884	0023948573	D48383	Reagon County, TX	N/A
PDV Spectrum Holding Company, LLC	0011258637	0023948573	D48431	Sterling County, TX	N/A
PDV Spectrum Holding Company, LLC	0011253890	0023948573	D48461	Upton County, TX	N/A
PDV Spectrum Holding Company, LLC	0011255134	0023948573	D48103	Crane County, TX	N/A
PDV Spectrum Holding Company, LLC	0011255142	0023948573	D48371	Pecos County, TX	N/A

⁸ Section 27.1504 permits a broadband licensee to relocate mandatorily certain incumbents from the 900 MHz broadband section. *See* 47 CFR § 27.1504. Incumbent licensees identified for mandatory relocation by new licensees will appear in this column. When there are no incumbent licensees identified for mandatory relocation, N/A will appear.



PUBLIC NOTICE

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DA No. 24-1143

Report No. SAT-01872

Friday November 15, 2024

Satellite Licensing Division and Satellite Programs and Policy Division Information

Actions Taken

The Commission, by its Space Bureau, took the following actions pursuant to delegated authority. The effective date of these actions is the release date of this Notice, except where an effective date is specified.

SAT-AMD-20221014-00136 E S3042 HawkEye 360, Inc.
Amendment

Effective Date:

Nature of Service: Earth Exploration Satellite Service, Other

See ICFS File No. SAT-MOD-20220906-00099 for a description of the action taken.

SAT-MOD-20220906-00099 E S3042 HawkEye 360, Inc.
Modification

Effective Date:

Nature of Service: Earth Exploration Satellite Service, Other

On November 15, 2024, the Satellite Programs and Policy Division granted in part/deferred in part, with conditions, modification of HawkEye 360, Inc.'s license for three additional satellites, identified as Cluster 11, to include technical parameters and rule waivers previously granted for Clusters 7, 8, 9, and 10, and expansion of the mid-inclination orbit range to 35-50 degrees, with an upper operational altitude of 600 km. The Division also modified the license to reflect modification of the orbital debris mitigation plan for satellites deployed after grant of this modification.

SAT-MOD-20230724-00181 E S3042 HawkEye 360, Inc.
Modification

Effective Date:

Nature of Service: Earth Exploration Satellite Service, Other

See ICFS File No. SAT-MOD-20220906-00099 for a description of the action taken.

SAT-MOD-20240619-00139 E S3042 HawkEye 360, Inc.
Modification

Effective Date:

Nature of Service: Earth Exploration Satellite Service, Other

See ICFS File No. SAT-MOD-20220906-00099 for a description of the action taken.

SAT-STA-20241101-00247 E S2992/3069 Space Exploration Holdings, LLC
Special Temporary Authority

Effective Date:

On November 14, 2024, the Satellite Programs and Policy dismissed as moot the request for special temporary authority filed by Space Exploration Holdings, LLC related to the milestones for its second generation (Gen2) non-geostationary satellite orbit (NGSO) Starlink system. Specifically, SpaceX requests special temporary authority to continue launching its Gen2 Starlink satellites equipped with V-band capabilities while its application for license modification to adjust its V-band deployment milestone dates remains pending. See ICFS File No. SAT-MOD-20240813-00183. Consistent with prior Division actions, SpaceX's license will continue in effect while its request remains pending. Therefore a separate grant of special temporary authority to continue deploying satellites with V-band capabilities is unnecessary.

For more information concerning this Notice, contact the Satellite Licensing Division and Satellite Programs and Policy Division at (202) 418-0719.

In the Matter of)
Request of Cooperative Energy for Exemption)
from 47 C.F.R. § 17.47(b))

Released: November 15, 2024

12357

such apparatus is functioning properly.”⁴ Section 17.47(c) exempts from this requirement “any antenna structure monitored by a system that the Wireless Telecommunications Bureau has determined includes self-diagnostic features sufficient to render quarterly inspections unnecessary, upon certification of use of such system to the Bureau.”⁵ As described in the *Part 17 Order*, petitioners either submit a petition for approval of a monitoring system that has not been previously approved by the Commission, or they submit a petition certifying that they are using a previously approved system in the manner described in the order in which that particular system was approved.⁶ In this instance, however, CE submitted a petition requesting approval of a hybrid system wherein it would use the previously approved Vanguard Monitoring System,⁷ but use its own Network Operations Centers (NOCs) to receive alarms from that system.⁸ We have already determined that the Vanguard Monitoring System includes robust self-diagnostic features sufficient to render quarterly inspections unnecessary,⁹ so we will not revisit that determination here. We limit our analysis to an evaluation of CE’s NOCs to determine if they are sufficiently robust to support an exemption under 17.47(c) of our rules when used in conjunction with the Vanguard Monitoring System.

4. CE is an energy generation and transmission cooperative, and CE has stated that its 11 member-owned distribution electric cooperatives provide safe, reliable, and affordable power to approximately 448,500 homes and businesses in the State of Mississippi.¹⁰ The provision of this service involves the operation and maintenance of multiple communications towers, 85 of which require some type of obstruction lighting system.¹¹ CE’s service territory is relatively large and rural, covering more than 50% of the State of Mississippi (more than 24,215 square miles), representing 55 of the 82 counties in the state.¹² CE’s Request asks us to determine that its combination of the Vanguard Monitoring System and its own NOCs (CE Monitoring System) is sufficiently robust to ensure that the control devices, indicators, and alarm systems on antenna structures using the Vanguard Monitoring System are operating properly, such that quarterly inspections are unnecessary.¹³ CE argues that the quarterly inspections of antenna monitoring systems mandated by section 17.47(b) are unnecessary for CE’s towers because of technological advancements associated with the CE Monitoring System.¹⁴ CE asks us to provide the same relief granted to other similarly robust systems in the past and grant an exemption from Section 17.47(b) pursuant to section 17.47(c).

⁴ 47 CFR § 17.47(b).

⁵ 47 CFR § 17.47(c). Before creating the procedure for exemptions in section 17.47(c), the Commission granted limited waivers of section 17.47(b) and permitted antenna structure owners to conduct annual, rather than quarterly, inspections. After 2014, section 17.47(c) rendered such waivers unnecessary. *See 2004 and 2006 Biennial Regulatory Reviews – Streamlining and Other Revisions of Parts 1 and 17 of the Commission’s Rules Governing Construction, Marking and Lighting of Antenna Structures; Amendments to Modernize and Clarify Part 17 of the Commission’s Rules Concerning Construction, Marking and Lighting of Antenna Structures*, Report and Order, 29 FCC Rcd 9787, 9799-9802 (2014) (*Part 17 Order*).

⁶ *Part 17 Order* at paras. 33-34.

⁷ *See Petition of Cellco Partnership For Exemption from 47 CFR § 17.47(b): Vanguard Monitoring System; Petition of Cellco Partnership For Exemption from 47 CFR § 17.47(b): QLI Monitoring System*, Memorandum Opinion and Order, 34 FCC Rcd 3759 (WTB 2019) (*Cellco Order*).

⁸ *Supplement* at 2-4.

⁹ *See Cellco Order* at para. 15.

¹⁰ *Supplement* at 1.

¹¹ *Id.*

¹² *Id.* at 2.

¹³ *Request* at 1; *Supplement* at 2-4; *Supplement II* at 1.

¹⁴ *Request* at 1; *Supplement* at 2; *Supplement II* at 1.

5. As noted above, the CE Monitoring System is a combination of the Vanguard Monitoring System, a system already approved by the Commission, and its own NOCs. The Vanguard Monitoring System itself is the next generation of Flash Technology's Eagle Monitoring System, a system the Bureau has also found to be sufficiently robust to support the elimination of the quarterly inspection requirements.¹⁵ CE asserts that the capabilities of its combined system are "consistent in all material respects" with those described in the *Cellco* and the *American Electric Power Service Corporation*¹⁶ Orders, which will enable it to carry out its responsibilities under Part 17 of the FCC rules.¹⁷

6. *Alarm Notification and Fail-safe Procedures.* CE's network management system manages the communications systems used in support of its electric grid and includes the monitoring of its communications towers. According to CE, "[b]ecause the Company's electric grid is dependent on its communications networks such as its supervisory control and data acquisition system, the servers at these locations are of the highest priority for the delivery of electric service to its members/customers."¹⁸ CE operates geo-redundant primary and backup network monitoring servers, which receive alarms that are accessible to its engineers and technicians both locally and remotely. These servers are also used to verify the communication path multiple times an hour. Both the primary and backup servers, as well as the remote communication system and tower light controllers, have backup power, and the alarms received by the servers are reviewed daily.¹⁹ The network management system provides alerting over all critical communication network components, including from remote terminal units and lighting controllers. These alerts are provided to the network management system software.²⁰ Further, the network management system is installed at geographically redundant sets of servers, one of which is installed at the Company's Field Operations Center and the second at its headquarters, both of which are located in Hattiesburg, Mississippi. The servers at both locations have backup power sources that will allow them to continue operating for multiple days at a time, and indefinitely with refueling availability. The Field Operations Center is equipped with a back-up generator and short-term Uninterruptible Power Supply (UPS), and the Company's headquarters is equipped with multiple power feeds, a backup generator, and short-term UPS. Most of the remote sites have a backup generator, and all remote sites have a UPS system. Procedures are in place to address emergency situations should they arise.²¹

7. *Staffing.* While CE's NOCs are not staffed on a 24/7 basis,²² CE represents that it has extensive monitoring and alarm systems in place for its electric system and communications towers.²³ Importantly, all alarms are reviewed on a daily basis. The server centers have experienced staff on site during normal business hours, trained in the proper procedures for responding to alarms. Staff will trigger

¹⁵ *Cellco Order* at para. 14. See also *Requests of American Tower Corporation and Global Signal, Inc., to Waive Section 17.47(b) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd 9743 (2007) (*ATC/GSI Order*); *Petition of Optasite Towers LLC for Waiver of Section 17.47(b) of the Commission's Rules*, Memorandum Opinion and Order, 22 FCC Rcd 18456 (WTB 2007) (*Optasite Order*); *Request of Mobilitie LLC for Waiver of 47 CFR § 17.47(b)*, Memorandum Opinion and Order, 24 FCC Rcd 11949 (WTB 2009) (*Mobilitie Order*).

¹⁶ *American Electric Power Service Corporation*, Memorandum Opinion and Order, 38 FCC Rcd 296 (WTB 2023) (*AEP Order*).

¹⁷ *Supplement* at 2; *Supplement II* at 1.

¹⁸ *Supplement* at 2.

¹⁹ *Request* at 1, fn. 3.

²⁰ *Supplement* at 2.

²¹ *Id.* at 2-3.

²² *Id.* at 3-4.

²³ *Id.* at 2-3.

a NOTAM²⁴ if necessary, resolve the problem, and record the event and its resolution. An alarm received at night is reviewed promptly in the morning. During weekends, a trained individual is designated to log in at least once a day to check for and address any alarms. Thus, CE states that all alarms are addressed within, at most, 24 hours.²⁵

III. DISCUSSION

8. We find that the hybrid CE Monitoring System “includes self-diagnostic features sufficient to render quarterly inspections unnecessary,”²⁶ and is similar to the monitoring systems we have evaluated in other orders. On May 15, 2007, the Commission granted American Tower Corporation (ATC) and Global Signal, Inc. (GSI) waivers of section 17.47(b) to allow annual, rather than quarterly, inspection of towers monitored by specified, technologically advanced monitoring systems.²⁷ In the *Part 17 Order*, the Commission granted exemptions from all inspection obligations to those entities previously granted a waiver for their antenna structures monitored by qualifying systems, as long as they continued to meet the advanced monitoring obligations to which they had already certified.²⁸ Since then, the Bureau has, on delegated authority, granted similar waivers to entities demonstrating that their systems were similarly robust, and were operated in a similar manner, to the systems described in the *ATC/GSI Waiver Order*.²⁹

9. We find that the hybrid CE Monitoring System, when used in the manner described by CE, justifies an exemption from the quarterly inspection requirement of section 17.47(b) pursuant to section 17.47(c). Importantly, the CE Monitoring System has extensive monitoring and alarm systems in place for its electric system and communications towers, is reviewed on a daily basis, and all alarms are addressed within, at most, 24 hours. Based on the record before us, and consistent with previous Commission and Bureau orders,³⁰ the Bureau finds that the hybrid CE Monitoring System includes self-diagnostic features sufficient to render quarterly inspections unnecessary.³¹ We conclude, based on CE’s representations, that the combination of the Vanguard Monitoring System and CE’s NOCs create a safe and reliable monitoring system with tracking mechanisms that ensure proper functioning of the remote monitoring technology. Such advanced technology provides the benefits of more rapid response in case of a lighting failure. As a result, the combination of the Vanguard Monitoring System, a system already approved by the Commission, and CE’s own NOCs, when deployed in the manner described in this Order, justifies an exemption from the quarterly inspection requirement of section 17.47(b). Therefore,

²⁴ See 47 CFR § 17.48(a). Effective December 2, 2021, the Federal Aviation Administration (FAA) changed the acronym NOTAM from Notice to Airmen to Notice to Air Missions. See U.S. Department of Transportation, Federal Aviation Administration, Air Traffic Organization Policy Change JO 7930.2S, CHG 2 (December 2, 2021).

²⁵ *Supplement* at 3-4.

²⁶ 47 CFR § 17.47(c).

²⁷ See *ATC/GSI Order*, 22 FCC Rcd 9743 at 9748 (2007), para. 18.

²⁸ *Part 17 Order*, 29 FCC Rcd at 9801, para 34.

²⁹ See, e.g., *United States Cellular Corporation Request for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 30 FCC Rcd 5026 (WTB 2015) (*United States Cellular Order*); *Cellco Order*; *AEP Order*. See also *Part 17 Order*, 29 FCC Rcd at 9801, para 34.

³⁰ See *Optacite Order*; *In the Matter of Crown Castle USA Inc. Request for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 22 FCC Rcd 21881 (WTB 2007); *In the Matter of Request of Global Tower LLC for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 23 FCC Rcd 16531 (WTB 2008); *In the matter of TowerSentry LLC Request for Waiver of 47 C.F.R. § 17.47(b) and Joint Petition of Diamond Communications LLC and Diamond Towers LLC for Waiver of 47 C.F.R. § 17.47(b)*, Memorandum Opinion and Order, 24 FCC Rcd 10274 (WTB 2009); *Mobilitie Order*; *American Tower Corporation Request for Waiver of 47 CFR § 17.47*, Memorandum Opinion and Order, 28 FCC Rcd 294 (WTB 2013); *United States Cellular Order*; *Cellco Order*; *AEP Order*.

³¹ 47 CFR § 17.47(c).

pursuant to section 17.47(c), CE is exempt from section 17.47(b) with regard to any of its towers monitored by the Vanguard Monitoring System in the manner described in this Order. This will enable CE to more efficiently carry out its responsibilities under part 17 of the Commission's rules.

IV. ORDERING CLAUSE

10. Pursuant to sections 4(i), 303(q), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(q), 303(r), and pursuant to sections 0.131, 0.331 and 17.47(c) of the Commission's Rules, 47 CFR §§ 0.131, 0.331, 17.47(c), the Request filed by Cooperative Energy IS GRANTED.

FEDERAL COMMUNICATIONS COMMISSION

Kari L. Hicks
Deputy Bureau Chief, Wireless Telecommunications Bureau



PUBLIC NOTICE

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DA 24-1145

Released: November 15, 2024

BROADBAND DATA TASK FORCE RELEASES FIFTH VERSION OF THE NATIONAL BROADBAND MAP

WC Docket Nos. 19-195, 11-10

The Broadband Data Task Force, together with the Office of Economics and Analytics, announces that the fifth version of the National Broadband Map was released today. The Map depicts fixed and mobile broadband availability data as of June 30, 2024, based on data submitted by internet service providers as part of the Commission's Broadband Data Collection. The Map is available at <https://broadbandmap.fcc.gov>.

- FCC -



Federal Communications Commission
Washington, D.C. 20554

November 18, 2024

DA 24-1146

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abiolaog@billyronks.net

Via Certified First-Class Mail – Return Receipt Requested and E-mail

Re: Response Required – Potential Dismissal of International Section 214 Application Filed by BillyRonks Global LLC, File No. ITC-214-20240726-00122

Dear Mr. Ogunsakin:

On July 26, 2024, BillyRonks Global LLC (Applicant) filed the above referenced application with the Federal Communications Commission (Commission) to obtain an international section 214 authorization.¹ On August 9, 2024, the Commission referred the application to the Committee for the Assessment of Foreign Participation in the United States Telecommunications Service Sector (Committee) based on the Applicant's reportable foreign ownership.² On August 15, 2024, the Committee requested that the Commission defer action on the application pending the Committee's review of the application for any national security, law enforcement, or public safety issues. On September 24, 2024, the Committee returned the application to the Commission with a recommendation to dismiss the application without prejudice for failing to submit responses to the Committee.³

The Committee states that, after confirming the Applicant's point of contact (POC), the Committee sent an initial set of questions on August 23, 2024, and required responses by September 13, 2024, but the Applicant failed to respond.⁴ The Committee advises that it then extended the response date to September 23, 2024, but the Applicant again failed to submit responses or an extension request by the deadline, and the POC did not reach out to the Committee.⁵ The Committee states it cannot complete its

¹ Application for International 214 authorization filed by BillyRonks Global LLC (ITC-214-20240726-00122) (filed July 26, 2024).

² *Non Streamlined International Applications/Petitions Accepted for Filing; Section 214 Applications* (47 CFR §§ 63.18, 63.24); *Section 310(b) Petitions* (47 CFR § 1.5000), Report No. TEL-02384NS, File No. ITC-214-20240726-00122, Public Notice, 2024 WL 3755122 at *2 (OIA Aug. 9, 2024); see 47 CFR § 1.40002(a); see also *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, IB Docket 16-155, Report & Order, 35 FCC Rcd 10927, 10935-36, para 24 (2020).

³ See Letter from MaKenzie B. Skopowski, Attorney Advisor, Foreign Investment Review Section National Security Division, U.S. Department of Justice to Marlene H. Dortch, FCC at 2 (Sept. 24, 2024).

⁴ *Id.* at 1.

⁵ *Id.*

review of the application and has returned the application to the Commission with a recommendation to dismiss without prejudice.⁶

The Committee's recommendation regarding any national security and law enforcement concerns with an application with foreign ownership is an important consideration in the Commission's public interest determination.⁷ If the Committee is unable to make a recommendation because the Applicant does not provide the required information, the Commission will not have the information it needs to assess and review the application.

The Applicant must respond to this letter within fifteen (15) days, by **December 3, 2024**, and state whether the Applicant intends to pursue the application. If so, the Applicant must indicate when it will provide the Committee with the information it has requested. If the Applicant does not respond by this deadline, the Commission will dismiss without prejudice the above referenced application pursuant to the Commission's rules.⁸

Should you need any further assistance, please contact my colleague Sumita Mukhoty at (202) 418-7165 or Sumita.Mukhoty@fcc.gov.

Sincerely,

/s/Denise Coca

Denise Coca, Chief

Telecommunications & Analysis Division

Office of International Affairs

Enclosures: DOJ Dismissal Letter

cc: Thomas Lynch, Legal Counsel
Thomas Lynch & Associates
6 Carrols Tract Road, No. 506
Fairfield, PA 17320
tlynch@telecomlawyers.com

⁶ *Id.*

⁷ 47 CFR §1.40002(a).

⁸ 47 CFR §§ 1.748(a), 1.10014(b). Any filing must be filed in the Commission's International Communications Filing System (ICFS) using the Pleadings and Comments module at <https://licensing.fcc.gov/myibfs/pleading.do>.

*Foreign Investment Review Section*

U.S. Department of Justice

National Security Division

Washington, D.C. 20530

September 24, 2024

By E-File

Ms. Marlene H. Dortch
Federal Communications Commission
45 L St. N.E.
Washington, D.C. 20554

Re: BillyRonks Global LLC, FCC Dkt No. ITC-214-20240726-00122 (TT 24-039)

Dear Ms. Dortch:

The Commission is notified that the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector ("Committee") recommends that the above-referenced application be dismissed without prejudice.¹

On August 9, 2024, the Commission referred the above-referenced application to the Committee for review under Executive Order 13913. On August 15, 2024, the Committee requested that the Commission defer action on the application pending the Committee's review. The Committee confirmed the point of contact for the Applicant and sent the Applicant an initial set of questions on August 23, 2024, providing a deadline of September 13, 2024. The Applicant's point of contact confirmed receipt of the questions, but the Applicant then failed to submit responses, or an extension request, on or before September 13, 2024. The Committee followed up with the Applicant's point of contact, who indicated that the Applicant was still working on the responses. The Committee affirmatively provided an extension for the responses until September 23, 2024, and warned the Applicant that the Committee could make a recommendation to the Commission to dismiss the application without prejudice if the Applicant did not submit the responses or an extension request by the deadline. The Applicant again failed to submit responses or an extension request on or before September 23, 2024, and the point of contact has not otherwise reached out to the Committee regarding the responses. Accordingly, the Committee cannot complete its review and is returning this application to the Commission with a recommendation that it be dismissed without prejudice.

Thank you for your consideration.

Sincerely,

/s/ *Makenzie B. Skopowski*
Makenzie B. Skopowski

¹ See attached notification of the Chair.

Attorney Advisor
Foreign Investment Review Section
National Security Division
U.S. Department of Justice

cc: FCC-TTelecom@fcc.gov
David Krech (via e-mail at David.Krech@fcc.gov)
Adrienne McNeil (via e-mail at Adrienne.McNeil@fcc.gov)
Applications.TT@usdoj.gov
osd.pentagon.ousd-a-s.list.team-telecom@mail.mil
dhsteamtelecom@hq.dhs.gov



U.S. Department of Justice

National Security Division

*Foreign Investment Review Section**Washington, D.C. 20530***BillyRonks Global LLC, FCC Dkt No. ITC-214-20240726-00122 (TT 24-039)**

Pursuant to Executive Order 13913 (Apr. 4, 2020), the Chair of the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector ("Committee") is making a notification that the Committee recommends that the above-referenced application be dismissed without prejudice.

DEVIN DEBACKER
2024.09.24 11:17:24
-04'00'

Devin A. DeBacker
Chief
Foreign Investment Review Section
National Security Division
U.S. Department of Justice
National Security Division



PUBLIC NOTICE

Federal Communications Commission

45 L Street NE

News Media Information 202 / 418-0500

Internet: <https://www.fcc.gov>

DA 24-1147

Released: November 15, 2024

MEDIA BUREAU ESTABLISHES NEW PLEADING CYCLE FOR APPLICATIONS TO TRANSFER CONTROL OF PARAMOUNT GLOBAL

MB Docket No. 24-275

Revised Petition to Deny Date: December 16, 2024

Revised Opposition Date: January 2, 2025

Revised Reply Date: January 13, 2025

On September 6, 2024, the Federal Communications Commission (Commission) accepted for filing applications proposing to transfer control of Paramount Global (Paramount) from the current parties controlling Paramount's single majority shareholder, National Amusements, Inc. (NAI), to certain investors in Skydance Media, LLC (Skydance), or their affiliates, whereby those investors will control NAI (the Applications).¹ On that same date, the Media Bureau issued the *Paramount First Public Notice*, which established a pleading cycle for the Applications, as well as the permit-but-disclose *ex parte* status for this proceeding, and set the deadlines to file petitions to deny on October 7, 2024; to file oppositions on October 22, 2024; and to file replies on November 1, 2024.²

On October 30, 2024, the Applicants filed a restatement of Exhibits A-2 and B of the Comprehensive Exhibit. According to the Applicants in a "Purpose of Amendment" filed with the Applications, the purpose of these amendments is "to reflect David Ellison's role as sole manager of Hikouki, LLC, Furaito, LLC, and Aozora, LLC, entities through which the Ellison Family will own and control NAI and New Paramount upon the closing of the Transaction. As sole manager of these entities, David Ellison will hold 100 percent of the Ellison Family's voting interests in NAI and New Paramount, in addition to serving as New Paramount's Chairman and CEO."³

¹ The Applications were listed in the Attachment to the Public Notice that established the initial pleading cycle for this proceeding. *Media Bureau Establishes Pleading Cycle for Applications to Transfer Control of Paramount Global and Permit-But-Disclose Ex Parte Status for the Proceeding*, Public Notice, MB Docket No. 24-275, DA 24-894 (MB rel. Sep. 6, 2024) (*Paramount First Public Notice*). Copies of the Applications are available in the Commission's Licensing Management System (LMS). The Commission has also established an electronic page on its website that contains an indexed unofficial listing of and electronic links to most materials in this docket. See <https://www.fcc.gov/transaction/skydance-paramount>.

² *Paramount First Public Notice* at 1.

³ Applications, "Purpose of Amendment" at 1 (footnote omitted).

The amendments to the Applications qualify as major amendments that warrant a further pleading cycle. Pursuant to section 73.3578 of the Commission’s rules, any amendment to an application for consent to the transfer of control of a broadcast license shall be considered to be a minor amendment, “except [one] which seeks a change in the ownership interest of the proposed transferee which would result in a change in control, or any amendment which would require the filing of [a new transfer application], if the changes sought were made in an original application for assignment or transfer of control, shall be considered to be a major amendment.”⁴ The amendments satisfy this exception, as they propose that David Ellison will hold voting control over the corporate entities that ultimately control the Licensees.

Pursuant to 47 U.S.C. § 309(d)(1), interested persons must file petitions to deny no later than **December 16, 2024**. Oppositions to petitions to deny must be filed no later than **January 2, 2025**. Replies must be filed no later than **January 13, 2025**. Persons and entities that file petitions to deny become parties to the proceeding. All other procedural guidance set forth in the *Paramount First Public Notice* remains in effect, including the direction that all filings concerning matters referenced in this Public Notice should refer to MB Docket No. 24-275, as well as the specific file numbers of the individual applications or other matters to which the filings pertain.

For further information, contact David Brown at (202) 418-1645 or Jeremy Miller at (202) 418-1507. For press inquiries, contact Nancy Murphy at (202) 418-1043.

This action is taken by the Chief, Media Bureau, pursuant to authority delegated by sections 0.61 and 0.283 of the Commission’s rules.⁵

By: Chief, Media Bureau

⁴ 47 CFR § 73.3580; 47 U.S.C. § 309(d)(1).

⁵ 47 CFR §§ 0.61 and 0.283.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of

Evolve IP, LLC

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File No.: EB-IHD-23-00035761
CD Acct. No.: 202532080002
FRN: 0016401408

ORDER

Adopted: November 21, 2024**Released: November 21, 2024**

By the Acting Chief, Enforcement Bureau:

1. The Enforcement Bureau (Bureau) of the Federal Communications Commission (Commission) has entered into a Consent Decree to resolve its investigation into whether Evolve IP, LLC (Evolve) failed to file documents with the Universal Service Administrative Company (USAC) and Broadband Data Collection (BDC) and make full and timely payments of contribution obligations to the Universal Service Fund (USF), Telecommunications Relay Service (TRS) Fund, Local Number Portability (LNP), and the North American Numbering Plan (NANP). To settle this matter, Evolve admits that its actions violated the Commission's rules as described, will implement a compliance plan, and will pay a \$275,000 civil penalty.

2. After reviewing the terms of the Consent Decree and evaluating the facts before us, we find that the public interest would be served by adopting the Consent Decree and terminating the referenced investigation regarding Evolve's compliance with sections 251(e)(2) and 254(d) of the Communications Act of 1934, as amended (Act),¹ and sections 1.7001, 1.7002, 52.17(a), 52.32(a), 54.706(a), 54.711, and 64.604(c)(5)(iii)(A) of the Commission's rules (Rules).²

3. In the absence of material new evidence relating to this matter, we do not set for hearing the question of Evolve's basic qualifications to hold or obtain any Commission license or authorization.³

4. Accordingly, **IT IS ORDERED** that, pursuant to section 4(i) of the Act, 47 U.S.C. § 154(i), and the authority delegated by sections 0.111 and 0.311 of the Commission's rules, 47 CFR §§ 0.111, 0.311, the attached Consent Decree **IS ADOPTED** and its terms incorporated by reference.

5. **IT IS FURTHER ORDERED** that the above-captioned matter **IS TERMINATED** in accordance with the terms of the attached Consent Decree.

¹ 47 U.S.C. §§ 251(e)(2), 254(d).

² 47 CFR §§ 1.7001, 1.7002, 52.17(a), 52.32(a), 54.706(a), 54.711, 64.604(c)(5)(iii)(A).

³ See *id.* § 1.93(b).

6. **IT IS FURTHER ORDERED** that a copy of this Order and Consent Decree shall be sent by first class mail and certified mail, return receipt requested, to Thomas Gravina, CEO, Evolve IP, LLC, 630 Allendale Rd, King of Prussia, PA 19406, Frank Lamancusa, Counsel for Evolve IP, LLC, Greenberg Traurig, LLP, 2101 L Street NW, Suite 1000, Washington, DC 20037, and Ronald Del Sesto, Counsel for Evolve IP, LLC, Cooley, LLP, 1299 Pennsylvania Ave NW, Suite 700, Washington, DC 20004.

FEDERAL COMMUNICATIONS COMMISSION

Peter S. Hyun
Acting Chief
Enforcement Bureau

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

Evolve IP, LLC

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File No.: EB-IHD-23-00035761

CD Acct. No.: 202532080002

FRN: 0016401408

CONSENT DECREE

1. The Enforcement Bureau (Bureau) of the Federal Communications Commission (FCC or Commission) and Evolve IP, LLC (Evolve or Company), by their authorized representatives, hereby enter into this Consent Decree for the purpose of terminating the Bureau's investigation, as defined below, into whether Evolve violated sections 251(e)(2) and 254(d) of the Communications Act of 1934, as amended (Act),¹ and sections 1.7001, 1.7002, 52.17(a), 52.32(a), 54.706(a), 54.711, and 64.604(c)(5)(iii)(A) of the Commission's rules (Rules),² in connection with Evolve's failure to file documents with the Universal Service Administrative Company (USAC) and Broadband Data Collection (BDC) and make full and timely payments of contribution obligations to the Universal Service Fund (USF), Telecommunications Relay Service (TRS) Fund, Local Number Portability (LNP), and the North American Numbering Plan (NANP). To resolve this investigation, Evolve acknowledges that it is subject to the Commission's jurisdiction; admits that its actions violated the provisions of the Act and the Commission's Rules as described herein; agrees to implement a three-year compliance plan; and pay a \$275,000 civil penalty.

I. DEFINITIONS

2. For the purposes of this Consent Decree, the following definitions shall apply:
- (a) "Act" means the Communications Act of 1934, as amended.³
 - (b) "Adopting Order" means an order of the Bureau adopting the terms of this Consent Decree without change, addition, deletion, or modification.
 - (c) "Bureau" means the Enforcement Bureau of the Federal Communications Commission.
 - (d) "CD Acct No." means account number 202532080002, associated with payment obligations described in paragraph 21 of this Consent Decree.
 - (e) "Commission" and "FCC" mean the Federal Communications Commission and all of its bureaus and offices.

¹ 47 U.S.C. §§ 251(e)(2), 254(d).

² 47 CFR §§ 1.7001, 1.7002, 52.17(a), 52.32(a), 54.706(a), 54.711, 64.604(c)(5)(iii)(A).

³ 47 U.S.C. § 151 *et seq.*

- (f) “Communications Laws” means collectively, the Act, the Rules, and the published and promulgated orders and decisions of the Commission to which Evolve is subject by virtue of its business activities, including but not limited to the Contribution and Filing Rules.
- (g) “Compliance Plan” means the compliance obligations, program, and procedures described in this Consent Decree at paragraph 17.
- (h) “Contribution and Filing Rules” means sections 251(e)(2) and 254(d) of the Act; sections 1.7001, 1.7002, 52.17(a), 52.32(a), 54.706(a), 54.711, and 64.604(c)(5)(iii)(A) of the Commission’s Rules; and other Commission orders, public notices, and Communications Laws related to the filing of Worksheets and the making of required payments to the USF, TRS Fund, LNP, and NANP.
- (i) “Covered Employees” means all employees and agents of Evolve who perform, supervise, oversee, or manage the performance of, duties that relate to Evolve’s responsibilities under the Communications Laws, including the Contribution and Filing Rules.
- (j) “Effective Date” means the date by which both the Bureau and Evolve have signed the Consent Decree and the Bureau has released an Adopting Order.
- (k) “Evolve” or “Company” means Evolve IP, LLC and its affiliates, subsidiaries, predecessors-in-interest, and successors-in-interest.
- (l) “Investigation” means the investigation commenced by the Bureau in EB-IHD- 23-00035761 regarding whether Evolve violated the Contribution and Filing Rules.
- (m) “LOI” means the Letter of Inquiry issued by the Bureau to Evolve on November 16, 2023, in EB-IHD-23-00035761 in connection with Evolve’s compliance with the Act and the Commission’s Rules.
- (n) “Operating Procedures” means the standard internal operating procedures and compliance policies established by Evolve to implement the Compliance Plan.
- (o) “Parties” means Evolve and the Bureau, each of which is a “Party.”
- (p) “Rules” means the Commission’s regulations found in Title 47 of the Code of Federal Regulations.
- (q) “Worksheets” means Telecommunications Reporting Worksheets including FCC Form 499-A (Annual Worksheet) and FCC Form 499-Q (Quarterly Worksheet).

II. BACKGROUND

3. *Legal Background.* In implementing section 254(d) of the Act, the Commission directed all telecommunications carriers providing interstate telecommunications services to contribute to the USF based on their interstate and international end-user telecommunications revenues.⁴ Section 254(d) also

⁴ See 47 U.S.C. § 254(d); 47 CFR § 54.706(a)-(b).

requires certain providers of interstate telecommunications to contribute to the USF.⁵ In addition, certain service providers are also required to contribute to the TRS Fund, LNP, and NANP administration, and pay federal regulatory fees.⁶

4. All telecommunications carriers providing interstate telecommunications services and certain providers of interstate telecommunications (collectively, Service Providers), with certain exceptions, are required to file annually an FCC Form 499-A, also known as the Annual Worksheet, and file quarterly an FCC Form 499-Q, also known as the Quarterly Worksheet.⁷ A Service Provider must timely file Quarterly Worksheets by February 1, May 1, August 1, and November 1 of each year, and Annual Worksheets by April 1 of each year.⁸ The administrators of the USF, TRS Fund, LNP, and NANP use the revenues reported on these Worksheets to determine and invoice a service provider's contribution to the respective funds.⁹

5. In 2000, the Commission began collecting information about broadband deployment and local telephone competition through FCC Form 477 (Form 477).¹⁰ In 2022, the Commission sunset the collection of such information through Form 477.¹¹ The Commission continues to collect broadband and voice subscription data using Form 477, but effective December 16, 2022, filers are required to submit their data through the BDC system.¹² Reports must be filed each year on or before March 1st (reporting data required on Form 477 as of December 31 of the prior year) and September 1st (reporting data required on Form 477 as of June 30 of the current year), absent an extension by the Commission.¹³

6. The STIR/SHAKEN caller ID authentication framework¹⁴ protects consumers from illegally spoofed robocalls by enabling authenticated caller ID information to securely travel with the call

⁵ See 47 U.S.C. § 254(d); 47 CFR § 54.706(a).

⁶ See 47 U.S.C. §§ 159(a), 225(b)(1), 254(e)(2); 47 CFR §§ 1.1152–1.1156, 1.1157(b), 52.17, 64.604(c)(5)(iii)(A); *Telecommunications Relay Services and the Americans with Disabilities Act of 1990*, Third Report and Order, 8 FCC Rcd 5300, 5301, para. 7 (1993).

⁷ See 47 CFR § 54.711.

⁸ See *Wireline Competition Bureau Releases the 2023 Telecommunications Reporting Worksheets & Accompanying Instructions*, Public Notice, 37 FCC Rcd 12124, 12148 (WCB 2022).

⁹ See 47 CFR §§ 54.711, 52.17, 64.604(c)(5)(iii)(A).

¹⁰ See *Local Competition and Broadband Reporting*, CC Docket No. 99-301, Report and Order, 15 FCC Rcd 7717, 7719-20, para. 3 (2000). See also 47 U.S.C. § 1302(b) (requiring the Commission to determine and report annually on “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion”).

¹¹ See *generally Establishing the Digital Opportunity Data Collection Modernizing the FCC Form 477 Data Program*, Order, 2022 WL 17663902, at *1 (2022).

¹² *Id.* at 1, para. 1 (sunsetting the collection of broadband deployment data through Form 477 effective upon publication of the Order in the Federal Register). See also Fed. Reg. 76949-59 (Dec. 16, 2022).

¹³ 47 CFR §§ 1.7002; 1.7004(a)-(b).

¹⁴ See *Call Authentication Trust Anchor*, WC Docket No. 17-97, Second Report and Order, 36 FCC Rcd 1859, 1862-63, para. 7 (2020) (Second Caller ID Authentication Order).

itself throughout the entire call path.¹⁵ Voice service providers were required, by June 30, 2021, to submit a certification to the Robocall Mitigation Database (RMD) stating the degree to which they had implemented STIR/SHAKEN and, if necessary, to describe their robocall mitigation program and the steps taken to avoid originating illegal robocall traffic.¹⁶ Commission rules prohibit any intermediate provider or terminating voice service provider from accepting voice traffic directly from any voice service provider that does not appear in the RMD.¹⁷ Registration with the RMD constitutes a certification issued by the Commission for purposes of jurisdiction under section 503 of the Act.¹⁸

7. *Factual Background.* Evolve is a single-member Delaware limited liability company that began providing interconnected Voice over Internet Protocol (VoIP) services in January 2008.¹⁹ The Company provides interconnected VoIP services on a standalone basis and integrated with other non-telecommunications services throughout the United States.²⁰ By virtue of its business activities, Evolve is required to file Annual and Quarterly Worksheets and make USF, TRS Fund, LNP, and NANP payments. Additionally, Evolve originally registered with the RMD on June 1, 2021, and filed their recertification on February 26, 2024.²¹

8. On September 22, 2023, USAC referred Evolve to the Bureau for investigation in connection with its failure to make complete USF payments.²² On November 14, 2023, the Bureau issued an LOI to Evolve. On December 18, 2023, Evolve provided a partial response.²³ In exchange for signing a 90-day tolling agreement, Evolve filed a subsequent complete response on January 31, 2024.²⁴

¹⁵ *Call Authentication Trust Anchor*, Sixth Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 2573, 2575, para. 4 (2023) (Sixth Caller ID Authentication Order).

¹⁶ *Id.* at 2577-78, para. 8. The Commission now requires all providers, regardless of whether they are required to implement STIR/SHAKEN, to file certifications and robocall mitigation plans to the RMD. *See Wireline Competition Bureau Announces Robocall Mitigation Database Filing Deadlines and Instructions and Additional Compliance Dates*, Public Notice, WC Docket No. 17-97, DA 24-73 (Jan. 25, 2024).

¹⁷ 47 CFR § 64.6305(c); *Second Caller ID Authentication Order*, *supra* note 14, at 1904, para. 86.

¹⁸ *Sixth Caller ID Authentication Order*, *supra* note 15, at 2608, para. 70; *see also* 47 U.S.C. § 503 (stating that persons who fail to comply with the terms of any license, permit, certificate, or other instrument or authorization issued by the Commission are liable to the United States for a forfeiture penalty).

¹⁹ Letter from Frank Lamancusa, Counsel for Evolve IP, LLC, Morgan, Lewis & Bockius, LLP, to Patrick McGrath, Chief, Investigations and Hearings Division, FCC Enforcement Bureau, at 2-3, Response to Requests 1, 20 (Dec. 18, 2023) (on file in EB-IHD-23-00035761) (Dec. 18 LOI Response).

²⁰ *Id.* at 3-4, Response to Request 21.

²¹ E-Mail from Erik Beith, Competition Policy Division, FCC Wireline Competition Bureau, to Ryan Mitchell, Attorney Advisor, Investigations and Hearings Division, FCC Enforcement Bureau (Mar. 26, 2024 9:31 EDT) (on file in EB-IHD-23-00035761).

²² *See* E-Mail from Elfren Castro, Senior Manager of Contributor Operations, USAC, to Davis Janas, Special Counsel, Investigations and Hearings Division, FCC Enforcement Bureau (Sept. 22, 2023 14:05 EDT) (on file in EB-IHD-23-00035761).

²³ *See* Dec. 18 LOI Response.

²⁴ *See* Letter from Frank Lamancusa, Counsel for Evolve IP, LLC, Morgan, Lewis & Bockius, LLP, to Patrick McGrath, Chief, Investigations and Hearings Division, FCC Enforcement Bureau (Jan. 31, 2024) (on file in EB-IHD-23-00035761).

9. In the course of its investigation, the Bureau determined that Evolve failed to make complete and timely payments on its obligations to the USF, TRS Fund, LNP, and NANP.²⁵ Evolve also failed to file a Quarterly Worksheet with USAC²⁶ and a report with the BDC.²⁷

10. To resolve these matters, Evolve and the Bureau enter into this Consent Decree and agree to the following terms and conditions.

III. TERMS OF AGREEMENT

11. **Adopting Order.** The provisions of this Consent Decree shall be incorporated by the Bureau in an Adopting Order.

12. **Jurisdiction.** Evolve agrees that the Bureau has jurisdiction over it and the matters contained in this Consent Decree, as a direct result of Evolve's business activities, and has the authority to enter into and adopt this Consent Decree.

13. **Effective Date; Violations.** The Parties agree that this Consent Decree shall become effective on the Effective Date as defined herein. As of the Effective Date, the Parties agree that this Consent Decree shall have the same force and effect as any other order of the Commission.

14. **Termination of Investigation.** In express reliance on the covenants and representations in this Consent Decree and to avoid further expenditure of public resources, the Bureau agrees to terminate the Investigation. In consideration for the termination of the Investigation, Evolve agrees to the terms, conditions, and procedures contained herein. The Bureau further agrees that, in the absence of new material evidence, it will not use the facts developed in the Investigation through the Effective Date, or the existence of this Consent Decree, to institute any new proceeding on its own motion against Evolve concerning the matters that were the subject of the Investigation, or to set for hearing the question of Evolve's basic qualifications to be a Commission licensee or hold Commission licenses or authorizations based on the matters that were the subject of the Investigation.²⁸

15. **Admission of Liability.** Evolve admits for the purpose of this Consent Decree and for Commission civil enforcement purposes, and in express reliance on the provisions of paragraph 14 herein, that its action as described in paragraph 9 violated the Contribution and Filing Rules.

16. **Compliance Officer.** Within thirty (30) calendar days after the Effective Date, Evolve shall designate a senior corporate manager with the requisite corporate and organizational authority to serve as a Compliance Officer and to discharge the duties set forth below. The person designated as the Compliance Officer shall be responsible for developing, implementing, and administering the Compliance

²⁵ See information on file in EB-IHD-23-00035761.

²⁶ See USAC, *E-File*, <https://efile.universalservice.org/EFileContributor/CompanyForms/SearchCompanyForms?filerId=826604&&sortBy=allforms> (last visited Aug. 20, 2024).

²⁷ See Dec. 18, 2023 LOI Response at 9, Response to Request 46; E-Mail from Christopher Fettes, Economist, Industry Analyst Division, FCC Office of Economics and Analytics, to Ryan Mitchell, Attorney Advisor, Investigations and Hearings Division, FCC Enforcement Bureau (Mar. 5, 2024 11:53 EDT) (on file in EB-IHD-23-00035761).

²⁸ See 47 CFR § 1.93(b).

Plan and ensuring that Evolve complies with the terms and conditions of the Compliance Plan and this Consent Decree. In addition to the general knowledge of the Communications Laws necessary to discharge his or her duties under this Consent Decree, the Compliance Officer shall have specific knowledge of the Contribution and Filing Rules prior to assuming his/her duties.

17. **Compliance Plan.** For purposes of settling the matters set forth herein, Evolve agrees that it shall, within sixty (60) calendar days after the Effective Date, develop and implement a Compliance Plan designed to ensure future compliance with the Communications Laws and with the terms and conditions of this Consent Decree. With respect to the Contribution and Filing Rules, Evolve will implement, at a minimum, the following procedures:

- (a) **Operating Procedures.** Within thirty (30) calendar days after the Effective Date, Evolve shall establish Operating Procedures that all Covered Employees must follow to help ensure Evolve's compliance with the Contribution and Filing Rules. Evolve's Operating Procedures shall include internal procedures and policies specifically designed to ensure that the Company files accurate and timely Worksheets with USAC; makes full and timely payments on its obligations to the USF, TRS Fund, LNP, and NANP; and files required documentation with the BDC system on a biannual basis. Evolve shall also develop a Compliance Checklist that describes the steps that a Covered Employee must follow to ensure compliance with the Contribution and Filing Rules.
- (b) **Compliance Manual.** Within sixty (60) calendar days after the Effective Date, the Compliance Officer shall develop and distribute a Compliance Manual to all Covered Employees. The Compliance Manual shall explain the Contribution and Filing Rules and set forth the Operating Procedures that Covered Employees shall follow to help ensure Evolve's compliance with the Compliance and Filing Rules. Evolve shall periodically review and revise the Compliance Manual as necessary to ensure that the information set forth therein remains current and accurate. Evolve shall distribute any revisions to the Compliance Manual promptly to all Covered Employees.
- (c) **Compliance Training Program.** Evolve shall establish and implement a Compliance Training Program on compliance with the Contribution and Filing Rules and the Operating Procedures. As part of the Compliance Training Program, Covered Employees shall be advised of Evolve's obligation to report any noncompliance with the Contribution and Filing Rules under paragraph 18 of this Consent Decree and shall be instructed on how to disclose noncompliance to the Compliance Officer. All Covered Employees shall be trained pursuant to the Compliance Training Program within sixty (60) calendar days after the Effective Date, except that any person who becomes a Covered Employee at any time after the initial Compliance Training Program shall be trained within thirty (30) calendar days after the date such person becomes a Covered Employee. Evolve shall repeat compliance training on an annual basis, and shall periodically review and revise the Compliance Training Program as necessary to ensure that it remains current and complete and to enhance its effectiveness.

18. **Reporting Noncompliance.** Evolve shall report any noncompliance with the Contribution and Filing Rules and with the terms and conditions of this Consent Decree within thirty (30) calendar days after discovery of such noncompliance. Such reports shall include a detailed explanation of: (i) each instance of noncompliance; (ii) the steps that Evolve has taken or will take to remedy such noncompliance; (iii) the schedule on which such remedial actions will be taken; and (iv) the steps that Evolve has taken or will take to prevent the recurrence of any such noncompliance. All reports of noncompliance shall be submitted to the Bureau at IHDTelecom@fcc.gov.

19. **Compliance Reports.** Evolve shall file compliance reports with the Commission ninety (90) calendar days after the Effective Date, twelve (12) months after the Effective Date, twenty-four (24) months after the Effective Date, and thirty-six (36) months after the Effective Date.

- (a) Each Compliance Report shall include a detailed description of Evolve's efforts during the relevant period to comply with the terms and conditions of this Consent Decree and the Contribution and Filing Rules. In addition, each Compliance Report shall include a certification by the Compliance Officer, as an agent of and on behalf of Evolve, stating that the Compliance Officer has personal knowledge that Evolve: (i) has established and implemented the Compliance Plan; (ii) has utilized the Operating Procedures since the implementation of the Compliance Plan; and (iii) is not aware of any instances of noncompliance with the terms and conditions of this Consent Decree, including the reporting obligations set forth in paragraph 18 of this Consent Decree.
- (b) The Compliance Officer's certification shall be accompanied by a statement explaining the basis for such certification and shall comply with section 1.16 of the Rules and be subscribed to as true under penalty of perjury in substantially the form set forth therein.²⁹
- (c) If the Compliance Officer cannot provide the requisite certification, the Compliance Officer, as an agent of and on behalf of Evolve, shall provide the Commission with a detailed explanation of the reason(s) why and describe fully: (i) each instance of noncompliance; (ii) the steps that Evolve has taken or will take to remedy such noncompliance, including the schedule on which proposed remedial actions will be taken; and (iii) the steps that Evolve has taken or will take to prevent the recurrence of any such noncompliance, including the schedule on which such preventive action will be taken.
- (d) All Compliance Reports shall be submitted to the Bureau at IHDTelecom@fcc.gov.

20. **Termination Date.** Unless stated otherwise, the requirements set forth in paragraphs 15 through 18 of this Consent Decree shall expire thirty-six (36) months after the Effective Date.

21. **Civil Penalty.** Evolve will pay a civil penalty to the United States Treasury in the amount of two hundred and seventy-five thousand dollars (\$275,000) within thirty (30) calendar days of the Effective Date. Evolve acknowledges and agrees that upon execution of this Consent Decree, the

²⁹ 47 CFR § 1.16.

Civil Penalty shall become a “Claim” or “Debt” as defined in 31 U.S.C. § 3701(b)(1).³⁰ Upon an Event of Default, all procedures for collection as permitted by law may, at the Commission’s discretion, be initiated. Evolve shall send electronic notification of payment to the Bureau at IHDTelecom@fcc.gov on the date said payment is made. Payment of the Civil Penalty must be made by credit card using the Commission’s Registration System (CORES) at <https://apps.fcc.gov/cores/userLogin.do>, ACH (Automated Clearing House) debit from a bank account, or by wire transfer from a bank account. The Commission no longer accepts Civil Penalty payments by check or money order. Below are instructions that payors should follow based on the form of payment selected:³¹

- Payment by wire transfer must be made to ABA Number 021030004, receiving bank TREAS/NYC, and Account Number 27000001. In the OBI field, enter the FRN(s) captioned above and the letters “FORF”. In addition, a completed Form 159³² or printed CORES form³³ must be faxed to the Federal Communications Commission at 202-418-2843 or e-mailed to RROGWireFaxes@fcc.gov on the same business day the wire transfer is initiated. Failure to provide all required information in Form 159 or CORES may result in payment not being recognized as having been received. When completing FCC Form 159 or CORES, enter the Account Number in block number 23A (call sign/other ID), enter the letters “FORF” in block number 24A (payment type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN).³⁴ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.
- Payment by credit card must be made by using CORES at <https://apps.fcc.gov/cores/userLogin.do>. To pay by credit card, log-in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select “Manage Existing FRNs | FRN Financial | Bills & Fees” from the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the “Open Bills” tab and find the bill number associated with the CD Acct. No. The bill number is the CD Acct. No. with the first two digits excluded (e.g., CD 1912345678 would be associated with FCC Bill Number 12345678). After selecting the bill for payment, choose the “Pay by Credit Card” option. Please note that there is a \$24,999.99 limit on credit card transactions.
- Payment by ACH must be made by using CORES at <https://apps.fcc.gov/cores/userLogin.do>. To pay by ACH, log in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select “Manage Existing FRNs | FRN Financial | Bills & Fees” on the CORES Menu, then select FRN Financial and the

³⁰ Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321, 1358 (Apr. 26, 1996).

³¹ For questions regarding payment procedures, please contact the Financial Operations Group Help Desk by phone at 1-877-480-3201 (option #6).

³² FCC Form 159 is accessible at <https://www.fcc.gov/licensing-databases/fees/fcc-remittance-advice-form-159>.

³³ Information completed using the Commission’s Registration System (CORES) does not require the submission of an FCC Form 159. CORES is accessible at <https://apps.fcc.gov/cores/userLogin.do>.

³⁴ Instructions for completing the form may be obtained at <http://www.fcc.gov/Forms/Form159/159.pdf>.

view/make payments option next to the FRN. Select the “Open Bills” tab and find the bill number associated with the CD Acct. No. The bill number is the CD Acct. No. with the first two digits excluded (e.g., CD 1912345678 would be associated with FCC Bill Number 12345678). Finally, choose the “Pay from Bank Account” option. Please contact the appropriate financial institution to confirm the correct Routing Number and the correct account number from which payment will be made and verify with that financial institution that the designated account has authorization to accept ACH transactions.

22. **Event of Default.** Evolve agrees that an Event of Default shall occur upon the failure by Evolve to pay the full amount of the Civil Penalty on or before the due date specified in this Consent Decree.

23. **Interest, Charges for Collection, and Acceleration of Maturity Date.** After an Event of Default has occurred under this Consent Decree, the then unpaid amount of the Civil Penalty shall accrue interest, computed using the U.S. Prime Rate in effect on the date of the Event of Default plus 4.75%, from the date of the Event of Default until payment in full. Upon an Event of Default, the then unpaid amount of the Civil Penalty, together with interest, any penalties permitted and/or required by the law, including but not limited to 31 U.S.C. § 3717 and administrative charges, plus the costs of collection, litigation, and attorneys’ fees, shall become immediately due and payable, without notice, presentment, demand, protest, or notice of protest of any kind, all of which are waived by Evolve.

24. **Waivers.** As of the Effective Date, Evolve waives any and all rights it may have to seek administrative or judicial reconsideration, review, appeal or stay, or to otherwise challenge or contest the validity of this Consent Decree and the Adopting Order. Evolve shall retain the right to challenge Commission interpretation of the Consent Decree or any terms contained herein. If either Party (or the United States on behalf of the Commission) brings a judicial action to enforce the terms of the Consent Decree or the Adopting Order, neither Evolve nor the Commission shall contest the validity of the Consent Decree or the Adopting Order, and Evolve shall waive any statutory right to a trial *de novo*. Evolve hereby agrees to waive any claims it may otherwise have under the Equal Access to Justice Act³⁵ relating to the matters addressed in this Consent Decree.

25. **Severability.** The Parties agree that if any of the provisions of the Consent Decree shall be held unenforceable by any court of competent jurisdiction, such unenforceability shall not render unenforceable the entire Consent Decree, but rather the entire Consent Decree shall be construed as if not containing the particular unenforceable provision or provisions, and the rights and obligations of the Parties shall be construed and enforced accordingly.

26. **Invalidity.** In the event that this Consent Decree in its entirety is rendered invalid by any court of competent jurisdiction, it shall become null and void and may not be used in any manner in any legal proceeding.

27. **Subsequent Rule or Order.** The Parties agree that if any provision of the Consent Decree conflicts with any subsequent Rule or order adopted by the Commission (except an order

³⁵ See 5 U.S.C. § 504; 47 CFR §§ 1.1501–1.1530.

specifically intended to revise the terms of this Consent Decree to which Evolve does not expressly consent) that provision will be superseded by such Rule or order.

28. **Successors and Assigns.** Evolve agrees that the provisions of this Consent Decree shall be binding on its successors, assigns, and transferees.

29. **Final Settlement.** The Parties agree and acknowledge that this Consent Decree shall constitute a final settlement between the Parties with respect to the Investigation.

30. **Modifications.** This Consent Decree cannot be modified without the advance written consent of both Parties.

31. **Paragraph Headings.** The headings of the paragraphs in this Consent Decree are inserted for convenience only and are not intended to affect the meaning or interpretation of this Consent Decree.

32. **Authorized Representative.** Each Party represents and warrants to the other that it has full power and authority to enter into this Consent Decree. Each person signing this Consent Decree on behalf of a Party hereby represents that he or she is fully authorized by the Party to execute this Consent Decree and to bind the Party to its terms and conditions.

33. **Counterparts.** This Consent Decree may be signed in counterpart (including electronically or by facsimile). Each counterpart, when executed and delivered, shall be an original, and all of the counterparts together shall constitute one and the same fully executed instrument.

Peter S. Hyun
Acting Chief
Enforcement Bureau

Date

Date



PUBLIC NOTICE

Federal Communications Commission
45 L Street, NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>
TTY: 1-888-835-5322

DA 24-1149
November 19, 2024

**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES
REGION 8 (NEW YORK METROPOLITAN AND NORTHERN NEW JERSEY) REGIONAL
PLANNING COMMITTEES TO HOLD 700 MHZ AND 800 MHZ MEETINGS**

PS Docket 23-237 and WT Docket No. 02-378

The Region 8 (New York Metropolitan and Northern New Jersey)¹ 700 MHz and 800 MHz Regional Planning Committees (RPCs) will hold their 2025 quarterly meetings (in-person and virtual) on the following dates. The Region Secretary will email the virtual meeting link two weeks prior to each meeting. To be added to the email distribution list, please email your contact information to David Stern, Region Secretary, at david.stern@vcomm-eng.com. The 700 MHz meeting will begin at 10:00 am and the 800 MHz meeting will immediately follow.

Region 8: 2025 Meeting Dates

- February 13, 2025, 10:00 am – Bergen County Public Safety Operations EOC, Mahwah, NJ
- May 8, 2025, 10:00 am – Rockland County Fire Academy, Pomona, NY
- September 18, 2025, 10:00 am – Bergen County Public Safety Operations EOC, Mahwah, NJ
- December 11, 2025, 10:00 am – Rockland County Fire Academy, Pomona, NY

The purpose of these meetings is to discuss the needs of the 700 and 800 MHz spectrum users including public safety, public health, emergency management, and public utility services.

The agenda for the 700 MHz meetings include:

- Review and approve meeting agenda
- Review and approve previous meeting report
- Interoperability (SIEC/SWIC Reports)
 - New York State
 - New Jersey
 - Connecticut
- 700 MHz Technical Subcommittee
 - Applications Status
 - Adjacent Region Concurrence Requests
- 4.9 GHz Updates

¹ The Region 8 700 MHz and 800 MHz regional planning area consists of the following counties in New York State and New Jersey: Bronx, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Ulster, Dutchess, and Westchester Counties, New York; Bergen, Essex, Hudson, Morris, Passaic, Sussex, Union, Warren, Middlesex, Somerset, Hunterdon, Mercer, and Monmouth Counties, New Jersey. Region 8's 800 MHz planning area also includes the following counties from Connecticut: Fairfield, Litchfield, New Haven, and Middlesex Counties, Connecticut.

- 700 MHz Plan Updates
- Old Business
- New Business/Comments
- Next Meeting - TBA

The agenda for the 800 MHz meetings include:

- Review and approve meeting agenda
- Review and approve previous meeting report
- 800MHz Technical Subcommittee
 - Applications Status
 - Adjacent Region Concurrence requests
- NRPC Updates
- 800 MHz Plan Updates
- Old Business
- New Business/Comments
- Next Meeting – TBA

All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 8 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Interested parties wishing to participate in the planning process for utilization of the new public safety spectrum in the 700 MHz and 800 MHz are encouraged to attend. For additional information concerning these meetings, or to be put on the Region's email list, please contact either the Region 8 Chair or Secretary listed below or visit the committee web site at <http://www.dhss.ny.gov/oiec/committees>.

Maribel Martinez-Bradwell
 Chair, FCC Region 8 700 and 800-MHz Planning Committees
 New York State Police, Radio Engineer
 1220 Washington Ave.
 State Campus, Building 22
 Albany, NY 12226
 Office: (518) 457-8995
Maribel.Martinez-Bradwell@troopers.ny.gov

David K. Stern
 Secretary, FCC Region 8 700 and 800-MHz Planning Committees
 V-COMM, L.L.C.
 2540 U.S. Highway 130, Suite 101
 Cranbury, NJ 08512
 Office: (609) 655-1200, ext. 323
 Fax: (609) 409-1927
david.stern@vcomm-eng.com

– FCC –



PUBLIC NOTICE

Federal Communications Commission
45 L Street, NE
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>

DA 24-1150

Released: November 18, 2024

COMMENTS INVITED ON SECTION 214 APPLICATION(S) TO DISCONTINUE DOMESTIC NON-DOMINANT CARRIER TELECOMMUNICATIONS SERVICES

WC Docket No(s). 24-449

Comments Due: December 3, 2024

Unless otherwise specified, the following procedures and dates apply to the application(s) (the Section 214 Discontinuance Application(s)) listed in the Appendix.

The Wireline Competition Bureau (Bureau), upon initial review, has found the Section 214 Discontinuance Application(s) listed herein to be acceptable for filing and subject to the procedures set forth in Section 63.71 of the Commission's rules.¹ The application(s) request authority, under section 214 of the Communications Act of 1934, as amended,² and section 63.71 of the Commission's rules,³ to discontinue, reduce, or impair certain domestic telecommunications service(s) (Affected Service(s)) in specified geographic areas (Service Area(s)) as applicable and as fully described in each application.

In accordance with section 63.71(f) of the Commission's rules, the Section 214 Discontinuance Application(s) listed in the Appendix will be deemed granted automatically on **December 19, 2024**, the 31st day after the release date of this public notice, unless the Commission notifies any applicant(s) that their grant will not be automatically effective.⁴ We note that the date on which an application for Commission authorization is deemed granted may be different from the date on which applicants are authorized to discontinue, reduce, or impair service ("Authorized Date"). Any applicant whose application has been deemed granted may discontinue, reduce or impair their Affected Service(s) in their Service Area(s) on or after the authorized date(s) specified in the Appendix, in accordance with their filed representations. Accordingly, pursuant to section 63.71(f), and the terms outlined in each application, absent further Commission action, each applicant may discontinue, reduce or impair the Affected Service(s) in the Service Area(s) described in their application on or after the authorized discontinuance date(s) listed in the Appendix for that application. For purposes of computation of time when filing a petition for reconsideration, application for review, or petition for judicial review of the Commission's decision(s), the date of "public notice" shall be the later of the auto grant date stated above in this Public Notice, or the release date(s) of any further public notice(s) or order(s) announcing final Commission

¹ 47 CFR § 63.71.

² 47 U.S.C. § 214.

³ 47 CFR § 63.71.

⁴ See 47 CFR § 63.71(f) (stating, in relevant part, that an application filed by a non-dominant carrier "shall be automatically granted on the 31st day... unless the Commission has notified the applicant that the grant will not be automatically effective.").

action, as applicable. Should no petitions for reconsideration, applications for review, or petitions for judicial review be timely filed, the proceeding(s) listed in this Public Notice shall be terminated, and the docket(s) will be closed.

Comments objecting to any of the applications listed in the Appendix must be filed with the Commission on or before **December 3, 2024**. Comments should refer to the specific WC Docket No. and Comp. Pol. File No. listed in the Appendix for the particular Section 214 Discontinuance Application that the commenter intends to address. Comments should include specific information about the impact of the proposed discontinuance on the commenter, including any inability to acquire reasonable substitute service. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.⁵ Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs>. Filers should follow the instructions provided on the Web site for submitting comments. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket number.

Parties who choose to file paper copies must file an original and one copy of each filing. Such filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. All filings must be addressed to the Secretary, Federal Communications Commission. Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building. Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.⁶ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

⁵ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

⁶ 47 CFR § 1.1200 *et seq.*

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

For further information, please see the contact(s) for the specific discontinuance proceeding you are interested in as listed in the Appendix. For further information on procedures regarding section 214 please visit <https://www.fcc.gov/encyclopedia/domestic-section-214-discontinuance-service>.

– FCC –

Appendix

- 1) **Applicant(s): Rochester Telecom Systems, Inc.**
WC Docket No. 24-449, Comp. Pol. File No. 1957
Link – [https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings.name:\(%2224-449%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2224-449%22)))
Affected Service(s) – switchless long distance and toll-free services
Service Area(s) – Minnesota
Authorized Date(s) – December 19, 2024
Contact(s) – Kimberly Jackson, (202) 418-7393 (voice), Kimberly.Jackson@fcc.gov, of the Competition Policy Division, Wireline Competition Bureau



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov

DA No. 24-1151

Released: November 19, 2024

BROADBAND DATA TASK FORCE ANNOUNCES MOBILE CHALLENGE OFFICE HOURS

WC Docket No. 19-195, WC Docket No. 11-10

As a follow up to the FCC's recent webinar about how to challenge the mobile broadband coverage data that is reflected on the National Broadband Map,¹ the FCC will host two Office Hours sessions in December. These sessions will cover topics related to submitting bulk mobile challenges.

- **Tuesday, December 3, 2024, 3-4:30 p.m. Eastern Time** – Mobile challenge thresholds & other things to keep in mind when conducting a test
- **Tuesday, December 10, 2024, 3-4:30 p.m. Eastern Time** – Collecting and submitting bulk challenge data in accordance with Broadband Data Collection (BDC) Data Specifications

During each session, FCC staff will provide a brief overview of the topic, followed by a question and answer session in which staff will be available to offer hands-on support. **To participate in the Office Hours session(s), interested parties should register to attend at** https://fcc.gov.zoomgov.com/meeting/register/vJltdO-oqzguEpiE_MBeddDv7K7kcgY6We0. Registrants may participate in one or both sessions using the same Zoom link. Questions may be submitted in advance to BDCWebinar@fcc.gov or during the sessions.

Ensuring that stakeholders are informed about how to submit bulk mobile challenge data plays an important role in the FCC's ongoing effort to provide accurate and precise information regarding mobile service availability across the country. You can find information about mobile availability challenges on the BDC Help Center by visiting: <https://help.bdc.fcc.gov/hc/en-us/sections/19845302880027-Submit-a-Mobile-Availability-Challenge> and the Data Specifications for Mobile Speed Test Data by visiting: <https://us-fcc.app.box.com/v/bdc-mobile-speedtest-spec>. Additional resources about the FCC's National Broadband Map, including video tutorials and a recording of the October 24, 2024, mobile challenge webinar, are available at the FCC's BDC Resources & Releases webpage at: www.fcc.gov/BroadbandData/resources.

Reasonable accommodations for people with disabilities are available upon request. Please include a description of the accommodation you will need and tell us how to contact you if we need more information. Please make your request as early as possible. Last minute requests will be accepted but it may not be possible to accommodate them. Send an e-mail to: FCC504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice).

¹ *Broadband Data Task Force Announces Webinar on the Broadband Data Collection Mobile Challenge Process*, WC Docket Nos. 19-195, 11-10, Public Notice, DA 24-983 (WTB 2024). A recording of the webinar is available at: <https://www.youtube.com/watch?v=Tl5CE0kMo28>

If you have any questions concerning the planned Office Hours sessions, contact William Holloway at William.Holloway@fcc.gov.

– FCC –

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
AMERICAN RADIO RELAY LEAGUE)
)
Request for a Waiver of Section 97.111(a) of the)
Commission's Rules to Permit Demonstration of)
Amateur-Military Cross-Band Capabilities)
During Amateur-Military Commemoration of)
Pearl Harbor Day)

ORDER

Adopted: November 20, 2024

Released: November 20, 2024

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. *Introduction.* By this order, we grant the request filed by the American Radio Relay League (ARRL) for a limited waiver of section 97.111(a) of the Commission's rules to permit licensed amateur stations to communicate with Federal stations over a two-day period. The waiver request is for the limited purpose of a short-term event commemorating the 83rd anniversary of National Pearl Harbor Remembrance Day on December 7 and 8, 2024.¹

2. *Background.* Section 97.111(a) of the Commission's rules authorizes amateur stations to transmit specific types of two-way communications and limits communications with Federal stations.² Section 97.111(a)(5) of the rule grants specific authority to communicate with Federal stations for such communications for one armed forces special event day, the Armed Forces Day Communications Test.³ No other commemoration day is authorized in this section.

3. ARRL seeks this waiver for December 7 and 8, 2024, for the purposes of a short term event commemorating the Pearl Harbor attack.⁴ ARRL states that the tests such as those proposed provide opportunities to train operators and test two-way communications capabilities between military communicators and radio stations in the Amateur Radio Service, which allows operators to demonstrate technical skills in a controlled scenario.⁵ ARRL also represents that the frequencies and time periods selected will not impact any public, private, or government communications.⁶

4. *Discussion.* To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that the underlying purpose of the rule would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest; or,

¹ Request for Waiver of Section 97.111(a) of the Commission's Rules to Permit Demonstration of Amateur-Military Cross-Band Capabilities During Amateur-Military Commemoration of Pearl Harbor Day, at 1, (filed Oct. 7, 2024) <https://www.fcc.gov/ecfs/document/1007159896350/1> (Waiver Request); see 47 CFR § 97.111(a).

² 47 CFR § 97.111(a).

³ 47 CFR § 97.111(a)(5).

⁴ Waiver Request at 1.

⁵ *Id.* at 2.

⁶ *Id.* at 2.

that in view of unique or unusual factual circumstances of the instant case, application of the rule would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.⁷ We conclude that granting the requested waiver, for the following reasons and with the following limitations, is in the public interest.

5. We find grant of the waiver meets the waiver standard because this event presents a unique opportunity for amateur operators to practice communications skills under the guidance of military officials, which may be useful in the future and serves the public interest.⁸ We also find that the limitations proposed by ARRL are appropriate to prevent harmful interference and to serve the purpose of the commemorative event.⁹

6. Specifically, this waiver is conditioned on participating amateur stations: 1) monitoring the following five federal frequencies: 7,469 kHz, 14,667 kHz, 19,160 kHz, 21,856 kHz, and 12,382 kHz; 2) responding solely on frequencies being monitored and announced by the military operators, all of which will be authorized for use by Amateur Radio operators; 3) operating consistent with the privileges of their amateur licenses; and 4) limiting communications to the period beginning December 7, 2024 through December 8, 2024. Additionally, all other related Commission regulations that are applicable to amateur operators will continue to apply (e.g., mode, maximum power, and license class).

7. Accordingly, IT IS ORDERED that pursuant to section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission's rules, 47 CFR § 1.925, the Request for a Waiver of Section 97.111(a) of the Commission's Rules IS GRANTED as set forth and conditioned above.

8. This action is taken under delegated authority pursuant to sections 0.131 and 0.331 of the Commission's rules, 47 CFR §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Thomas Derenge
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⁷ 47 CFR § 1.925(b)(3).

⁸ 47 CFR § 1.925(b)(3).

⁹ Waiver Request at 3.



**Federal Communications Commission
Washington, D.C. 20554**

November 19, 2024

DA 24-1153

SMALL ENTITY COMPLIANCE GUIDE

**Resilient Networks; Amendment to Part 4 of the Commission's Rules Regarding Disruptions to
Communications; New Part 4 of the Commission's Rules Concerning Disruptions to
Communications**

FCC 22-50; FCC 23-71

PS Docket Nos. 21-346 and 15-80, and ET Docket No. 04-35

Released July 6, 2022; September 15, 2023

In accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide in the above referenced docket and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule, or it may clarify or update the text of the Guide. Please direct comments and recommendations, or requests for further assistance, to the FCC's Consumer Center:

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I. OBJECTIVES OF THE PROCEEDING

The Commission adopted the Mandatory Disaster Response Initiative (MDRI) to enhance and improve the resiliency and reliability of our nation's networks both during and in the aftermath of disasters such as hurricanes, earthquakes, severe winter storms, and wildfires that have occurred in recent years.¹ The MDRI builds on the industry-developed voluntary Wireless Network Resiliency Cooperative Framework (Framework) utilized by signatory providers since 2016,² which was not consistently adhered to by many facilities-based mobile wireless providers. Compliance with the MDRI was made mandatory in 2022 by the Commission and expands the triggers for activation beyond the previous voluntary Framework to ensure more disasters and emergencies will be covered.

The MDRI, which consists of five mandatory provisions, specifies the criteria that trigger activation of the MDRI and requires providers to test roaming capabilities of their networks and report on the performance of their MDRI implementation to the Commission following disaster and emergency events that apply to all facilities-based mobile wireless providers. Under these provisions, facilities-based mobile wireless providers must: (1) provide for reasonable roaming³ under disaster arrangements (RuDs) when technically feasible;⁴ (2) establish mutual aid agreements with other facilities-based mobile wireless providers; (3) take reasonable measures to enhance municipal preparedness and restoration; (4) take reasonable measures to increase consumer readiness and preparation; and (5) take reasonable measures to improve public awareness and stakeholder communications on service and restoration status.

The MDRI may be activated under the following conditions:

- The Federal Emergency Management Agency's (FEMA) Emergency Support Function-2 (ESF-2) is activated;
- The Commission's Disaster Information Reporting System (DIRS) is activated; or
- The Chief of the Commission's Public Safety and Homeland Security Bureau (PSHSB) announces that the MDRI has been activated in response to a request received from a state, in conjunction with at least one of the following:
 - The state has activated its Emergency Operations Center;

¹ See *Resilient Networks; Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications; New Part 4 of the Commission's Rules Concerns Disruptions to Communications*, PS Docket Nos. 21-346 and 15-80; ET Docket No. 04-35, Report and Order and Further Notice of Proposed Rulemaking, FCC 22-50, 37 FCC Rcd 8059 (*Report and Order*). See also *Resilient Networks; Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications; New Part 4 of the Commission's Rules Concerns Disruptions to Communications*, PS Docket Nos. 21-346 and 15-80; ET Docket No. 04-35, Order on Reconsideration, FCC 23-71, (Sept. 15, 2023) (*Order on Reconsideration*).

² See Federal Communications Commission (FCC), *Wireless Network Resiliency During Disasters*, (Nov. 17, 2022), <https://www.fcc.gov/wireless-network-resiliency-during-disasters>. (Signatories of the voluntary Framework include: AT&T Mobility, CTIA, GCI, Southern Linc, Spring (prior to its merger with T-Mobile), T-Mobile, U.S. Cellular and Verizon Wireless). See also CTIA, *Wireless Network Resiliency Cooperative Framework: Best Practices for Enhancing Emergency and Disaster Preparedness and Restoration*, <https://www.ctia.org/the-wireless-industry/industry-commitments/wireless-network-resiliency-cooperative-framework> (last visited July 13, 2023).

³ *Report and Order* at 9-10, paras. 21-22. (Reasonable roaming is roaming that does not disturb, but includes compliance with, the Commission's existing requirements that voice roaming arrangements be just, reasonable, and non-discriminatory, and that data roaming arrangements be commercially reasonable. Reasonable roaming would include providing a means of denying a roaming request in writing to the requesting provider, preferably with the specific reasons why roaming is infeasible.)

⁴ *Id.* at 9, para. 21. (Technically feasible roaming for purposes of the Commission's disaster roaming rules requires a host provider to permit a requesting provider's customers to roam on the host provider's network on all compatible generations of network technology that it offers to its own customers.)

- The state has activated mutual aid; or
- The state has proclaimed a local state of emergency.

The MDRI requires that each facilities-based mobile wireless provider enter into bilateral roaming arrangements with all other facilities-based mobile wireless providers from which it may foreseeably request roaming privileges, or that may foreseeably request roaming privileges from it. These arrangements are designed to benefit both parties should either provider request roaming assistance from the other when its own network faces connectivity issues during a disaster or emergency. Facilities-based mobile wireless providers do not need to create these arrangements with all other providers, but only those that are foreseeable. The Commission in the *Report and Order* clarified that roaming is foreseeable, without limitation, when two providers' geographic coverage areas overlap.⁵ Facilities-based mobile wireless providers must also negotiate the terms of and test the roaming capabilities of their networks before a disaster or emergency strikes. After an MDRI activation, facilities-based mobile wireless providers must report to the Commission on the performance of the MDRI.

One of the MDRI's goals is to assist small providers who may not have the same resources as large providers. With the MDRI, small facilities-based mobile wireless providers will now have access to roaming arrangements and mutual aid agreements they would not have previously benefitted from and will have the assistance, collaboration, and resources of larger providers to assist them with initial implementation and upkeep of MDRI elements. The Commission believes that the new information collection requirements will "provide baseline actions and assurances that facilities-based mobile wireless providers will undertake to ensure effective coordination and planning to maintain and restore network connectivity around disasters."⁶ These updates to the Framework will also promote public safety response efforts by providing better situational information related to the nation's network outages and infrastructure status.

II. COMPLIANCE REQUIREMENTS

The MDRI adds a new rule section to the Commission's Part 4 rules to help ensure that communications remain operative during emergencies. Five MDRI provisions are mandatory for all facilities-based mobile wireless providers.

Mandatory Disaster Response Initiative (47 CFR § 4.17)

A. Five provisions are mandatory for all facilities-based mobile wireless providers:

- Establish bilateral roaming under disaster arrangements (RuDs) with other facilities-based mobile wireless providers.
 - Facilities-based mobile wireless providers must enter into bilateral roaming arrangements with all other facilities-based mobile wireless providers from which the provider may foreseeably request roaming privileges, or that may foreseeably request roaming privileges from it. Roaming is foreseeable when two providers' geographic coverage areas overlap.
 - Facilities-based mobile wireless providers must provide for reasonable roaming under disaster agreements (RuDs) when technically feasible⁷ in situations where:

⁵ *Id.* at 8.

⁶ *Id.* at 6-7, para. 14.

- The requesting provider's network has become inoperable and that provider has taken all appropriate steps to restore its own network; and
 - The provider who receives the request for roaming assistance has determined that roaming is technically feasible and it will not adversely affect service to its own subscribers, provided that existing roaming arrangements and call processing methods do not already achieve these objectives. Any new roaming arrangements are limited in duration and are contingent on the requesting provider taking all possible steps to restore service on its own network as quickly as possible.
- Establish mutual aid agreements with other facilities-based mobile wireless providers.
 - Facilities-based mobile wireless providers must establish mutual aid agreements with other facilities-based mobile wireless providers from which each provider may request aid, or receive a request for aid, during emergencies.
 - Agreements must cover the sharing of physical assets and commit providers to engage in consultation when feasible during and after disasters and emergencies.
 - A provider's mutual aid obligations apply only if it has reasonably first managed the needs of its own network.
 - Take reasonable measures to enhance municipal preparedness and restoration.
 - Take reasonable measures to increase consumer readiness and preparation.
 - Take reasonable measures to improve public awareness and stakeholder communications on service and restoration status.
- B. Providers must retain roaming under disaster arrangements (RuDs) for at least one year after their expiration and must supply copies to the Commission promptly upon request. RuDs filed with the Commission are considered to be presumptively confidential.
- C. Providers are required to perform annual testing of their roaming capabilities and any related coordination processes.
- This testing should be performed bilaterally with other facilities-based mobile wireless providers that may foreseeably roam on, or request roaming from, the provider's network during the time of a disaster or emergency.
- D. Facilities-based mobile wireless providers are required to submit reports to the Commission that describe the time, duration, and effectiveness of their implementation of the MDRI's provisions within 60 days of when PSHSB issues a Public Notice that announces such reports must be filed for providers operating in a certain geographic area after a disaster or emergency.
- E. Facilities-based mobile wireless providers must have implemented all provisions of the MDRI in 47 CFR section 4.17 by the compliance date of May 1, 2024.

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The *Report and Order* contains new information collection requirements for facilities-based mobile wireless providers when PSHSB activates MDRI. The MDRI recordkeeping and reporting requirements require facilities-based mobile wireless providers to:

- Submit reports to the Commission detailing the timing, duration, and effectiveness of their implementation of the MDRI's provisions within 60 days of PSHSB's issuance of a Public

Notice asking for such reports to be filed in the aftermath of a disaster.

- Retain their roaming under disaster arrangements (RuDs) for at least one year following expiration of the arrangement, and supply copies of such arrangements to the Commission, which are afforded a presumption of confidentiality, promptly upon request.

IV. IMPLEMENTATION DATE

The *Report and Order* established May 1, 2024, as the implementation deadline for facilities-based mobile wireless providers to comply with the MDRI rules.⁸

V. INTERNET LINKS

A copy of the *Report and Order* is available at: <https://docs.fcc.gov/public/attachments/FCC-22-50A1.pdf>, and a copy of the *Order on Reconsideration* is available at: <https://docs.fcc.gov/public/attachments/FCC-23-71A1.pdf>.

A copy of the Federal Register Summary of the *Report and Order* is available at: <https://www.federalregister.gov/documents/2022/09/30/2022-19745/disruptions-to-communications>.

A copy of the Federal Register Summary of the *Order on Reconsideration* is available at: <https://www.federalregister.gov/documents/2024/01/26/2023-28834/disruptions-to-communications>, and

A copy of an updated Federal Register Summary of the *Order on Reconsideration* is available at: <https://www.federalregister.gov/documents/2024/03/26/2024-06092/resilient-networks-disruptions-to-communications>.

⁸ Notice of OMB approval was published in the Federal Register on March 26, 2024.



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EFFECTIVE DATE FOR ONE-TO-ONE CONSENT RULE SET FOR JANUARY 27, 2025

CG Docket Nos. 02-278, 21-402, 17-59

On December 13, 2023, the Commission adopted the *Second Text Blocking Report and Order* in the above-captioned proceedings.¹ In this rulemaking, the Commission adopted a new rule that makes it unequivocally clear that prior express written consent under the Telephone Consumer Protection Act must be to one seller at a time.² This rule is contained in 47 CFR § 64.1200(f)(9).³

The *Second Text Blocking Report and Order* provided that this rule would become effective 12 months after publication in the Federal Register or 30 days after notice that the Office of Management and Budget (OMB) has completed review of any information collection requirements required under the Paperwork Reduction Act, whichever is later. OMB approved the information collection requirement on September 26, 2024.⁴ The rule was published in the Federal Register on January 26, 2024.⁵ The rule's effective date, accordingly, is January 27, 2025, 12 months after the rule was published in the Federal Register.⁶

For further information, contact Mika Savir, Attorney Advisor, Consumer Policy Division, Consumer and Governmental Affairs Bureau, at (202) 418-0384 or mika.savir@fcc.gov.

¹ *Targeting and Eliminating Unlawful Text Messages, Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket Nos. 02-278, 21-402, 17-59, Second Report and Order, Second Further Notice of Proposed Rulemaking, and Waiver Order, 38 FCC Rcd 12247 (2023) (*Second Text Blocking Report and Order*).

² *Id.* at 12258-12263, paras. 30-36.

³ See 47 C.F.R. § 64.1200(f)(9).

⁴ Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, 89 FR 87982 (Nov. 6, 2024).

⁵ *Targeting and Eliminating Unlawful Text Messages, Implementation of the Telephone Consumer Protection Act of 1991, Advanced Methods To Target and Eliminate Unlawful Robocalls*, 89 FR 5098 (Jan. 26, 2024).

⁶ Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991, 89 FR 87982 (Nov. 6, 2024).



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THE WIRELESS TELECOMMUNICATIONS BUREAU REMINDS WIRELESS SERVICE PROVIDERS OF THE UPCOMING DEADLINE TO FILE FCC FORM 855 CERTIFICATIONS

WT Docket No. 23-388

The Wireless Telecommunications Bureau (Bureau) reminds wireless service providers of the upcoming deadline to file FCC Form 855 certifications. FCC Form 855 certifications are due by January 31, 2025, and will cover the calendar year from January 1, 2024, through December 31, 2024. The FCC Form 855 certification filing window will open on January 2, 2025. The FCC Form 855 certification site can be accessed at <https://www.fcc.gov/filing-hearing-aid-compatibility-reports-and-certifications>.

The Commission requires wireless service providers to file FCC Form 855 certifications to ensure compliance with the Commission's wireless hearing aid compatibility rules. 47 CFR § 20.19(i)(1). Service providers who offer handset models for sale or use in the United States are required to annually file this form. The Commission defines a wireless service provider as a provider of digital mobile service in the United States. 47 CFR § 20.19(a). This definition includes mobile virtual network operators (MVNOs) and wireless resellers.

The Bureau reminds service providers that unless they qualify for one of the *de minimis* exceptions (47 CFR § 20.19(e)), the current hearing aid compatibility handset model deployment benchmark is 85%. 47 CFR § 20.19(c)(2)(ii), (3)(ii). This benchmark applies to both nationwide and non-nationwide service providers. *Id.* A service provider can derive this percentage by dividing the number of hearing aid-compatible handset models that it offered across all air interfaces for the reporting period by the total number of handset models (hearing aid-compatible and non-hearing aid-compatible) that it offered for the reporting period.¹

Service providers that operate publicly accessible websites must include the website address where the information required by the hearing aid compatibility website posting rules can be found. 47 CFR § 20.19(h). Commission staff will review the provided website address to ensure compliance with the hearing aid compatibility website posting requirements. If a service provider did not operate a publicly accessible website for the reporting period, then the service provider should type the following

¹ We note that the Commission recently adopted a 100% hearing aid compatibility requirement that will replace the current 85% handset model deployment benchmark. *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, WT Docket No. 23-388, Report and Order, FCC 24-112 (Oct. 18, 2024). The 100% hearing aid compatibility requirement will become effective for handset manufacturers after December 14, 2026, and for nationwide service providers after June 14, 2027. For non-nationwide service providers, the 100% hearing aid compatibility requirement will take effect after June 13, 2028. See FCC, *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, 89 Fed. Reg. 89832, 89865-66 (Nov. 13, 2024). While the Federal Register summary lists the effective date for non-nationwide service providers as after June 12, 2028, this date will be corrected to June 13, 2028.

statement into the website address box: “For the reporting period, [name of company] did not operate a publicly accessible website.”

In addition, a knowledgeable executive must certify whether the service provider was in full compliance with all the applicable wireless hearing aid compatibility requirements for the reporting period. 47 CFR § 20.19(i)(1). The service provider must represent and warrant, and the knowledgeable executive declares under penalty of perjury, that the certification is truthful and accurate. 47 CFR § 20.19(i)(2)(vi). The service provider must also acknowledge that false statements and misrepresentations to the Commission are punishable and may subject it to enforcement action. *Id.*

Service providers that certify they were not in full compliance with the wireless hearing aid compatibility rules for the reporting period must submit an attachment explaining which wireless hearing aid compatibility requirements the service provider was not in full compliance with, and when the non-compliance began and (if applicable) ended with respect to each requirement. 47 CFR § 20.19(i)(2)(vii).

Further, service providers must ensure that the contact information that is provided is accurate and complete and can be used to directly contact the signing executive should Commission staff have a question about the filing company’s certification. The signing executive must include his or her first and last name, middle initial, and title. The executive must also provide his or her business address, complete phone number, including area code and extension, and email address. If the filing company is a non-U.S. company, the company’s U.S. business office address and phone number must be included. If the filing company does not have a U.S. business office address, then the filer must use its U.S. agent’s address.

Failure to timely and accurately file FCC Form 855 certifications could lead to enforcement proceedings and possible forfeitures.

For further information concerning this notice, contact Eli Johnson, FCC, Wireless Telecommunications Bureau, Competition & Infrastructure Policy Division, (202) 418-1395, eli.johnson@fcc.gov.

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PUBLIC SAFETY AND HOMELAND SECURITY BUREAU PROVIDES GUIDANCE ON IMPLEMENTATION OF NEXT GENERATION 911 (NG911) TRANSITION REPORT AND ORDER

Rules Effective November 25, 2024; Bureau Encourages Voluntary Collaboration by 911 Authorities and Originating Service Providers Pending Information Collection Approval by Office of Management and Budget

PS Docket Nos. 21-479 and 18-64

On July 18, 2024, the Federal Communications Commission (Commission) adopted a Report and Order (*Order*) with new rules for advancing the nationwide transition to Next Generation 911 (NG911).¹ The rules in the *Order*, which take effect on **November 25, 2024**,² define the obligations of originating service providers (OSPs)³ to deliver 911 traffic to NG911 networks as those networks are established by 911 Authorities.⁴ The rules establish definitions of “Next Generation 911” and other key terms,⁵ and address the allocation of costs between OSPs and 911 Authorities for the implementation of

¹ *Facilitating Implementation of Next Generation 911 Services (NG911); Location-Based Routing for Wireless 911 Calls*, PS Docket Nos. 21-479 and 18-64, Report and Order, FCC 24-78, 2024 WL 3507091 (July 19, 2024) (*Order*), corrected by Erratum, 2024 WL 3507091 (Sept. 5, 2024); also corrected by Second Erratum, 2024 WL 3507091 (Oct. 1, 2024). The Office of the Federal Register published a summary of the *Order* on September 24, 2024. 89 Fed. Reg. 78066 (Sept. 24, 2024), corrected by 89 Fed. Reg. 83628 (Oct. 17, 2024).

² 89 Fed. Reg. 78066; *Public Safety and Homeland Security Bureau Announces the Effective Date of Rules Adopted Pursuant to the Report and Order on Facilitating Implementation of Next Generation 911 Services (NG911)*, PS Docket Nos. 21-479 and 18-64, Public Notice, DA 24-986, 2024 WL 4331182 (PSHSB Sept. 24, 2024).

³ OSPs are providers that originate 911 traffic, specifically wireline providers, commercial mobile radio service (CMRS) providers, covered text providers, interconnected Voice over Internet Protocol (VoIP) providers, and Internet-based Telecommunications Relay Service (TRS) providers. *Order* at *81, Appx. A (47 CFR § 9.28).

⁴ *Order* at *2, paras. 2-3. The rules define 911 traffic as “all 911 calls (as defined in §§ 9.3, 9.11(b)(2)(ii)(A), 9.14(d)(2)(iii)(A), and 9.14(e)(2)(ii)(A)) and/or 911 text messages (as defined in § 9.10(q)(9)), as well as information about calling parties’ locations and originating telephone numbers and routing information transmitted with the calls and/or text messages.” The rules define 911 Authority as “[a] state, territorial, regional, Tribal, or local governmental entity that operates or has administrative authority over all or any aspect of a communications network for the receipt of 911 traffic at NG911 Delivery Points and for the transmission of such traffic from that point to PSAPs.” *See id.* at *79, Appx. A (47 CFR § 9.28).

⁵ *Id.* at *80, Appx. A (47 CFR § 9.28). The rules define “Next Generation 911” as “[a]n Internet Protocol-based system that—(1) ensures interoperability; (2) is secure; (3) employs commonly accepted standards; (4) enables emergency communications centers to receive, process, and analyze all types of 911 requests for emergency assistance; (5) acquires and integrates additional information useful to handling 911 requests for emergency assistance; and (6) supports sharing information related to 911 requests for emergency assistance among emergency communications centers and emergency response providers.” *Id.*

NG911.⁶

The new rules also authorize 911 Authorities to make Phase 1 and Phase 2 valid requests to OSPs for delivery of 911 traffic in Internet Protocol-based formats,⁷ and they require OSPs to comply with such requests within specified deadlines.⁸ The rules include procedures for challenging the validity of Phase 1 or Phase 2 requests⁹ and for modifying certain NG911 requirements by mutual agreement.¹⁰ As noted in the *Order*, these provisions of the new rules contain information collection and recordkeeping requirements subject to review and approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA).¹¹ The Public Safety and Homeland Security Bureau (Bureau) has initiated the OMB review process,¹² but compliance with these specific provisions will not be required until OMB approves the information collection.¹³

In the *Order*, the Commission encouraged voluntary efforts to further the transition to NG911 in light of the significant benefits to OSPs, subscribers, and public safety.¹⁴ Therefore, while the OMB review process is pending, the Bureau strongly encourages 911 Authorities, OSPs, and other stakeholders to collaborate voluntarily in planning and implementation of key steps in the NG911 transition. The Bureau also encourages parties to develop methods, processes, and best practices that will facilitate consensual OSP responses to 911 Authorities' voluntary requests.

Upon OMB approval of the information collection and recordkeeping requirements, notice will be provided in the Federal Register announcing such approval and the compliance date for these provisions. In addition, the Bureau will (1) issue a Public Notice with additional guidance on compliance with these provisions; (2) make available the OMB-approved form that 911 Authorities may use to submit valid Phase 1 and Phase 2 requests; and (3) open a new docket for submission of valid request forms to the Commission and inclusion on the Commission's centralized registry.¹⁵

For further information, please contact Brenda Boykin, Policy and Licensing Division, Public Safety and Homeland Security Bureau at (202) 418-2062 or brenda.boykin@fcc.gov.

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⁶ *Order* at *45, para. 132.

⁷ *See id.* at *82-83, Appx. A (47 CFR § 9.31(a), (b)).

⁸ *Id.* at *39, paras. 113-115.

⁹ *Id.* at *83, Appx. A (47 CFR § 9.31 (c)).

¹⁰ *Id.* at *85, Appx. A (47 CFR § 9.34 (a), (b)).

¹¹ *Id.* at *76, para. 225.

¹² *See* 89 Fed. Reg. 83012.

¹³ *Order* at *76, para. 225.

¹⁴ *Id.* at *31, *34, paras. 87, 97.

¹⁵ *Id.* at *37, para. 107.



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NOTICE OF INTERCONNECTED VOIP NUMBERING AUTHORIZATION APPLICATION EXTENSION OF REPLY COMMENT PERIOD

WC Docket No. 19-99

Revised Filing Date:

Reply Comments Due: December 6, 2024

The Wireline Competition Bureau (Bureau) hereby extends the reply comment filing period for the application listed in this Notice.

Interconnected VoIP Numbering Authorization Application Filed by NumberBarn, LLC, WC Docket No. 19-99, Public Notice, DA 24-984 (WCB Sept. 24, 2024).¹

On November 15, 2024, the applicant, NumberBarn, LLC (NumberBarn) filed a motion for extension of time to extend the reply comment deadline from November 22, 2024 to December 6, 2024.²

As set forth in section 1.46 of the Commission's rules, it is the policy of the Commission that extensions of time shall not be routinely granted.³ We find, however, that NumberBarn has shown good cause for an extension of the comment deadline. NumberBarn cites concerns with having inadequate time to respond to lengthy public comments, noting the number and scope of issues raised related to NumberBarn's operations. NumberBarn asserts that the comments raise serious business concerns that require a thorough response to each distinct argument, a response not possible in the 14-day timeframe

¹ Interconnected VoIP Numbering Authorization Application Filed by NumberBarn, LLC, WC Docket No. 19-99, Public Notice, DA 24-984 (WCB September 24, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/10924005061749> (originally establishing the public comment deadline as October 9, 2024).

² See Motion for Extension of Time, WC Docket No. 19-99 (filed Nov. 15, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/111537608422> (NumberBarn Motion). Previously, the National Association of Regulatory Utility Commissioners [NARUC] timely filed a Motion for an extension of time and to move NumberBarn's application from streamlined processing. See Motion of the National Association of Regulatory Utility Commissioners for Extension of Time and to Remove This Application from a Streamlined Pleading Cycle, WC Docket No. 19-99 (filed Sept. 24, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/10926270871273>. NumberBarn opposed NARUC's motion, filing a timely opposition. See Opposition to Motion for Extension of Time, WC Docket No. 19-99 (filed Oct. 1, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/100170639531>. The Bureau granted NARUC's motion, extending the comment period, creating a reply comment period, and removing the application from streamlined processing. See Notice of Interconnected VoIP Numbering Authorization Application Removal from Streamlined Treatment and Extension of Comment Period, WC Docket No. 19-99, Public Notice, DA 24-1041 (WCB Oct. 4, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/1004243609523>.

³ See 47 CFR § 1.46.

specified for reply comments.⁴ NumberBarn also notes that commenters sought and received an extended 30-day comment period, and requests similar treatment, albeit a substantially shorter extension period then sought by commenters.⁵

The Bureau finds that no party will be adversely impacted by this extension. Accordingly, the reply comment deadline is extended from November 22, 2024 to **December 6, 2024**.

For further information, please contact Jordan Reth, Competition Policy Division, Wireline Competition Bureau, at Jordan.Reth@fcc.gov, or (202) 418-1418.

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⁴ NumberBarn Motion at 1-2. Additionally, NumberBarn states that two commenters did not provide courtesy copies to them, so they were “not immediately aware of their filings” until conducting an independent search. *Id.* at 3, n.1. Per the Commission’s Electronic Comment Filing System (ECFS), it appears that the two comments in question were timely filed by the November 8 comment deadline, but were posted to the ECFS system by November 12. *See* Michigan Public Service Commission Comments, WC Docket No. 19-99 (rec. Nov. 8, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/1108165108539> (ECFS listing the date posed as Nov. 12, 2024); Arizona Corporation Commission Comments, WC Docket No. 19-99 (rec. Nov. 8, 2024), <https://www.fcc.gov/ecfs/search/search-filings/filing/11080718306940> (ECFS listing the date posed as Nov. 12, 2024).

⁵ *Id.* at 3.



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COMMENTS INVITED ON AT&T'S SECTION 214 APPLICATION TO GRANDFATHER AND DISCONTINUE LEGACY VOICE SERVICE AS PART OF A TECHNOLOGY TRANSITION

WC Docket No(s). 24-220

Comments Due: December 5, 2024

Unless otherwise specified, the following procedures and dates apply to the application (the Section 214 Discontinuance Application listed in the Appendix.

The Wireline Competition Bureau (Bureau), upon initial review, has found the Section 214 Discontinuance Application listed herein to be acceptable for filing and subject to the procedures set forth in Section 63.71 of the Commission's rules.¹ The application requests authority, under section 214 of the Communications Act of 1934, as amended,² and section 63.71 of the Commission's rules,³ to discontinue, reduce, or impair certain domestic telecommunications service(s) (Affected Service(s)) in specified geographic areas (Service Area(s)) as applicable and as fully described in each application.

In accordance with section 63.71(f) of the Commission's rules, the Section 214 Discontinuance Application listed in the Appendix will be deemed granted automatically on **December 21, 2024**, the 31st day after the release date of this Public Notice, unless the Commission notifies the applicant that its grant will not be automatically effective.⁴ We note that the date on which an application for Commission authorization is deemed granted may be different from the date on which applicants are authorized to discontinue, reduce, or impair service ("Authorized Date"). Any applicant whose application has been deemed granted may discontinue, reduce or impair their Affected Service(s) in their Service Area(s) on or after the authorized date specified in the Appendix, in accordance with their filed representations. Accordingly, pursuant to section 63.71(f), and the terms outlined in the application, absent further Commission action, the applicant may discontinue, reduce or impair the Affected Service(s) in the Service Area(s) described in the application on or after the authorized discontinuance date listed in the Appendix. For purposes of computation of time when filing a petition for reconsideration, application for

¹ 47 CFR § 63.71.

² 47 U.S.C. § 214.

³ 47 CFR § 63.71.

⁴ See 47 CFR § 63.71(f)(1) (stating, in relevant part, that an application filed by a non-dominant carrier "shall be automatically granted on the 31st day... unless the Commission has notified the applicant that the grant will not be automatically effective"); see also 47 CFR § 63.71(f)(2)(i) (stating that "[a]n application to discontinue, reduce, or impair an existing retail service as part of a technology transition, as defined in § 63.60(i), may be automatically granted... if: The applicant provides affected customers with the notice required under paragraph (a)(6) of this section, and the application contains the showing or certification described in § 63.602(b)").

review, or petition for judicial review of the Commission's decision, the date of "public notice" shall be the later of the auto grant date stated above in this Public Notice, or the release date of any further public notice or order announcing final Commission action, as applicable. Should no petitions for reconsideration, applications for review, or petitions for judicial review be timely filed, the proceeding listed in this Public Notice shall be terminated.

Comments objecting to the application listed in the Appendix must be filed with the Commission on or before **December 5, 2024**. Comments should refer to the specific WC Docket No. and Comp. Pol. File No. listed in the Appendix for the Section 214 Discontinuance Application. Comments should include specific information about the impact of the proposed discontinuance on the commenter, including any inability to acquire reasonable substitute service. Comments may be filed using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS): <https://www.fcc.gov/ecfs/>. Filers should follow the instructions provided on the Web site for submitting comments. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket number.

Parties who choose to file paper copies must file an original and one copy of each filing. Such filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. All filings must be addressed to the Secretary, Federal Communications Commission. Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building. Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.⁵ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

⁵ 47 CFR § 1.1200 *et seq.*

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY).

For further information, please see the contact for the Section 214 Discontinuance Application listed in the Appendix. For further information on procedures regarding section 214, please visit <https://www.fcc.gov/encyclopedia/domestic-section-214-discontinuance-service>.

– FCC –

Appendix

Applicant(s): AT&T Services, Inc. on behalf of its affiliate Southwestern Bell Telephone Company, LLC, d/b/a AT&T Oklahoma (AT&T)
WC Docket No. 24-220, Comp. Pol. File No. 1963

Link – [https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings.name:\(%2224-220%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2224-220%22)))

Affected Service(s) – AT&T Residential Local Service

Service Area(s) – nine wire centers in Bessie, Breckenridge, Carney, Hillsdale, Hitchcock, Morrison, Quapow, Rocky, and Tupelo, Oklahoma

Authorized Date(s) – on or after December 21, 2024

Contact(s) – Kimberly Jackson, (202) 418-7393 (voice), Kimberly.Jackson@fcc.gov, of the Competition Policy Division, Wireline Competition Bureau

Note: AT&T states that, on or after December 21, 2024, it plans to grandfather the Affected Service, and it will no longer be available for purchase by new customers. AT&T also states that it plans to discontinue the Affected Service on or after September 15, 2025. According to AT&T, it has demonstrated, based on the Commission’s “totality of the circumstances” standard,⁶ that AT&T Phone – Advanced (AP-A), an IP-based voice product, is an adequate replacement for AT&T Residential Local Service, a TDM-based voice service. AT&T states that it satisfies the Commission’s Adequate Replacement Test⁷ because the results⁸ of its previously-filed Network Performance Test Plan⁹ demonstrate that its AP-A service “provides substantially similar performance and availability” as the Affected Service based on a demonstration of the totality of the circumstances.¹⁰

⁶ See *Technology Transitions et al.*, GN Docket No. 13-5 et al., Declaratory Ruling, Second Report and Order, and Order on Reconsideration, 31 FCC Rcd 8283 (2016 *Technology Transitions Order*). An applicant can show substantially similar network performance “(i) through performance testing that demonstrates satisfaction of each of the benchmarks, or (ii) a demonstration, based on the totality of the circumstances, the network still provides substantially similar performance and availability.” 2016 *Technology Transitions Order* at 8314, para. 91.

⁷ See 47 CFR §§ 63.71(f)(2)(i); 63.602(b); see also 2016 *Technology Transitions Order*, 31 FCC Rcd 8283, 8303-56, paras. 65-194 (adopting the Adequate Replacement Test).

⁸ https://cpr.att.com/common/AP_Filing_Info.htm.

⁹ Network Performance Test Plan of AT&T, WC Docket No. 24-220 (filed July 19, 2024); see also *AT&T Files Network Performance Test Plan in Connection with Planned Section 63.71 Technology Transition Discontinuance Application*, WC Docket No. 24-220, Public Notice, DA 24-888 (WCB rel. Sept. 4, 2024).

¹⁰ See 2016 *Technology Transitions Order*, 31 FCC Rcd at 8314, para. 91. AT&T states that “to further ensure a smooth transition, AT&T commits that AT&T Residential Local Service customers in the Affected Service Area that switch to AP-A will receive a 30-day trial period during which they can choose to revert to their AT&T Residential Local Service if AP-A does not function as expected due to a lack of wireless or wireline connectivity.”



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0600
Internet: www.fcc.gov
TTY: 888-835-5322

DA 24-1159

Released: November 20, 2024

FCC ANNOUNCES TECHNOLOGICAL ADVISORY COUNCIL MEETING ON DECEMBER 19, 2024

This Public Notice serves as notice that, consistent with the Federal Advisory Committee Act,¹ the next meeting of the TAC will be held on Thursday, December 19, 2024 beginning at 10:00 am ET in the Commission Meeting Room of the Federal Communications Commission, 45 L Street, N.E., Washington, D.C. The public may attend the meeting in person at FCC headquarters at 45 L Street, NE, Washington, DC. Additionally, the meeting will be available to the public for viewing via the Internet at <http://www.fcc.gov/live>. While the TAC meeting is open to the public, the FCC headquarters building is not open access, and all guests must check in with and be screened by FCC security at the main entrance. Attendees are not required to have an appointment, but must otherwise comply with protocols outlined at: <https://www.fcc.gov/visit>.

The Technological Advisory Council (TAC) is comprised of a diverse group of leading technology experts. It provides technical expertise to the Commission to identify important areas of innovation and develop informed technology policies supporting the United States' competitiveness in the global economy. The TAC will consider and advise the Commission on topics such as continued efforts at looking beyond 5G advanced as 6G begins to develop so as to facilitate U.S. leadership; studying advanced spectrum sharing techniques, including the implementation of artificial intelligence and machine learning to improve the utilization and administration of spectrum; and other emerging technologies.

Dean Brenner, a former executive at Qualcomm, serves as Chairman of the Council, representing Aira Technologies. Martin Doczkat, Chief of the Electromagnetic Compatibility Division in the Office of Engineering and Technology, serves as the Designated Federal Officer. Sean Yun, Deputy Chief of the Electromagnetic Compatibility Division in the Office of Engineering and Technology, is the Alternate Designated Federal Officer.

More information about the TAC can be found at <https://www.fcc.gov/general/technological-advisory-council>. You may also contact Martin Doczkat, Designated Federal Official (DFO) for the TAC, at Martin.Doczkat@fcc.gov or (202) 418-2435.

–FCC–

¹ 5 U.S.C. App. 2.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Space Exploration Holdings, LLC	)	ICFS File Nos.
	)	SAT-LOA-20200526-00055
Request for Deployment and Operating Authority	)	SAT-AMD-20210818-00105
for the SpaceX Gen2 NGSO Satellite System	)	SAT-AMD-20221216-00175
	)	SAT-AMD-20241017-00228
	)	
	)	Call Signs: S2992 and S3069

ORDER AND AUTHORIZATION

Adopted: November 20, 2024

Released: November 20, 2024

By the Chief, Space Bureau:

I. INTRODUCTION

1. In this Order and Authorization (Order), we grant the request of Space Exploration Holdings, LLC (SpaceX)¹ for authority to deploy radiofrequency beacons that would operate in very high frequency (VHF) spectrum within the 137.00-138.00 MHz (space-to-Earth) and 148.00-150.05 MHz (Earth-to-space) MHz bands and to operate those beacons on up to 450 of its Gen2 Starlink satellites, as requested in the second amendment SpaceX filed to its application in December 2022 (SpaceX Gen2 Second Amendment). In doing so, we grant SpaceX's request for waiver of the Commission's processing round rules.² Grant of this portion of SpaceX's request will serve the public interest by allowing SpaceX to track and maintain contact with its Gen2 Starlink satellites during orbit raising and in the event of emergencies on-orbit.³

II. BACKGROUND

2. On November 29, 2022, the Commission granted in part and deferred in part SpaceX's

¹ See *Space Exploration Holdings, LLC*, Application for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-LOA-20200526-00055 (filed May 26, 2020) (SpaceX Gen2 Application); *Space Exploration Holdings, LLC*, Amendment to Pending Application for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-AMD-20210818-00105 (dated Aug. 18, 2021) (SpaceX Gen2 First Amendment); *Space Exploration Holdings, LLC*, Amendment to Pending Application for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-AMD-20221216-00175 (dated Dec. 16, 2022) (SpaceX Gen2 Second Amendment).

² See SpaceX Gen2 Second Amendment, Waiver Requests.

³ SpaceX has been operating these beacons, limited to a smaller number of satellites, pursuant to special temporary authority since early 2023. See, e.g., ICFS File No. SAT-STA-20221215-00174.

application, as amended, authorizing SpaceX to construct, deploy, and operate up to 7,500 Gen2 Starlink satellites, communicating in the Ku- and Ka-bands.⁴ The *SpaceX Gen2 First Partial Grant* also authorized SpaceX to conduct communications during orbit-raising and deorbit of its satellites for launch and early-orbit phase (LEOP) operations and communications testing.⁵ The Space Bureau⁶ has issued several additional related grants regarding SpaceX's Gen2 system,⁷ and other requests remain pending.⁸

3. On August 19, 2022 and October 4, 2022, SpaceX submitted letters to the Commission in which it provided initial details regarding its planned use of radiofrequency tracking beacons for its Gen2 Starlink satellites.⁹ On December 16, 2022, SpaceX filed this second amendment to the pending portion of its Gen2 Starlink application, seeking authorization to operate tracking beacons on some of its satellites, which would communicate in the 137.00-138.00 MHz (space-to-Earth) and 148.00-150.05 MHz

⁴ See generally *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, 37 FCC Rcd 14882 (2022) (*SpaceX Gen2 First Partial Grant*); *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, DA 24-222 (rel. Mar. 8, 2024) (*SpaceX E-Band Partial Grant*).

⁵ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14927-28, paras. 90-91; E-band Partial Grant at para. 18.

⁶ On January 4, 2023, the Commission adopted an Order that established the Space Bureau to handle the policy and licensing matters related to satellite communications and other in-space activities formerly handled by the International Bureau, which the Order eliminated. See *Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director*, MD Docket No. 23-12, Order, 38 FCC Rcd 608, paras. 1-2 (2023). The Space Bureau officially launched on April 11, 2023. See Press Release, FCC, FCC Space Bureau & Office of International Affairs to Launch Next Week (April 7, 2023), <https://docs.fcc.gov/public/attachments/DOC-392418A1.pdf>. All references in this document to the International Bureau and the Satellite Division refer to filings made with, or actions taken by, the International Bureau prior to the establishment of the Space Bureau.

⁷ In a second partial grant of SpaceX's Gen2 application, as amended, the Space Bureau authorized SpaceX to operate using E-band frequencies on its 7,500 authorized Gen2 satellites. See *SpaceX E-band Partial Grant*. In addition, the Space Bureau, Satellite Programs and Policy Division, granted, with conditions, SpaceX's request to modify its authorization for a separate constellation of satellites operating with V-band frequencies to instead add V-band capabilities to SpaceX's Gen2 Starlink satellites. See *Space Exploration Holdings, LLC, Application for Modification of Authorization of the SpaceX V-band NGSO Satellite System*, Grant Stamp, ICFS File No. SAT-MOD-20230322-00062 (granted-in-part/dismissed-in-part Oct. 13, 2023) (*SpaceX First V-band Modification Grant*). The Space Bureau, Satellite Programs and Policy Division, has also granted-in-part and deferred-in-part SpaceX's request to modify its Gen2 authorization to add supplemental coverage from space (SCS) capabilities to its Gen2 Starlink satellites. See *Space Exploration Holdings, LLC, Application for Modification of the Authorization for the SpaceX Gen2 NGSO Satellite System*, Grant Stamp, ICFS File No. SAT-MOD-20230207-00021, GN Docket No. 23-135 (granted-in-part/deferred-in-part Dec. 1, 2023) (*SpaceX SCS Modification Partial Grant*), petition for reconsideration pending.

⁸ For example, SpaceX's request to conduct commercial SCS operations in the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) frequency bands within the United States and to conduct SCS operations outside the United States in the 1429 MHz to 2690 MHz frequency range remains pending. SpaceX has also recently renewed its request to operate 7,500 authorized Gen2 satellites in lower altitude shells, requested a modification to the bond and milestone requirements for its V-band frequencies, and applied to modify its authorized Gen2 satellites and amend the application for the deferred portion of its Gen2 constellation to modify orbital characteristics, operational parameters, and frequency use for all authorized and proposed satellites. See ICFS File Nos. SAT-MOD-20241011-00224 and SAT-AMD-20241017-00228.

⁹ Letter from David Goldman, Director, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 at 6, n.17 (dated Aug. 19, 2022) (*SpaceX August 19, 2022 Letter*); Letter from David Goldman, Senior Director, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 at 2, Exhibit A (dated Oct. 4, 2022) (*SpaceX October 4, 2022 Letter*).

(Earth-to-space) bands.¹⁰ The SpaceX Gen2 application, as amended by the second amendment, was placed on public notice on January 13, 2023.¹¹ Myriota Pty Ltd (Myriota) initially requested that the Bureau deny SpaceX's request for waiver of the Commission's processing round rules and defer consideration of the SpaceX Gen2 Second Amendment until SpaceX provided additional technical information.¹² Myriota and SpaceX filed additional pleadings,¹³ and on August 10, 2023, SpaceX and Myriota filed a joint letter on the record to inform the Bureau that they had completed coordination, and as a result this coordination agreement should supersede or negate Myriota's previously-filed comments regarding radiofrequency interference and the need for a new VHF processing round.¹⁴ We also note that while SpaceX's request for beacon operations on its Gen2 satellites has remained pending, the Satellite Programs and Policy Division has granted several requests of SpaceX for special temporary authority (STA) to operate those beacons.¹⁵

III. DISCUSSION

4. After our review of the record, we conclude that further grant-in-part of the SpaceX Gen2 Starlink application, as amended, to authorize the use of additional frequencies, subject to the requirements and conditions specified herein, will serve the public interest. Below, we address the various outstanding issues raised by SpaceX's application. Where appropriate we defer matters of general applicability to ongoing or potential future rulemakings.

¹⁰ See generally SpaceX Gen2 Second Amendment.

¹¹ *Satellite Policy Branch Information, Space Station Applications Accepted for Filing*, Report No. SAT-01692 (Jan. 13, 2023).

¹² See Comments of Myriota Pty Ltd, ICFS File No. SAT-AMD-20221216-00175 (filed Feb. 13, 2023) (Myriota Comments). SpaceX filed a response, to which Myriota replied. See Comments of Space Exploration Holdings, LLC, ICFS File No. SAT-AMD-20221216-00175 (filed Feb. 28, 2023) (SpaceX Response); Reply of Myriota Pty Ltd, ICFS File No. SAT-AMD-20221216-00175 (filed Mar. 10, 2023) (Myriota Reply).

¹³ See Ex Parte Presentation of Myriota Pty Ltd, ICFS File No. SAT-AMD-20221216-00175 (dated Apr. 6, 2023) (Myriota April 6, 2023 Ex Parte); Letter from David Goldman, Senior Director, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20221216-00175 (dated Apr. 27, 2023) (SpaceX April 27, 2023 Letter); Ex Parte Presentation of Space Exploration Holdings, LLC, ICFS File No. SAT-AMD-20221216-00175 (filed Jun. 30, 2023) (SpaceX June 30, 2023 Ex Parte); Ex Parte Presentation of Myriota Pty Ltd, ICFS File No. SAT-AMD-20221216-00175 (dated Jul. 13, 2023) (Myriota July 13, 2023 Ex Parte); Letter from David Goldman, Vice President Satellite Policy, Space Exploration Holdings LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20221216-00175 (dated Apr. 15, 2024) (SpaceX April 15, 2024 Letter).

¹⁴ See Letter from David Goldman, Vice President Satellite Policy, Space Exploration Technologies Corp., and Yulia Kulikova, Director Regulatory Affairs, Myriota Pty Ltd, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-AMD-20221216-00175, SES-MOD-20221216-01364, SES-MOD-20221216-01365, SES-MOD-20221216-01367, SES-MOD-20221216-01370, SES-LIC-20230728-01922, SAT-PDR-20191118-00135, SAT-APL-20211213-00190 (dated Aug. 10, 2023) (SpaceX and Myriota August 10, 2023 Letter).

¹⁵ See e.g. *Space Exploration Holdings, LLC, Request for Special Temporary Authority*, Grant Stamp, ICFS File No. SAT-STA-20221215-00174 (granted-in-part and dismissed-in-part Jan. 23, 2023; reissued Jan. 30, 2023) (granting SpaceX authority to operate radiofrequency beacons on up to 15 satellites contained in an individual launch for a period of 30 days); *Space Exploration Holdings, LLC, Request for Special Temporary Authority*, Grant Stamp, ICFS File No. SAT-STA-20230202-00020 (granted Feb. 17, 2023) (granting authority for SpaceX to operate beacons on up to 50 satellites per launch, up to a maximum of 350 operating beacons at any one time); *Space Exploration Holdings, LLC, Request for Special Temporary Authority*, Grant Stamp, ICFS File No. SAT-STA-20230412-00084 (granted May 4, 2023) (granting authority for an additional 60 days); *Space Exploration Holdings, LLC, Request for Special Temporary Authority*, Grant Stamp, ICFS File No. SAT-STA-20230926-00234 (granted Sept. 28, 2023) (granting authority for an additional 60 days); *Space Exploration Holdings, LLC, Request for Special Temporary Authority*, Grant Stamp, ICFS File No. SAT-STA-20240409-00077 (granted April 26, 2024) (granting authority for an additional 60 days).

5. SpaceX requests to include a beacon on every Gen2 satellite going forward but operate no more than 450 such beacons at any one time.¹⁶ These beacons, when active, will “broadcast a telemetry tracking message with the Gen2 satellite’s Global Navigation Satellite System (“GNSS”)-derived location once every 100 seconds, on average.”¹⁷ SpaceX proposes to utilize its tracking beacons in two situations: (1) during the satellite’s launch and early-orbit phase (LEOP) operations; and (2) in the “unlikely event of an emergency” once the satellite has reached its operational altitude.¹⁸ In other words, these tracking beacons will serve as a backup telemetry, tracking, and command (TT&C) system for the Gen2 Starlink satellites.¹⁹ SpaceX explains that the radiofrequency beacons will provide benefits its previously-authorized TT&C frequencies will not, because the VHF frequencies are more likely to establish a link due to the lower frequencies, higher equivalent isotropic radiated power (EIRP), and site variation for the earth stations the beacons will use, which all result in less risk of atmospheric attenuation of the signal due to rain or snow.²⁰ SpaceX states, “[e]ach of these advantages can be especially critical when trying to establish contact with a satellite immediately after launch when location uncertainty and trackability are most challenging and precise information is the most essential.”²¹

6. The 137.00-138.00 MHz (space-to-Earth) and 148.00-150.05 MHz (Earth-to-space) bands²² are the same bands the International Bureau authorized SpaceX’s subsidiary Swarm Technologies, Inc. to operate in with different satellites.²³ These beacons would operate with right hand circular polarization and peak antenna gain of 0.0 dBi.²⁴ For its space-to-Earth communications in the 137.00-138.00 MHz band, SpaceX proposes 12 channels, each with a bandwidth of 0.025 megahertz, and with center frequencies of 137.055 MHz, 137.085 MHz, 137.115 MHz, 137.145 MHz, 137.3513 MHz, 137.5038 MHz, 137.6175 MHz, 137.8463 MHz, 137.8763 MHz, 137.9063 MHz, 137.9363 MHz, and 137.9663.²⁵ For its Earth-to-space communications in the 148.0-150.5 MHz band, SpaceX plans 14 channels with bandwidths of 0.025 megahertz each and center frequencies of 148.2825 MHz, 148.3125

¹⁶ See SpaceX Gen2 Second Amendment, Narrative at 1-2; SpaceX August 19, 2022 Letter at 6, N.17; SpaceX October 4, 2022 Letter at 2, Exhibit A.

¹⁷ See SpaceX Gen2 Second Amendment, Narrative at 2.

¹⁸ See *id.* at 1-2. SpaceX defines LEOP operations as occurring “between the injection of a Gen2 satellite at a lower-than-operational altitude through its orbit raising to its intended orbit.” SpaceX explains a satellite can spend several weeks orbit raising to its operational altitude, but once it reaches its operational altitude, the beacon will be turned off and will only transmit again in the event of an emergency. *Id.* at 2.

¹⁹ See *id.*

²⁰ See SpaceX Response at 3-4. SpaceX contends that its radiofrequency beacons are a “critical part of SpaceX’s efforts to promote sustainable operations in space, supporting the launch and early operations phase...for SpaceX’s Gen2 system...they confer benefits to all space operators, including Myriota.” *Id.* at 1.

²¹ *Id.* at 4. SpaceX states that while it has been operating in these frequencies under special temporary authority, the beacons have already allowed SpaceX to regain contact with satellites that would otherwise likely have reentered the atmosphere shortly after launch because of challenging atmospheric conditions. See SpaceX April 27, 2023 Letter at 2.

²² See SpaceX Gen2 Second Amendment, Narrative at 2, 5; SpaceX October 4, 2022 Letter, Exhibit A at 1.

²³ See SpaceX Gen2 Second Amendment, Narrative at 2; see also *Swarm Technologies, Inc., Application for Authority to Deploy and Operate a Non-Voice, Non-Geostationary Low-Earth Orbit Satellite System in the Mobile-Satellite Service*, Memorandum Opinion, Order and Authorization, 34 FCC Rcd 9469 (IB 2019) (*Swarm 2019 Grant*).

²⁴ See SpaceX Gen2 Second Amendment, Narrative at 5, 6; SpaceX October 4, 2022 Letter, Exhibit A at 1, 2.

²⁵ See Letter from David Goldman, Senior Director, Satellite Policy, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20221216-00175 at 3 (filed Dec. 21, 2022) (SpaceX December 21, 2022 Letter); SpaceX Gen2 Second Amendment, Narrative at 6; SpaceX October 4, 2022 Letter, Exhibit A at 2.

MHz, 148.3425 MHz, 148.3725 MHz, 148.4025 MHz, 148.4325 MHz, 148.4625 MHz, 148.4925 MHz, 148.5225 MHz, 148.5525 MHz, 148.6625 MHz, 148.6925 MHz, 148.7225 MHz, and 149.9250 MHz.²⁶ SpaceX states that its radiofrequency beacons will comply with the requirements for attenuation of mean power of emissions in the Commission's rules,²⁷ and that the beacons are designed to limit out-of-band emissions "to prevent interference with operations in adjacent bands, as well as with terrestrial, radio astronomy, and Federal government operations."²⁸ SpaceX also states that its radiofrequency beacons will have "no material effect" on other satellite systems.²⁹ SpaceX further states that it has also conducted analysis of its modified Gen2 Starlink satellites using NASA's Debris Assessment Software (DAS), and the addition of these beacons to its Gen2 Starlink satellites will not alter the favorable conclusions it previously provided to the Commission.³⁰

7. We conclude that SpaceX's proposed operations are in the public interest because they will provide SpaceX additional means of acquiring and tracking its satellites during orbit raising and in the event of an emergency on orbit, thereby facilitating the availability of that information for both SpaceX and other operators. We note that this action is taken without prejudice to SpaceX's request to operate the previously authorized 7,500 Gen2 Starlink satellites at lower altitudes of 340-360 km.³¹ That request and associated applications, which we consider to include a request for operations with these VHF beacons at those lower altitudes, remains pending and will be addressed separately.

8. *Channelization and Coordination with Federal Operators.* SpaceX's operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to TT&C operations.³² SpaceX's request has been coordinated with federal spectrum users through the National Telecommunications and Information Administration (NTIA).³³ Of those frequencies requested, the specific channel center frequencies coordinated for use are listed below, and SpaceX's operations are limited to these channel center frequencies: 137.055 MHz, 137.145 MHz, 137.8463 MHz, 137.8763 MHz, and 137.9663 MHz (space-to-Earth); and 148.2825 MHz, 148.3125 MHz, 148.3425 MHz, 148.3725 MHz, 148.4025 MHz, 148.4325 MHz, 148.4625 MHz, 148.4925 MHz, 148.5225 MHz, 148.5525 MHz, 148.6625 MHz, 148.6925 MHz, 148.7225 MHz, and 149.9250 MHz (Earth-to-space). Operations in these bands are also limited to those earth stations coordinated with U.S. federal operators, and SpaceX shall provide the Commission with an updated list of coordinated earth stations within 10 business days following any change to that list.³⁴ This authorization also includes conditions consistent with those applied to other operations in these bands,

²⁶ See SpaceX December 21, 2022 Letter at 3; SpaceX Gen2 Second Amendment, Narrative at 5; SpaceX October 4, 2022 Letter, Exhibit A at 1.

²⁷ See 47 CFR § 25.202(f); SpaceX December 21, 2022 Letter at 3.

²⁸ SpaceX December 21, 2022 Letter at 3.

²⁹ See SpaceX Gen2 Second Amendment, Narrative at 3.

³⁰ See *id.*

³¹ See Letter from David Goldman, Vice President of Satellite Policy, Space Exploration Holdings LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated Feb. 20, 2024); Space Exploration Holdings, LLC, Amendment of Application for Modification of the Authorization for the SpaceX Gen2 NGSO Satellite System to Add a Direct-to-Cellular System, ICFS File No. SAT-AMD-20240322-00061 (filed Mar. 22, 2024); Space Exploration Holdings, LLC, Request for Modification of the Authorization for the SpaceX V-band NGSO Satellite System, ICFS File No. SAT-MOD-20240423-00089 (filed Apr. 23, 2024).

³² SpaceX states that it will only perform backup TT&C operations with its radiofrequency beacons, and it does not object to a condition limiting its operations in this way. See SpaceX December 21, 2022 Letter at 1.

³³ SpaceX's request to operate in channels centered at 137.085 MHz, 137.115 MHz, 137.3513 MHz, 137.5038 MHz, 137.6175 MHz, 137.9063 MHz, and 137.9363 MHz (Earth-to-space) are not included in this grant of authority.

³⁴ A list of earth stations already coordinated with federal agencies is attached as Appendix A to this grant.

including the separate Swarm satellite constellation.³⁵

9. Additionally, consistent with operations in the space operations service, and as requested in coordination with federal spectrum users, we adopt a condition that SpaceX's operations in the 137.0-138.0 MHz band (earth-to-space) must conform to the International ITU-R Resolution 660,³⁶ which states the power flux-density at any point on the earth's surface produced by a space station of NGSO systems used for short duration missions shall not exceed $-140 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$.

10. *Waivers.* Generally, the Commission may waive any rule for good cause shown.³⁷ Waiver is appropriate only if both (1) special circumstances warrant a deviation from the general rule, and (2) such deviation better serves the public interest.³⁸ In making this determination, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.³⁹

11. All of the frequencies in which SpaceX proposes to operate, except for 149.9250 MHz, are allocated for space operations in the Table of Frequency Allocations,⁴⁰ and the operations for which SpaceX seeks authorization are consistent with that allocation. With respect to that one center frequency at 149.9250 MHz, the 149.9-150.05 MHz band in which it is located is allocated internationally solely for non-geostationary systems in the Mobile-Satellite Service (MSS).⁴¹ MSS is a radiocommunication service "between mobile earth stations and one or more space stations... or between mobile earth stations, by means of one or more space stations" and includes feeder links necessary for its operations.⁴² Although SpaceX describes its radiofrequency beacons as conducting communications in the MSS allocation, the operations are not described as consisting of communications between mobile earth stations or the feeder links for such communications. However, we conclude that a waiver of the Table of Frequency Allocations would be warranted on our own motion to permit SpaceX to operate uplinks using this single carrier. As SpaceX explains in its application, the uplink operations will be extremely limited, "pinging as little as two minutes per day," and would operate with technical parameters consistent with already authorized and coordinated frequency uses by its subsidiary Swarm. Such operations are not expected to present any meaningful interference concerns for other operators.⁴³ Noting the limited use of this single uplink carrier for SpaceX's TT&C operations, and the public interest benefits from improved information about spacecraft operations, we conclude that it is in the public interest to grant a waiver of the Table of Allocations.

³⁵ See *Swarm 2019 Grant*, 34 FCC Rcd at 9469.

³⁶ ITU R.R. 660.

³⁷ 47 CFR § 1.3.

³⁸ *NetworkIP, LLC v. FCC*, 548 F.3d 116, 125-128 (D.C. Cir. 2008) (citing *Northeast Cellular Telephone Co.*, 897 F.2d 1164, 1166 (1990)).

³⁹ *Northeast Cellular*, 897 F.2d at 1166 ("[A] waiver is appropriate only if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest. The agency must explain why deviation better serves the public interest and articulate the nature of the special circumstances to prevent discriminatory application and to put future parties on notice as to its operation"); *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969) ("The agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances.").

⁴⁰ See 47 CFR § 2.106(b).

⁴¹ 47 CFR § 2.106(b)(5.209).

⁴² 47 CFR § 25.103 (incorporating the definition from the ITU Radio Regulations).

⁴³ See SpaceX April 27, 2023 Letter at 3; see generally, SpaceX and Myriota August 10, 2023 Letter.

12. We also find that it is in the public interest to grant SpaceX's request for a waiver of the Commission's modified processing round procedure for considering NGSO applications.⁴⁴ Grant will enable, among other things, backup TT&C operations in the event of an unexpected occurrence on-orbit. Sections 25.156 and 25.157 of the Commission's rules set forth procedures for consideration of applications for NGSO satellite authorizations.⁴⁵ In most cases,⁴⁶ applications not filed in response to a public notice initiating a processing round will be considered lead applications, and the Commission will initiate a new processing round and establish a cut-off date for the filing of competing applications.⁴⁷ SpaceX filed its amendment to add radiofrequency beacons operating in the VHF bands well after the cut-off for the ongoing VHF processing round. However, SpaceX's subsidiary Swarm was authorized for operations in these frequency bands pursuant to this processing round.⁴⁸ We conclude that there is no need to consider SpaceX's requested operations as part of a processing round at this time. SpaceX has fully coordinated operations with Myriota, the only participant in the VHF processing round apart from Swarm, and thus SpaceX's operations are fully coordinated with prior processing round participants.⁴⁹ SpaceX's use of these bands is not for MSS but is instead for more limited TT&C operations, with individually identified earth stations, and will not preclude MSS licensees from operating in the bands. We therefore find it would not contravene Commission policy to waive the processing round procedures that are generally applicable to MSS systems and were designed to accommodate multiple NGSO systems that are not able to share spectrum. However, we condition this grant to require SpaceX to coordinate with any and all existing and future operators in these bands. We emphasize that granting this portion of SpaceX's application outside of a processing round does not confer on SpaceX any priority status with respect to systems authorized to operate in these bands under processing round procedures, including any potential later authorized systems.

IV. ORDERING CLAUSES

13. Accordingly, IT IS ORDERED, that the Gen2 Starlink Application, as amended, filed by Space Exploration Holdings, LLC (SpaceX), IS GRANTED-IN-PART and DEFERRED-IN-PART to the extent set forth above, pursuant to sections 0.51 and 0.261 of the Commission's rules, 47 CFR §§ 0.51 and 0.261, and section 309(a) of the Communications Act of 1934, as amended, 47 USC § 309(a).

14. IT IS FURTHER ORDERED that this authorization of SpaceX's Gen2 Starlink application, as amended, is subject to all requirements and conditions specified in prior orders, included below,⁵⁰ as well as the new conditions specified at paragraphs 15yy, zz, aaa, bbb, and ccc.

15. IT IS FURTHER ORDERED that this authorization is subject to the following requirements and conditions:

a. SpaceX must timely provide the Commission with the information required for Advance Publication, Coordination, and Notification of the frequency assignment(s) for this constellation, including due diligence information, pursuant to Articles 9 and 11 of the ITU Radio Regulations. This authorization may be modified, without prior notice, consistent with the coordination of the frequency assignment(s) with other Administrations. *See* 47 CFR § 25.111(b). SpaceX is responsible for all cost-

⁴⁴ *See* SpaceX Gen2 Second Amendment, Waiver Requests; 47 CFR § 25.157.

⁴⁵ *See* 47 CFR §§ 25.156(d)(1), 25.157.

⁴⁶ *See, e.g.*, 47 CFR § 25.157(b), (i) (noting an exception for applications for replacement satellites and applications filed under the streamlined process for small satellites or small spacecraft under sections 25.122 and 25.123 of the Commission's rules).

⁴⁷ *See* 47 CFR § 25.157(c)(2).

⁴⁸ *See generally*, *Swarm 2019 Grant*.

⁴⁹ *See generally*, SpaceX and Myriota August 10, 2023 Letter.

⁵⁰ We note that SpaceX has previously satisfied some of these conditions.

recovery fees associated with the ITU filings. 47 CFR § 25.111(d).

b. In connection with the provision of service in any particular country, SpaceX is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

c. Operations in the 10.7-11.7 GHz (space-to-Earth) frequency band are authorized up to the applicable power flux-density limits in 47 CFR § 25.208(b), and up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations, as well as Resolution 76 (Rev. WRC-15) of the ITU Radio Regulations.

d. In the 10.7-11.7 GHz band, operations must be coordinated with the radio astronomy observatories listed in 47 CFR § 2.106(c)(131), to achieve a mutually acceptable agreement regarding the protection of the radio telescope facilities operating in the 10.6-10.7 GHz band. For the purposes of coordination with these listed facilities or the National Radio Quiet Zone, correspondence should be directed to the National Science Foundation Spectrum Management Unit (Email: esm@nsf.gov).

e. Operations in the 11.7-12.2 GHz (space-to-Earth) frequency band are authorized up to the power flux-density limits in Article 21 of the ITU Radio Regulations, and up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations, as well as Resolution 76 (Rev. WRC-15) of the ITU Radio Regulations.

f. Operations in the 12.2-12.7 GHz (space-to-Earth) frequency band are authorized up to the power flux-density limits in 47 CFR § 25.208(o) and Article 21 of the ITU Radio Regulations, and up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations, as well as Resolution 76 (Rev. WRC-15) of the ITU Radio Regulations.

g. Operations in the 12.2-12.7 GHz (space-to-Earth) frequency band are subject to the condition that SpaceX may not use more than one satellite beam from any of its authorized Gen2 Starlink satellites in the same frequency in the same or overlapping areas at a time.

h. Operations in the 12.75-13.25 GHz (Earth-to-space) frequency band must be in accordance with footnote 5.441 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(b)(5.441), which states that operations in this band are subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations. Non-geostationary-satellite systems in the fixed-satellite service in the 12.75-13.25 GHz (Earth-to-space) frequency band shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated.

i. Operations of non-geostationary-satellite systems in the 12.75-13.25 GHz (Earth-to-space) frequency band with earth stations in the United States are restricted to individually licensed earth stations in accordance with footnote NG57 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(d)(57). Licensing of earth stations (i.e. filed after Sept. 19, 2022) for operations in the 12.75-13.25 GHz band will be subject to the filing freeze on applications for new or modified authorizations for use of the 12.7-13.25 GHz band. *See* Public Notice, DA 22-974 (released Sept. 19, 2022); *Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use*, Notice of Inquiry and Order, GN Docket No. 22-352, FCC 22-80 (rel. Oct. 28, 2022).

j. In the 13.85-14.5 GHz (Earth-to-space) frequency band, reception is permitted for levels up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations.

k. SpaceX's operations in the 13.85-14.0 GHz band must comply with footnotes 5.502 and US356 to the International and United States Table of Frequency Allocations, 47 CFR § 2.106(b)(5.502), (c)(356).

l. In the 14.47-14.5 GHz band, operations are subject to footnote US342 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(c)(342), and all practicable steps must be taken to protect the

radio astronomy service from harmful interference. Prior to commencing operations in the 14.47-14.5 GHz band, SpaceX must certify that it has updated its coordination agreement with the National Science Foundation to protect the radio astronomy service from harmful interference.

m. SpaceX's operations in the Ku-band are limited to minimum elevation angles of 25 degrees for all user terminals located below 62 degrees north latitude and minimum elevation angles of 5 degrees for user terminals located at or above 62 degrees north latitude.

n. Space-to-Earth operations in the 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz frequency bands must complete coordination with U.S. Federal systems, in accordance with footnote US334 to the United States Table of Frequency Allocations, 47 CFR § 2.106(c)(334), prior to being used. The use of space-to-Earth operations in the 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz bands must be in accordance with any signed coordination agreement between SpaceX and U.S. Federal operators. Two weeks prior to the start of any operations in the 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz bands, SpaceX must provide contact information for a 24/7 point of contact for the resolution of any harmful interference to Jimmy Nguyen, Email: Jimmy.Nguyen@us.af.mil.

o. Operations in the 18.8-19.3 GHz (space-to-Earth) frequency band are authorized up to the power flux-density limits in Article 21 of the ITU Radio Regulations.

p. Operations in the 19.7-20.2 GHz frequency band are subject to the condition that SpaceX may not use more than one satellite beam from any of its authorized Gen2 Starlink satellites in the same frequency in the same or overlapping areas at a time.

q. In the 27.5-28.6 GHz and 29.5-30 GHz (Earth-to-space) frequency bands reception is permitted at levels up to the applicable equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations.

r. Operations in the 27.5-28.35 GHz (Earth-to-space) frequency band are secondary with respect to Upper Microwave Flexible Use Service (UMFUS) operations, except for FSS operations associated with earth stations authorized pursuant to 47 CFR § 25.136.

s. Operations in the 28.35-28.6 GHz and 29.5-30 GHz (Earth-to-space) frequency bands are on a secondary basis with respect to GSO FSS operations.

t. Under 47 CFR § 25.146(a), SpaceX must receive a favorable or "qualified favorable" finding in accordance with Resolution 85 (WRC-03) with respect to its compliance with applicable equivalent power flux-density limits in Article 22 of the ITU Radio Regulations. SpaceX must communicate the ITU finding to the Commission, and in case of an unfavorable finding, SpaceX must adjust its operation to satisfy the ITU requirements. SpaceX must cooperate with other NGSO FSS operators in order to ensure that all authorized operations jointly comport with the applicable limits for aggregate equivalent power flux-density in the space-to-Earth direction contained in Article 22 of the ITU Radio Regulations, as well as Resolution 76 (WRC-03) of the ITU Radio Regulations.

u. SpaceX must make available to any requesting party the data used as input to the ITU-approved validation software to demonstrate compliance with applicable Equivalent Power Flux Density (EPFD) limits, including the data that combine the Gen2 Starlink satellites into one consolidated file.

v. SpaceX operations in the Ku- and Ka-band frequencies must comply with spectrum sharing procedures among NGSO FSS space stations specified in 47 CFR § 25.261 with respect to any NGSO system licensed or granted U.S. market access pursuant to the 2020 Ku/Ka-band processing round initiated in Public Notice DA 20-325. Spectrum sharing between SpaceX's operations and operations of NGSO systems granted U.S. market access, where such operations do not include communications to or from the U.S. territory, are governed only by the ITU Radio Regulations and are not subject to section 25.261.

w. Prior to commencing operations in the Ku- and Ka-band frequency bands, SpaceX must certify that it has made a coordination agreement with, or make a showing to the Commission

demonstrating and certifying that its operations will not cause harmful interference to, any operational system licensed or granted U.S. market access in the NGSO FSS processing rounds referred to in Public Notices DA 16-804, 31 FCC Rcd 7666 (IB 2016) and DA 17-524, 32 FCC Rcd 4180 (IB 2017). SpaceX may commence operations at its own risk, on a non-interference, unprotected basis with respect to any operations authorized in earlier processing rounds for which coordination has not been completed, prior to the approval of its showing by the Commission.

x. Operations in the 37.5-40.0 GHz band are unprotected with respect to the non-federal fixed and mobile services, except as authorized pursuant to 47 CFR § 25.136.

y. Operations in the 37.5-40.0 GHz band are authorized up to the power flux-density limits in 47 CFR § 25.208(r)(1). Prior to starting operation in this band, SpaceX must present the showing described in Section 25.114(c)(8) to confirm compliance with these power flux-density limits.

z. Operations in the 37.5-38.0 GHz and 40.0-40.5 GHz bands must be successfully coordinated with Federal Space Research Service (SRS) facilities, pursuant to Recommendation ITU-R SA.1396, "Protection Criteria for the Space Research Service in the 37-38 GHz and 40.0-40.5 GHz Bands."

aa. Operations in the 40-42 GHz band are authorized up to the power-flux density limits in 47 CFR § 25.208(s) and (t). We note that as part of the modification to its original V-band authorization, SpaceX reduced its power flux density by 8 dB in the 40.0-42.0 GHz (space-to-earth) frequency band.⁵¹ Therefore, SpaceX must operate its system consistent with this reduced PFD in the 40.0-42.0 GHz band.

bb. In accordance with 47 CFR § 2.106(c)(211), SpaceX is urged to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference from its operations in the 40.5-42 GHz band.

cc. Operations in the 47.2-48.2 GHz band must provide interference protection to the fixed and mobile services, except as authorized pursuant to 47 CFR § 25.136.

dd. Any future grant of earth station licenses for operations with the SpaceX system will be subject to the following condition, unless the condition is satisfied prior to such license grant: in the 48.94-49.04 GHz band, operations must be coordinated with radio astronomy stations operating on a co-primary basis in this band. Operations in the 47.2-50.2 GHz band are subject to rules adopted in the *Spectrum Frontiers Proceeding*, GN Docket 14-177.

ee. In accordance with 47 CFR § 2.106(c)(342), SpaceX is urged to take all practicable steps to protect radio astronomy observations from harmful interference from its operations in the 48.94-49.04 GHz band.

ff. Unwanted earth station emissions into the 50.2-50.4 GHz band, as measured at the antenna port, must comport with either of the applicable limits contained in ITU-R Resolution 750 (REV. WRC-19):

- i. -42 dBW into the 200 MHz of the EESS (passive) band for earth stations not employing uplink power control, or
- ii. -42 dBW into the 200 MHz of the EESS (passive) band at zenith increasing to a maximum level of -35 dBW into the 200 MHz of the EESS (passive) band at a minimum elevation angle of 15° for earth stations employing uplink power control.

gg. Operations in the 50.4-51.4 GHz band (Earth-to-space) must provide interference protection to the fixed and mobile services, except for earth stations authorized pursuant to 47 CFR § 25.136.

⁵¹ See Space Exploration Holdings, LLC, Application for Modification of the Authorization for the SpaceX V-band NGSO Satellite System, ICFS File No. SAT-MOD-20230322-00062, Legal Narrative at 10 (filed Mar. 22, 2023).

hh. Operations in the 50.4-51.4 GHz band (Earth-to-space) must not cause unacceptable interference to, or claim protection from, a geostationary satellite orbit (GSO) fixed satellite service or GSO broadcast satellite service network. These operations must comply with ITU Radio Regulations Nos. 22.5L and 22.5M.

ii. We note that as part of the modification to its original V-band authorization, SpaceX reduced its equivalent isotropic radiated power (EIRP) in the 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands.⁵² Therefore, SpaceX must operate its system in accordance with this reduced EIRP in the 47.2-50.2 and 50.4-51.4 GHz bands.

jj. SpaceX may conduct operations in the 40.0-42.0 GHz (space-to-Earth) and 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands down to a minimum elevation angle of 25 degrees. SpaceX may conduct operations in the 37.5-40.0 GHz band (space-to-Earth) frequency band down to a minimum elevation angle of 35 degrees.

kk. SpaceX operations in V-band frequencies must comply with the spectrum sharing procedures among NGSO FSS space stations specified in 47 CFR § 25.261 with respect to any NGSO system licensed or granted U.S. market access pursuant to the processing round initiated in Public Notice, DA 16-1244. Spectrum sharing between SpaceX's operations and operations of NGSO systems granted U.S. market access, where such operations do not include communications to or from U.S. territory, are governed only by the ITU Radio Regulations and are not subject to Section 25.261.

ll. SpaceX operations in V-band frequencies shall not cause interference to, and shall not claim protection from, GSO networks operating in the FSS and BSS in accordance with Section 25.289 of the Commission's rules, 47 CFR § 25.289. In the event that relevant EPFD limits or procedures related to sharing between GSO and NGSO networks are adopted by the Commission or the ITU, operations must be in conformance with such limits and procedures.

mm. SpaceX must coordinate its proposed frequency use for operations in the 71.0-76.0 GHz (space-to-Earth) and 81.0-86.0 GHz (Earth-to-space) frequency bands with any existing U.S. licensees or U.S. market access grantees in the Fixed-Satellite Service whose facilities could be affected by SpaceX's E-band operations, in terms of frequency interference or restricted capacity, and SpaceX must cooperate fully with other future co-frequency Fixed-Satellite Service satellites or satellite systems in coordinating operations in these bands.

nn. SpaceX must comply with any sharing requirements adopted as part of a future E-band processing round that includes the 71.0-76.0 GHz and 81.0-86.0 GHz bands.

oo. Operations in the 71.0-76.0 GHz (space-to-Earth) and 81.0-86.0 GHz (Earth-to-space) frequency bands must comply with the default service rules in section 25.217 of the Commission's rules, 47 CFR § 25.217. Should the Commission develop service rules specific to these frequency bands, SpaceX must come into compliance with those rules.

pp. Prior to filing an application for a gateway earth station for operations in the 71.0-76.0 GHz and 81.0-86.0 GHz bands, SpaceX must complete coordination with Federal users and non-federal terrestrial licensees (47 CFR § 101.1523) in accordance with the provisions in 47 CFR § 25.203(c) for links registered or pending in the third-party database.

qq. In the 81.0-86.0 GHz band, operations must be coordinated with the radio astronomy observatories listed in 47 CFR § 2.106(c)(161).

rr. In the 81.0-86.0 GHz band, operations are subject to footnote US342 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(c)(342), and all practicable steps must be taken to protect the

⁵² *Id.*

radio astronomy service from harmful interference. Prior to commencing operations in the 81.0-86.0 GHz band, SpaceX must certify that it has updated its coordination agreement with the National Science Foundation to protect the radio astronomy service from harmful interference.

ss. Prior to commencing operations of downlink and uplink operations in the 71.0-76.0 GHz and 81.0-86.0 GHz frequency bands, respectively, SpaceX must demonstrate compliance with operational conditions as prescribed and coordinated with NTIA and the U.S. Federal Fixed Satellite Service (FSS) systems. Downlink and uplink operations in the 71.0-76.0 GHz and 81.0-86.0 GHz frequency bands, respectively, must be in accordance with any signed coordination agreement between SpaceX and U.S. Federal FSS operators. Two weeks prior to the start of any operations in the 71.0-76.0 GHz and 81.0-86.0 GHz bands, SpaceX must provide contact information for a 24/7 point of contact for the resolution of any harmful interference to Jimmy Nguyen, Email: Jimmy.Nguyen@us.af.mil, or alternate contact provided by the U.S. Air Force.

tt. In the 86.0-92.0 GHz band, operations are subject to footnote US246 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(c)(246). Prior to commencing operations in the 81.0-86.0 GHz band, SpaceX must certify that it has a signed coordination agreement or agreements with U.S. federal operators utilizing the 86-92 GHz band for passive services.

uu. All operations by SpaceX for the limited on-orbit check out⁵³ in the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) bands shall be on an unprotected and non-harmful interference basis, i.e., SpaceX shall not cause harmful interference to, and shall not claim protection from interference caused to it, by any lawfully operating station.

vv. In the event of any harmful interference during SpaceX's limited on-orbit check out for operations in the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) frequency bands, SpaceX shall cease operations immediately upon notification of such interference, and shall inform the Commission, in writing, immediately of such an event.

ww. SpaceX shall coordinate with any potentially affected operators, including operators authorized to use the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) frequency bands, before operating in those bands for its planned on-orbit check out. SpaceX must provide to the other operator(s) the dates of the testing and a stop-buzzer point of contact in the event that harmful interference occurs.

xx. Any action taken or expense incurred as a result of operations pursuant to the *SpaceX SCS Modification Partial Grant* is solely at SpaceX's own risk. That grant in part only addresses operations in the 1910-1915 MHz and 1990-1995 MHz bands for purposes of limited on-orbit checkout with authorized earth station(s) in the United States. SpaceX must obtain additional approval from the Commission before conducting any operations with its satellites in the 1429 MHz to 2690 MHz frequency range with any locations outside the United States. Neither the *SCS Modification Partial Grant* nor this grant authorize SpaceX to provide service, perform any launch and early orbit phase (LEOP) operations other than the limited satellite check out specified in the scope of grant, conduct testing, or send or receive any other transmissions in the 1429 MHz to 2690 MHz range.⁵⁴

yy. Operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to telemetry, tracking, and command (TT&C) operations on no more than 450 satellites at any one time.

⁵³ The scope of the *SpaceX SCS Modification Partial Grant* included authorization for a limited on-orbit check out of the antennas immediately following deployment of each satellite for a period of 10 days or less, to ensure initial functionality of the satellite antenna. See *SpaceX SCS Modification Partial Grant*, Scope of Grant.

⁵⁴ Accordingly, the *SpaceX SCS Modification Partial Grant* does not address considerations associated with any operations in these frequency bands, including the need for any waivers of the Table of Frequency Allocations, section 2.106(a) of the Commission's rules. 47 CFR § 2.106(a).

zz. Operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to those earth stations coordinated with U.S. federal operators. SpaceX shall provide the FCC with an updated list of coordinated earth stations within ten business days following any changes to that list.⁵⁵

aaa. SpaceX's operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are subject to the same technical limitations as the operations of Swarm Technologies Inc. in these frequencies, *see Swarm 2019 Grant*, 34 FCC Rcd 9469, except as further limited in this Order.

bbb. SpaceX's operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to channels centered at 137.055 MHz, 137.145 MHz, 137.8463 MHz, 137.8763 MHz, and 137.9663 MHz (space-to-Earth) and 148.2825 MHz, 148.3125 MHz, 148.3425 MHz, 148.3725 MHz, 148.4025 MHz, 148.4325 MHz, 148.4625 MHz, 148.4925 MHz, 148.5225 MHz, 148.5525 MHz, 148.6625 MHz, 148.6925 MHz, 148.7225 MHz, and 149.9250 MHz (Earth-to-space).

ccc. Operations in the 137.0-138.0 MHz band (earth-to-space) must conform to ITU-R Resolution 660 that states the power flux-density at any point on the earth's surface produced by a space station of NGSO systems used for short duration missions shall not exceed -140 dB(W/(m² · 4 kHz)).

ddd. During launch and early orbit phase operations, payload testing, and deorbit of its satellites, SpaceX must operate on a non-harmful interference basis, *i.e.*, SpaceX must not cause harmful interference and must accept any interference received. In the event of any harmful interference under this grant, SpaceX must immediately cease operations upon notification of such interference and inform the Commission, in writing, of such an event.

eee. SpaceX must operate consistent with the technical specifications provided to the Commission, including any supplemental specifications, in connection with this application, as amended, for its Gen2 Starlink constellation, including antenna beam patterns; GSO avoidance angle; physical characteristics; frequencies used for satellite communications, including outside the United States; and other technical information. Should SpaceX wish to alter these technical specifications, it must apply for a license modification from the Commission, and SpaceX may not begin operations with modified parameters until such modification is granted.

fff. SpaceX shall maintain full control of its satellites at all times and shall operate its satellites in accordance with any existing coordination agreements.

ggg. SpaceX must provide a semi-annual report, by January 1 and July 1 each year, covering the preceding six-month period, respectively, from June 1 to November 30 and December 1 to May 31. The report should include the following information:

- i. The number of conjunction events identified for Starlink satellites during the reporting period, and the number of events that resulted in an action (maneuver or coordination with another operator), as well as any difficulties encountered in connection with the collision avoidance process and any measures taken to address those difficulties.
- ii. Satellites that, for purposes of disposal, were removed from operation or screened from further deployment at any time following initial deployment, and identifying whether this occurred less than five years after the satellite began regular operations or were available for use as an on-orbit replacement satellite,
- iii. Satellites that re-entered the atmosphere,
- iv. Satellites for which there was a disposal failure, *i.e.*, a satellite that loses the capability to maneuver effectively after being raised from its injection, including a discussion of any assessed cause of the failure and remedial actions. For each such satellite, SpaceX shall report an estimated orbital lifetime for the satellite following the failure, and for the Gen2

⁵⁵ A list of earth stations already coordinated with federal agencies is attached as Appendix A to this grant.

Starlink constellation the cumulative number of failed satellite object years,

- v. Identification of any collision avoidance system outages or unavailability, either on a system-wide basis or for individual satellites. An “outage” would include any individual satellite anomaly that results in a satellite not achieving targeted risk mitigation via maneuver.

hhh. In the event of satellite failures resulting in more than 100 post-failure object years, SpaceX may not deploy any additional satellites until the Commission has approved a license modification that includes an updated orbital debris mitigation plan addressing reduction in the failure rate or mitigation of the risk of satellite failures.

iii. SpaceX must maintain satellite orbits so as to operate all of its satellites at or below 580 km.

jjj. SpaceX may not deploy any satellites designed for operational altitudes below the International Space Station.⁵⁶

kkk. SpaceX must communicate and collaborate with NASA to ensure that deployment and operation of its satellites does not unduly constrain deployment and operation of NASA assets and missions, supports safety of both SpaceX and NASA assets and missions and preserves long-term sustainable space-based communications services. SpaceX must report on the progress of its communications and collaboration efforts to the Commission in its regular reports specified in condition ggg.

lll. SpaceX may not deploy any satellites authorized for its Gen2 system directly to their operational altitude.⁵⁷

mmm. Upon receipt of a conjunction warning from the 18th Space Control Squadron or other source, SpaceX must review and take all possible steps to assess the collision risk, and mitigate collision risk if necessary. As appropriate, steps to assess and mitigate should include, but are not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.

nnn. SpaceX must continue to coordinate and collaborate with NASA to promote a mutually beneficial space environment that would minimize impacts to NASA’s science missions involving astronomy.

ooo. SpaceX must coordinate with NSF to achieve a mutually acceptable agreement to mitigate the impact of its satellites on optical ground-based astronomy. SpaceX must submit an annual report to the Commission, by January 1st each year covering the preceding year containing the following information: (1) whether it has reached a coordination agreement with NSF addressing optical astronomy; and (2) any steps SpaceX has taken to reduce the impact of its satellites on optical astronomy, including but not limited to darkening, deflecting light away from the Earth, attitude maneuvering, and provision of orbital information to astronomers for scheduling observations around satellites’ locations.

ppp. SpaceX must follow its commitment to work with the scientific community to explore methods to collect observational data on formation of alumina from satellite reentry, to implement reasonable methods that are discovered to the extent practicable, and to report findings from these

⁵⁶ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd. at 14888-89, para. 7 (describing SpaceX’s request for some satellites to be deployed in orbital shells centered at altitudes from 340 km to 360 km (below the ISS)). See also *id.* at 14952-53, para. 135bb. Language change from the initial ordering clause is to avoid any confusion with respect to FAA’s role in launch collision avoidance.

⁵⁷ *Id.* at 14927-28, para. 91.

measurements taken to the Commission, as part of its annual report specified in condition ooo.

qqq. This authorization is subject to modification to bring it into conformance with any rules or policies adopted by the Commission in the future. Accordingly, any investments made toward SpaceX's Gen2 operations, including but not limited to any operations in bands authorized in this Order, assume the risk that operations may be subject to additional conditions or requirements as a result of any future Commission actions. This includes, but is not limited to, any conditions or requirements resulting from any action in the proceedings associated with IB Docket 22-271 and IB Docket 18-313,⁵⁸ WT Docket 20-443,⁵⁹ WT Docket 20-133,⁶⁰ IB Docket 21-456,⁶¹ GN Docket 22-352,⁶² And GN Docket 23-65.⁶³

rrr. All operations of the Gen2 Starlink system must also comport with any additional terms and conditions contained in the *SpaceX Gen2 First Partial Grant*, the *SpaceX E-band Partial Grant*, the *SpaceX First V-band Modification Grant*, and the *SpaceX SCS Modification Partial Grant*.⁶⁴

16. IT IS FURTHER ORDERED that SpaceX is subject to the rules regarding the sharing of ephemeris data in section 25.146(e) of the Commission's rules, 47 CFR § 25.146(e).

17. IT IS FURTHER ORDERED that this authorization is also subject to the following requirements:

a. Applicable to SpaceX Gen2 satellites:

- i. SpaceX must post a surety bond in satisfaction of 47 CFR §§ 25.165(a)(1) & (b) no later than **December 31, 2022**,⁶⁵ and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(1); and
- ii. SpaceX must launch 50% of the maximum number of proposed space stations, place them in the assigned orbits, and operate them in accordance with the station authorization no later than **December 1, 2028**, and SpaceX must launch the remaining space stations necessary to complete its authorized service constellation,

⁵⁸ See generally *Orbital Debris in the New Space Age, Report and Order and Further Notice of Proposed Rulemaking*, 35 FCC Rcd 4156 (2020); *Space Innovation; Mitigating Orbital Debris in the New Space Age*, Second Report and Order, FCC 22-74 (2022).

⁵⁹ See generally *Expanding Flexible Use of the 12.2-12.7 GHz Band*, Notice of Proposed Rulemaking, 36 FCC Rcd 606 (2021).

⁶⁰ See generally *Modernizing and Expanding Access to the 70/80/90 GHz bands*, Et Al., Notice of Proposed Rulemaking, 35 FCC Rcd 6039 (2020).

⁶¹ See generally *Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems; Revision of Section 25.261 of the Commission's Rules to Increase Certainty in Spectrum Sharing Obligations Among NGSO FSS Systems*, Order and Notice of Proposed Rulemaking, 36 FCC Rcd 17871 (2021).

⁶² See generally *Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use*, Notice of Inquiry and Order, FCC 22-80 (rel. Oct. 28, 2022).

⁶³ See generally *Single Network Future: Supplemental Coverage from Space*, Notice of Proposed Rulemaking, FCC 23-22 (Mar. 17, 2023).

⁶⁴ See generally *SpaceX Gen2 First Partial Grant*; *SpaceX E-band Partial Grant*; *SpaceX First V-band Modification Grant*; *SpaceX SCS Modification Partial Grant*.

⁶⁵ SpaceX has satisfied this part of the condition by posting the surety bond for its Gen2 satellites operating in the Ku-, Ka-, and E-band frequencies. See Bond of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Dec. 30, 2022).

place them in their assigned orbits, and operate each of them in accordance with the authorization no later than **December 1, 2031**. 47 CFR § 25.164(b).⁶⁶

- b. Applicable to SpaceX operations in the V-band⁶⁷:
 - i. SpaceX must post a surety bond in satisfaction of 47 CFR §§ 25.165(a)(1) & (b) no later than **December 19, 2018**,⁶⁸ and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(1); and
 - ii. SpaceX must launch 50 percent of the maximum number of proposed space stations with V-band capabilities, place them in the assigned orbits, and operate them in accordance with this grant no later than **November 19, 2024**, and must launch the remaining space stations necessary to complete its authorized V-band system, place them in their assigned orbits, and operate them in accordance with the authorization no later than **November 19, 2027**. 47 CFR § 25.164(b).
- c. Failure to post and maintain a surety bond will render this grant null and void automatically, without further Commission action.
- d. Failure to meet the milestone requirements of 47 CFR § 25.164(b) may result in SpaceX's authorization being reduced to the number of satellites in use at the milestone date. Failure to comply with the milestone requirements of 47 CFR § 25.164(b) will also result in forfeiture of SpaceX's surety bond. SpaceX must either demonstrate compliance with each of the milestone requirements or notify the Commission in writing, within 15 days after the specified deadline, if the particular requirement was not met. 47 CFR § 25.164(f).

18. IT IS FURTHER ORDERED that SpaceX's request for waiver of the Commission's processing round rules, 47 CFR §§ 25.156, 25.157, is DISMISSED as moot.

19. IT IS FURTHER ORDERED that we waive on our own motion the United States Table of Frequency Allocations, 47 CFR § 2.106, to permit SpaceX to conduct TT&C operations in the 149.9-150.05 MHz band.

⁶⁶ We note that the *NGSO FSS Order* modified section 25.164(b) to offer additional flexibility and requires launch and operation of 50% of an authorized system within six years of grant and the remaining satellites within nine years of grant.

⁶⁷ See *SpaceX First V-band Modification Grant*. The separate milestones applicable to SpaceX's V-band operations are consistent with SpaceX's original V-band authorization. SpaceX has filed an application to modify its milestone deadlines for the V-band satellites.

⁶⁸ SpaceX has satisfied this part of the condition by filing its surety bond in accordance with the condition on its original V-band authorization on December 3, 2018. See Bond of Space Exploration Holdings, LLC, ICFS File No. SAT-LOA-20170301-00027 (filed Dec. 3, 2018).

20. This grant is without prejudice to any future action taken in connection with the SpaceX Gen2 Starlink constellation, call signs S2992 and S3069.

21. This grant does not alter the license term for the SpaceX Starlink Gen2 satellite system.

FEDERAL COMMUNICATIONS COMMISSION

Julie M. Kearney
Chief
Space Bureau

APPENDIX A**List of Earth Stations Coordinated with Federal Operators**

1. Sussex, NJ, Call Sign E190858
2. Wailuku, HI, Call Sign E190859
3. Piti, Guam, Call Sign E191406
4. Draper, UT, Call Sign E210061
5. Aasiaat, Greenland
6. Awarua, New Zealand
7. Azores, Portugal
8. Goonhilly, United Kingdom
9. Leeheim, Germany
10. Mauritius
11. St. Helena
12. Wagin, Australia
13. Yass, Australia



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov

DA 24-1162

November 25, 2024

MEDIA BUREAU REMINDS PROSPECTIVE APPLICANTS OF NCETV STATION FILING WINDOW AND LIMITED APPLICATION FILING FREEZES

The Media Bureau (Bureau) reminds prospective applicants of the upcoming filing window for applications for new noncommercial educational television (NCETV) station construction permits (NCETV Filing Window). **As previously announced, the window will open at 12:01 a.m. EST on Wednesday, December 4, 2024, and close at 6:00 p.m. EST on Wednesday, December 11, 2024.¹** Applications submitted before the opening of the NCETV Filing Window or after the 6:00 p.m. EST close of the window will be dismissed without further consideration. Applicants should closely review the Public Notice announcing the NCETV window for information concerning eligible allotments in the Table of TV Allotments (Table), filing procedures, eligibility requirements, and how applications will be processed.² Applications filed during the NCETV Filing Window will not be made available to the public until after the close of the window.³ We encourage applicants to file early in the window to ensure proper and timely submission.

In addition, we remind television broadcasters that **effective 12:01 a.m. EST on December 3, 2024, the Commission will impose a limited freeze and will not accept rulemaking petitions for full power television stations to change channel, and minor and major change applications for full power and Class A television stations.** As of October 10, 2024, the Commission temporarily stopped accepting petitions to amend the Table to allot new reserved noncommercial educational channels to communities.⁴ These temporary freezes have been implemented to promote transparency and predictability for NCETV Filing Window applicants and will continue in effect until the close of the window on December 11, 2024 at 6:00 p.m. EST.

For additional information please contact Joyce Bernstein (legal) at Joyce.Bernstein@fcc.gov; Emily Harrison (legal) at Emily.Harrison@fcc.gov; Kevin Harding (technical) at Kevin.Harding@fcc.gov; or Mark Colombo (technical) at Mark.Colombo@fcc.gov. Direct press inquiries to Nancy Murphy, Nancy.Murphy@fcc.gov, (202) 418-1043.

- FCC -

¹ See *Media Bureau Announces Filing Window for New Noncommercial Educational Television Stations from December 4 through December 11, 2024, and Sets Forth Filing Procedures and Requirements*, Public Notice, DA 24-1065 (MB Oct. 10, 2024) (*NCETV Window Public Notice*); see also Federal Communications Commission, *Filing Window for New Noncommercial Educational Television Stations*, 89 Fed. Reg. 84131 (Oct. 21, 2024).

² See *NCETV Window Public Notice*. Prospective applicants should refer to the revised instructions for filing construction permits for new NCETV stations contained in Appendix A to this Public Notice.

³ See *id.* at 2.

⁴ See *id.* at 1.

APPENDIX A**INSTRUCTIONS FOR ACCESSING AND FILING IN LMS****General Log-in Instructions**

1. Access the LMS data entry home page at: <https://enterpriseefiling.fcc.gov/dataentry/login.html>.
2. Log-in using the FRN associated with the station.

Application For Construction Permits for New NCETV Stations

1. Click on “File an Application” button.
2. Select “Form 2100, Schedule A-340 – Noncommercial Educational Reserved Channel Construction Permit Application” for NCETV stations from the drop-down menu.
3. Complete the application and click “Submit.”

For questions regarding basic filing requirements, or assistance logging into LMS or accessing Schedule A-340, please contact the Commission at (877) 480-3201 (Option 2), Monday-Friday, 8:00 a.m.-6:00 p.m. EST, or submit a request online at <https://www.fcc.gov/media/radio/lms-help-center>.



PUBLIC NOTICE

Federal Communications Commission
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DA 24-1163
November 21, 2024

**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES
REGION 28 (EASTERN PENNSYLVANIA, SOUTHERN NEW JERSEY AND DELAWARE
AREA) REGIONAL PLANNING COMMITTEES 700 MHZ AND 800 MHZ
2025 MEETINGS SCHEDULE**

PS Docket No. 23-237 and WT Docket 02-378

The Region 28 (Delaware, Eastern Pennsylvania, and Southern New Jersey Area) Public Safety 700 MHz RPC and 800 MHz Regional Planning Committees (RPCs)¹ will hold their 2025 quarterly meetings on the following dates. All 2025 meetings will be conducted remotely via Microsoft Teams.

Region 28 700 MHz and 800 MHz RPC Meetings Schedule for 2025

- Tuesday, January 14, 2025, 10:00 AM - Remote ONLY
- Tuesday, April 8, 2025, 10:00 AM - Remote ONLY
- Tuesday, July 8, 2025, 10:00 AM - Remote ONLY
- Tuesday, October 21, 2025, 10:00 AM - Remote ONLY

To participate:

- Microsoft Teams meeting via this [LINK](#)
- Meeting ID: 242 220 612 475
- Passcode: yibwRa
- Or call in (audio only): +1 323-792-6328, 420921184#
- Phone Conference ID: 420 921 184#

The agenda for the meetings include:

- Call to Order - Roll Call & Introductions
- Approval of Minutes
- Chair Report
- Vice Chair Report
- Secretary Report
- Technical Report 700 & 800 MHz
- Regional State Interoperability Executive Committee Updates
- Old Business
- New Business
- Future Meeting Dates
- Adjourn

¹ The Region 28 (Delaware, Eastern Pennsylvania, Southern New Jersey) regional planning area includes the entire state of Delaware, the Pennsylvania counties of Berks, Bradford, Bucks, Carbon, Chester, Columbia, Dauphin, Delaware, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montgomery, Montour, Northampton, Northumberland, Philadelphia, Pike, Schuylkill, Sullivan, Susquehanna, Tioga, Wayne, Wyoming, and York, and the Southern New Jersey counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean, and Salem.

The Region 28 RPC 700 and 800 MHz meetings are open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property within Region 28 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not conversant with telecommunications technology should ensure that suitably conversant staff represent their respective agencies.

All interested parties wishing to participate in the planning for the use of the Public Safety spectrum in the 700 MHz and/or 800 MHz bands within Region 28 are encouraged to attend. For further information, please contact:

James Shelton – Region 28 Secretary, 700 & 800 MHz
V-COMM, LLC
740 Springdale Drive, Suite 160
Exton, PA 19341
Ph: 610-684-1000 x235
Ph Direct: 484-773-0251
Fax: 484-879-6963
jim.shelton@vcomm-eng.com

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DA 24-1164
November 21, 2024

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES
REGION 17 (KENTUCKY) REGIONAL PLANNING COMMITTEES
TO HOLD 700 MHZ AND 800 MHZ MEETINGS

PS Docket 23-237 and WT Docket 02-378

The Region 17 (Kentucky) 700 and 800 MHz Regional Planning Committees (RPCs) will hold two consecutive planning meetings on Friday, December 20, 2024. Beginning at 1:00 pm, the 700 MHz RPC will convene at the Kentucky Transportation Cabinet, 200 Mero Street, Frankfort KY, Room C117. Immediately following the 700 MHz RPC meeting, the 800 MHz RPC meeting will convene at the same location.

The agenda for both meetings (700 MHz and 800 MHz) include:

- Call to Order - Chair
- Roll Call - Chair
- Approve Meeting Minutes
- Election of Chair, Vice Chair, and Secretary for FY25
- Open Discussion
- Adjourn

Both Region 17 RPC meetings are open to the public. All eligible public safety providers in Region 17 may utilize these frequencies. It is essential that eligible public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz band within Region 17 should plan to attend. For further information, please contact:

Michael B. Marshall
Chair
APCO/Special Projects Coordinator KSP Communications and Computer Technologies
94 Airport Rd, Frankfort, KY 40601
PH: 502-782-2063
Email: Brandon.Marshall@ky.gov

Andrew Barrett
Vice-Chair
Louisville Metro Emergency Services, Radio Systems Electronics Supervisor II
410 South 5th Street, Louisville, KY 40202
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PUBLIC NOTICE

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DA 24-1165

Released: November 20, 2024

MEDIA BUREAU OPENS MB DOCKET NO. 24-626

MB Docket No. 24-626

By this Public Notice, the Media Bureau opens MB Docket No. 24-626, which is captioned “Amendment of Parts 1, 73, 74 and 76 of the Commission’s Rules to Update Rules Applicable to Broadcast Stations.”

Ex Parte Rules. Presentations are subject to “permit-but-disclose” *ex parte* rules. See 47 CFR §§ 1.1206, 1.1200(a). Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR §§ 1.1200(a), 1.1203.

Accessibility Information. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice).

Action by Chief, Media Bureau.

- FCC -



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov
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DA 24-1166
November 20, 2024

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ENCOURAGES COMMUNICATIONS SERVICE PROVIDERS TO IMPLEMENT IMPORTANT NETWORK RELIABILITY BEST PRACTICES

By this Public Notice, the Public Safety and Homeland Security Bureau (Bureau) of the Federal Communications Commission (Commission) reminds communications service providers of the importance of implementing relevant industry-accepted best practices. Earlier this year, the Bureau released its analysis of the facts and circumstances of the February 22, 2024 AT&T Mobility Network Outage,¹ which lasted at least twelve hours and affected users in all 50 states as well as Washington, D.C., Puerto Rico, and the U.S. Virgin Islands.² In the Bureau's assessment, this outage likely could have been prevented or mitigated if the provider had followed best practices recommended by the Commission's Communications Security, Reliability, and Interoperability Council (CSRIC).³ Accordingly, consistent with the recommendations set forth in the Bureau's Report,⁴ we highlight these relevant best practices and encourage providers to integrate them into their policies and procedures where appropriate, to promote network reliability and resiliency in the future. The CSRIC best practices that could have helped prevent or mitigate this outage are listed in the attached Appendix. All of these best practices have been in place for almost a decade or more.⁵

The Bureau highlights two general areas that warrant attention:

- **Change Management:** Recent outage data shows that introducing changes to operational networks through deployment of new platforms, product or software updates, or configuration changes requires careful preparation and planning to reduce the risk of unintended consequences, including network outages. The attached best practices in this area include but are not limited to managing scheduled and unscheduled changes to provider networks; ensuring network integration planning is completed when introducing new network elements; documenting processes for testing, validating, and

¹ See FCC, February 22, 2024 AT&T Mobility Network Outage Report and Findings (2024), <https://www.fcc.gov/document/fcc-issues-report-nationwide-att-mobility-outage> (AT&T Outage Report).

² AT&T Outage Report at 3.

³ CSRIC is a federal advisory committee whose mission is to make recommendations to the Commission to promote the security, reliability, and resiliency of the Nation's communications systems. See FCC, Communications Security, Reliability, and Interoperability Council, (last visited July 29, 2024), <https://www.fcc.gov/about-fcc/advisory-committees/communications-security-reliability-and-interoperability-council-0> (last visited July 29, 2024).

⁴ AT&T Outage Report at 10 (noting that the Bureau plans to release a Public Notice reminding service providers of the importance of implementing relevant industry-accepted best practices).

⁵ The Commission has made CSRIC best practices and general resources on network reliability available online. See CSRIC Best Practices, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited July 29, 2024); FCC, Network Reliability Resources, <http://www.fcc.gov/network-reliability-resources> (last visited Aug. 28, 2024).

evaluating network changes both before and after implementation, to ensure the results are appropriate and expected; and having a documented back-out plan for scheduled and unscheduled maintenance activities.

- Network Oversight: Failure to ensure there are appropriate checks and balances, such as peer reviews or management reviews and approvals, has contributed to recent outages by enabling errors to propagate from development through implementation. The attached best practices in this area entail documenting policies and enforcing network oversight practices such as installation and maintenance guidelines and communicating the expectation of compliance by all involved parties.

The Bureau reminds communications service providers of the importance of implementing these and other relevant industry accepted best practices to ensure network reliability.

For more information, contact Drew Morin, Deputy Division Chief, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, (202) 418-2336, Drew.Morin@fcc.gov, or Jeanne Stockman, Attorney, Cybersecurity and Communications and Reliability Division, Public Safety and Homeland Security Bureau, (202) 418-7830, Jeanne.Stockman@fcc.gov.

The Public Safety and Homeland Security Bureau issues this Public Notice under delegated authority pursuant to sections 0.191 and 0.392 of the Commission's rules.⁶

⁶ 47 CFR §§ 0.191, 0.392.

APPENDIX

Change Management

- *CSRIC Best Practice 13-10-0418.*¹ Network operators, service providers,² and public safety³ should, where appropriate, have a documented back-out plan as part of a Method of Procedure (MOP) for scheduled and unscheduled maintenance activities.
- *CSRIC Best Practice 13-10-0559.*⁴ Network operators, service providers, and public safety should consider validating upgrades, new procedures and commands in a lab or other test environment that simulates the target network and load prior to the first application in the field.
- *CSRIC Best Practice 13-10-0615.*⁵ Network operators, service providers, and public safety should verify complex configuration changes before committing them and test after the change to ensure the results were appropriate and expected.
- *CSRIC Best Practice 13-9-0574.*⁶ Network operators, service providers, and public safety should actively monitor and manage the 9-1-1 network components using network management controls, where available, to quickly restore 9-1-1 service and provide priority repair during network failure events. When multiple interconnecting providers and vendors are involved, they will need to cooperate to provide end-to-end analysis of complex call-handling problems.

¹ See CSRIC Best Practice 13-10-0418, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited Aug. 28, 2024).

² “Service providers” includes both covered and originating service providers. “Covered 911 service providers” are defined as “any entity that: [p]rovides 911, E911, or NG911 capabilities such as call routing, automatic location information (ALI), automatic number identification (ANI), or the functional equivalent of those capabilities, directly to a public safety answering point (PSAP) . . . or that [o]perates one or more central offices that directly serve a PSAP.” 47 CFR § 12.4(a)(4)(i)(A)-(B). Originating service providers offer the capability to originate 911 calls, but unlike covered 911 service providers, do not themselves deliver those calls and associated number or location information to the PSAP. See 47 CFR § 12.4(a)(4)(ii)(B). Further, in amendments to 47 CFR § 4.9 that will become effective upon Office of Management and Budget approval as announced in a subsequent public notice, “covered 988 service providers” will be defined as those providers that provide the 988 Lifeline with capabilities such as the ability to receive, process, or forward calls. See *Ensuring the Reliability and Resiliency of the 988 Suicide & Crisis Lifeline; Amendments to Part 4 of the Commission’s Rules Concerning Disruptions to Communications; Implementation of the National Suicide Hotline Improvement Act of 2018*, PS Docket Nos. 23-5, 15-80, and WC Docket No. 18-336, Report and Order, at para. 14, 62 (2023) (*988 Outage Reporting Report and Order*).

³ “Public safety” includes all providers involved in the deployment of 911 networks. See CSRIC, Report Measuring Risk Magnitude and Remediation Costs in 9-1-1 and Next Generation 9-1-1 (NG911) Networks, at 5 (Mar. 10, 2021).

⁴ See CSRIC Best Practice 13-10-0559, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited July 29, 2024).

⁵ See CSRIC Best Practice 13-10-0615, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited Aug. 28, 2024).

⁶ See CSRIC Best Practice 13-9-0574, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited Aug. 28, 2024).

- *CSRIC Best Practice 13-8-0590*.⁷ Network operators, service providers, and equipment suppliers should develop MOP for core infrastructure hardware and software growth and change activities and periodically review and update as appropriate.

Network Oversight

- *CSRIC Best Practice 13-9-5196*.⁸ Network operators, service providers, and public safety should ensure that contractors and equipment supplier personnel working in critical network facilities follow the current applicable MOP, which should document the level of oversight necessary.

– FCC –

⁷ See CSRIC Best Practice 13-8-0590, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited Aug. 28, 2024).

⁸ See CSRIC Best Practice 13-9-5196, <https://opendata.fcc.gov/Public-Safety/CSRIC-Best-Practices/qb45-rw2t/data> (last visited Aug. 28, 2024).



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
45 L STREET NE
WASHINGTON D.C. 20554

News media information 202-418-0500
Internet: <http://www.fcc.gov> (or <ftp.fcc.gov>)
TTY (202) 418-2555

DA No. 24-1167

Report No. TEL-02407

Thursday November 21, 2024

International Authorizations Granted

Section 214 Applications (47 CFR §§ 63.18, 63.24); Section 310(b) Petitions (47 CFR § 1.5000)

The following applications have been granted pursuant to the Commission's processing procedures set forth in sections 63.12 and 63.20 of the Commission's rules. 47 CFR §§ 63.12, 63.20.

Unless otherwise noted, these grants authorize the applicants to: (1) become a facilities-based international common carrier subject to 47 CFR §§ 63.21, 63.22 and/or a resale-based international common carrier subject to 47 CFR §§ 63.21, 63.23; (2) assign or transfer control of international section 214 authority in accordance with 47 CFR § 63.24.

THIS PUBLIC NOTICE SERVES AS EACH NEWLY AUTHORIZED CARRIER'S SECTION 214 CERTIFICATE. It contains general and specific conditions, which are set forth below. Newly authorized carriers should carefully review the terms and conditions of their authorizations. Failure to comply with general or specific conditions of an authorization, or with other relevant Commission rules and policies, could result in fines and forfeitures.

Petitions for reconsideration under section 1.106 or applications for review under section 1.115 of the Commission's rules, 47 CFR §§ 1.106, 1.115, in regard to the grant of any of these applications may be filed within 30 (thirty) days of this public notice. See 47 CFR § 1.4(b)(2).

ITC-214-20240118-00032 E Cogeco US Finance, LLC
International Telecommunications Certificate
Service(s): Global or Limited Global Resale Service
Grant of Authority **Date of Action:** 11/20/2024

Cogeco US Finance, LLC (Cogeco US Finance) has filed an application for authority to provide resale services in accordance with section 63.18(e)(2) of the Commission's rules. 47 CFR § 63.18(e)(2).

Cogeco US Finance is wholly owned by Cogeco US Inc., which in turn is wholly owned by Cogeco Communications (USA) Inc. (Cogeco Communications), all Delaware entities. Cogeco Communications is owned by Cogeco Connexion Inc. (Cogeco Connexion) (79%), a Canada corporation, and Caisse de Depot et Placement du Québec (Caisse de Depot) (21%), a Canada Crown corporation created by the Québec Government. Cogeco Connexion is wholly owned by Cogeco Communications Inc. (Cogeco Communications), a Canada corporation. Cogeco Inc., a Canada corporation, holds a 28.42% interest and Caisse de Depot holds a 16.13% interest in Cogeco Communications. The remaining 55.45% interest in Cogeco Communications is held through publicly traded shares.

Pursuant to Commission practice, the application for international section 214 authority was referred to the relevant Executive Branch agencies for their views on any national security, law enforcement, foreign policy, or trade policy concerns related to the foreign ownership of the Applicant. On November 12, 2024, the National Telecommunications and Information Administration notified the Commission that the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (Committee) "has reviewed the application and has no recommendation at this time to the Commission approving the application and no objection to the Commission granting it" and that the Committee "reserves the right to review any resulting authorization in the future to identify any additional or new risks to U.S. national security or law enforcement interests."

ITC-214-20241007-00150 E Choptank Fiber, LLC
International Telecommunications Certificate
Service(s): Global or Limited Global Resale Service
Grant of Authority **Date of Action:** 11/15/2024

Choptank Fiber LLC (Choptank Fiber) filed an application for authority to provide resale services in accordance with section 63.18(e)(2) of the Commission's rules. 47 CFR § 63.18(e)(2).

Choptank Fiber, a Maryland limited liability company, is owned by Choptank Electric Cooperative Inc. (CECI), a Maryland electric distribution cooperative owned by its members. No individual member holds a 10% or greater equity or voting interest in CECI.

ITC-ASG-20241111-00172 E WILKES TELEPHONE MEMBERSHIP CORP
Assignment
Grant of Authority **Date of Action:** 11/20/2024

Current Licensee: Wilkes Communications, Inc

FROM: Wilkes Communications, Inc.

TO: WILKES TELEPHONE MEMBERSHIP CORP

On November 11, 2014, Wilkes Telephone Membership Corp. (Wilkes) filed a notification of the pro forma assignment of an international section 214 authorization for global resale service (ITC-214-20010222-00081), from Wilkes Communications Inc. (WCI) to Wilkes, effective November 1, 2024. WCI, a North Carolina corporation, is a wholly owned subsidiary of Wilkes, a North Carolina telephone cooperative. In a corporate restructuring, WCI assigned its international section 214 authority to Wilkes. Wilkes now provides international services to WCI's customers.

ITC-T/C-20231220-00153 E

PCCW Global, Inc.

Transfer of Control

Grant of Authority

Date of Action: 11/20/2024

Current Licensee: HKT International Limited

FROM: HKT (International) Limited

TO: HKT International Limited

On December 20, 2023, HKT (International) Limited (HKT) filed a notification of the pro forma transfer of control of PCCW Global, Inc. (PCCW Global) from BtN Holdings Limited (BtN Holdings) to PCCW Global TechCo UK Pte. Ltd (PCCW Global TechCo), effective November 30, 2023. PCCW, a Delaware corporation, is an indirect wholly owned subsidiary of HKT, a British Virgin Islands entity. PCCW Global provides international service under the international section 214 authorizations held by HKT pursuant to section 63.21(h) of the Commission's rules, 47 CFR § 63.21(h): ITC-MOD-20020829-00511, ITC-214-19991122-00727, ITC-214-19990601-00306, ITC-21419991122-00726, ITC-21419990601-00305, ITC-214-19991722-00725, ITC-214-19981218-00880, ITC-214-19990601-00308, ITC-214-19980930-00689, ITC-214-19990601-00307, ITC-214-19980303-00158, and ITC-214-20020303-00158.

Prior to the transaction, PCCW Global was a direct wholly owned subsidiary of BtN Holdings which is wholly owned by BtN Access Limited which in turn is wholly owned by HKT. In a corporate reorganization, direct ownership of PCCW Global was transferred from BtN Holdings to PCCW Global TechCo, a British Virgin Islands entity. PCCW Global TechCo is a direct wholly owned subsidiary of Console Connect Investment Pte Ltd, a Singapore entity, which is wholly owned by HKT. PCCW Global continues to provide international service pursuant to the international section 214 authorizations held by HKT.

Transfer of Control

Grant of Authority

Date of Action: 11/20/2024

Current Licensee: CBTS Technology Solutions LLC**FROM:** Cincinnati Bell Inc.**TO:** CBTS Borrower, LLC

CBTS Technology Solutions LLC (CBTS-TS), a Delaware limited liability company that holds an international section 214 authorization to provide global facilities-based and resale service (ITC-214-20071024-00434), filed an application for consent to the transfer of control of CBTS-TS from Cincinnati Bell Inc. (Cincinnati Bell) to CBTS Borrower, LLC (CBTS Borrower). The Applicants filed a supplement on March 6, 2024.

CBTS-TS is a direct wholly owned subsidiary of CBTS LLC, a Delaware limited liability company that is a wholly owned subsidiary of Cincinnati Bell. Pursuant to a February 2, 2024 purchase agreement, CBTS Borrower will acquire all of the interests in CBTS LLC from Cincinnati Bell. As a result, CBTS LLC and CBTS-TS will become direct and indirect wholly owned subsidiaries of CBTS Borrower respectively.

CBTS Borrower is wholly owned by CBTS FinanceCo, LLC, which in turn is wholly owned by CBTS HoldingCo, LLC, all Delaware limited liability companies. CBTS HoldingCo, LLC is wholly owned by CBTS Intermediate HoldingCo, LLC, which in turn is wholly owned by CBTS IntermediateCo, Inc. which is wholly owned by CBTS TopCo, L.P., all Delaware entities. CBTS TopCo GP, LLC, a Delaware limited liability company, is the general partner of CBTS TopCo, L.P. TI VI Armstrong Investment Aggregator, L.P., a Delaware limited partnership, is the sole member of CBTS TopCo GP, LLC and holds an 89.5% equity and 100% voting interest in CBTS TopCo, L.P.

The following three entities will hold a 10% or greater direct equity interest in TI VI Armstrong Investment Aggregator, L.P.: TI VI Project Armstrong Co-Invest, L.P., a Delaware limited partnership (39.6%); TowerBrook Investors VI (Onshore) L.P., a Cayman Islands entity (30.5%); and TowerBrook Investors VI (892), L.P., a Cayman Islands entity (12.3%). TowerBrook Investors GP VI, L.P., a Cayman Islands entity, is the general partner of TI VI Armstrong Investment Aggregator, L.P., TI VI Project Armstrong Co-Invest, L.P., and TowerBrook Investors VI (Onshore) L.P. TowerBrook Investors GP VI (Alberta), L.P., a Canada entity, is the general partner of TowerBrook Investors VI (892), L.P. TowerBrook Investors, Ltd., a Cayman Islands entity, is the general partner of TowerBrook Investors GP VI, L.P. and TowerBrook Investors GP VI (Alberta), L.P.

Currently Neal Moszkowski, a U.S. citizen, and Ramex Sousou, a U.K. citizen, each hold a 49.9% voting interest in TowerBrook Investors, Ltd. According to the Applicants, it is expected that there will be ownership changes that will result in two additional individuals holding a 10% or greater voting interest in TowerBrook Investors, Ltd.: Jonathan Blizin, a U.S. citizen, and Karin Saggi, a citizen of France. The Applicants will file a supplement with the final ownership levels, but state that no individual will have a majority of the ownership of TowerBrook Investors, Ltd.

In addition, three other entities will have a greater than 10% indirect equity ownership in CBTS Borrower through investments in various investment vehicles. The Washington State Investment Board, a Washington entity, will have an indirect 20.72% equity interest in CBTS Borrower through its 35.7% limited partnership interest in TowerBrook Investors VI (Onshore) L.P. and its 22.6% limited partnership interest in TI VI Project Armstrong Co-Invest, L.P. The California Public Employees Retirement System, a California entity, will have an indirect 16.07% equity interest in CBTS Borrower through its 33.9% limited partnership interest in TI VI Project Armstrong Co-Invest, L.P. and its 7.93% limited partnership interest in TowerBrook Investors VI (Onshore) L.P. Halstead Investments Pte Ltd (Halstead Investments), a Singapore entity, will have an indirect 10.27% equity interest in CBTS Borrower through its 51.8% limited partnership interest in TowerBrook Investors VI (892), L.P. and its 12.7% limited partnership interest in TI VI Project Armstrong Co-Invest, L.P. Halstead Investments is wholly owned by GIC (Ventures) Pte. Ltd., a Singapore entity, which in turn is wholly owned by the Singapore Minister for Finance.

The Applicants state that no other individuals or entities will hold 10% or greater direct or indirect equity or voting interest in CBTS Borrower or CBTS-TS.

Pursuant to Commission practice, the application was referred to the relevant Executive Branch agencies for their views on any national security, law enforcement, foreign policy, or trade policy concerns related to the foreign ownership of the Applicant. On November 12, 2024, the National Telecommunications and Information Administration notified the Commission that the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (Committee) "has reviewed the application and has no recommendation at this time to the Commission approving the application and no objection to the Commission granting it" and that the Committee "reserves the right to review any resulting authorization in the future to identify any additional or new risks to U.S. national security or law enforcement interests."

This authorization is without prejudice to the Commission's action in any other related pending proceedings.

SURRENDER**ITC-214-19981005-00686**

Millennium Telcom, L.L.C., dba OneSource Communications

On November 6, 2024, Millennium Telcom, L.L.C., dba OneSource Communications notified the Commission of the surrender of its international section 214 authorization.

CONDITIONS APPLICABLE TO INTERNATIONAL SECTION 214 AUTHORIZATIONS

(1) These authorizations are subject to the Exclusion List for International Section 214 Authorizations, which identifies restrictions on providing service to particular countries or using particular facilities. The most recent Exclusion List is at the end of this Public Notice. The list applies to all U.S. international carriers, including those that have previously received global or limited global section 214 authority, whether by Public Notice or specific written order. Carriers are advised that the attached Exclusion List is subject to amendment at any time pursuant to the procedures set forth in Streamlining the International Section 214 Authorization Process and Tariff Requirements, IB Docket No. 95-118, 11 FCC Rcd 12884 (1996), para. 18. A copy of the current Exclusion List is maintained in the FCC Reference Information Center and is available at <https://www.fcc.gov/exclusion-list-international-section-214-authorizations>. It is also attached to each Public Notice that grants international Section 214 authority.

(2) The export of telecommunications services and related payments to countries that are subject to economic sanctions may be restricted. For information concerning current restrictions, call the Office of Foreign Assets Control, U.S. Department of the Treasury, (202) 622-2520.

(3) Carriers shall comply with the requirements of Section 63.11 of the Commission's rules, which requires notification by, and in certain circumstances prior notification by, U.S. carriers acquiring an affiliation with foreign carriers. 47 CFR § 63.11. A carrier that acquires an affiliation with a foreign carrier will be subject to possible reclassification as a dominant carrier on an affiliated route pursuant to the provisions of section 63.10 of the rules. 47 CFR § 63.10.

(4) A carrier may provide switched services over its authorized resold private lines in the circumstances specified in section 63.23(d) of the rules. 47 CFR § 63.23(d).

(5) Carriers shall comply with the "No Special Concessions" rule, section 63.14. 47 CFR § 63.14.

(6) Carriers regulated as dominant for the provision of a particular communications service on a particular route for any reason other than a foreign carrier affiliation under section 63.10 of the rules, 47 CFR § 63.10, shall file tariffs pursuant to Section 203 of the Communications Act, as amended, 47 U.S.C. § 203, and Part 61 of the Commission's Rules. 47 CFR Part 61. Carriers shall not otherwise file tariffs except as permitted by section 61.19 of the rules. 47 CFR § 61.19. Except as specified in section 20.15 with respect to commercial mobile radio service providers, 47 CFR § 20.15, carriers regulated as non-dominant, as defined in section 61.3, 47 CFR § 61.3, and providing detariffed international services pursuant to section 61.19, must comply with all applicable public disclosure and maintenance of information requirements in sections 42.10 and 42.11. 47 CFR §§ 42.10, 42.11.

(7) International facilities-based service providers must file and maintain a list of U.S.-international routes on which they have direct termination arrangements with a foreign carrier. 47 CFR § 63.22(h). A new international facilities-based service provider or one without existing direct termination arrangements must file its list within thirty (30) days of entering into a direct termination arrangement(s) with a foreign carrier(s). Thereafter, international facilities-based service providers must update their lists within thirty (30) days after adding a termination arrangement for a new foreign destination or discontinuing an arrangement with a previously listed destination. See Process For The Filing Of Routes On Which International Service Providers Have Direct Termination Arrangements With A Foreign Carrier, ITC-MS-20181015-00182, Public Notice, 33 FCC Rcd 10008 (IB 2018). The route list must be filed through the International Communications Filing System (ICFS). <https://www.fcc.gov/icfs>

(8) Any U.S. Carrier that owned, leased or holds an indefeasible right of use (IRU) for bare capacity on a submarine cable between the United States and any foreign point must file a Circuit Capacity Report to provide information about the submarine cable capacity it holds. 47 CFR § 43.82(a)(2). See <https://www.fcc.gov/circuit-capacity-data-us-international-submarine-cables>.

(9) Carriers should consult section 63.19 of the rules when contemplating a discontinuance, reduction or impairment of service. 47 CFR § 63.19.

(10) If any carrier is reselling service obtained pursuant to a contract with another carrier, the services obtained by contract shall be made generally available by the underlying carrier to similarly situated customers at the same terms, conditions and rates. 47 U.S.C. § 203.

(11) To the extent the applicant is, or is affiliated with, an incumbent independent local exchange carrier, as those terms are defined in section 64.1902 of the rules, it shall provide the authorized services in compliance with the requirements of section 64.1903. 47 CFR §§ 64.1902, 64.1903.

(12) Except as otherwise ordered by the Commission, a carrier authorized here to provide facilities-based service that (i) is classified as dominant under section 63.10 of the rules, 47 CFR § 63.10, for the provision of such service on a particular route and (ii) is affiliated with a carrier that collects settlement payments for terminating U.S. international switched traffic at the foreign end of that route may not provide facilities-based switched service on that route unless the current rates the affiliate charges U.S. international carriers to terminate traffic are at or below the Commission's relevant benchmark adopted in International Settlement Rates, IB Docket No. 96-261, Report and Order, 12 FCC Rcd 19806 (1997). See also Report and Order on Reconsideration and Order Lifting Stay in IB Docket No. 96-261, FCC 99-124 (rel. June 11, 1999). For the purposes of this rule, "affiliated" and "foreign carrier" are defined in 63.09. 47 CFR § 63.09.

(13) Carriers shall comply with the Communications Assistance for Law Enforcement Act (CALEA), see 47 CFR §§ 1.20000 et seq.

(14) Carriers shall make communications to, from, or within the United States, as well as records thereof, available in a form and location that permits them to be subject to a valid and lawful request or legal process in accordance with U.S. law, including but not limited to:

(A) The Wiretap Act, 18 U.S.C. 2510 et seq.;

(B) The Stored Communications Act, 18 U.S.C. 2701 et seq.;

(C) The Pen Register and Trap and Trace Statute, 18 U.S.C. 3121 et seq.; and

(D) Other court orders, subpoenas or other legal process;

(15) Every carrier must designate an agent for service in the District of Columbia. see 47 U.S.C. § 413, 47 CFR §§ 1.47(h), 63.18(q), 64.1195.

(16) Every carrier must designate a point of contact who is located in the United States and is a U.S. citizen or lawful U.S. permanent resident, for the execution of lawful requests and as an agent for legal service of process. 47 CFR § 63.18(q).

(17) Each carrier shall notify the Commission of any change in its contact information within thirty (30) days. 47 CFR § 63.18(q). Such notification shall be filed in the file number(s) for the international section 214 authorization(s) through the International Communications Filing System (ICFS).

Exclusion List for International Section 214 Authorizations

The following is a list of countries and facilities not covered by grant of global section 214 authority under section 63.18(e)(1) of the Commission's Rules. 47 CFR § 63.18(e)(1). Carriers desiring to serve countries or use facilities listed as excluded hereon shall file a separate section 214 application pursuant to section 63.18(e)(3) of the Commission's Rules. See 47 CFR § 63.22(c).

Countries:

None.

Facilities:

Any non-U.S.-licensed space station that has not received Commission approval to operate in the U.S. market pursuant to the procedures adopted in the Commission's DISCO II Order, IB Docket No. 96-111, Report and Order, FCC 97-399, 12 FCC Rcd 24094, 24107-72 paragraphs 30-182 (1997) (DISCO II Order). Information regarding non-U.S.-licensed space stations approved to operate in the U.S. market pursuant to the Commission's DISCO II procedures is maintained at <https://www.fcc.gov/approved-space-station-list>.

This list is subject to change by the Commission when the public interest requires. The most current version of the list is maintained at <https://www.fcc.gov/exclusion-list-international-section-214-authorizations>.

For additional information, contact the Office of International Affairs, Telecommunications and Analysis Division at (202) 418-1480 or at FCC-OIA-TAD@fcc.gov.



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
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DA No. 24-1168

Report No. SCL-00497

Thursday November 21, 2024

Actions Taken Under Cable Landing License Act

Section 1.767(a) Cable Landing Licenses, Modifications, and Assignments or Transfers of Control of Interests in Cable Landing Licenses (47 CFR § 1.767(a))

By the Chief, Telecommunications and Analysis Division, Office of International Affairs:

Pursuant to an Act relating to the landing and operation of submarine cables in the United States, 47 U.S.C. §§ 34-39 (Cable Landing License Act), Executive Order No. 10530, Exec. Ord. No. 10530 reprinted as amended in 3 U.S.C. § 301, and section 1.767 of the Commission's rules, 47 CFR § 1.767, the following applications ARE GRANTED. These grants of authority are taken under section 0.261 of the Commission's rules. 47 CFR § 0.261. Petitions for reconsideration under section 1.106 or applications for review under section 1.115 of the Commission's rules may be filed within thirty (30) days of the date of this public notice. 47 CFR §§ 1.106, 1.115.

These applications have been coordinated with the Department of State and other Executive Branch agencies pursuant to section 1.767(b) of the Commission's rules and consistent with procedures established with the Department of State. 47 CFR § 1.767(b); see Review of Commission Consideration of Applications under the Cable Landing License Act, IB Docket No. 00-106, Report and Order, 16 FCC Rcd 22167, 22192-93, paras. 51-52 (2001) (Submarine Cable Landing License Report and Order); Commission Announces Department of State's Revised Procedures for its Consideration of Submarine Cable Landing License Applications, IB Docket No. 16-155, Public Notice, DA 22-435 (rel. Apr. 19, 2022).

This public notice serves as each cable landing licensee's Cable Landing License, or modification thereto, pursuant to the Cable Landing License Act and sections 1.767 and 1.768 of the Commission's rules. 47 CFR §§ 1.767, 1.768. Cable landing licensees should review the terms and conditions of their licenses. Failure to comply with these terms and conditions or relevant Commission rules and policies could result in fines or forfeitures.

INFORMATIVE

SCL-STA-20230928-00028

RTI Solutions, Inc.

On November 20, 2014, we granted the request for special temporary authority (STA) filed by RTI Solutions, Inc. d/b/a HMB Solutions (HMB Solutions) and BOC-LA1 LLC (BOC) to continue to operate the JGA North submarine cable system (SCL-LIC-20181106-00035) while the Commission considers the application for the transfer of control of HMB Solutions to BOC (SCL-T/C-20230928-00027). The Applicants acknowledge that the grant of the STA will not prejudice action by the Commission on the transfer of control application and that the STA is subject to cancellation or modification upon notice without a hearing.

The STA expires on May 19, 2025.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1169

Released: December 2, 2024

STREAMLINED RESOLUTION OF REQUESTS RELATED TO ACTIONS BY THE UNIVERSAL SERVICE ADMINISTRATIVE COMPANY

CC Docket No. 02-6
WC Docket No. 21-93
WC Docket No. 02-60
WC Docket No. 06-122

Pursuant to our procedure for resolving requests for review, requests for waiver, and petitions for reconsideration of decisions related to actions taken by the Universal Service Administrative Company (USAC) that are consistent with precedent (collectively, Requests), the Wireline Competition Bureau (Bureau) grants, dismisses, or denies the following Requests.¹ The deadline for filing petitions for reconsideration or applications for review concerning the disposition of any of these Requests is 30 days from the release date of this Public Notice.²

Schools and Libraries (E-Rate) **CC Docket No. 02-6**

Dismissed on Reconsideration³

Casa Grande Elementary School District, AZ, Application Nos. 201003953, 211015028, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 30, 2024)

Frugal Inc. d/b/a Network Computer Solutions (Broken Bow Public School District), NE,

¹ See *Streamlined Process for Resolving Requests for Review of Decisions by the Universal Service Administrative Company*, CC Docket Nos. 96-45 and 02-6, WC Docket Nos. 02-60, 06-122, 08-71, 10-90, 11-42, and 14-58, Public Notice, 29 FCC Rcd 11094 (WCB 2014). Sections 54.719(b) and 54.1718(a)(1) of the Commission's rules provide that any person aggrieved by an action taken by a division of USAC, after first seeking review at USAC, may seek review from the Commission. Sections 54.719(c) and 54.1718(a)(3) of the Commission's rules provide that parties seeking waivers of the Commission's rules shall seek review directly from the Commission. In this Public Notice, we have reclassified as Requests for Waiver any appeals seeking review of a USAC decision that appropriately should have requested a waiver of the Commission's rules. Similarly, we have reclassified as Requests for Review any appeals seeking a waiver of the Commission's rules but that are, in fact, seeking review of a USAC decision.

² See 47 CFR §§ 1.106(f), 1.115(d); see also 47 CFR § 1.4(b)(2) (setting forth the method for computing the amount of time within which persons or entities must act in response to deadlines established by the Commission).

³ See, e.g., *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Allan Shivers Library et al.*; *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order and Order on Reconsideration, 29 FCC Rcd 10356, 10357, para. 2 (WCB 2014) (*Allan Shivers Library Order*) (dismissing petitions for reconsideration that fail to identify any material error, omission, or reason warranting reconsideration, and rely on arguments that have been fully considered and rejected by the Bureau within the same proceeding).

Application No. 211031144, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 29, 2024)

Missouri Valley Community School District, IA, Application Nos. 241034446, 241035183, Petition for Reconsideration, CC Docket No. 02-6 (filed Nov. 6, 2024)

Queens Borough Public Library, NY, Application No. 221023802, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 30, 2024)

Saint Francis de Sales School, NV, Application Nos. 241040078, 241040267, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 3, 2024)

Ulysses Unified School District 214, KS, Application No. 241040217, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 1, 2024)

Granted⁴

Appeal Filing Deadline⁵

Brazoria Telephone Company (Sweeney Independent School District), Application No. 171033653, Request for Waiver, CC Docket No. 02-6 (filed Dec. 17, 2018)

Pendleton School District 16R, OR, Application No. 241029171, Request for Waiver, CC Docket No. 02-6 (filed Sept. 11, 2024)

Contract Agreement in Place⁶

Independence Unified School District 446 and Twotrees Technologies, KS, Application No. 211032061, Request for Review, CC Docket No. 02-6 (filed Oct. 25, 2024)

⁴ We remand these applications to USAC and direct USAC to complete its review of the applications and issue a funding decision based on a complete review and analysis, no later than 90 calendar days from the release date of this Public Notice. In remanding these applications to USAC, we make no finding as to the ultimate eligibility of the equipment/services or the petitioners' applications. We also waive sections 54.507(d) and 54.514(a) of the Commission's rules and direct USAC to waive any procedural deadline that might be necessary to effectuate our ruling. See 47 CFR § 54.507(d) (requiring non-recurring services to be implemented by September 30 following the close of the funding year); 47 CFR § 54.514(a) (codifying the invoice filing deadline rule).

⁵ See, e.g., *Requests for Review of Decisions of the Universal Service Administrator by ABC Unified School District, Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 26 FCC Rcd 11019, para. 2 (WCB 2011) (*ABC Unified School District Order*) (granting waivers of appeal filing deadline when the petitioners submitted their appeals or waiver requests only a few days late or within a reasonable period of time after receiving actual notice of USAC's adverse decision). We make no finding on the underlying issues in these appeals and remand these applications to USAC to make a determination on the merits.

⁶ See, e.g., *Request for Waiver of the Decision of the Universal Service Administrator by Barberton City School District et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 23 FCC Rcd 15526, 15532, para. 10 (WCB 2008) (*Barberton City School District Order*) (granting on the merits when petitioners submitted evidence to the Commission demonstrating that they had a valid, signed contract in place at the time it submitted its FCC Forms 471 to USAC).

*Contract Renewal Signed After FCC Form 471 Filed*⁷

Monett R-1 School District, MO, Application No. 241031813, Request for Waiver, CC Docket No. 02-6 (filed Oct. 16, 2024)

*Demonstrating Extraordinary Circumstances Warranting Invoice Rule Waiver*⁸

DC Preparatory Public Charter School, DC, Application No. 181019218, Request for Waiver, CC Docket No. 02-6 (filed May 21, 2020)

*Eligible Services*⁹

The Allegro School Inc., NJ, Application No. 241018555, Request for Review, CC Docket No. 02-6 (filed Sept. 16, 2024)

Machne Shalva, NY, Application No. 201043149, Request for Review, CC Docket No. 02-6 (filed May 29, 2024)

*Granting Additional Time to Respond to USAC with Information During Invoicing*¹⁰

Charter Communications & Charter Fiberlink – Illinois, LLC (East St. Louis School District 189), IL, Application No. 161050068, Request for Waiver, CC Docket No. 02-6 (filed July 13, 2018)

St. Stephens Indian School, WY, Application No. 221022701, Request for Waiver, CC Docket No. 02-6 (filed May 30, 2024)

*Service Substitution – Remand to USAC for Determination*¹¹

East Central Arkansas Regional Library, AR, Application No. 231031917, Request for Waiver, CC Docket No. 02-6 (filed Sept. 23, 2024)

⁷ See, e.g., *Barberton City School District Order*, 23 FCC Rcd at 15530, para. 6 (granting waivers when petitioners inadvertently signed a contract renewal after certifying its FCC Form 471).

⁸ See, e.g., *Petition for Reconsideration of a Decision of the Wireline Competition Bureau by Sunesys, LLC (Montebello Unified School District)*, *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order on Reconsideration, 34 FCC Rcd 7766, 7768, para. 6 (WCB 2009) (*Sunesys, LLC Order*) (granting an invoice deadline extension when the petitioner demonstrated extraordinary circumstances outside of its control).

⁹ Remanding to USAC for eligibility determination consistent with the new evidence provided on appeal to the Commission. See, e.g., *Requests for Review of the Decisions of the Universal Service Administrator by Aiken County Public Schools et al.*; *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 22 FCC Rcd 8735, 8737-40, para. 6, 9-10 (2007) (*Aiken County Public Schools Order*) (directing USAC to reassess applicants' ineligible funding requests). However, we note that Machne Shalva is not allowed to increase the pricing of other items to account for the partial eligibility of the advance protection service license request.

¹⁰ *Requests for Review and/or Waiver of Decisions of the Universal Service Administrator by Accomack County Public School et al.*; *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 38 FCC Rcd 330, 337, para. 14 (WCB 2023) (*Accomack County Public School Order*) (granting requests for review of applicants that had been denied funding during invoicing because they failed to respond to USAC's request for information within the USAC-specified time frame).

¹¹ See *infra* note 12. In its waiver request, East Central Arkansas Regional Library failed to submit documentation substantiating the broadband speed it received prior to the transition. On remand, USAC should work with the applicant to determine whether the service for which it seeks substitution is within the scope of the controlling FCC Form 470. See also *supra* note 4.

*Service Substitution*¹²

La Honda-Pescadora Unified School District, CA, Application No. 231012982, Request for Waiver, CC Docket No. 02-6 (filed Oct. 25, 2024)

Leedey Public School, OK, Application No. 231011941, Request for Waiver, CC Docket No. 02-6 (filed Oct. 15, 2024)

*Service Substitution – Reinstate Original FRN*¹³

Christina Seix Academy, NJ, Application No. 241026135, Request for Review, CC Docket No. 02-6 (filed Sept. 18, 2024)

*USAC Decision Issued After Invoice Deadline*¹⁴

Varnett Schools, TX, Application No. 161038016, Request for Waiver, CC Docket No. 02-6 (filed Mar. 18, 2020)

*Waiver of Price as Primary Factor Rule*¹⁵

White Bear Lake School District, MN, Application No. 231028117, Request for Waiver, CC Docket No. 02-6 (filed Sept. 27, 2024)

¹² See, e.g., *Requests for Review of Decisions of the Universal Service Administrator by Beaufort County School District et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 29 FCC Rcd 3124 (WCB 2014) (*Beaufort County School District Order*) (granting appeals of denied service substitution requests when the requested service substitution met the requirements for service substitutions currently codified in 47 CFR § 54.504(d) that (1) the service or product had the same functionality as the original service or product, (2) the substitution did not violate any contract provisions or state or local procurement laws, (3) the substitution did not result in an increase in the percentage of ineligible services or functions, and (4) the applicant certified that the requested change is within the scope of the controlling FCC Form 470). See, e.g., *id.* at 3125, para. 3 (granting service substitution appeals when the petitioners missed USAC's deadline for service substitution requests but complied with the Commission's requirements for service substitutions under 47 CFR § 54.504(d) and had a reasonable explanation for missing the deadline).

¹³ We affirm USAC's denial of the requested service substitution and grant Christina Seix Academy's request for reinstatement of the original funding commitment subject to confirmation by USAC that the services were approved on the FCC Form 471 and that the services were provided to the school. Cf., e.g., *Aiken County Public Schools Order*, 22 FCC Rcd at 8737-40, paras. 6, 9-10 (directing USAC to reassess applicants' funding requests after the ineligible services are removed).

¹⁴ See *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, 35 FCC Rcd 14426, 14431, para. 15 (2020) (*2020 Invoicing Rule Modification Order*) (authorizing the Bureau to grant a waiver in instances where a program participant was unable to timely submit an invoice because they were awaiting a post-commitment decision from USAC, or received a decision approving a post-commitment request or granting an appeal of a previously denied or reduced funding request after the invoice filing deadline had passed).

¹⁵ See, e.g., *Requests for Review of Decisions of the Universal Service Administrator by Allendale County School District et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 26 FCC Rcd 6109, 6114-15, para. 9 (WCB 2011) (*Allendale County School District Order*) (granting appeals where the record demonstrated that applicants gave the most weight to price during the bid evaluation process).

Consistent with precedent, we also find good cause exists to waive section 54.720(a) and (b) of the Commission's rules, which requires that petitioners file their appeals within 60 days of an adverse USAC decision. See *ABC Unified School District Order*, 26 FCC Rcd at 11019, para. 2 (waiving the filing deadline for petitioners that submitted their appeals within a reasonable period of time after receiving actual notice of USAC's adverse decision).

Denied*Competitive Bidding – FCC Form 470 Referenced Specific Vendor*¹⁶

Mumford Independent School District, TX, Application No. 241012730, Request for Review, CC Docket No. 02-6 (filed Sept. 26, 2024)

*Late-Filed FCC Form 471 Applications*¹⁷

Christ Lutheran School, IL, Application No. 241040327, Request for Waiver, CC Docket No. 02-6 (filed Sept. 27, 2024)

Flagg-Rochelle Public Library District, IL, Application No. 241040486, Request for Waiver, CC Docket No. 02-6 (filed Oct. 23, 2024)

Osakis Public School, MN, Application No. 241040512, Request for Waiver, CC Docket No. 02-6 (filed Oct. 28, 2024)

Step Up Suncoast, FL, Application No. 241015277, Request for Waiver, CC Docket No. 02-6 (filed Oct. 2, 2024)

Sublette Unified School District 374, KS, Application No. 241040507, Request for Waiver, CC Docket No. 02-6 (filed Oct. 25, 2024)

Trinity Academy for the Performing Arts, RI, Application No. 241040447, Request for Waiver, CC Docket No. 02-6 (filed Oct. 22, 2024)

Trinity Lutheran Grade School, WI, Application No. 241040491, Request for Waiver, CC Docket No. 02-6 (filed Oct. 15, 2024)

Virtus Academy of South Carolina, SC, Application No. 241039942, Request for Waiver, CC Docket No. 02-6 (filed Oct. 10, 2024)

Wartburg Public Library, TN, Application No. 241040474, Request for Waiver, CC Docket No. 02-6 (filed Oct. 4, 2024)

¹⁶ See, e.g., *Request for Review of the Decision of the Universal Service Administrator by Queen of Peace High School; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 26 FCC Rcd 16466, 16469, para. 8 (WCB 2011) (*Queen of Peace Order*) (finding a competitive bidding violation when applicants reference specific vendors, products, or services in their requests for bids).

¹⁷ See, e.g., *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Academy of Math and Science et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 25 FCC Rcd 9256, 9261-62, para. 13 (2010) (*Academy of Math and Science Order*) (denying waivers of the FCC Form 471 application filing window deadline where petitioners failed to present special circumstances justifying a waiver of the Commission's rules).

In addition to submitting its FCC Form 471 application late, Christ Lutheran School filed its waiver request after the 60-day appeal or waiver request deadline. See 47 CFR § 54.720 (requiring petitioners to file their appeals or waiver requests within 60 days of an adverse USAC decision).

*Late-Filed Invoice or Invoice Deadline Extension*¹⁸

Esmeralda County School District, NV, Application No. 201032563, Request for Waiver, CC Docket No. 02-6 (filed June 10, 2024)

Grass Lake School District 36, IL, Application No. 221030375, Request for Waiver, CC Docket No. 02-6 (filed Aug. 15, 2024)

Hmong American Peace Academy, WI, Application No. 211033777, Request for Waiver, CC Docket No. 02-6 (filed Sept. 12, 2024, supplemented Sept. 17, 2024)

Machne Shalva, NY, Application No. 171048042, Request for Waiver, CC Docket No. 02-6 (filed Oct. 28, 2024)

Tyler Communications Systems, Inc. (Hamlin Independent School District), TX, Application No. 201031787, Request for Waiver, CC Docket No. 02-6 (filed Oct. 23, 2024)

Tyler Communications Systems, Inc. (St. Cecilia School), TX, Application No. 201038985, Request for Waiver, CC Docket No. 02-6 (filed Oct. 23, 2024)

Tyler Communications Systems, Inc. (St. Cecilia School), TX, Application No. 201038985, Request for Waiver, CC Docket No. 02-6 (filed Oct. 30, 2024)

*Untimely Filed Appeals or Waiver Requests*¹⁹

Aero Computing, Ltd. (Forrestville Valley School District 221), IL, Application No. 181005337, Request for Waiver, CC Docket No. 02-6 (filed Mar. 5, 2020)

Camas County Schools, ID, Application No. 201011234, Request for Waiver, CC Docket No. 02-6 (filed Mar. 29, 2022)

Carrizo Springs Consolidated Independent School District, TX, Application No. 241039109, Request for Waiver, CC Docket No. 02-6 (filed Oct. 17, 2024)

Cesar Chavez Community School, AZ, Application No. 201014897, Request for Waiver, CC Docket No. 02-6 (filed June 16, 2021)

¹⁸ 47 CFR § 54.514. *See also Requests for Waiver of Decisions of the Universal Service Administrator by Ada School District et al.; Schools and Libraries Universal Support Mechanism*, CC Docket No. 02-6, Order, 31 FCC Rcd 3834, 3836, para. 8 (WCB 2016) (denying requests for waiver of the Commission's invoice filing deadline rule for petitioners that failed to demonstrate extraordinary circumstances for a waiver of the Commission's rules).

¹⁹ *See, e.g., Requests for Review of the Decisions of the Universal Service Administrator by Agra Public Schools I-134; Schools and Libraries Universal Service Mechanism*, CC Docket No. 02-6, Order, 25 FCC Rcd 5684, 5688, para. 6 (WCB 2010) (*Agra Public Schools Order*); *Requests for Waiver or Review of Decisions of the Universal Service Administrator by Bound Brook School District; Schools and Libraries Universal Service Mechanism*, CC Docket No. 02-6, Order, 29 FCC Rcd 5823, 5823, para. 1 (WCB 2014) (*Bound Brook School District Order*) (denying requests for review and/or waiver on the grounds that the petitioners failed to: (1) submit their appeals either to the Commission or to USAC within 60 days or failed to submit their waiver requests to the Commission within 60 days as required by the Commission's rules; and (2) did not demonstrate special circumstances required for the Commission to waive the rule).

Easton School District, MA, Application No. 181008715, Request for Waiver, CC Docket No. 02-6 (filed Nov. 13, 2019)

Mequon-Thiensville School District, WI, Application No. 181038112, Request for Waiver, CC Docket No. 02-6 (filed Mar. 4, 2020)

New World Educational Center, AZ, Application No. 241029752, Request for Waiver, CC Docket No. 02-6 (filed Oct. 23, 2024)

Emergency Connectivity Fund Program
WC Docket No. 21-93

Granted²⁰

*Early Delivery*²¹

Breckinridge Country School District, KY, Application No. ECF202201998, Request for Waiver, WC Docket No. 21-93 (filed Oct. 14, 2024)

Bridgeport Public Schools, CT, Application No. ECF202205927, Request for Waiver, WC Docket No. 21-93 (filed Aug. 29, 2024)

Educational Opportunities for Children and Families, WA, Application No. ECF202205464, Request for Waiver, WC Docket No. 21-93 (filed Nov. 5, 2024)

Gladbrook-Reinbeck Community School District, IA, Application No. ECF202203374, Request for Waiver, WC Docket No. 21-93 (filed Oct. 16, 2024)

Insight Public Sector, Inc. (Hickman County School District), KY, Application No. ECF202200357, Request for Waiver, WC Docket No. 21-93 (filed Nov. 14, 2024)

Shamokin Area School District, Application No. ECF202202784, Request for Waiver, WC Docket No. 21-93 (filed Nov. 22, 2024)

Sturgis Public Schools, MI, Application No. ECF202201183, Request for Waiver, WC Docket No. 21-93 (filed Nov. 7, 2024)

²⁰ We remand these applications to USAC and direct USAC to complete its review of the applications and issue a funding decision based on a complete review and analysis, no later than 90 calendar days from the release date of this Public Notice. In remanding these applications to USAC, we make no finding as to the ultimate eligibility of the services or the petitioners' applications. We also waive sections 54.1711(d) and (e) of the Commission's rules and direct USAC to waive any procedural deadline that might be necessary to effectuate our ruling. See 47 CFR § 54.1711(d)-(e) (codifying the invoice filing deadline and establishing the service delivery dates for equipment, other non-recurring services, and recurring services).

²¹ See *Streamlined Resolution of Requests Related to Actions by the Universal Service Administrative Company*, CC Docket No. 02-6, WC Docket Nos. 21-93, 06-122, Public Notice, 37 FCC Rcd 7445, 7459 n.25 (WCB 2022) (granting requests for waivers for equipment delivered before the start of the approved funding year).

Rural Health Care Program**WC Docket No. 02-60****Granted***Waiver of the Application Filing Deadline*²²

Bethel Family Clinic and Council of Athabascan Tribal Governments, AK, Request for Waiver, WC Docket No. 02-60, Funding Request Nos. 19618591, 19567891 (filed Apr. 26, 2021)

Dismissed*Dismissed as Moot*²³

Morton General Hospital, WA, Request for Waiver, WC Docket No. 02-60, Funding Request No. 17205651 (filed May 14, 2021)

Denied*Invoice Filing Deadline*²⁴

Pioneers Medical Center and Meeker Family Health Center, CO, WC Docket No. 02-60, Funding Request No. RHC20220003487 (filed Oct. 9, 2024)

²² See *In the Matter of Request for Review Bradford Regional Medical Center; Rural Health Care Support Mechanism*, WC Docket No. 02-60, Order, 25 FCC Rcd 7221, 7222-23, paras. 3-5 (WCB 2010) (granting a waiver of the application filing deadline when the petitioner missed the deadline due to technical issues). We remand this matter to USAC and direct USAC to coordinate with the petitioners on the filings of these applications and then issue a funding decision based on a complete review and analysis of the application. In remanding this matter to USAC, we make no finding as to the ultimate eligibility of the services or the petitioners' application.

²³ See, e.g., *Requests for Review and/or Requests for Waiver of the Decisions of the Universal Service Administrator by Al Noor High School et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 27 FCC Rcd 8223, 8224, para. 2 (WCB 2012) (dismissing as moot requests for review where USAC had taken the action the petitioner requested). Morton General Hospital requested a waiver of the 60-day deadline to file an appeal of its commitment adjustment letter issued by USAC on February 26, 2021. After discovering issues related to the delivery of that letter, USAC re-issued the commitment adjustment letter on August 20, 2021. Morton General Hospital filed an appeal on September 14, 2021, and USAC then resolved Morton General Hospital's appeal on the merits on November 30, 2023. We dismiss Morton General Hospital's request for waiver of the deadline to file an appeal as moot because it was able to timely file an appeal.

²⁴ *Requests for Waiver or Review of Decision of the Universal Service Administrator by Indiana Telehealth Network*, WC Docket No. 02-60, Order, 33 FCC Rcd 12341, 12342, para. 4 (WCB 2018) (denying waivers of the invoice filing deadline when the petitioners missed their deadlines due to personnel issues).

Contribution Methodology**WC Docket No. 06-122****Granted**

Request for Waiver of the Limited International Revenue Exemption (LIRE) Threshold for Revenue Reporting Year 2025²⁵

Miron Enterprises, LLC and Tello, LLC, Petition for Waiver of the Limited International Revenue Exemption, WC Docket No. 06-122 (filed Nov. 8, 2024)

Telxius Cable USA, Inc., Telefónica Global Solutions USA, Inc., and Telefónica Larga Distancia de Puerto Rico, Inc., Petition for Waiver of the Limited International Revenue Exemption, WC Docket No. 06-122 (filed Oct. 18, 2024)

For additional information concerning this Public Notice, please contact James Bachtell in the Telecommunications Access Policy Division, Wireline Competition Bureau, at james.bachtell@fcc.gov or (202) 418-2694.

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²⁵ 47 CFR § 54.706(c). See *Tata Communications (America), Inc. and Tata Communications (Guam), L.L.C. Request for Waiver of Section 54.706(a) of the Commission's Rules*, WC Docket No. 06-122, Order, 36 FCC Rcd 5759 (WCB 2021) (finding good cause for a limited waiver of the LIRE allowing filers to continue contributing solely on their interstate revenue). To the extent petitioners seek a waiver of the LIRE threshold beyond December 31, 2025, they must file a request to renew or extend this waiver, accompanied by the requisite showing supporting the request, consistent with the Commission's waiver rule and precedent.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov
TTY: 888-835-5322

DA 24-1170

Released: November 21, 2024

COMMENT SOUGHT ON REQUEST BY U.S. DEPARTMENT OF STATE TO ALLOW INTERNATIONAL VRS CALLS TO U.S. EMBASSIES AND CONSULATES

CG Docket Nos. 03-123 and 10-51

Comments Due: December 6, 2024

Reply Comments Due: December 16, 2024

The U.S. Department of State (State Department) seeks to improve the ability of U.S. citizens who are deaf or hard of hearing to reach its dedicated consular teams while traveling overseas.¹ The State Department requests that the Federal Communications Commission (Commission) waive its rules to the extent necessary to allow Video Relay Service (VRS) users to call U.S. embassies and consulates while traveling abroad.² We seek comment on this request.

The Commission has previously ruled that no compensation is available from the Interstate Telecommunications Relay Services (TRS) Fund for VRS calls where both endpoints of the call are outside the United States.³ Recognizing that the Commission may need to waive certain rules to allow such calls to be compensated from the TRS Fund, the State Department asks the Commission “to whitelist official State Department telephone numbers to authorize VRS providers to connect calls to U.S. embassies and consulates worldwide without restrictions.”⁴ The State Department explains that its “dedicated consular teams around the world stand ready to assist, and our embassies and consulates maintain duty rosters to coordinate help on a 24/7 basis, for U.S. residents who need assistance due to a medical emergency, lost passport, death, arrest, or other unanticipated event.”⁵ The State Department seeks to ensure that individuals who use VRS have access to these services as part of its Deaf Diplomacy initiative to expand “understanding and inclusion within the Department as well as in our inclusion and outreach efforts to the U.S. citizens we serve.”⁶

¹ See Letter from Rena Bitter, Assistant Secretary, U.S. Department of State, to Jessica Rosenworcel, Chairwoman, FCC (filed Sept. 23, 2024), <https://www.fcc.gov/ecfs/document/10923573719951/1> (State Department Request).

² *Id.*

³ See *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Declaratory Ruling, 25 FCC Rcd 1868, 1872, para. 9 (2010) (“VRS calls that both originate and terminate outside the United States are not compensable from the Fund under section 225.”); see also 47 CFR § 64.604(d)(6) (restricting TRS Fund compensation for VRS calls originating from international IP addresses); *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 5545, 5564, para. 32 (2011).

⁴ State Department Request.

⁵ *Id.*

⁶ *Id.*

Filing Requirements. Interested parties may file comments on or before the dates indicated above.⁷ All filings must reference CG Docket Nos. 03-123 and 10-51. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS).⁸

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <https://www.fcc.gov/ecfs/filings>.
- Paper Filers:
 - Parties who choose to file by paper must file an original and one copy of each filing.
 - Filings can be sent, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
 - Commercial courier deliveries (any deliveries not by the U.S. Postal Service Express) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
 - U.S. Postal Service first-class, Express, and Priority mail must be sent to 45 L Street, NE, Washington, DC 20554.

Ex Parte Rules. The proceeding this Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.⁹ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

People with Disabilities. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Bureau at 202-418-0530 (voice).

⁷ See 47 CFR §§ 1.1, 1.49.

⁸ *Electronic Filing of Documents in Rulemaking Proceedings*, GC Docket No. 97-113, Report and Order, 13 FCC Rcd 11322 (1998).

⁹ 47 CFR §§ 1.1200 *et seq.*

Additional Information. For further information regarding this Notice, please contact William Wallace, Disability Rights Office, Consumer and Governmental Affairs Bureau, at 202-418-2716 or by e-mail to William.Wallace@fcc.gov.

– FCC –



PUBLIC NOTICE

Federal Communications Commission
45 L St., N.E.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1171
Released: November 21, 2024

**DOMESTIC SECTION 214 APPLICATION GRANTED
FOR THE TRANSFER OF CONTROL OF
CBTS TECHNOLOGY SOLUTIONS LLC TO CBTS BORROWER, LLC**

WC Docket No. 24-42

By this Public Notice, the Wireline Competition Bureau grants, as conditioned, the application filed by Cincinnati Bell Inc. (Cincinnati Bell), CBTS Technology Solutions LLC (CBTS-TS), and CBTS Borrower, LLC (CBTS Borrower), (collectively, Applicants), pursuant to section 214 of the Communications Act of 1934, as amended, and sections 63.03-04 of the Commission's rules,¹ requesting consent for the indirect transfer of control of CBTS-TS to CBTS Borrower.²

On March 8, 2024, the Bureau released a public notice seeking comment on the Application.³ The Bureau did not receive comments or petitions in opposition to the Application.

Cincinnati Bell (d/b/a altafiber in Ohio, Indiana, and Kentucky), an Ohio corporation, through its subsidiaries, delivers services to residential and business customers over its fiber-optic network including high-speed internet, video, voice, and data in multiple states.⁴ ⁵ CBTS-TS, a subsidiary of CBTS LLC (a Delaware limited liability company and a direct subsidiary of Cincinnati Bell), is a Delaware limited liability company offering or providing resold domestic telecommunications services and other services to enterprise customers in every state, except Alaska and California, and in the District of Columbia.⁶

¹ See 47 U.S.C. § 214; 47 CFR §§ 63.03-04.

² Joint Application for Consent to Transfer Indirect Control of Domestic Section 214 Authorization Holders, CBTS Technology Solutions LLC to CBTS Borrower, LLC, WC Docket No. 24-42 (filed on Feb. 7, 2024) (Application). Applicants filed supplements to their application on February 26, 2024 and March 6, 2024. Letter from Andrew D. Lipman et al., Counsel for Cincinnati Bell and CBTS-TS, and Marc A. Korman, Counsel for CBTS Borrower, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 24-42 (filed Feb. 26, 2024) (Feb. 26 Supplement); Letter from Andrew D. Lipman et al., Counsel for Cincinnati Bell and CBTS-TS, and Marc A. Korman, Counsel for CBTS Borrower, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 24-42 (filed Mar. 6, 2024) (Mar. 6 Supplement). Applicants also filed applications for the transfer of international authorizations. Any action on this application is without prejudice to other pending applications before the Commission.

³ *Domestic Section 214 Application Filed for the Transfer of Control of CBTS Technology Solutions, LLC*, WC Docket No. 24-42, Public Notice, DA 24-228 (WCB 2020) (*Public Notice*).

⁴ Application at 3. Cincinnati Bell also provides service in Hawaii under the brand Hawaiian Telcom. *Id.* at 3. Cincinnati Bell subsidiaries providing telecommunication services that are not subject to this proposed transaction include: Cincinnati Bell Telephone Company LLC, Cincinnati Bell Extended Territories LLC, Hawaiian Telcom, Inc., Hawaiian Telcom Services Company, Inc., and Wavecom Solutions Corporation. *Id.* at 10-11.

⁵ *Id.* at 3.

⁶ *Id.* at 10; Feb. 26 Supplement.

CBTS Borrower, a Delaware limited liability company, is an indirect subsidiary of TowerBrook's Fund VI fund family⁷ and is ultimately controlled by Neal Moszkowski (United States citizen) and Ramez Sousou (United Kingdom citizen).⁸ Applicants state that Jonathan Blizin, a U.S. citizen, and Karim Saddi, a citizen of France, are each expected to acquire a 10% or greater interest in TowerBrook's Fund VI fund family during the pendency of the Application.⁹ Applicants state that the California Public Employees Retirement System (16.07%) and the Washington State Investment Board (20.72%) will both indirectly hold a greater than 10% interest in CBTS Borrower through TI VI Armstrong Investment Aggregator L.P., a Delaware holding fund.¹⁰ Applicants further state that CBTS Borrower and its affiliates do not provide telecommunications services.¹¹

Pursuant to the terms of the Equity Purchase Agreement and Plan of Merger, Cincinnati Bell will sell to CBTS Borrower all of the issued and outstanding limited liability company interests of CBTS LLC.¹² Thus, as a result of the proposed transaction, CBTS LLC and CBTS-TS will become wholly-owned subsidiaries of CBTS Borrower.¹³

The transfer of domestic section 214 authority and the associated international application, ITC-ITC-T/C-20240207-00028 (collectively, Applications), were referred to the relevant Executive Branch agencies for their reviews on any national security, law enforcement, foreign policy, or trade policy concerns related to the foreign ownership of the Applicants.¹⁴ On March 13, 2024, the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (Committee) notified the Commission that it was reviewing the Applications for any national security and law enforcement concerns that may be raised by foreign participation in the United States telecommunications services sector and requested that the Commission defer action on the Application.¹⁵ We deferred action on the Application in response to this request from the Committee. On July 11, 2024, the Committee notified the Commission that the Applicants had provided complete responses to initial questions posed by the Committee and that the Committee was conducting an initial review to assess whether granting the Applications would pose a risk to the national security or law enforcement interests of the United States.¹⁶

On November 13, 2024, the National Telecommunications and Information Administration (NTIA) submitted a Petition to Adopt Conditions to Authorizations and License (Petition) on behalf of the Committee.¹⁷ In the Petition, NTIA advises the Commission that it has no objection to the Commission granting the Applications "provided that the Commission conditions its approval on the

⁷ TowerBrook is a Delaware limited partnership and investment advisor. Application at 2. Applicants state that the Singapore Minister for Finance, the Singapore Treasury, will indirectly hold a 10.27% in CBTS Borrower, LLC. Mar. 6 Supplement at 2-3.

⁸ Application at 2.

⁹ Mar. 6 Supplement at 1, 4.

¹⁰ *Id.* at 2.

¹¹ Application at 10.

¹² *Id.* at 4.

¹³ *Id.*

¹⁴ *Public Notice* at 2.

¹⁵ Letter from Makenzie B. Skopowski, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 24-42; ITC-T/C-20240207-00028 (Notification from Chief) (filed Mar. 13, 2024).

¹⁶ Letter from Makenzie B. Skopowski, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 24-42; ITC-T/C-20240207-00028 (filed July 11, 2024).

¹⁷ Petition to Adopt Conditions to Authorization and License, WC Docket No. 24-42 (filed Nov. 13, 2024).

assurances of CBTS Technology Solutions LLC and CBTS LLC (together, “CBTS”), along with CBTS Borrower, LLC (together with CBTS, “the Companies”), to abide by the commitments and undertakings set forth in the October 10, 2024, Letter of Agreement (LOA)” attached to the Petition.¹⁸

In accordance with the request of NTIA and in the absence of any objection from the Applicants, we grant the Petition, and, accordingly, we condition grant of the transfer of domestic section 214 authority on compliance by the Applicants with the commitments and undertakings set out in the LOA that applies to the Application.¹⁹ A failure to comply with and/or remain in compliance with any of the provisions of the LOA shall constitute a failure to meet a condition of this grant and the underlying authorizations and thus grounds for declaring the underlying domestic 214 authorizations terminated without further action on the part of the Commission. Failure to meet a condition of this grant and the authorizations may also result in monetary sanctions or other enforcement action by the Commission.

We find, upon consideration of the record, that the proposed transfer will serve the public interest, convenience, and necessity.²⁰ This grant of the Application and Petition is conditioned as set out in this Public Notice.

Pursuant to sections 214 of the Act, 47 U.S.C. §§ 214 and sections 0.91, 0.291, 63.03, and 63.04 of the Commission’s rules, 47 CFR §§ 0.91, 0.291, 63.03, and 63.04, we grant the Application and the Petition with the condition described above. Pursuant to section 1.103 of the Commission’s rules, 47 CFR § 1.103, the consent granted herein is effective upon the release of this Public Notice. Petitions for reconsideration under section 1.106 or applications for review under section 1.115 of the Commission’s rules, 47 CFR §§ 1.106, 1.115, may be filed within 30 days of the date of this Public Notice.

For further information, please contact Dennis Johnson, Wireline Competition Bureau, (202) 418-0809.

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¹⁸ *Id.* at 1-2.

¹⁹ *Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, et al.*, WT Docket 18-197, Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, 34 FCC Rcd 10578, 10732-33, para. 349 (2019); *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market; Market Entry and Regulation of Foreign-Affiliated Entities, Report and Order and Order on Reconsideration*, 12 FCC Rcd 23891, 23918-21, paras. 59-66 (1997), recon. denied, 15 FCC Rcd 18158 (2000) (in opening the U.S. telecommunications market to foreign entry in 1997, the Commission affirmed that it would consider national security, law enforcement, foreign policy, and trade policy concerns related to reportable foreign ownership as part of its overall public interest review of applications for international section 214 authority, submarine cable landing licenses, and declaratory rulings to exceed the foreign ownership benchmarks of section 310(b) of the Act)).

²⁰ See 47 U.S.C. § 214(a); 47 CFR § 63.03.



PUBLIC NOTICE

Federal Communications Commission
45 L St., N.E.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1172

Released: November 21, 2024

**Media Bureau Reminds Television Broadcasters that
Audio Description Rules apply to DMAs 101 Through 110 as of January 1, 2025**

MB Docket No. 11-43

On October 17, 2023, the Commission adopted the *2023 Audio Description Order*, which continues the expansion of the Commission's audio description rules to an additional 10 designated market areas (DMAs) per year until all DMAs are included.¹ Audio description makes video programming more accessible to individuals who are blind or visually impaired through "[t]he insertion of audio narrated descriptions of a television program's key visual elements into natural pauses between the program's dialogue."² The Commission's audio description rules require certain television broadcast stations and multichannel video programming distributors (MVPDs) to provide audio description for a portion of the video programming they televise to consumers.³ We remind television broadcasters that the audio description rules next will extend to DMAs 101 through 110 on January 1, 2025.⁴

As set forth in the *2023 Audio Description Order*, compliance deadlines going forward will apply to the relevant DMAs as determined by The Nielsen Company as of January 1, 2023.⁵ Accordingly, the audio description rules will extend to the following DMAs on January 1, 2025:

1. Tri-Cities, Tennessee-Virginia
2. Reno
3. Greenville-New Bern-Washington
4. Davenport-Rock Island-Moline
5. Tallahassee-Thomasville
6. Lincoln & Hastings-Kearney
7. Evansville
8. Ft. Wayne
9. Johnstown-Altoona-State College

¹ *Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Second Report and Order, MB Docket No. 11-43, 38 FCC Rcd 9774 (2023) (*2023 Audio Description Order*). See also *Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Report and Order, MB Docket No. 11-43, 35 FCC Rcd 12577 (2020) (previously expanding the availability of audio description by phasing the requirements in for an additional 10 DMAs each year for four years, concluding with DMAs 91-100 on January 1, 2024).

² See 47 CFR § 79.3(a)(3).

³ See *id.* § 79.3(b).

⁴ *Id.* § 79.3(b)(1).

⁵ *2023 Audio Description Order*, 38 FCC Rcd at 9779, para. 10.

10. Augusta-Aiken

Accessible Materials. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice).

For general information about audio description, visit www.fcc.gov/audio-description. For further information regarding this proceeding, contact Diana Sokolow, Policy Division, Media Bureau, 202-418-0588.

-FCC-

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Telecommunications Relay Services and Speech-	)	CG Docket No. 03-123
to-Speech Services for Individuals with Hearing	)	
and Speech Disabilities	)	
	)	
Structure and Practices of the Video Relay Service	)	CG Docket No. 10-51
Program	)	
	)	

ORDER

Adopted: November 21, 2024

Released: November 21, 2024

By the Chief, Consumer and Governmental Affairs Bureau:

I. INTRODUCTION

1. Conditional certification is granted to Bond Communications, Inc. (Bond), to receive compensation from the Interstate Telecommunications Relay Services (TRS) Fund for the provision of Video Relay Service (VRS).¹ This grant of conditional certification authorizes Bond to provide TRS Fund-supported VRS for a two-year period, through November 20, 2026. We also find good cause to grant Bond's request for short-term waivers of the VRS rules regarding documentary and other evidence demonstrating that the applicant leases, licenses, or has acquired its own facilities for VRS call centers and has purchased, leased, or licensed all technology and equipment used to support call center functions.²

II. BACKGROUND

2. The certification process for providers of Internet-based TRS, including VRS³, is set forth in section 64.606 of the Federal Communications Commission's (Commission's) rules and was established to ensure that providers receiving TRS Fund compensation are qualified to provide service in

¹ See Application of Bond Communications, Inc., for Certification to Provide Video Relay Service, CG Docket Nos. 03-123 and 10-51 (filed May 28, 2024) (Application), <https://www.fcc.gov/ecfs/document/10529075858473/1>; see also Amendment to Application of Bond Communications, Inc., for Certification to Provide Video Relay Service, CG Docket Nos. 03-123 and 10-51 (filed Sept. 26, 2024) (redacted) (Bond Amendment). The TRS Fund compensates eligible providers of Internet-based and interstate TRS for their reasonable costs of providing these services. See 47 CFR § 64.604(c)(5)(iii).

² See Application at 25 (call centers); *id.* at 27-28 (work station equipment). While the Consumer and Governmental Affairs Bureau (Bureau) ordinarily announces certification decisions by Public Notice, we elect to issue this decision as an Order because we also are addressing the applicant's associated waiver requests. We deem this Order to constitute conditional certification that Bond is eligible for compensation from the Interstate TRS Fund in accordance with section 64.606(b)(2) of the Commission's rules for VRS. 47 CFR § 64.606(b)(2).

³ VRS uses a broadband Internet connection between the VRS user and the communications assistant (CA) to enable a person using American Sign Language to communicate over video with another party through the CA. During a VRS call, the CA relays the communications between the two parties, signing what the other party says to the deaf or hard of hearing user and responding in voice to the other party to the call. See *id.* § 64.601(a)(53).

compliance with the TRS rules.⁴ Under section 64.606(b), applicants must submit specific documentation to the Commission (described further below), and certification shall be granted upon a determination that the applicant will meet all applicable mandatory minimum TRS standards and has adequate procedures and remedies for ensuring compliance with Commission rules.⁵ The Commission may grant conditional certification where additional time is needed to complete evaluation of an applicant's qualifications or verify information contained in the application.⁶

3. After certification, Internet-based TRS providers must file annual reports updating the information in their application to demonstrate continuing compliance with the Commission's mandatory minimum TRS standards.⁷ Each provider also must include within its annual report a compliance plan describing the provider's policies and procedures for complying with the Commission's rules prohibiting VRS providers from engaging in the unauthorized and unnecessary use of VRS.⁸

4. On May 28, 2024, Bond filed an application for certification to provide VRS and sought a waiver of the requirements to submit documentation that the applicant has leased, licensed, or acquired facilities for a call center and has purchased, leased, or licensed all technology and equipment used to support call center functions.⁹ On July 29, 2024, the Bureau sought comment on Bond's application.¹⁰ The Commission received four Express Comments from consumers supporting Bond's application.¹¹

III. CERTIFICATION

5. We find that Bond's application facially meets the applicable certification requirements, and we conditionally grant certification to Bond to provide VRS. Conditional certification allows the Commission to verify—based on actual operating conditions—that Bond's provision of VRS will meet or exceed the minimum TRS standards.¹² This grant of conditional certification is without prejudice to the Commission's final determination of Bond's qualifications.¹³

6. *Bond's VRS Qualifications.* Bond's certification application provides the information and documentation required by the applicable rules.¹⁴ Specifically, Bond has provided: (1) a description of the service to be provided;¹⁵ (2) a detailed description of how Bond will meet all nonwaived mandatory

⁴ *Id.* § 64.606; *Structure and Practices of the Video Relay Service Program*, CG Docket No. 10-51, Second Report and Order, 26 FCC Rcd 10898, 10902-04, paras. 8-10 (2011) (*2011 Internet-based TRS Certification Order*).

⁵ 47 CFR § 64.606(b)(2); *2011 Internet-based TRS Certification Order*, 26 FCC Rcd at 10909-13, paras. 23-34; *see also Structure and Practices of the Video Relay Service Program et al.*, CG Docket Nos. 10-51 et al., Memorandum Opinion and Order, Order, and Further Notice of Proposed Rulemaking, 26 FCC Rcd 14895 (2011) (clarifying and modifying TRS certification requirements).

⁶ *2011 Internet-based TRS Certification Order*, 26 FCC Rcd at 10914-15, para. 37.

⁷ 47 CFR § 64.606(g).

⁸ *Id.* § 64.604(c)(13).

⁹ *See* Application at 1, 25, 27-28; *see* 47 CFR § 64.606(a)(2)(ii)(A)(I), (5).

¹⁰ *See Comment Sought on Application of Bond Communications, Inc., for Certification to Provide Video Relay Service*, CG Docket Nos. 03-123 and 10-51, Public Notice, DA 24-729 (July 29, 2024).

¹¹ *See* Shelley Abdilah, Express Comment (Aug. 16, 2024); Norma Moran & Franklin Torres, Express Comment (Aug. 20, 2024); Danielle Keller, Express Comment (Aug. 28, 2024); Gabrielle Beaumont, Express Comment (Aug. 27, 2024).

¹² *2011 Internet-based TRS Certification Order*, 26 FCC Rcd at 10914-15, para. 37.

¹³ *Id.*

¹⁴ *See* 47 CFR § 64.606(a)(2).

¹⁵ Application at 4.

minimum standards applicable to VRS;¹⁶ (3) a description of the technology and equipment to be used to support call center functions;¹⁷ (4) a description of Bond's organizational structure, including the names of its 10 percent or more equity interest holders, the names of persons with the power to vote 10 percent or more of the securities of Bond, and the names of its executives, officers and members of its board;¹⁸ (5) a list of the number of its full-time and part-time employees involved in Bond's VRS operations by position;¹⁹ (6) a confidential list of sponsorship arrangements relating to the provision of Internet-based TRS;²⁰ (7) a description of Bond's complaint procedures;²¹ (8) a statement that Bond will file annual compliance reports demonstrating continued compliance with the rules;²² and (9) a certification by Bond's CEO confirming the accuracy and completeness of the information contained in the application.²³

7. *Interoperability.* VRS providers are subject to the Commission's interoperability and portability requirements.²⁴ Bond states that, pursuant to these requirements, its users will be able to place and receive calls through any other VRS providers' services, and Bond will be able to receive calls from, and make calls to, any VRS user.²⁵ Bond also states it does not take any steps that restrict a user's unfettered access to another provider's service, and that its VRS access technologies and video communication service platforms will be interoperable with the VRS Access Technology Reference Platform.²⁶

8. No party opposes certification of Bond's proposed service, and no questions were raised concerning the operation and delivery of its proposed VRS.²⁷ The four parties filing Express Comments all support Bond's application and its focus on providing VRS for deaf children who use American Sign Language (ASL).²⁸

9. We find that Bond's application facially establishes that Bond will meet or exceed the mandatory minimum standards applicable to its provision of VRS and that the company has in place sufficient procedures and remedies for ensuring compliance with the applicable TRS rules.²⁹

¹⁶ *Id.* at 5-24.

¹⁷ *Id.* at 25-28.

¹⁸ *Id.* at 28-29.

¹⁹ *Id.* at 30.

²⁰ Bond Amendment. Bond has identified no current sponsorship arrangements. *See* 47 CFR § 64.606(a)(2)(ii)(E).

²¹ Application at 31-32.

²² *Id.* at 32.

²³ *Id.*, Ex. 1; Bond Amendment.

²⁴ 47 CFR § 64.621. Among other requirements, VRS providers must ensure that all VRS users and hearing point-to-point video users can place a VRS or point-to-point video call through any of the VRS providers' services, and that calls can be received from and placed to any VRS or hearing point-to-point video user. *Id.* § 64.621(a)(1).

²⁵ Application at 23.

²⁶ *Id.*

²⁷ *Cf. Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; Structure and Practices of the Video Relay Service. Program*, CG Docket Nos. 03-123 and 10-51, Order, 38 FCC Rcd 9731, 9734-35, paras. 9-13 (CGB 2023) (*Tive VRS Certification Order*) (addressing questions raised in comments regarding applicant's proposed VRS operations).

²⁸ *See* Application at 2-4 ("Bond is committed to meeting the communication needs of deaf children through a child-friendly VRS.").

²⁹ *See* 47 CFR § 64.606(b)(2).

10. *Conditional Certification.* We grant certification for Bond's provision of VRS on a conditional basis, for a period not to exceed two years, pending further verification that its VRS complies with the Commission's mandatory minimum TRS standards. For example, we note that this first-time applicant will use a proprietary, customizable architecture for the provision of VRS,³⁰ and that it has yet to complete the establishment of a call center and purchase call center equipment.³¹ Conditional certification will allow the Commission to further verify, based on oversight of actual operations, review of consumer complaints, if any, and interoperability testing, that this service will meet or exceed the minimum TRS standards.³²

11. To assist the Bureau in a final determination of Bond's qualifications to provide VRS, we require Bond to file quarterly reports of consumer complaints, in the same format and with the same degree of detail required in the log of consumer complaints that providers must file annually with the Commission.³³ The first report shall be due on the last day of the first month of the calendar quarter following the first calendar quarter in which Bond has been in operation for more than a month, and shall cover the period from the commencement of TRS-funded VRS service through the end of that quarter.³⁴ Each subsequent report shall be filed on the last day of the first month of each calendar quarter and shall cover the preceding calendar quarter. Bond shall continue to file reports on a quarterly schedule during the term of this conditional certification until the Commission acts on granting or denying full certification, whichever occurs earlier. As discussed below, Bond also must finalize the lease for its call center and purchase order for call center equipment and submit copies of these documents as an amendment to its application.

12. As an additional condition of this conditional certification, we require Bond to submit all information required by sections 64.606(a)(2)(ii)(A)(I) and (5) of the Commission's rules,³⁵ no later than the date of expiration of the waiver of those provisions granted herein.

13. We emphasize that Bond must continue to operate in compliance with all relevant Commission rules and orders. As with other grants of TRS certification, the Commission reserves the right to conduct ongoing monitoring of the operations of Bond to ensure continuing compliance and to review any additional documentation necessary to ascertain the veracity of the assertions made in its applications and updates.³⁶ The Commission also reserves the right to investigate compliance by Bond with the Commission's rules and orders and to take enforcement action for past or future violations, including suspension or revocation of this certification, if circumstances warrant.³⁷ This may include unannounced on-site visits to Bond's headquarters, offices, or call centers for the purpose of ensuring continued compliance with the certification requirements and the Commission's rules.³⁸ Conversion to

³⁰ Application at 25-26 ("Central to Bond's approach is the Company's decision to develop its own proprietary, customizable VRS platform that seamlessly integrates with external technology providers' solutions.").

³¹ See *id.* at 25 & Ex. 3; *id.* at 27-28 & Ex. 4; *infra* Part IV.

³² See *2011 Internet-based TRS Certification Order*, 26 FCC Rcd at 10914-15, para. 37.

³³ See 47 CFR § 64.604(c)(1).

³⁴ The first report shall specify the date of Bond's first TRS Fund-supported call using VRS as its commencement of service date for VRS. For example, if Bond begins service on November 15, 2024, the first report shall be due on January 31, 2025, and cover the period from November 15, 2024, through December 31, 2024. If Bond commences service on December 15, 2023, the first report shall be due on April 30, 2025, and cover the period from December 15, 2024 through March 31, 2025.

³⁵ 47 CFR § 64.606(a)(2)(ii)(A)(I), (5).

³⁶ See *Internet-based TRS Certification Order*, 26 FCC Rcd at 10913, para. 33.

³⁷ See 47 CFR § 64.606(e)(2).

³⁸ See *Internet-based TRS Certification Order*, 26 FCC Rcd at 10914, paras. 35-36.

full certification will be granted if, based on a review of the applicant's documentation and other relevant information, the Commission finds that Bond is in compliance with applicable Commission rules and orders and is qualified to receive compensation from the Fund for the provision of VRS. If, at any time during the period in which Bond is operating pursuant to this conditional certification, the Commission determines that Bond has failed to provide sufficient supporting documentation for any of the assertions in its application, determines that any of those assertions cannot be supported, or finds evidence of any apparent rule violation, fraud, waste, or abuse, the Commission will take appropriate action, which may include the denial of Bond's application. In the event of such denial, Bond's conditional certification for its VRS will automatically terminate thirty-five (35) days after such denial.³⁹

IV. REQUEST FOR WAIVERS

14. Bond requests waivers of section 64.606(a)(2)(ii)(A)(I) of the Commission's rules, which requires a provider operating five or fewer call centers to submit a copy of each deed or lease for each call center,⁴⁰ and a partial waiver of section 64.606(a)(2)(ii)(A)(5), which requires the provider to submit a copy of each proof of purchase, lease, or license for all technology and equipment used to support the provider's call center functions for each call center.⁴¹ The Bureau grants a limited waiver of both provisions, subject to conditions.

15. *Waiver standard.* A Commission rule may be waived for "good cause shown."⁴² In particular, a waiver is appropriate where the particular facts make strict compliance inconsistent with the public interest.⁴³ In addition, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.⁴⁴ Good cause for a waiver may be found if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest.⁴⁵

16. *Waiver Request.* In its request for waiver of section 64.606(a)(2)(ii)(A)(I), Bond explains that, as a start-up, Bond's need for call center facilities is contingent on its VRS certification.⁴⁶ It further states that "[e]ntering into such a lease in advance of certification is unnecessary as the lease would be unused and it would be a waste of resources."⁴⁷ Bond has submitted a copy of a non-binding letter of intent to lease a call center in Seattle.⁴⁸ Bond says that it intends to finalize and execute the lease upon grant of certification.⁴⁹

17. Citing the same uncertainty regarding certification, Bond also requests a partial waiver of section 64.606(a)(2)(ii)(A)(5) of the Commission's rules, which requires Bond to provide the Commission a copy of each proof of purchase, lease or license agreement for all technology and

³⁹ See *id.* at 10914-15, para. 37. If the Commission terminates a conditional certification, the provider must give at least 30 days' notice to its customers that it will no longer offer service. *Id.*

⁴⁰ See 47 CFR § 64.606(a)(2)(ii)(A)(I); Application at 25.

⁴¹ See 47 CFR § 64.606(a)(2)(ii)(A)(5); Application at 27-28.

⁴² 47 CFR § 1.3.

⁴³ *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*).

⁴⁴ *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972); *Northeast Cellular*, 897 F.2d at 1166.

⁴⁵ *Northeast Cellular*, 897 F.2d at 1166.

⁴⁶ Application at 25.

⁴⁷ *Id.* at 25.

⁴⁸ *Id.*, Ex. 3.

⁴⁹ *Id.* at 25.

equipment used to support call center functions.⁵⁰

18. Bond has submitted a copy of a non-binding quote for call center workstations for 25 VRS CAs.⁵¹ Bond states that, as a start-up, its need for the CA work station equipment is contingent on obtaining certification to provide TRS-funded VRS.⁵² Bond states that it intends to finalize and execute a purchase order for the work station equipment in accordance with section 64.606(a)(2)(ii)(A)(5) upon certification.⁵³

19. Regarding other technology or equipment, Bond states that because it is using its own proprietary technology as the core technology for call center operations, including automatic call distribution (ACD),⁵⁴ there are no relevant agreements for such technology.⁵⁵ Bond adds that, while its proprietary platform “seamlessly integrates with external technology providers’ solutions,” it is obtaining such external technology pursuant to each entity’s general terms of service.⁵⁶

20. *Discussion.* We find good cause to grant Bond limited waivers of sections 64.606(a)(2)(ii)(A)(1) and (5) of the Commission’s rules.⁵⁷ The information submitted persuades us that providing all the required information in its initial application would cause a hardship for Bond in that, as a start-up business, it would incur substantial expense to lease or purchase facilities and hardware with no certainty as to whether or when the Commission would grant its application. The purpose of these provisions is to enable the Commission to evaluate whether an application “has the full operational and technical capability to operate a call center, in compliance with the Commission’s mandatory minimum standards.”⁵⁸ Bond has provided reasonable alternative documentation showing that it intends to open at least one call center and obtain work station equipment for the call center. Bond also sufficiently describes the technology that will support its call center functions (and adequately explains why there are no relevant agreements, other than its cloud-based suppliers’ general terms of service, which are available at the Internet links cited in its application).⁵⁹ Therefore, it appears that Bond is well-positioned to start VRS operations once it finalizes the lease for the call center and installs the work station equipment.

21. We also note that the conditional certification granted herein withholds full certification pending verification of actual compliance with the TRS rules—including the rule requiring VRS providers to operate their own call centers.⁶⁰

22. In these special circumstances, we find good cause to grant Bond waivers of sections

⁵⁰ See 47 CFR § 64.606(a)(2)(ii)(A)(5); Application at 27-28.

⁵¹ Application, Ex. 4.

⁵² *Id.* at 27-28.

⁵³ *Id.*

⁵⁴ See *id.* at 25-26.

⁵⁵ *Id.* at 28 n.36.

⁵⁶ *Id.* at 26, 28.

⁵⁷ See *Tive VRS Certification Order*, 38 FCC Rcd at 9737-38, paras. 21-22 (granting a similarly conditioned waiver allowing applicant to satisfy the call center lease requirements of section 64.606(a)(2)(ii)(A)(1) within 60 days of the effective date of the order).

⁵⁸ *2011 Internet-based TRS Certification Order*, 26 FCC Rcd at 10912, para. 30; see also *id.* at 10906-07, paras. 17-19 (discussing requirements for VRS ACD platforms); 47 CFR § 64.606(a)(2)(ii) (stating that the information required by paragraph (ii) “shall demonstrate that the applicant leases, licenses or has acquired its own facilities and operates such facilities associated with TRS call centers”);

⁵⁹ See Application at 25-26, 28 & nn. 35-36.

⁶⁰ 47 CFR § 64.604(d)(1)(iii).

64.606(a)(2)(ii)(A)(1) and (5) of the Commission's rules for a limited period of time, which shall expire 60 days after the effective date of this Order, or on the date Bond submits an initial request for TRS Fund compensation, whichever is earlier. Because Bond has stated that it will finalize and execute the lease and purchase agreement "upon certification," we find that this additional time is sufficient for Bond to finalize and execute a lease and purchase equipment for its call center. As explained above, as a condition of this certification, on or before the date of expiration of this waiver, Bond must update its application materials to include (1) a deed or lease for each call center it will initially operate and (2) a lease or purchase agreement for the equipment supporting such call center(s).⁶¹

V. PROCEDURAL MATTERS

23. *People with Disabilities:* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice).

24. *Additional Information.* For further information regarding this item, please contact William Wallace, Disability Rights Office, Consumer and Governmental Affairs Bureau, at 202-418-2716 or by e-mail to William.Wallace@fcc.gov.

VI. ORDERING CLAUSES

25. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 4(j), and 225 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), (j), 225, sections 0.141, 0.361, 1.3, and 64.606(b)(2) of the Commission's rules, 47 CFR §§ 0.141, 0.361, 1.3, 64.606(b)(2), this Order IS ADOPTED.

26. IT IS FURTHER ORDERED that Bond Communications, Inc., is conditionally certified to be compensated from the Interstate Telecommunications Relay Services Fund for providing Video Relay Service as conditioned in this Order.

27. IT IS FURTHER ORDERED, that Bond's Request for Waivers of sections 64.604(a)(2)(ii)(A)(1) and (5) of the Commission's rules, 47 CFR § 64.604(a)(2)(ii)(A)(1), (5), ARE GRANTED, subject to the conditions herein.

28. IT IS FURTHER ORDERED that, pursuant to section 1.102(b)(1) of the Commission's rules, 47 CFR § 1.102(b)(1), this Order SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Alejandro Roark, Chief
Consumer and Governmental Affairs Bureau

⁶¹ See *id.* § 64.606(a)(2)(ii)(A)(1), (5); see also *id.* § 64.606(a)(2)(ii)(A)(4) (providing that call center functions include, but are not limited to, the functions described in the main text).



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1174

Released: November 21, 2024

WIRELINE COMPETITION BUREAU ANNOUNCES COMPLIANCE AND COMMENT DATES FOR THE 988 GEOROUTING PROCEEDING

WC Docket No. 18-336

On October 17, 2024, the Federal Communications Commission (Commission) adopted a *Third Report and Order and Third Further Notice of Proposed Rulemaking (988 Georouting Order and Third FNPRM)* in WC Docket No. 18-336. In the *988 Georouting Order*, the Commission adopted rules to facilitate access to the 988 Suicide & Crisis Lifeline's (988 Lifeline or Lifeline) critical local intervention services by requiring Commercial Mobile Radio Service (CMRS) providers to implement a georouting solution for 988 calls.¹

On November 12, 2024, a summary of the *988 Georouting Order* was published in the Federal Register, and the rules will become effective 30 days later on December 12, 2024.² The *988 Georouting Order* set compliance dates of 30 days and 24 months after December 12, 2024 for nationwide CMRS providers and all CMRS providers, respectively.³ Accordingly, nationwide CMRS providers must comply with the 988 georouting call rules adopted in the *988 Georouting Order* no later than **January 13, 2025**, and all CMRS providers must comply no later than **December 14, 2026**.⁴

In the *Third FNPRM*, the Commission proposed and sought comment on requiring covered text providers to support georouting to ensure that the 988 Lifeline may route covered 988 text messages to appropriate local crisis centers.⁵ On November 20, 2024, a summary of the *Third FNPRM* was published in the Federal Register.⁶ Accordingly, comments are due on or before **December 20, 2024**, and reply comments are due on or before **January 9, 2025**.⁷ Complete comment filing instructions are set forth in the *Third FNPRM*.⁸

¹ *Implementation of the National Suicide Hotline Act of 2018*, WC Docket No. 18-336, Third Report and Order and Third Further Notice of Proposed Rulemaking, FCC 24-111, 2024 WL 4565596 (rel. Oct. 18, 2024) (*988 Georouting Order and Third FNPRM*).

² See *id.* at *39, para. 111; *Implementation of the National Suicide Hotline Act of 2018*, 89 FR 88890 (Nov. 12, 2024).

³ See *988 Georouting Order and Third FNPRM* at *40-42, Appx. A.

⁴ See *id.*; 47 CFR § 1.4(e), (j) (specifying generally that action falling on a holiday occur the next business day).

⁵ *988 Georouting Order and Third FNPRM* at *25, paras. 71-89.

⁶ See *Implementation of the National Suicide Hotline Act of 2018*, 89 FR 91636 (Nov. 20, 2024).

⁷ See *988 Georouting Order and Third FNPRM* at *38, para. 105.

⁸ *Id.* at *38, paras. 105-108.

To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

For further information, contact Merry E. Wulff, Wireline Competition Bureau, Competition Policy Division, at Merry.Wulff@fcc.gov or (202) 418-1084.

- FCC -



PUBLIC NOTICE

Federal Communications Commission
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Washington, DC 20554

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DA 24-1175

Released: November 21, 2024

FCC ANNOUNCES DECEMBER 6, 2024 MEETING OF THE COMMUNICATIONS EQUITY AND DIVERSITY COUNCIL

GN Docket No. 17-208

In this Public Notice, the Wireline Competition Bureau announces that, consistent with the Federal Advisory Committee Act,¹ the Federal Communications Commission's (FCC or Commission) Communications Equity and Diversity Council (CEDC) will hold the third meeting of the CEDC under its current charter on December 6, 2024.² The agenda for the meeting will include greetings from FCC Chairwoman Rosenworcel's office, the introduction of a new Deputy Designated Federal Officer (DFO) for the CEDC, the introduction of new CEDC working group co-chairs for the Innovation and Access Working Group, updates from the working groups, and a discussion of working group plans going forward.

The December 6, 2024 CEDC meeting will be held in a hybrid manner, from 10:00 am to no later than 2:00 pm ET. The public may attend the meeting in person at FCC headquarters at 45 L Street, NE, Washington, DC. Additionally, the meeting will be available to the public for viewing via the Internet at <https://www.fcc.gov/live>. While the CEDC's meeting is open to the public, the FCC headquarters building is not open access, and all guests must check in with and be screened by FCC security at the main entrance on L Street. Attendees are not required to have an appointment but must otherwise comply with protocols outlined at: <https://www.fcc.gov/visit>.

The public may follow the meeting on the Commission's YouTube page at <https://www.youtube.com/user/fccdotgovvideo>. Members of the public may submit questions during the meeting to livequestions@fcc.gov. Members of the public also may submit written comments to the CEDC using the FCC's Electronic Comment Filing System, ECFS, at www.fcc.gov/ecfs. Any comments should be filed in GN Docket No. 17-208.

Open captioning will be provided for this event. Other reasonable accommodations for people with disabilities are available upon request. Requests for such accommodations should be submitted via e-mail to fcc504@fcc.gov or by calling the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice). Such requests should include a detailed description of the accommodation needed. In addition, please include a way for the Commission to contact the requester if more information is needed to fulfill the request. Please allow at least five days' advance notice for accommodation requests; last-minute requests will be accepted but may not be possible to accommodate.

¹ 5 U.S.C. App. 10.

² Notice of this meeting was published in the Federal Register on November 1, 2024, available at <https://www.federalregister.gov/documents/2024/11/01/2024-25496/meeting-of-the-communications-equity-and-diversity-council>.

More information about the CEDC is available at <https://www.fcc.gov/communications-equity-and-diversity-council>. You may also contact Rodney McDonald, DFO of the CEDC, (202) 418-7513, Rodney.McDonald@fcc.gov; Diana Coho, Deputy DFO of the CEDC, (717) 338-2848, Diana.Coho@fcc.gov; Connor Ferraro, Deputy DFO of the CEDC, (202) 418-1322, Connor.Ferraro@fcc.gov; or Sima Nilsson, Deputy DFO of the CEDC, (202) 418-2708, Sima.Nilsson@fcc.gov.

– FCC –

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
New Cingular Wireless PCS, LLC, AT&T	)	Call Sign KNLB301, et al.
Mobility Spectrum LLC, and New Cingular	)	ULS File No. 0009220767, et al.
Wireless Services, Inc., Request for Waiver	)	
	)	
	)	

ORDER

Adopted: November 25, 2024

Released: November 25, 2024

By the Chief, Mobility Division, Wireless Telecommunications Bureau:

1. In this *Order*, the Mobility Division (Division) of the Wireless Telecommunications Bureau (Bureau) addresses the waiver request, amended waiver request, and supplements¹ filed by New Cingular Wireless PCS, LLC, AT&T Mobility Spectrum LLC, and New Cingular Wireless Services, Inc. (collectively, AT&T) of conditions imposed on AT&T's licenses in the C and D Blocks of the 2.3 GHz Wireless Communications Service (WCS) in a 2017 Waiver Order.² For the reasons stated below, we find it in the public interest to provide relief as described herein, with certain specified conditions. We therefore grant conditional relief to give Sirius XM Radio LLC (Sirius XM) additional time to deploy a beneficial satellite-based emergency communications service in previously underutilized WCS spectrum, which also resolves long-standing interference challenges for Sirius XM's adjacent Satellite Digital Audio Radio Service (SDARS) operations.

I. BACKGROUND

2. *WCS and SDARS.* The 2.3 GHz Band—2305 MHz to 2360 MHz—is comprised of WCS and SDARS.³ AT&T holds all 29 C Block (2315-2320 MHz) and D Block (2345-2350 MHz) WCS

¹ Request for Waiver, Call Sign KNLB301, et al. (filed Sept. 12, 2020) (Request for Waiver); Amended Request for Waiver, Call Sign KNLB301, et al. (filed Aug. 10, 2021) (Amended Request for Waiver); Supplement to Amended Request for Waiver, Call Sign KNLB301, et al. (filed July 17, 2024) (First Supplement); Supplement to Amended Request for Waiver, Call Sign KNLB301, et al. (filed Sept. 12, 2024) (Second Supplement).

² *AT&T Mobility Spectrum LLC, BellSouth Mobile Data, Inc. New Cingular Wireless PCS, LLC, and SBC Telecom, Inc.*, WT Docket No. 16-181, Petition for Limited Waiver of Interim Performance Requirement for 2.3 GHz WCS C and D Block Licenses, Order, 32 FCC Rcd 708 (WTB-MD 2017) (*2017 Waiver Order*).

³ The Commission established the WCS in February 1997. The WCS occupies the frequency bands on either side of the SDARS allocation—2305-2320 MHz and 2345-2360 MHz. *See Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785 (1997). These bands are assigned to the WCS under the primary fixed, mobile, and radiolocation service allocations in the U.S. Table of Frequency Allocations. *See* 47 CFR §§ 2.106, 27.1(b)(1), 27.2(a), (c), 27.5(a)(1)-(2). The Commission auctioned 128 WCS licenses in April 1997. *See WCS Auction Closes, Winning Bidders in the Auction of 128 Wireless Communications Service Licenses*, Public Notice, 12 FCC Rcd 21653 (WTB Apr. 28, 1997). In July 1997, the Commission issued licenses to the WCS auction winners. *See FCC Announces the Grant of Wireless Communications Service ("WCS") Licenses, Balance of Winning Bids are Due by August 4, 1997*, Public Notice, 13 FCC Rcd 4782 (WTB Jul. 21, 1997). The 2320 MHz to 2345 MHz portion of the 2.3 GHz Band is used for SDARS networks by Sirius XM. *See 2017 Waiver Order*, 32 FCC Rcd at 708, para. 2, n.3; *see also* Second Supplement at 1, n.2 (noting Sirius XM's corporate changes to be named Sirius XM Radio LLC).

licenses, which are immediately adjacent to Sirius XM's SDARS spectrum. These licenses cover the seven Regional Economic Area Groups (REAGs) that make up the continental United States and Alaska.⁴ AT&T and Sirius XM have agreed to an assignment of AT&T's WCS C and D Block licenses to Sirius XM so that Sirius XM can lease the spectrum to public safety entities for planned one-way, satellite-based emergency communications services.⁵

3. The 2.3 GHz Band faces unique interference challenges arising from two very different services—one chiefly satellite-based and the other terrestrial-based—being allocated to adjacent frequency bands with no guard bands separating the two.⁶ As a result, the Commission has undertaken multiple efforts and modified its rules to promote a technically feasible terrestrial service in the band. For example, in 2010, in an effort to facilitate broadband deployment in the WCS band, the Commission modified the technical parameters for WCS devices and provided WCS licensees with the ability to offer mobile broadband services, while limiting the potential for harmful interference.⁷ Subsequently, in 2012, the Commission removed some restrictions, allowing outdoor use and outdoor antennas, but simultaneously banned mobile and portable use in the C and D Blocks to prevent interference to adjacent licenses.⁸ The Commission reiterated its reliance on quantitative performance benchmarks for the C and D Blocks to ensure that licensees would provide meaningful service in the near-term and throughout the license term.⁹ However, the Commission also recognized that entities may need guidance as to the specific performance requirements that would be applied to potential operations in the more restrictive C and D Blocks that might not fall within the traditional mobile, point-to-multipoint, or point-to-point fixed models.¹⁰

4. *2017 Waiver Order.* On January 18, 2017, the Mobility Division of the Bureau granted conditional waiver relief to AT&T for its WCS C and D Block licenses to provide AT&T with additional time to deploy a smart grid service for utilities.¹¹ The Division found that waiver relief was appropriate given the unique circumstances that would make application of section 27.14(p) of the Commission's rules unduly burdensome.¹² Pointing to the unique attributes of the C and D Block licenses,¹³ and the

⁴ The market area for WCS C and D block licenses is REAGs, of which there are 12. See 47 CFR § 27.5(a)(2).

⁵ Request for Waiver at 9; Amended Request for Waiver at 1; Sirius XM Radio Inc., New Cingular Wireless PCS, LLC, AT&T Mobility Spectrum LLC, and New Cingular Wireless Services, Inc., Assignment of Authorization, Description of Transaction and Public Interest Statement at 3, 13, Call Sign KNLB301, et al. (filed Jan. 15, 2021) (Assignment Description). The relevant call signs are KNLB297, KNLB298, KNLB299, KNLB300, KNLB301, WPQL631, WPQL632, WPQL636, KNLB270, KNLB271, WPQL633, WQND998, WQND999, KNLB238, KNLB239, KNLB240, KNLB241, KNLB325, WPQL634, WPQL635, WPQL707, WPQL708, WPQL709, WPQL710, WPQL711, WPQL712, WPQL713, WPQL714, and WQDM396.

⁶ *Amendment of Part 27 of the Commission's Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band et al.*, WT Docket Nos. 07-293 et al., Report and Order, 25 FCC Rcd 11710, 11714, para. 5 (2010) (2010 Report and Order).

⁷ See generally *id.*; see also *id.* at 11723, para. 28.

⁸ *Amendment of Part 27 of the Commission's Rule to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band et al.*, WT Docket Nos. 07-293 et al., 27 FCC Rcd 13651, 13677-78, para. 63 (2012) (2012 Order on Reconsideration); *id.* at 13688, para. 88; *id.* at 13702, para. 125.

⁹ *Id.* at 13702, para. 124.

¹⁰ *Id.* at 13702, para. 126 (noting that “given the wide range of deployments and applications possible, we find that WCS licensees should seek guidance from the [Bureau] on a case-by-case basis in determining whether their service is permissible within the C and D Blocks, and which benchmarks apply”).

¹¹ *2017 Waiver Order*, 32 FCC Rcd at 713, para. 11; see also 2016 Petition at 3-4; 2016 Supplement at 2-5.

¹² *2017 Waiver Order*, 32 FCC Rcd at 713, para. 11 (citing 47 CFR § 1.925(b)(3)(ii)).

difficulty of applying the conventional performance requirements to the proposed smart grid service,¹⁴ the Division granted relief so that AT&T could “offer a service consistent with WCS rules that makes productive use of spectrum that has remained underutilized for nearly 20 years, yet minimizes the risk of harmful interference to neighboring operations.”¹⁵ Specifically, the Division granted additional time to meet the final performance deadline and modified the interim and final performance benchmarks to align with the proposed smart grid service.¹⁶ AT&T was required to advance the proposed smart grid service through concrete metrics on the number of customers, contracts, and operation by September 13, 2017, September 13, 2019, and September 13, 2020, and report to the Commission on its progress.¹⁷ The Division also moved the final performance deadline to September 13, 2021, with an additional end-of-term, metric-based performance requirement.¹⁸ The relief granted in the *2017 Waiver Order* was applicable only to AT&T and was not assignable to any unaffiliated party.¹⁹

5. *Current Waiver Request.* On September 12, 2020, AT&T filed the waiver request under consideration here, and subsequently filed an amendment to the request on August 10, 2021, and supplements on July 17, 2024 and September 12, 2024.²⁰ In sum, AT&T requests that (i) the September 2020 interim deadline in the *2017 Waiver Order* be completely waived;²¹ (ii) the final September 13, 2021 deadline in the *2017 Waiver Order* be extended until 60 days after the later of the grant of AT&T’s request for waiver, as amended, or the amendment of certain cross-border agreements with Canada and Mexico;²² (iii) the final performance benchmarks in the *2017 Waiver Order* and the Commission’s rules be adapted to be satisfied by Sirius XM’s capability to provide satellite transmissions of any public safety-related communications provided by the Federal Emergency Management Agency (FEMA) or other government public safety agencies;²³ and (iv) the relief in the *2017 Waiver Order* be assigned by AT&T to Sirius XM.²⁴

6. AT&T argues that the strict technical rules for the C and D Blocks intended to prevent interference to adjacent SDARs operations “limited the options available to AT&T to identify, develop,

(Continued from previous page)

¹³ AT&T argued that the “exceptionally stringent” technical restrictions needed to protect adjacent SDARS users, including prohibitions on mobile and portable uses, severely constrain its productive deployment of WCS spectrum in the C and D Blocks. Petition of AT&T for Limited Waiver of Interim Performance Requirement for WCS C and D Block Licenses at 2, 4-5, WT Docket No. 16-181 (filed March 29, 2016) (2016 Petition); Supplement to Petition of AT&T for Limited Waiver of Interim Performance Requirement for WCS C and D Block Licenses, WT Docket No. 16-181 (filed May 18, 2016) (2016 Supplement).

¹⁴ AT&T noted that it has engaged in “extensive and time-consuming” coordination with Sirius XM, explored options for productive use of the spectrum, and proposed a smart grid technology service for the C and D Block licenses. 2016 Petition at 2, 5, 7, 9.

¹⁵ *2017 Waiver Order*, 32 FCC Rcd at 713, para. 11.

¹⁶ *Id.* at 713-14, paras. 12-14.

¹⁷ *Id.* at 716, para. 20.

¹⁸ *Id.* at 715, para. 16; *id.* at 716, para. 20.

¹⁹ *Id.* at 716, para. 20.

²⁰ See *supra* note 1.

²¹ Request for Waiver at 13.

²² Amended Request for Waiver at 1.

²³ *Id.* at 1; First Supplement, Attachment at 1-2; Second Supplement, Attachment at 2-3.

²⁴ Request for Waiver at 1, n.2, 13.

and deploy a noninterfering application for the C and D Blocks.”²⁵ Despite these restrictions, AT&T states it spent over eight years, 2012-2020, working to develop a viable service for the C and D Blocks.²⁶ Following the additional time allowed by the *2017 Waiver Order* to develop a smart grid service, AT&T spent three years, 2017-2020, entering agreements and contracts, and actively marketing the service with Nokia as a partner.²⁷ Despite preliminary successes, according to AT&T, the service is no longer viable because of alternative spectrum available to utilities for smart grid operations, and, as a consequence, AT&T no longer offers or operates a smart grid service in the C and D Blocks.²⁸

7. Working with Sirius XM, AT&T has put forth a plan for the beneficial use of the C and D Blocks—assigning the C and D Block licenses to Sirius XM so that Sirius XM could lease the bandwidth at no cost to one or more public safety agencies, such as the Department of Homeland Security, FEMA, and FirstNet, for one-way satellite-based emergency communications services originating from Sirius XM satellites.²⁹ This plan reflects that “the two entities that are operating on the adjacent spectrum have worked cooperatively to develop a solution that will not only protect their current services but also allow for new emergency communications services.”³⁰ The Sirius XM emergency communications service would permit public safety agencies access to satellite communications services, using Sirius XM satellites, by pre-staging satellite receivers designed for WCS reception within the service area of each license to be deployed, as needed.³¹ Sirius XM details the extensive testing and planning it has engaged in to provide the anticipated emergency communications service, including testing its existing satellite fleet and ensuring that its future satellites had technical capabilities in C and D Blocks.³² Sirius XM also states that it has been working with FEMA for over a year to operate a pilot program to test the service, and it is confident it could deploy the emergency communications service widely under a rollout schedule with milestones at 30 days, six months, 18 months, three years, four years, and five years.³³ Sirius XM emphasizes the public benefit of its proposed service that would “put this long-fallow spectrum to productive use, overcoming the terrestrial deployment challenges resulting from necessary interference protection and related technical rules.”³⁴ According to Sirius XM, this

²⁵ *Id.* at 3-4 (identifying the ban on portable and mobile uses, ground-level emission limits, out-of-band emission limits, and the requirement to coordinate with adjacent spectrum as “exceptionally stringent engineering restrictions”).

²⁶ *Id.* at 5-6 (listing ten possible uses considered for the spectrum).

²⁷ *Id.* at 7-8.

²⁸ *Id.* at 8-9.

²⁹ *Id.* at 9-10. AT&T stated this ancillary service to SDARs was permitted under the Commission’s rules. *Id.* at 10. Sirius XM also argues the proposed service is consistent with the Commission’s rules. First Supplement, Attachment at 6.

³⁰ Request for Waiver at 14; *see also* Assignment Description at 12 (the parties state the assignment of the licenses reduces the chances of harmful interference to the adjacent SDARs bands, because Sirius XM will be able to “manage the interference risks to its own adjacent service”).

³¹ Request for Waiver at 10. Sirius XM details plans for satellite launches and back-up satellites, such that Sirius XM expected “to provide the public safety and emergency communications services using the WCS C and D Blocks contemplated in the Waiver Request and to ensure continuous and uninterrupted transmission in the WCS spectrum following grant of the Waiver Request.” Second Supplement, Attach. at 2.

³² First Supplement, Attach. at 1-2.

³³ *Id.* at 3-5.

³⁴ *Id.* at 6.

planned service would need additional time to be implemented and could not meet the performance benchmarks in the *2017 Waiver Order* or in the Commission's rules.³⁵

8. Relatedly, on January 15, 2021, AT&T and Sirius XM filed an assignment application for AT&T's C and D Block licenses.³⁶ In those applications, AT&T and Sirius XM raised many of the same arguments, namely that the assignment "finally will put to use spectrum that has long been underutilized while improving public safety in the United States."³⁷ The Bureau consented to this assignment on January 19, 2021, but the parties have not yet completed the transaction.³⁸

II. DISCUSSION

9. *Waiver Standard.* Section 1.925 of the Commission's rules states in pertinent part that the Commission may grant a waiver when either "[t]he underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and . . . grant of the requested waiver would be in the public interest," or "[i]n view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."³⁹ We note that the waiver standard must be applied in consideration of section 309(j) of the Communications Act, which states that the Commission shall include performance requirements to ensure prompt delivery of services, to prevent the stockpiling and warehousing of spectrum by licensees, and to promote investment and deployment of new technologies and services.⁴⁰

10. We find that the unique context surrounding AT&T's WCS C and D Block licenses, as well as the public benefit of the proposed Sirius XM satellite-based emergency communications service, justifies relief from the *2017 Waiver Order* and our rules. The conditional relief granted herein will make productive use of spectrum that has remained underutilized for over 25 years and essentially eliminates the risk of harmful interference to neighboring operations. The strict technical rules for the WCS C and D Blocks to avoid interference to adjacent SDARs operations makes deployment of a traditional, terrestrial-based service difficult, and the Commission has recognized that alternatives should be considered to put the spectrum to productive use.⁴¹ Here, AT&T endeavored for many years to provide a smart grid service

³⁵ Sirius XM explains that additional time is needed to allow the assignment by AT&T to Sirius XM of the C and D Block licenses and to permit the Commission's International Bureau time to negotiate amendments to the cross-border agreements with Canada and Mexico, or exchange letters allowing temporary operation during negotiations. Amended Request for Waiver, Attach. at 2-3. Sirius XM also states performance benchmarks should be adopted that align with the emergency communications service it intends to offer as neither the smart grid-based requirements in the *2017 Waiver Order* nor the buildout rules were attainable for the Sirius XM service. *Id.* at 3-4.

³⁶ See *supra* note 5.

³⁷ Assignment Description at 2-3 (Sirius XM's proposed service was permitted under the rules); 7-12 (despite AT&T's best efforts, the strict technical rules foreclosed a service by AT&T); 12-13 (Sirius XM's service will benefit the public).

³⁸ See *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility Event Applications, and Designated Entity Annual Reports Action*, Report Number 15624, Public Notice (WTB Jan. 27, 2021).

³⁹ 47 CFR § 1.925(b)(3)(i)-(ii). Alternatively, section 1.946(e) of the Commission's rules allows for extension of time to meet construction requirements where a licensee demonstrates that failure to meet the construction deadline is due to circumstances beyond its control, while specifying a number of reasons that would not justify an extension, such as a licensee's failure to obtain financing, antenna sites, or equipment. 47 CFR § 1.946(e)(1)-(5).

⁴⁰ See 47 U.S.C. § 309(j).

⁴¹ See, e.g., *2012 Order on Reconsideration*, 27 FCC Rcd at 13702, para. 126; see also *2017 Waiver Order*, 32 FCC Rcd at 713, para. 11.

in the spectrum, entering contracts with both partners and potential customers, but was unsuccessful despite this diligence.⁴² The assignment of the spectrum from AT&T to Sirius XM would put the spectrum to productive use through Sirius XM's proposed emergency communications service, while also complying with the strict technical requirements of the WCS C and D Blocks.⁴³ We find that Sirius XM has demonstrated that it has tangible plans and taken concrete steps to deploy an important and useful emergency communications service.⁴⁴ The public interest will be served by the availability of this service as it will enable "public safety agencies to support delivery of emergency communications information to disaster areas to enhance and support the abilities of their communications infrastructure."⁴⁵

11. We conclude that the complexities AT&T encountered in seeking a non-interfering solution rise to the level of "unique or unusual factual circumstances" under which continued application of the requirements of the *2017 Waiver Order* or the construction requirements in section 27.14(p) of the Commission's rules would be "unduly burdensome [and] contrary to the public interest."⁴⁶ We therefore (1) waive the interim performance requirement in section 27.14(p)(1) of the Commission's rules and the *2017 Waiver Order* with respect to AT&T's C and D Block licenses; (2) extend the final construction deadline as discussed below for the C and D Block licenses; (3) modify the metric used to evaluate final performance for the C and D Block licenses to make it applicable to deployment of Sirius XM's emergency communications service offering; and (4) waive the non-assignability of relief in the *2017 Waiver Order*, and permit AT&T to assign the conditional relief granted herein to Sirius XM with the C and D Block licenses.⁴⁷ The relief discussed herein is subject to Sirius XM meeting certain conditions, as detailed below.

12. *Waiver of Interim Performance Requirements in 2017 Waiver Order and section 27.14(p) of the Commission's rules.* As discussed above, we find that the complexities of deploying a service in the WCS C and D Blocks, along with the diligence of AT&T and Sirius XM to resolve interference concerns while deploying a valuable emergency communications service, create "unique or unusual factual circumstances" under which application of the Commission's rules would be "unduly burdensome." We therefore find that the public interest is served by waiving the interim performance deadlines in the *2017 Waiver Order* and in section 27.14(p) of the Commission's rules.⁴⁸ Doing so will allow AT&T and Sirius XM to implement the actions discussed in its waiver request: assign the C and D Block licenses to Sirius XM and deploy the emergency communications service in stages. Waiver of the interim performance requirements is conditioned on meeting various requirements demonstrating the deployment of the proposed emergency communications service discussed below.

13. *Extension of Final Performance Deadline.* In light of the "unique or unusual factual circumstances" in this instance, discussed above, we also find it in the public interest to extend the final performance deadline five years from the release of this Order, as described in more detail in the conditions below. AT&T asked for an additional 60 days after the later of a grant of AT&T's request for waiver, as amended, or the amendment of certain cross-border agreements with Canada and Mexico to meet minimal final performance metrics.⁴⁹ Instead, we provide additional time, coupled with interim

⁴² Request for Waiver at 7-8.

⁴³ *Id.* at 14; Assignment Description at 12.

⁴⁴ First Supplement, Attach. at 3-5; *see also* Assignment Description at 13 ("concrete expressions of interest" from FEMA and CBP in the proposed emergency communications service.).

⁴⁵ First Supplement, Attach. at 1.

⁴⁶ 47 CFR § 1.925(b)(3)(ii).

⁴⁷ We expressly do not waive the construction notification requirements in sections 1.946(d) or 27.14(p)(7) of the Commission's rules. *See infra* para. 15.

⁴⁸ 47 CFR § 27.14(p).

⁴⁹ Amended Request for Waiver at 1.

milestones, to construct the entirety of the spectrum with strict penalties for missing any of the deadlines. Should the licenses not be constructed in the manner outlined below in the conditions, the licenses will automatically terminate. We find this will ensure that Sirius XM has sufficient time to deploy the contemplated emergency communications service, while also ensuring that this beneficial deployment occurs in a timely manner.

14. *Modified Final Performance Metric and Conditions.* Sirius XM's proposed novel satellite-based emergency communications service does not readily fit the performance metric established in the Commission's rules or in the Division's *2017 Waiver Order*. Instead, we believe that a series of demonstrable buildout milestones based on use of the C and D Block licenses in all seven licensed REAGs over a period of five years, as specified in the conditions below, will provide an appropriate measure of Sirius XM's construction. We therefore find it in the public interest to condition the relief granted for the WCS C and D Block licenses on AT&T assigning these licenses to Sirius XM and Sirius XM meeting the modified benchmarks below. We find that metrics related to the deployment of Sirius XM's emergency communications service in the identified REAGs will best ensure that meaningful deployment occurs in each license area.

15. We will use reporting filed by Sirius XM to determine whether Sirius XM has met each condition. Demonstration by the licensee of the WCS C and D Block licenses of conditions 1-6 described below must be made in a written report filed as a pleading in ULS to the designated "lead" license (identified by the licensee to the Bureau) within 10 days of the condition deadline, unless otherwise indicated, certified by an officer of the licensee. Demonstration of condition 7 must be made by construction notification for each license as detailed below. Failure to comply with any of conditions 1-7 below will result in immediate and automatic termination of all of the WCS C and D Block licenses. Specifically, we condition the relief granted herein on the following:

- *Condition 1: Deploy first WCS Block – Block D – in REAGs 1-6.* By December 26, 2024, Sirius XM must use WCS Block D to provide crucial, failsafe alerting services to the initial FEMA sites in REAGs 1-6 (67 NPWS-PEP stations spread across REAGs 1-6).⁵⁰ Sirius XM must continue providing these services to FEMA for free while operating under the licenses.
- *Condition 2: Offer/market service to additional users.* By May 27, 2025, Sirius XM must contact and offer service to key entities or groups likely to leverage the technology and service, offering at least free service (no requirement to provide free equipment, installation, or maintenance, but may do so at Sirius XM's option). In this context, equipment must be reasonably available to support the service.
- *Condition 3: First non-FEMA end-user benchmark on Block D.* By May 26, 2026, Sirius XM must serve at least 200 other end users, including at least 10 in each of REAGs 1-6, using WCS Block D.
- *Condition 4: Second non-FEMA end-user benchmark (REAGs 1-6).* By November 26, 2027, Sirius XM must serve at least 500 other end users, including at least 25 in each of REAGs 1-6.
- *Condition 5: Deploy second WCS block – Block C – in REAGs 1-6; provide enhanced services to REAGs 1-6.* By November 26, 2027, Sirius XM must provide service on WCS Block C in REAGs 1-6. Further, Sirius XM must provide "enhanced services" (e.g., service to vehicles/other mobile units) to FEMA and other end users on WCS Blocks C and D. Further, Sirius XM must contact and offer service to additional key entities or groups likely to leverage the technology and service, offering at least free service (no requirement to provide free equipment, installation, or maintenance, but may do so at Sirius XM's option).

⁵⁰ See Second Supplement at 2, n.3.

In this context, equipment must be reasonably available to support the service. Further, Sirius XM must actively market the service on an ongoing basis under these terms.

- *Condition 6: Deploy WCS Blocks C and D in REAG 7 (Alaska).* By November 27, 2028, Sirius XM must use WCS Blocks C and D to provide service to FEMA in REAG 7 (Alaska). Further, Sirius XM must use WCS Blocks C and D to provide “enhanced services” to at least 10 other end users in REAG 7.
- *Condition 7: Second non-FEMA end-user benchmark in REAG 7 (Alaska).* By November 26, 2029, Sirius XM must use WCS Blocks C and D to provide “enhanced services” to at least 25 other unaffiliated end users in REAG 7. No later than December 10, 2029, Sirius XM must file a notification of construction for each of its C and D Block licenses in REAGs 1-7 in ULS, demonstrating timely construction and compliance with applicable conditions 1-7.⁵¹
- *Condition 8: Five-year report.* Sirius XM must actively market the service on an ongoing basis under the above-described terms in REAGs 1-7. By November 26, 2029, Sirius XM must file a report as a pleading in ULS describing services offered, services provided (i.e., to actual end users), and ongoing efforts to market and make services available to key stakeholder groups. Failure to file such report could result in enforcement action.

16. *Waiver of non-assignability.* We find that the totality of the factors discussed above also justifies waiving the non-assignability of relief in the *2017 Waiver Order*, and to instead permit AT&T to assign the conditional relief granted herein to Sirius XM with the C and D Block licenses. The assignment of the licenses and the attendant waiver relief is crucial to the successful deployment of Sirius XM’s emergency communications service, and we find it in the public interest to permit the relief with the attendant conditions to be assignable.

III. ORDERING CLAUSES

17. Accordingly, IT IS ORDERED that, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission’s rules, 47 CFR § 1.925, the request filed by New Cingular Wireless PCS, LLC, AT&T Mobility Spectrum LLC, and New Cingular Wireless Services, Inc. for waiver of the conditions in the *2017 Waiver Order*, is GRANTED to the extent discussed and subject to the conditions imposed herein.

18. These actions are taken under delegated authority pursuant to sections 0.131 and 0.331 of the Commission’s rules, 47 CFR §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Roger S. Noel
Chief, Mobility Division
Wireless Telecommunications Bureau

⁵¹ See 47 CFR § 1.946(d).



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
45 L STREET NE
WASHINGTON D.C. 20554

News media information 202-418-0500
Internet: <http://www.fcc.gov> (or <ftp.fcc.gov>)
TTY (202) 418-2555

DA No. 24-1177

Report No. SAT-01874

Friday November 22, 2024

Satellite Licensing Division and Satellite Programs and Policy Division Information

Actions Taken

The Commission, by its Space Bureau, took the following actions pursuant to delegated authority. The effective date of these actions is the release date of this Notice, except where an effective date is specified.

SAT-MOD-20240719-00155	E S2409	Intelsat License LLC	11/30/2024 - 11/30/2029
Modification			Effective Date: 11/21/2024
Grant of Authority			

Nature of Service: Fixed Satellite Service

On November 21, 2024, the Satellite Programs and Policy Division granted, with conditions, Intelsat License LLC's request for a license modification to extend the license term, through November 30, 2029, for Intelsat 905, a space station operating at 24.5° W.L. Intelsat 905 provides fixed-satellite service in the 3625-4200 MHz (space-to-Earth), 5850-6425 MHz (Earth-to-space), 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), and 14.0-14.5 GHz (Earth-to-space) frequency bands. Intelsat 905 conducts telemetry, tracking, and command operations using the following center frequencies: 3947.5 MHz, 3948.0 MHz, 3952.0 MHz, 3952.5 MHz (space-to-Earth); and 6173.7 MHz and 6176.3 MHz (Earth-to-space).

SAT-MOD-20240723-00157	E S2912	Planet Labs PBC	
Modification			Effective Date:

Nature of Service: Earth Exploration Satellite Service

On November 21, 2024, the Satellite Programs and Policy Division granted, with conditions, modification of the license of Planet Labs PBC related to the C-band intersatellite link operations of the Pelican-2 satellite to: (1) reflect an increase the number of low-gain C-band receive antennas from one to three; (2) revise the bandwidth for its C-band receive signals in the 4000-4200 MHz band from 2 megahertz to a range of 1-10 megahertz, and the bandwidth for the C-band transmit signals in the 6225-6425 MHz band from 2 megahertz to a range of 1-10 megahertz; (3) reflect replacement of the low-gain C-band omnidirectional transmit antenna with a higher gain transmit antenna; and (4) update receive and transmit bandwidths to be in the 4000 MHz - 4200 MHz range, with only one operational at any time.

SAT-STA-20240604-00121	E	Space Exploration Holdings, LLC	
Special Temporary Authority			Effective Date: 11/21/2024
Grant of Authority			

Application listed as granted in ICFS to reflect operations pursuant to Section 1.62 of the Commission's rules. See also DA 24-1160.

SAT-STA-20240730-00165	E S2408	Intelsat License LLC

Special Temporary Authority
Grant of Authority

Effective Date: 11/20/2024

Nature of Service: Fixed Satellite Service

On November 20, 2024, the Satellite Programs and Policy Division granted, with conditions, special temporary authority to Intelsat License LLC, for an additional period of 180 days, to operate the Intelsat 904 space station with new C-band coverage areas at the 29.5° W.L. orbital location. Intelsat 904 provides fixed-satellite service in the 3625-4200 MHz, 10.95-11.2 GHz, 11.45-11.7 GHz (space-to-Earth), 5850-6425 MHz and 14.0-14.5 GHz (Earth-to-space) frequency bands, and conducts telemetry, tracking and command using the following center frequencies: 6173.7 MHz, 6176.3 MHz (Earth-to-space); and 3947.5 MHz, 3948.0 MHz, 3952.0 MHz, and 3952.5 MHz (space-to-Earth).

SAT-STA-20240808-00174	E S3069	Space Exploration Holdings, LLC

Special Temporary Authority
Grant of Authority

Effective Date: 11/21/2024

Application listed as granted in ICFS to reflect operations pursuant to Section 1.62 of the Commission's rules. See also DA 24-1160.

SAT-STA-20241008-00218	E S3069	Space Exploration Holdings, LLC

Special Temporary Authority
Grant of Authority

Effective Date: 11/21/2024

Application listed as granted in ICFS to reflect operations pursuant to Section 1.62 of the Commission's rules. See also DA 24-1160.

SAT-STA-20241018-00232	E S3087	Lynk Global, Inc.

Special Temporary Authority
Grant of Authority

Effective Date: 11/18/2024

Nature of Service: Mobile Satellite Service

On November 18, 2024, the Satellite Programs and Policy Division granted, with conditions, special temporary authority to Lynk Global, Inc., for an additional period of up to 60 days, to operate Lynk's Tower 1, 3, and 4 satellites with the following orbital parameters: Lynk Tower 1 at altitudes between 479 km and 490 km and a 97.4 degrees inclination; Lynk Tower 3 at altitudes between 513 km and 532 km and a 97.5 degrees inclination; and Lynk Tower 4 at altitudes between 514 km and 532 km and a 97.5 degrees inclination.

SAT-STA-20241030-00242	E S3032	BlackSky Global LLC

Special Temporary Authority

Effective Date:

On November 22, 2024, the Satellite Programs and Policy Division granted, with conditions, special temporary authority to BlackSky Global LLC, for an additional period of up to thirty days, to operate the BlackSky Global 20 satellite at altitudes ranging between 340 km and 385 km.

For more information concerning this Notice, contact the Satellite Licensing Division and Satellite Programs and Policy Division at (202) 418-0719.



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
45 L STREET NE
WASHINGTON D.C. 20554

News media information 202-418-0500
Internet: <http://www.fcc.gov> (or <ftp.fcc.gov>)
TTY (202) 418-2555

DA No. 24-1178

Report No. TEL-02408

Friday November 22, 2024

International Authorizations Granted

Section 214 Applications (47 CFR §§ 63.18, 63.24); Section 310(b) Petitions (47 CFR § 1.5000)

The following applications have been granted pursuant to the Commission's processing procedures set forth in sections 63.12 and 63.20 of the Commission's rules. 47 CFR §§ 63.12, 63.20.

Unless otherwise noted, these grants authorize the applicants to: (1) become a facilities-based international common carrier subject to 47 CFR §§ 63.21, 63.22 and/or a resale-based international common carrier subject to 47 CFR §§ 63.21, 63.23; (2) assign or transfer control of international section 214 authority in accordance with 47 CFR § 63.24.

THIS PUBLIC NOTICE SERVES AS EACH NEWLY AUTHORIZED CARRIER'S SECTION 214 CERTIFICATE. It contains general and specific conditions, which are set forth below. Newly authorized carriers should carefully review the terms and conditions of their authorizations. Failure to comply with general or specific conditions of an authorization, or with other relevant Commission rules and policies, could result in fines and forfeitures.

Petitions for reconsideration under section 1.106 or applications for review under section 1.115 of the Commission's rules, 47 CFR §§ 1.106, 1.115, in regard to the grant of any of these applications may be filed within 30 (thirty) days of this public notice. See 47 CFR § 1.4(b)(2).

Transfer of Control

Grant of Authority

Date of Action: 11/20/2024

Current Licensee: CBTS Technology Solutions LLC**FROM:** Cincinnati Bell Inc.**TO:** CBTS Borrower, LLC

The grant of this application, which was included in Report No. TEL-02407 (DA No. 24-1167, rel. Nov. 21, 2024) is corrected to read as follows:

CBTS Technology Solutions LLC (CBTS-TS), a Delaware limited liability company that holds an international section 214 authorization to provide global facilities-based and resale service (ITC-214-20071024-00434), filed an application for consent to the transfer of control of CBTS-TS from Cincinnati Bell Inc. (Cincinnati Bell) to CBTS Borrower, LLC (CBTS Borrower). The Applicants filed a supplement on March 6, 2024.

CBTS-TS is a direct wholly owned subsidiary of CBTS LLC, a Delaware limited liability company that is a wholly owned subsidiary of Cincinnati Bell. Pursuant to a February 2, 2024 purchase agreement, CBTS Borrower will acquire all of the interests in CBTS LLC from Cincinnati Bell. As a result, CBTS LLC and CBTS-TS will become direct and indirect wholly owned subsidiaries of CBTS Borrower respectively.

CBTS Borrower is wholly owned by CBTS FinanceCo, LLC, which in turn is wholly owned by CBTS HoldingCo, LLC, all Delaware limited liability companies. CBTS HoldingCo, LLC is wholly owned by CBTS Intermediate HoldingCo, LLC, which in turn is wholly owned by CBTS IntermediateCo, Inc. which is wholly owned by CBTS TopCo, L.P., all Delaware entities. CBTS TopCo GP, LLC, a Delaware limited liability company, is the general partner of CBTS TopCo, L.P. TI VI Armstrong Investment Aggregator, L.P., a Delaware limited partnership, is the sole member of CBTS TopCo GP, LLC and holds an 89.5% equity and 100% voting interest in CBTS TopCo, L.P.

The following three entities will hold a 10% or greater direct equity interest in TI VI Armstrong Investment Aggregator, L.P.: TI VI Project Armstrong Co-Invest, L.P., a Delaware limited partnership (39.6%); TowerBrook Investors VI (Onshore) L.P., a Cayman Islands entity (30.5%); and TowerBrook Investors VI (892), L.P., a Cayman Islands entity (12.3%). TowerBrook Investors GP VI, L.P., a Cayman Islands entity, is the general partner of TI VI Armstrong Investment Aggregator, L.P., TI VI Project Armstrong Co-Invest, L.P., and TowerBrookInvestors VI (Onshore) L.P. TowerBrook Investors GP VI (Alberta), L.P., a Canada entity, is the general partner of TowerBrook Investors VI (892), L.P. TowerBrook Investors, Ltd., a Cayman Islands entity, is the general partner of TowerBrook Investors GP VI, L.P. and TowerBrook Investors GP VI (Alberta), L.P.

Currently Neal Moszkowski, a U.S. citizen, and Ramex Sousou, a U.K. citizen, each hold a 49.9% voting interest in TowerBrook Investors, Ltd. According to the Applicants, it is expected that there will be ownership changes that will result in two additional individuals holding a 10% or greater voting interest in TowerBrook Investors, Ltd.: Jonathan Blizin, a U.S. citizen, and Karin Saddi, a citizen of France. The Applicants will file a supplement with the final ownership levels, but state that no individual will have a majority of the ownership of TowerBrook Investors, Ltd.

In addition, three other entities will have a greater than 10% indirect equity ownership in CBTS Borrower through investments in various investment vehicles. The Washington State Investment Board, a Washington entity, will have an indirect 20.72% equity interest in CBTS Borrower through its 35.7% limited partnership interest in TowerBrook Investors VI (Onshore) L.P. and its 22.6% limited partnership interest in TI VI Project Armstrong Co-Invest, L.P. The California Public Employees Retirement System, a California entity, will have an indirect 16.07% equity interest in CBTS Borrower through its 33.9% limited partnership interest in TI VI Project Armstrong Co-Invest, L.P. and its 7.93% limited partnership interest in TowerBrook Investors VI (Onshore) L.P. Halstead Investments Pte Ltd (Halstead Investments), a Singapore entity, will have an indirect 10.27% equity interest in CBTS Borrower through its 51.8% limited partnership interest in TowerBrook Investors VI (892), L.P. and its 12.7% limited partnership interest in TI VI Project Armstrong Co-Invest, L.P. Halstead Investments is wholly owned by GIC (Ventures) Pte. Ltd., a Singapore entity, which in turn is wholly owned by the Singapore Minister for Finance.

The Applicants state that no other individuals or entities will hold 10% or greater direct or indirect equity or voting interest in CBTS Borrower or CBTS-TS.

We grant the Petition to Adopt Conditions to Authorizations and Licenses filed in this proceeding on November 12, 2024, by the National Telecommunications and Information Administration on behalf of the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector. Accordingly, we condition grant of the application on CBTS Technology Solutions LLC, CBTS LLC and CBTS Borrower, LLC abiding by the commitments and undertakings made to the U.S. Department of Justice, including the Federal Bureau of Investigation, set forth in the Letter of Agreement from Heather Cameron, VP & General Counsel CBTS Technology Solutions LLC and CBTS LLC and Glenn F. Miller, Vice President and Secretary of Sole Member, CBTS, to the Chief, Foreign Investment Review Section, and Deputy Chief, Compliance and Enforcement, Foreign Investment Review Section, on behalf of the Assistant Attorney General for National Security, United States Department of Justice, National Security Division, dated October 10, 2024 (LOA). The Petition and the LOA may be viewed on the FCC's website through the International Communications Filing System by searching for ITC-T/C-20240207-00028 and accessing the "Other Filings related to this application" from the Document Viewing Area.

A failure to comply and/or remain in compliance with any of these commitments and undertakings shall constitute a failure to meet a condition of the cable landing license and thus grounds for declaring the license terminated without further action on the part of the Commission. Failure to meet a condition of the license may also result in monetary sanctions or other enforcement action by the Commission.

CONDITIONS APPLICABLE TO INTERNATIONAL SECTION 214 AUTHORIZATIONS

(1) These authorizations are subject to the Exclusion List for International Section 214 Authorizations, which identifies restrictions on providing service to particular countries or using particular facilities. The most recent Exclusion List is at the end of this Public Notice. The list applies to all U.S. international carriers, including those that have previously received global or limited global section 214 authority, whether by Public Notice or specific written order. Carriers are advised that the attached Exclusion List is subject to amendment at any time pursuant to the procedures set forth in Streamlining the International Section 214 Authorization Process and Tariff Requirements, IB Docket No. 95-118, 11 FCC Rcd 12884 (1996), para. 18. A copy of the current Exclusion List is maintained in the FCC Reference Information Center and is available at <https://www.fcc.gov/exclusion-list-international-section-214-authorizations>. It is also attached to each Public Notice that grants international Section 214 authority.

(2) The export of telecommunications services and related payments to countries that are subject to economic sanctions may be restricted. For information concerning current restrictions, call the Office of Foreign Assets Control, U.S. Department of the Treasury, (202) 622-2520.

(3) Carriers shall comply with the requirements of Section 63.11 of the Commission's rules, which requires notification by, and in certain circumstances prior notification by, U.S. carriers acquiring an affiliation with foreign carriers. 47 CFR § 63.11. A carrier that acquires an affiliation with a foreign carrier will be subject to possible reclassification as a dominant carrier on an affiliated route pursuant to the provisions of section 63.10 of the rules. 47 CFR § 63.10.

(4) A carrier may provide switched services over its authorized resold private lines in the circumstances specified in section 63.23(d) of the rules. 47 CFR § 63.23(d).

(5) Carriers shall comply with the "No Special Concessions" rule, section 63.14. 47 CFR § 63.14.

(6) Carriers regulated as dominant for the provision of a particular communications service on a particular route for any reason other than a foreign carrier affiliation under section 63.10 of the rules, 47 CFR § 63.10, shall file tariffs pursuant to Section 203 of the Communications Act, as amended, 47 U.S.C. § 203, and Part 61 of the Commission's Rules. 47 CFR Part 61. Carriers shall not otherwise file tariffs except as permitted by section 61.19 of the rules. 47 CFR § 61.19. Except as specified in section 20.15 with respect to commercial mobile radio service providers, 47 CFR § 20.15, carriers regulated as non-dominant, as defined in section 61.3, 47 CFR § 61.3, and providing detariffed international services pursuant to section 61.19, must comply with all applicable public disclosure and maintenance of information requirements in sections 42.10 and 42.11. 47 CFR §§ 42.10, 42.11.

(7) International facilities-based service providers must file and maintain a list of U.S.-international routes on which they have direct termination arrangements with a foreign carrier. 47 CFR § 63.22(h). A new international facilities-based service provider or one without existing direct termination arrangements must file its list within thirty (30) days of entering into a direct termination arrangement(s) with a foreign carrier(s). Thereafter, international facilities-based service providers must update their lists within thirty (30) days after adding a termination arrangement for a new foreign destination or discontinuing an arrangement with a previously listed destination. See Process For The Filing Of Routes On Which International Service Providers Have Direct Termination Arrangements With A Foreign Carrier, ITC-MS-20181015-00182, Public Notice, 33 FCC Rcd 10008 (IB 2018). The route list must be filed through the International Communications Filing System (ICFS). <https://www.fcc.gov/icfs>

(8) Any U.S. Carrier that owned, leased or holds an indefeasible right of use (IRU) for bare capacity on a submarine cable between the United States and any foreign point must file a Circuit Capacity Report to provide information about the submarine cable capacity it holds. 47 CFR § 43.82(a)(2). See <https://www.fcc.gov/circuit-capacity-data-us-international-submarine-cables>.

(9) Carriers should consult section 63.19 of the rules when contemplating a discontinuance, reduction or impairment of service. 47 CFR § 63.19.

(10) If any carrier is reselling service obtained pursuant to a contract with another carrier, the services obtained by contract shall be made generally available by the underlying carrier to similarly situated customers at the same terms, conditions and rates. 47 U.S.C. § 203.

(11) To the extent the applicant is, or is affiliated with, an incumbent independent local exchange carrier, as those terms are defined in section 64.1902 of the rules, it shall provide the authorized services in compliance with the requirements of section 64.1903. 47 CFR §§ 64.1902, 64.1903.

(12) Except as otherwise ordered by the Commission, a carrier authorized here to provide facilities-based service that (i) is classified as dominant under section 63.10 of the rules, 47 CFR § 63.10, for the provision of such service on a particular route and (ii) is affiliated with a carrier that collects settlement payments for terminating U.S. international switched traffic at the foreign end of that route may not provide facilities-based switched service on that route unless the current rates the affiliate charges U.S. international carriers to terminate traffic are at or below the Commission's relevant benchmark adopted in International Settlement Rates, IB Docket No. 96-261, Report and Order, 12 FCC Rcd 19806 (1997). See also Report and Order on Reconsideration and Order Lifting Stay in IB Docket No. 96-261, FCC 99-124 (rel. June 11, 1999). For the purposes of this rule, "affiliated" and "foreign carrier" are defined in 63.09. 47 CFR § 63.09.

(13) Carriers shall comply with the Communications Assistance for Law Enforcement Act (CALEA), see 47 CFR §§ 1.20000 et seq.

(14) Carriers shall make communications to, from, or within the United States, as well as records thereof, available in a form and location that permits them to be subject to a valid and lawful request or legal process in accordance with U.S. law, including but not limited to:

(A) The Wiretap Act, 18 U.S.C. 2510 et seq.;

(B) The Stored Communications Act, 18 U.S.C. 2701 et seq.;

(C) The Pen Register and Trap and Trace Statute, 18 U.S.C. 3121 et seq.; and

(D) Other court orders, subpoenas or other legal process;

(15) Every carrier must designate an agent for service in the District of Columbia. see 47 U.S.C. § 413, 47 CFR §§ 1.47(h), 63.18(q), 64.1195.

(16) Every carrier must designate a point of contact who is located in the United States and is a U.S. citizen or lawful U.S. permanent resident, for the execution of lawful requests and as an agent for legal service of process. 47 CFR § 63.18(q).

(17) Each carrier shall notify the Commission of any change in its contact information within thirty (30) days. 47 CFR § 63.18(q). Such notification shall be filed in the file number(s) for the international section 214 authorization(s) through the International Communications Filing System (ICFS).

Exclusion List for International Section 214 Authorizations

The following is a list of countries and facilities not covered by grant of global section 214 authority under section 63.18(e)(1) of the Commission's Rules. 47 CFR § 63.18(e)(1). Carriers desiring to serve countries or use facilities listed as excluded hereon shall file a separate section 214 application pursuant to section 63.18(e)(3) of the Commission's Rules. See 47 CFR § 63.22(c).

Countries:

None.

Facilities:

Any non-U.S.-licensed space station that has not received Commission approval to operate in the U.S. market pursuant to the procedures adopted in the Commission's DISCO II Order, IB Docket No. 96-111, Report and Order, FCC 97-399, 12 FCC Rcd 24094, 24107-72 paragraphs 30-182 (1997) (DISCO II Order). Information regarding non-U.S.-licensed space stations approved to operate in the U.S. market pursuant to the Commission's DISCO II procedures is maintained at <https://www.fcc.gov/approved-space-station-list>.

This list is subject to change by the Commission when the public interest requires. The most current version of the list is maintained at <https://www.fcc.gov/exclusion-list-international-section-214-authorizations>.

For additional information, contact the Office of International Affairs, Telecommunications and Analysis Division at (202) 418-1480 or at FCC-OIA-TAD@fcc.gov.



PUBLIC NOTICE

Federal Communications Commission
45 L St., N.E.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1179

Released: November 22, 2024

NOTICE OF INTERCONNECTED VOIP NUMBERING AUTHORIZATION GRANTED

WC Docket No. 24-156

The Wireline Competition Bureau has granted the application listed in this notice pursuant to the Commission's streamlined procedures for interconnected VoIP numbering authorization applications.¹

Interconnected VoIP Numbering Authorization Application filed by TDS Broadband Service, LLC Pursuant to Section 52.15(g)(3) of the Commission's Rules, WC Docket No. 24-156 (May 17, 2024), Public Notice, DA 24-803 (WCB October 22, 2024).

Effective Grant Date: November 22, 2024

Please contact DAA@fcc.gov, Margoux Newman at Margoux.Newman@fcc.gov or Jordan Marie Reth at Jordan.Reth@fcc.gov for further information.

-FCC-

¹ See 47 CFR § 52.15(g)(3).

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
	)	
Telecommunications Relay Services and Speech-	)	CG Docket No. 03-123
to-Speech Services for Individuals with Hearing	)	
and Speech Disabilities	)	
	)	
T-Mobile Accessibility Petition for Rulemaking	)	RM-11931
to Amend 47 CFR § 64.604(b)(1) to Eliminate the	)	
Requirement that TTY-Based Relay Service be	)	
Capable of Communicating with ASCII Format	)	

ORDER

Adopted: November 22, 2024

Released: November 22, 2024

By the Chief, Consumer and Governmental Affairs Bureau:

I. INTRODUCTION

1. The Consumer and Governmental Affairs Bureau grants T-Mobile USA, Inc. (T-Mobile Accessibility, or T-Mobile),¹ and Hamilton Relay, Inc. (Hamilton), conditional waivers of the Commission's rule requiring providers of text telephone-based TRS (TTY-based relay or traditional TRS) to offer a service capable of communicating with devices using the American Standard Code for Information Interchange (ASCII) format. For the reasons described below, we waive the ASCII compliance requirement of 47 CFR § 64.604(b)(1) for two years, or until the Commission addresses T-Mobile Accessibility's request to amend section 64.604(b)(1) and eliminate the ASCII compliance requirement,² whichever is earlier.

II. BACKGROUND

2. Title IV of the Americans with Disabilities Act of 1990 (ADA), codified at section 225 of the Communications Act,³ as amended, requires the Commission to ensure that Telecommunications Relay Services (TRS) are available to enable a person with a hearing or speech disability to communicate with other telephone users in a manner that is functionally equivalent to voice communications service to the extent possible and in the most efficient manner.⁴ In accordance with this directive, the Commission's

¹ See Petition for Limited Waiver of T-Mobile Accessibility, CG Docket No. 03-123, RM-11931 (filed June 16, 2023), <https://www.fcc.gov/ecfs/search/search-filings/filing/106161618223758>, (T-Mobile Accessibility Petition for Waiver).

² T-Mobile Accessibility Petition for Rulemaking to Amend 47 C.F.R. § 64.604(b)(1) to Eliminate the Requirement that TTY-Based Relay Service Be Capable of Communicating with ASCII Format, CG Docket No. 03-123 (filed Aug. 24, 2022), <https://www.fcc.gov/ecfs/search/search-filings/filing/108241016422142>, (T-Mobile Accessibility Petition for Rulemaking).

³ See Americans with Disabilities Act, Pub. L. No. 101-336, § 401, 104 Stat. 327, 336-69 (1990); 47 U.S.C. § 225.

⁴ 47 U.S.C. § 225(a)(3), (b)(1). See also *Telecommunications Relay Services and Speech-to-Speech for Individuals with Hearing and Speech Disabilities; Waivers of iTRS Mandatory Minimum Standards*, Report and Order, (continued....)

rules contain functional requirements, operational procedures, and mandatory minimum standards to ensure that a TRS user's experience when making TRS calls is functionally equivalent to a voice user's experience when making telephone calls.⁵

3. TTY-based relay is the original form of relay service. A deaf or hard of hearing person using a text telephone (TTY) connects with a TRS communications assistant (CA) and provides the CA with the telephone number to dial. The CA then calls the hearing party and voices the TTY user's typed conversation to that party, and types the hearing party's conversation back to the TTY user.⁶ Any TTY can communicate directly with any other TTY using the same format, and a TTY using ASCII format can communicate with a computer with a telecommunications set-up. However, a TTY using ASCII format cannot communicate with a TTY using Baudot format without the use of a Baudot-compatible modem.⁷ To ensure that TTY users would be able to complete calls regardless of the format and equipment used by either the caller or the called party, the FCC required that traditional TRS be able to communicate with both ASCII and Baudot, at any speed generally in use.⁸ At the time, the Commission noted that although Baudot was the dominant format for TTY, ASCII was "by all accounts, a superior technology."⁹ More than 30 years later, however, Baudot remains the predominant format for TTYs, whereas very few TTY users communicate using the ASCII format.¹⁰

4. On August 24, 2022, T-Mobile Accessibility filed a Petition for Rulemaking asking the Commission to initiate a rulemaking to amend Section 64.604(b)(1) by eliminating the reference to ASCII, on the grounds that ASCII is an obsolete and infrequently used format.¹¹ On September 22, 2022, the Commission sought comment on the Petition for Rulemaking.¹² Hamilton filed a comment in support of the Petition.¹³ A coalition of accessibility advocacy and research organizations (AARO) filed reply comments also voicing support for eliminating the ASCII requirement.¹⁴ No other comments were filed.

(Continued from previous page)

Declaratory Ruling, and Further Notice of Proposed Rulemaking, 29 FCC Rcd 10697, para. 4 (2014) (*2014 TRS Exemptions Order*).

⁵ See 47 CFR § 64.604.

⁶ *2014 TRS Exemptions Order*, 29 FCC Rcd 10697, para. 4.

⁷ See Gallaudet University Technology Access Program, <https://tap.gallaudet.edu/Text/faq1.html> (last visited Nov. 19, 2024).

⁸ See *Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990*, Report and Order and Request for Comments, 6 FCC Rcd 4657, 4661, para. 20 (1991) (*1991 TRS Implementation Order*). ASCII employs an eight bit code and can operate at any standard transmission baud rate including 300, 1200, 2400, and higher." 47 CFR § 64.601(a)(7). By comparison, Baudot is a seven bit code that operates at a baud rate of 45.5. 47 CFR § 64.601(a)(9).

⁹ *1991 TRS Implementation Order*, 6 FCC Rcd at 4661, para. 20.

¹⁰ See Gallaudet University Technology Access Program, TTY Basic, <https://tap.gallaudet.edu/Text/TTYBasics.html> ("About 95% of calls through [TTY] are in Baudot.") (last visited Nov. 19, 2024); Communications Between TTYs and Computers, Ultratec, <https://www.ultratec.com/knowledgebase/communications-ttys-computers/> ("In the U.S., most TTYs use a language ... called Baudot.") (last visited Nov. 19, 2024).

¹¹ See T-Mobile Accessibility Petition for Rulemaking.

¹² See *Request for Comment on Petition for Rulemaking by T-Mobile USA, Inc. Regarding Continued Use of ASCII Format for TTY-Based Relay Service*, CG Docket No. 03-123 and RM-11931, Public Notice, DA 22-996 (Sept. 22, 2022).

¹³ See Comments of Hamilton Relay, Inc., CG Docket No. 03-123, RM-11931 (filed Oct. 24, 2022) (Hamilton Comments).

¹⁴ See Reply Comments of Accessibility Advocacy and Research Organizations, CG Docket Nos. 03-123, 16-145, GN Docket Nos. 15-178, 21-140, RM-11931 (filed Nov. 8, 2022) (AARO Reply Comments).

5. On June 16, 2023, T-Mobile Accessibility filed a second petition, seeking a limited waiver of the ASCII requirement during the pendency of the rulemaking proceeding.¹⁵ The Commission sought comment on the Petition for Waiver on August 4, 2023.¹⁶ Hamilton, which supports the petition and requests the same relief for all providers of traditional TRS, was the sole commenter.¹⁷ No reply comments were filed.

III. DISCUSSION

6. *Waiver standard.* A Commission rule may be waived for “good cause shown.”¹⁸ In particular, a waiver is appropriate where the particular facts make strict compliance inconsistent with the public interest.¹⁹ In addition, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.²⁰ Such a waiver is appropriate if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest.²¹

7. The Commission has previously found it appropriate to waive certain TRS requirements in circumstances where meeting the standard posed technical challenges,²² or there was unlikely to be any significant demand for a particular required feature,²³ and as a result, enforcement of the requirement was unnecessary, impracticable, and an inefficient use of TRS resources.²⁴ Among other things, the

¹⁵ See T-Mobile Accessibility Petition for Waiver.

¹⁶ See *Comment Sought on T-Mobile Accessibility Petition for Limited Waiver*, CG Docket No. 03-123 and RM-11931, Public Notice, DA 23-662 (Aug. 4, 2023).

¹⁷ Comments of Hamilton Relay, Inc., CG Docket No. 03-123, RM-11931 (filed Aug. 21, 2023) (Hamilton Waiver Comments).

¹⁸ 47 CFR § 1.3.

¹⁹ *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*).

²⁰ *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972); *Northeast Cellular*, 897 F.2d at 1166.

²¹ *Northeast Cellular*, 897 F.2d at 1166.

²² See, e.g., *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket Nos. 90-571, 98-67, CG Docket No. 03-123, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd 12475, 12520-26, paras. 109-32 (2004) (*2004 TRS Report and Order*) (extending various waivers for VRS providers based on technological feasibility considerations); *Provision of Improved Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Order on Reconsideration, CC Docket No. 98-67, FCC 03-46, 18 FCC Rcd 4761 (2003) (*IP Relay Order on Reconsideration*) (granting or extending various waivers for IP Relay providers based on technological feasibility considerations).

²³ See, e.g., *Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67, Declaratory Ruling, 18 FCC Rcd 16121, 16131-32, paras. 29-30 (2003) (*2003 CTS Ruling*) (waiving, for providers of captioned telephone service (CTS), the requirements to provide speech-to-speech (STS) and hearing-carryover (HCO) functionalities, because STS and HCO “do not apply to captioned telephone calls” and users of STS and HCO “will not want to use a captioned telephone”); *id.* at 16137, para. 48 (waiving the gender preference requirement for CAs, with respect to CTS, because CTS users speak for themselves, and there is thus no need to assign a CA of a particular gender); see also *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Declaratory Ruling, 22 FCC Rcd 379, 391-93, para. 30 (2007) (*2007 IP CTS Declaratory Ruling*) (granting the same waivers to providers of IP CTS).

²⁴ See generally *2014 TRS Exemptions Order*, 29 FCC Rcd at 10701, para. 5 (reviewing the waivers of certain TRS mandatory minimum standards previously granted to providers of various forms of TRS based on inapplicability to a particular service, engineering challenges, low demand, and readily available alternatives).

Commission waived or declared inapplicable the ASCII and Baudot requirements for various non-TTY relay services.²⁵

8. In these particular circumstances, we find that, given ASCII's technological obsolescence, the absence of significant demand for it, and the presence of viable alternatives, there is good cause to grant T-Mobile and Hamilton waivers of the requirement to offer TTY-based relay service in ASCII format. When the ASCII format requirement was adopted in 1991, the format was regarded as a "superior technology."²⁶ That is no longer the case. To the contrary, ASCII has long been eclipsed by other formats, and continuing to offer the rarely used format presents challenges for the providers.²⁷

9. As T-Mobile and Hamilton both explain, there is very little demand for TTY relay using the ASCII format. According to the Petition for Rulemaking, during a three-month period in 2022, only five T-Mobile users placed traditional TRS calls using ASCII, totaling less than 60 minutes of actual call time.²⁸ T-Mobile's updated figures in its Petition for Waiver show even less usage. Between February and May of 2023, T-Mobile reports that no more than four calls using the ASCII format were placed during any month, and no month featured more than 34 minutes of total call time.²⁹ In total, there were only nine calls using the ASCII format placed during that period, for less than 60 minutes of talk time. Hamilton, the only other provider of traditional TRS, reports similarly sparse ASCII usage rates.³⁰ We are therefore persuaded that the ASCII format is virtually never used, at least as it pertains to traditional TRS. The consumer groups state that this level of usage is consistent with the limited interest among their members and that there is "no compelling reason" for the Commission to retain the ASCII format.

10. Further, T-Mobile and Hamilton explain that TTY users who currently rely on ASCII format have access to alternative forms of TRS that provide the same or similar functionalities, such as TTY-based TRS in Baudot format and IP Relay.³¹ We agree that because these alternatives are readily available to take the place of TTY-based TRS in ASCII format, little is accomplished by requiring these providers to incur the time and resources needed to maintain the ASCII format.

11. Between them, T-Mobile and Hamilton provide TTY-based relay service in 50 states, the District of Columbia, the U.S. Virgin Islands, and Puerto Rico. They must therefore maintain ASCII-compatible hardware in each of these areas, including when upgrading their service platforms, a task made more difficult because there are currently no new ASCII-compatible TTY devices available on the market, and many of the vendors they rely on no longer provide ASCII support.³² Without the need to support ASCII, T-Mobile asserts it will be able to redistribute its resources in directions more useful to its TRS users.³³

12. We find that a waiver is justified to avoid the need for TTY-based TRS providers to continue expending resources on an obsolete and almost unused technology. The public will be better served if those resources are utilized in a more efficient and productive manner. We do not through this

²⁵ 2007 IP CTS Declaratory Ruling, 22 FCC Rcd at 391-93, para. 30; 2003 CTS Ruling, 18 FCC Rcd at 16139, paras. 53-54; 2000 TRS Order, paras. 41, 42.

²⁶ *Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990*, Report and Order and Request for Comments, 6 FCC Rcd 4657, 4661, para. 20 (1991).

²⁷ T-Mobile Accessibility Petition for Rulemaking at 6-7.

²⁸ *Id.* at 4-5.

²⁹ *Id.* at 7.

³⁰ Hamilton Comments at 2 (stating that the number of ASCII users on its network numbers in the single digits.).

³¹ T-Mobile Accessibility Petition for Rulemaking at 5-6; Hamilton Comments at 2.

³² T-Mobile Accessibility Petition for Waiver at 6, 7; *see also id.* at 5-6 (confidential version).

³³ T-Mobile Accessibility Petition for Rulemaking at 7.

action end any obligation a TRS provider may otherwise have, under a contract or regulation governing a state TRS program, to continue providing support for TTY-based TRS in ASCII format, independent of the obligation within the Commission's rule.

13. However, even though very few TTY users still employ the ASCII format, those that do use the format must be provided with a viable alternative. We note that, while alternatives are readily available, one of them—IP Relay—requires Internet access, which may not be available to all users. We therefore grant the waiver on the condition that any current T-Mobile or Hamilton ASCII user be transitioned – at no cost to the user and without interruption of service – to a Baudot-capable device if the user prefers to continue using traditional TRS or is unable or unwilling to migrate to IP Relay or another form of TRS. We also require providers of TTY-based TRS to notify each State TRS program and each State Telecommunication Equipment Distribution Program that it will no longer support the ASCII format.³⁴ Providers shall also provide notice in accessible format on their respective websites that they are discontinuing support for TTY-based TRS in ASCII format. As part of the notification, the provider shall specify the date it plans to terminate ASCII support; describe the available alternative forms of relay service, including TTY-based TRS in Baudot format; and provide contact information for questions and obtaining more information about alternative equipment and services. As noted above, currently pending before the Commission is a petition to amend section 64.604(b)(1) to remove the reference to ASCII. For the reasons cited above, we find good cause to grant a waiver of the ASCII requirement for two years, or until the Commission addresses the request to amend section 64.604(b)(1), whichever is earlier.

IV. PROCEDURAL MATTERS

14. *Materials in Accessible Formats.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice).

15. *Additional Information.* For additional information on this proceeding, contact Ike Ofobike, Disability Rights Office, Consumer and Governmental Affairs Bureau, at (202) 418-1028 or by email at Ike.Ofobike@fcc.gov.

V. ORDERING CLAUSES

16. Accordingly, **IT IS ORDERED** that, pursuant to sections 1, 2, 4(i), 4(j), and 225 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 154(j), 225, and sections 0.141, 0.361, and 1.3 of the Commission's rules, 47 CFR §§ 0.141, 0.361, and 1.3, this Order IS ADOPTED.

17. **IT IS FURTHER ORDERED** that the Petition for Limited Waiver filed by T-Mobile Accessibility on June 13, 2023 is GRANTED to the extent described and subject to the conditions stated herein.

18. **IT IS FURTHER ORDERED** that section 64.604(b)(1) of the Commission's rules, 47 CFR § 64.604(b)(1), is WAIVED to the extent described herein.

³⁴ We encourage State TRS and Telecommunications Equipment Distribution Programs to provide notice to consumers of this change in their materials or on their websites to the extent they make consumers aware of the ASCII format for TTY-based communications.

19. **IT IS FURTHER ORDERED** that, pursuant to section 1.102(b)(1) of the Commission's rules, 47 CFR § 1.102(b)(1), this Order SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Alejandro Roark, Chief
Consumer and Governmental Affairs Bureau

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Lifeline and Link Up Reform and Modernization	)	WC Docket No. 11-42
	)	
Telecommunications Carriers Eligible for	)	WC Docket No. 09-197
Universal Service Support	)	
	)	

ORDER

Adopted: November 22, 2024

Released: November 22, 2024

By the Chief, Wireline Competition Bureau:

I. INTRODUCTION

1. In this Order, the Wireline Competition Bureau (Bureau) takes emergency action to ensure continuity of Lifeline service for the Lifeline households formerly served by Q Link Wireless LLC (Q Link) prior to its suspension.¹

2. In the extraordinary circumstances before us, we find good cause exists to temporarily waive certain Lifeline requirements to prevent disruption to certain Lifeline subscribers' service in the wake of Q Link's suspension from the Lifeline program. The waiver of these rules will allow T-Mobile USA, Inc. (T-Mobile), with which Q Link contracted as an underlying service provider for its previous Lifeline offering, to provide the Lifeline-discounted service on an emergency basis to persons who would otherwise abruptly lose that service. Most recently, despite non-payment by Q Link, T-Mobile has provided, and continues to provide, the impacted Lifeline subscriber base with service.² However, T-Mobile has indicated that it cannot do so indefinitely and these customers will remain at imminent risk for loss of service. With these temporary waivers, the impacted consumers will continue to have access to the Lifeline-supported voice and broadband service on which they rely, provided by T-Mobile through its Lifeline eligible telecommunications carrier (ETC), Assurance Wireless (Assurance³), unless and until they choose to opt-out and select a different Lifeline provider.

II. BACKGROUND

3. The Federal Communications Commission's (FCC or Commission) rules contain several protections to help ensure that households eligible for Lifeline are not enrolled or transferred in the program without their consent, and that the program does not make duplicate payments to multiple Lifeline providers for service provided to the same household. In particular, the Lifeline rules require providers to obtain subscribers' consent prior to submitting their personal information to the NLAD to

¹ See 47 CFR §§ 54.201(a)(1), 54.400(k), 54.401(a), 54.404(b)(9), 54.404(c)(5), 54.405(e)(3), 54.407(a), 54.407(e), 54.410(b)(1)(ii), 54.410(b)(2), 54.410(c)(1)(ii), 54.410(c)(2), 54.416(b), 54.417(a).

² See T-Mobile USA, Inc., Request for Designation of Funds, WC Docket Nos. 09-197 et al., at 8 (filed Nov. 21, 2024).

³ Assurance is T-Mobile's primary ETC across Q Link's former service footprint. In Puerto Rico, however, Lifeline offerings are provided by T-Mobile Puerto Rico. This Order treats that entity similarly, and any references made to "Assurance" are meant to include the T-Mobile Puerto Rico ETC.

enroll or transfer the subscriber.⁴ The program rules also limit Lifeline reimbursement to the provider that directly serves the Lifeline household, to prevent duplicate support being sent to both a direct Lifeline service provider and a wholesale provider for the same household.⁵ The rules also require Lifeline providers to de-enroll Lifeline households that do not pay a monthly fee for their service and have not used their service for a 30-day period and have not cured their non-usage.⁶

4. *Q Link Suspension from the Lifeline Program.* On October 15, 2024, Q Link pleaded guilty to conspiring to defraud and commit offenses against the United States in connection with a years-long scheme to fraudulently claim over \$100 million from the Lifeline program.⁷ Q Link and its owner admitted to engaging in conduct designed to mislead the FCC as to how many of Q Link's Lifeline subscribers were continuing to use their Lifeline service, and to prevent subscribers who sought to de-enroll from ending their relationship with Q Link, which would have prevented Q Link from billing the Lifeline program for these households.⁸ Based on Q Link's guilty plea and factual proffer in *United States v. Q Link Wireless, LLC*, on November 8, 2024, the Commission's Enforcement Bureau suspended Q Link from participation in Lifeline or other universal service support programs and began a proceeding to debar Q Link from future participation in all federal universal service support mechanisms.⁹

⁴ See 47 CFR § 54.404(b)(9) (requiring ETCs to obtain consent from subscribers to transmit to NLAD the consumer information necessary to receive Lifeline support). See also *Wireline Competition Bureau Reminds Eligible Telecommunications Carriers of NLAD Processes Regarding Benefit Transfers, Exceptions Management and Dispute Resolution*, Public Notice, 29 FCC Rcd 11443, 11444 (WCB 2014) (summarizing procedures for benefit transfers in NLAD—including requiring the ETC initiating the benefit transfer transaction to obtain the affirmative consent of the subscriber to transfer the Lifeline benefit prior to the initiation of the transfer in NLAD and requiring the ETC to keep a record of all communications made with the subscriber when obtaining consent, including records documenting the subscriber's affirmative consent).

⁵ 47 CFR §§ 54.201(a)(1), 54.400(k), 54.401(a), 54.407(a). See also *Lifeline and Link Up Reform and Modernization et al.*, WC Docket No. 11-42 et al., Second Further Notice of Proposed Rulemaking, Order on Reconsideration, Second Report and Order, and Memorandum Opinion and Order, 30 FCC Rcd 7818, 7899-7901, paras. 244, 249 (2015). In establishing the direct service requirement, the Commission was concerned with the possibility of over-recovery by both wholesalers and resellers seeking reimbursement from USAC for the same Lifeline subscriber and the lack of direct oversight of non-ETC resellers by state and federal regulators. *Id.* at 7899, para. 246. At that time, where both the wholesaler and the reseller were ETCs, there was no way for USAC to determine whether both the wholesaler and the reseller were seeking reimbursement for the same subscriber. *Id.* The Commission's subsequent decision to require all Lifeline claims to be directly based on subscriber NLAD enrollments independently prevents this risk of duplicate support today.

⁶ See 47 CFR § 54.405(e)(3).

⁷ *United States v. Q Link Wireless LLC*, Criminal Docket No. 1:24-cr-20363-RAR, Plea Agreement (S.D. Fla. Oct. 15, 2024); *United States v. Q Link Wireless LLC*, Criminal Docket No. 1:24-cr-20363-RAR, Factual Proffer (S.D. Fla. Oct. 15, 2024).

⁸ See *id.* See also Press Release, U.S. Attorney's Office, Southern District of Florida, Department of Justice, Nationwide Telecommunications Provider and its CEO Plead Guilty to Massively Defrauding Federal Government Programs Meant to Aid the Needy (Oct. 15, 2024), <https://www.justice.gov/usao-sdfl/pr/nationwide-telecommunications-provider-and-its-ceo-plead-guilty-massively-defrauding>.

⁹ See Letter from Christopher J. Sova, Federal Communications Commission, to Issa Asad, Chief Executive Officer, Q Link Wireless LLC, et al., DA 24-1131, at 2-4 (Nov. 8, 2024) (suspending Q Link, pursuant to 47 CFR § 54.8, "from: (a) participating in any activities associated with or related to the Lifeline program, including receiving funds or discounted services through the Lifeline program, or consulting with, assisting, or advising applicants or service providers regarding the Lifeline program; and (b) participating in any activities associated with or related to all federal universal service support mechanisms").

5. *Q Link's Business Relationship with T-Mobile.* T-Mobile provided wholesale mobile service to Q Link, which then resold that service to households participating in the Lifeline program.¹⁰ The Bureau has been made aware that, due to non-payment by Q Link and more recently as a result of Q Link's guilty plea and its subsequent suspension from Lifeline, T-Mobile has been providing service to these households itself and without compensation.¹¹

III. DISCUSSION

6. The Bureau acts on its own motion to temporarily waive certain Lifeline rules to enable former Q Link Lifeline subscribers who would otherwise lose service to continue to receive Lifeline service through T-Mobile and Assurance Wireless. In evaluating whether good cause exists for waiver of its rules,¹² the Commission considers whether the particular facts make strict compliance inconsistent with the public interest.¹³ The Commission may also take into account concerns of hardship, equity, or more effective implementation of overall policy on an individual basis.¹⁴ Waiver of the Commission's rules is therefore only appropriate if special circumstances warrant a deviation from the general rule, and such deviation will serve the public interest.¹⁵ As further discussed below, the Bureau finds good cause to act on delegated authority to temporarily waive the Lifeline rules as described herein.¹⁶

7. We find that good cause exists to temporarily waive for Assurance the Lifeline requirements regarding the "direct" provision of Lifeline service, subscriber consent to transmitting subscriber information in the NLAD, and certain de-enrollment timelines.¹⁷ T-Mobile has continued to provide service to certain Lifeline households despite Q Link's exit from the Lifeline program and inability to continue providing Lifeline service under the terms of that suspension.¹⁸ Temporarily waiving the Lifeline program's direct service requirement to the limited extent necessary to permit Assurance to claim Lifeline reimbursement for service provided to these households will enable T-Mobile and Assurance to continue providing service to impacted households and allow those Lifeline households to receive the benefits of information, outreach, and customer service support from a Lifeline provider, and the establishment of accounts with appropriate pricing and billing information.

8. We also find good cause to waive the Lifeline rules regarding household consent to transmit consumer information to the NLAD for the purpose of permitting Assurance to transfer impacted subscribers in the NLAD and continue providing Lifeline-supported service to those households. In the

¹⁰ See Petition of Q Link Wireless LLC for Limited Designation as an Eligible Telecommunications Carrier in the States of Connecticut, Delaware, Florida, New Hampshire, North Carolina, and the District of Columbia, WC Docket No. 09-197, at 4, 9, 13-15 (filed Apr. 15, 2024), <https://www.fcc.gov/ecfs/document/1041597277251/1> (detailing Q Link's reliance on T-Mobile's network to provide the supported service to Q Link's subscribers).

¹¹ See T-Mobile USA, Inc., Request for Designation of Funds, WC Docket No. 09-197 et al., at 5-8 (filed Nov. 21, 2024). This Order only addresses T-Mobile's ability to enroll and claim Lifeline reimbursement for subscribers on or after the effective date of this Order, and it does not address requests related to past debts owed by Q Link.

¹² See 47 CFR § 1.3.

¹³ *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

¹⁴ *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

¹⁵ *Northeast Cellular*, 897 F.2d at 1166.

¹⁶ See 47 CFR § 0.291; *Lifeline and Link Up Reform and Modernization et al.*, WC Docket No. 11-42, Third Report and Order, Further Report and Order, and Order on Reconsideration, 31 FCC Rcd 3962, 4120, para. 433 (2016).

¹⁷ See 47 CFR §§ 54.201(a)(1), 54.400(k), 54.401(a), 54.404(b)(9), 54.405(e)(3), 54.407(a). Because the subscribers transferred under this Order have already undergone an eligibility determination and activated their service, with T-Mobile as Q Link's underlying service provider, a waiver of section 54.410(a)'s requirements is not necessary. See 47 CFR § 54.410(a) (requiring ETCs, prior to activating Lifeline service, to confirm subscriber qualifications to receive Lifeline and to complete subscriber eligibility determinations and certifications).

¹⁸ See T-Mobile USA, Inc., Request for Designation of Funds, WC Docket No. 09-197 et al., at 6, 8.

extremely unusual and emergency circumstance of a Lifeline provider's suspension and sudden exit from the program due to criminal misconduct and the former Lifeline provider's resulting inability to continue in the Lifeline program after its suspension, we find that the privacy and consent protections of these provisions are outweighed by the strong interest in protecting Lifeline subscribers from sudden disconnection. Affected subscribers may, however, opt-out of receiving service from Assurance by transferring their Lifeline benefit to another Lifeline provider in their area, or requesting to de-enroll from the program.¹⁹

9. Our decision to provide this waiver is based on careful consideration of how to continue to support the stable provision of services through the Lifeline Program, and this waiver is limited to the extent needed to allow for the effective transition of households' Lifeline-discounted service from Q Link to Assurance for customers who would otherwise lose service. There is good cause to minimize disruptions and maintain service for these customers—especially where, as here, the customers are already receiving T-Mobile service. Additionally and through no fault of their own, the affected subscribers are at risk of losing their service solely as a result of Q Link's malfeasance.

10. In addition, we find that good cause exists for a limited waiver of Lifeline program recordkeeping requirements, to the extent accurate records are not readily available, for customers transferred from Q Link to Assurance under this Order.²⁰ It is unlikely T-Mobile can acquire accurate records as to these subscribers regarding their activity in Lifeline prior to Q Link's suspension from the program. However, we understand that T-Mobile has continued to provide service to these households.²¹ This waiver of recordkeeping requirements only encompasses records arising during the time period before the impacted subscribers are enrolled in Assurance's Study Area Codes in NLAD. Additionally, if relevant compliance information exists in the Universal Service Administrative Company's (USAC) systems and is accessible for Assurance for these households, Assurance should maintain those records consistent with their Lifeline compliance practices.

11. Further, we find good cause to temporarily waive the Lifeline program's annual ETC certification requirement²² for customers transferred from Q Link to Assurance under this Order, for a period of 180 days after the issuance of this Order. In the normal course annual ETC certifications are due on January 31,²³ but we believe this additional time is necessary to allow T-Mobile to work through its compliance processes for the transferred subscribers and accurately report information in the Form 555 after completing those processes. We direct USAC to permit Assurance to file revisions to their Form 555 filings to account for the households affected by this Order.

12. Finally, we waive certain Lifeline de-enrollment requirements to allow Assurance to issue notice to households that have not recently used their service prior to de-enrollment, but we do not waive the Lifeline program's usage requirements for purposes of reimbursement.²⁴ Because T-Mobile is currently providing service to these households, we anticipate that Assurance will be able to promptly determine whether or not individual subscribers are compliant with the Lifeline program's usage requirements. However, we also recognize that households who do not pay a monthly fee for their

¹⁹ See 47 CFR § 54.405(e)(5); Change My Company, Universal Service Administrative Company (last visited Nov. 22, 2024), <https://www.lifelinesupport.org/change-my-company/>.

²⁰ See 47 CFR §§ 54.407(e), 54.410(b)(1)(ii), 54.410(b)(2), 54.410(c)(1)(ii), 54.410(c)(2), 54.417(a).

²¹ See T-Mobile USA, Inc., Request for Designation of Funds, WC Docket Nos. 09-197 et al., at 8 (filed Nov. 21, 2024).

²² See 47 CFR § 54.416(b).

²³ See USAC, *Annual Filings*, <https://www.usac.org/lifeline/rules-and-requirements/forms/annual-filings/> (last visited Nov. 22, 2024).

²⁴ See 47 CFR §§ 54.405(e)(3), 54.407(c). The transfer of subscribers under this Order, standing alone, does not provide a "reasonable basis" to believe that the affected subscribers no longer qualify for Lifeline under section 54.405(e)(1), and a waiver of that rule is therefore not necessary.

service and have not used their service for 30 days may have never been issued cure notices about their usage by Q Link, both because Q Link's access to subscriber information may have been impacted by its contractual dispute with T-Mobile and because Q Link has stipulated to facts indicating broad noncompliance with the Commission's usage rules. While we do not permit Assurance to claim reimbursement for households that do not meet the Lifeline usage requirements, it is appropriate for these households to be given notice and the opportunity to cure their non-usage. As such, Assurance is not required to de-enroll these households, but it may instead, within 45 days of the effective date of this Order, issue 15-day cure notices to households with non-usage greater than 30 days. If these households do not cure their usage within the cure period, they must be de-enrolled consistent with the Lifeline program's rules.²⁵ We will continue to apply the existing reimbursement rules for these households to ensure that only households actually using their service pursuant to the rules are claimed for reimbursement. With this waiver, households will be given the opportunity to cure their non-usage, while we are also protecting against reimbursement for service that has not been used.

13. To implement this waiver, we direct USAC to transfer subscribers that continue to receive service from T-Mobile to Assurance. The Bureau also expects that Assurance will notify affected households of the terms of their ongoing service as soon as practicable and to indicate that they may choose a different Lifeline provider at any time, consistent with Lifeline Program rules. This waiver only applies to the extent necessary to effectuate this emergency transfer to Assurance; this waiver does not apply to any other T-Mobile or Assurance subscribers. We also direct USAC to work with the Lifeline administrator in Texas, the only NLAD opt-out state with impacted subscribers, to effectuate a similar transfer. Additionally, we encourage the Texas Lifeline administrator to implement similar changes to its systems and processes to allow for similar relief, ensuring continued Lifeline service for these subscribers.

IV. ORDERING CLAUSES

14. ACCORDINGLY, IT IS ORDERED, pursuant to the authority contained in sections 1-4 and 254 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154 and 254, and sections 0.91, 0.291, and 1.3 of the Commission's rules, 47 CFR §§ 0.91, 0.291, and 1.3, that sections 54.201(a)(1), 54.400(k), 54.401(a), 54.404 (b)(9) and (c)(5), 54.405(e)(3), 54.407(a) and (e), 54.410(b)(1)(ii), (b)(2), (c)(1)(ii), and (c)(2), 54.416(b), and 54.417(a) of the Commission's rules, 47 CFR §§ 54.201(a)(1), 54.400(k), 54.401(a), 54.404 (b)(9) and (c)(5), 54.405(e)(3), 54.407(a) and (e), 54.410(b)(1)(ii), (b)(2), (c)(1)(ii), and (c)(2), 54.416(b), and 54.417(a), ARE WAIVED to the limited extent provided herein.

15. IT IS FURTHER ORDERED, that pursuant to section 1.102(b)(1) of the Commission's rules, 47 CFR § 1.102(b)(1), this Order SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Trent B. Harkrader
Chief
Wireline Competition Bureau

²⁵ See 47 CFR § 54.405(e)(3).



PUBLIC NOTICE

Federal Communications Commission
45 L St., N.E.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1183
Released: November 25, 2024

**DOMESTIC 214 APPLICATION GRANTED FOR
THE TRANSFER OF CONTROL OF THE MANTI TELEPHONE COMPANY TO
LYNCH TELEPHONE CORPORATION X**

WC Docket No. 24-93

By this Public Notice, the Wireline Competition Bureau (Bureau) grants, as conditioned, the application filed by The Manti Telephone Company (Manti) and Lynch Telephone Corporation X (Lynch X) (together, Applicants), pursuant to section 214(a) of the Communications Act of 1934, as amended, and sections 63.03-04 of the Commission's rules,¹ requesting consent for the transfer of control of Manti to Lynch X.²

On October 22, 2024, the Bureau released a public notice seeking comment on the Application.³ We did not receive comments or petitions in opposition to the Application.

Manti, a Utah corporation, provides service as a rural incumbent local exchange carrier (LEC) to approximately 2,600 access lines in the communities of Manti, Sterling, and Ephraim, Utah.⁴

Lynch X, a Delaware corporation and holding company, is a wholly-owned subsidiary of Brighton Communications Corporation, also a Delaware corporation and holding company, which, in turn, is a wholly-owned subsidiary of LICT Corporation (LICT), a Delaware corporation.⁵ LICT

¹ See 47 U.S.C. § 214(a); 47 CFR §§ 63.03-04.

² Amended and Restated Domestic Section 214 Application for the Transfer of Control of The Manti Telephone Company to Lynch Telephone Corporation X, WC Docket No. 24-93 (filed Aug. 28, 2024) (Application). The Application replaces a domestic section 214 application previously filed on March 25, 2024 in the same docket. On October 10, 2024 and October 21, 2024, Lynch X filed supplements to the Application. Letter from Stephen J. Moore, President, Lynch Telephone Corporation X, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 24-93 (filed Oct. 10, 2024) (First Supplement); Letter from Stephen J. Moore, President, Lynch Telephone Corporation X, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 24-93 (filed Oct. 21, 2024) (Second Supplement). The Applicants also filed an application for the transfer of control of an international section 214 authorization. Any action on this domestic section 214 application is without prejudice to Commission action on other related, pending applications.

³ *Domestic Section 214 Application Filed for the Transfer of Control of The Manti Telephone Company to Lynch Telephone Corporation*, WC Docket No. 24-93, Public Notice, DA 24-1092 (WCB 2024).

⁴ Application at 3. Manti is currently owned by Dallas Cox, Gavin Cox, and Natalie Adamson, each US citizens. *Id.* at 3, 9. Manti has been designated as an eligible telecommunications carrier in Utah. *Id.* at 17. Manti participates in the Commission's Lifeline Program and the Applicants state that Manti will continue participating in the program post-consummation. *Id.* at 18.

⁵ *Id.* at 2; see also First Supplement at 1-2. LICT owns directly or through its wholly-owned subsidiaries 16 rural incumbent LECs which range in size from approximately 800 to over 7,000 access lines with locations in California, Iowa, Kansas, Michigan, New Mexico, Utah, and Wisconsin. *Id.* at 2 and 17-18; see also Second Supplement at 1.
(continued....)

indirectly owns Central Utah Telephone, Inc. d/b/a Centracom Interactive (Centracom), Bear Lake Communications, Inc. (Bear Lake), and Skyline Telecom (Skyline), each rural incumbent LECs serving portions of Utah.⁶ LICT also indirectly owns other rural incumbent and competitive LECs providing service outside of Utah.⁷ Mario J. Gabelli, a U.S. citizen, holds a 37.6% interest in LICT.⁸

Pursuant to the terms of the proposed transaction, Lynch X will acquire all of stock of Manti.⁹ As a result, Manti will become a direct, wholly owned subsidiary of Lynch X.¹⁰

Applicants request approval to consummate a transaction involving companies that receive high-cost universal service support under the different support mechanisms of fixed model-based support and cost-based support (a mixed support transaction). Specifically, because subsidiaries and affiliates of Lynch X receive fixed model-based support, the potential for a transaction-specific harm exists if Manti converts from an average schedule company to a cost company, thereby triggering an incentive to shift costs from Lynch X's model based support affiliates to Manti.¹¹ The Commission has directed the Bureau to apply the *Hargray/ComSouth* condition where necessary to remedy a potential public interest harm caused by a mixed support transaction, including for mergers between an average schedule company and a model-based support company where the average schedule company converts to a cost company.¹² Accordingly, to mitigate the potential for cost shifting, we grant the Application subject to the following condition: if Manti converts to a non-average schedule cost company, that conversion will trigger application of the condition established in the *Hargray/ComSouth Order* and discussed in the *Average*

According to the Applicants, as of December 31, 2022, LICT's rural incumbent LECs have deployed 6,703 miles of fiber optic cable, 11,258 miles of copper cable, and 831 miles of coaxial cable. Application at 2. In addition, LICT operates 85 towers to serve fixed wireless broadband customers and leases space to other wholesale carriers. *Id.*

⁶ *Id.*; see also Second Supplement at 1. Bear Lake currently serves the Garden City and Laketown communities; Centracom currently serves the Spanish Fork Canyon, Covered Bridge, Scofield, Fairview, Mount Pleasant, and Spring City communities; and Skyline currently serves the Moroni, Chester, Wales, Goshen, Eureka, Dugway, and Wendover communities. Application at 2. The Applicants affirm that there is no overlap between the service area of Manti and the service areas of Centracom, and its rural incumbent LEC subsidiaries, Bear Lakes and Skyline. First Supplement at 4; see also *id.* at 5 (URTA Map). Central Telecom Services, LLC (CTS), a subsidiary of Lynch X, provides competitive LEC and long distance services in Utah and Nevada. *Id.* at 4. The Applicants also affirm that there is no overlap of the service areas of Manti and CTS. *Id.*

⁷ The Applicants provide further information on the each of LICTs rural incumbent and competitive LECs providing service outside of Utah. *Id.* at 12-13; First Supplement at 4.

⁸ Application at 9; see also First Supplement at 2. The Applicants state that other than what has been disclosed, neither Mr. Gabelli, nor LICT or any of its subsidiaries or affiliates, hold a 10% or greater interest in any other provider of domestic telecommunications services. First Supplement at 4.

⁹ Application at 3.

¹⁰ *Id.* Following the consummation of the proposed transaction, the following US citizens will serve as Officers of Manti: Eddie L. Cox as President, I. Branch Cox as Chief Executive Officer, and Brad Welch as Chief Operating Officer. *Id.* The Applicants state that Dallas Cox and Gavin Cox, who currently have ownership interests in Manti, will be employed by Centracom post-transaction, with their time and expenses being allocated to various companies including Manti. *Id.*

¹¹ See *Hargray/ComSouth Order*, 33 FCC Rcd at 4785-86, para. 20; see also Application at 16.

¹² *Hargray/ComSouth Order*, 33 FCC Rcd 4789, n.72 ("We direct the Bureau to apply the condition where necessary to remedy a potential public interest harm caused by a mixed support transaction. We also direct the Bureau to apply the same condition to a merger between an average schedule company and a model-based support company, and in such cases the condition would be triggered if the average schedule company converts to a cost company. Under the condition, we permit "average schedule companies" to estimate universal service support pursuant to a formula developed by the National Exchange Carrier Association (NECA). See, e.g., *National Exchange Carrier Association, Inc. 2018 Modification of Average Schedule Universal Service Support Formula, High-Cost Universal Service Support*, WC Docket No. 05-337, Order, 32 FCC Rcd 7654 (WCB 2017)").

Schedule Grant Public Notice.¹³ If Manti converts, the newly converted cost company's operating expense would be capped at the average of the three previous years' operating expense and combined with the inflation-adjusted operating expense data of any other affiliated cost companies.¹⁴

We find, upon consideration of the record, that grant of the Application, subject to compliance with the condition, will serve the public interest, convenience, and necessity.¹⁵ Therefore, pursuant to section 214 of the Act, 47 U.S.C. § 214, and sections 0.91, 0.291, 63.03, and 63.04 of the Commission's rules, 47 CFR §§ 0.91, 0.291, 63.03, and 63.04, the Bureau hereby grants the Application discussed in this Public Notice subject to compliance with the condition described above.¹⁶

Pursuant to section 1.103 of the Commission's rules, 47 C.F.R. § 1.103, the grant is effective upon release of this Public Notice. Petitions for reconsideration under section 1.106 or applications for review under section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of this Public Notice.

For further information, please contact Gregory Kwan, Wireline Competition Bureau, Competition Policy Division, (202) 418-1191.

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¹³ *Hargray/ComSouth Order*, 33 FCC Rcd 4789, n.72; *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 17-101, 17-365, 18-68, 18-94, 18-95, 18-177, Public Notice, 33 FCC Rcd 6784 (WCB 2018) (*Average Schedule Grant Public Notice*) (granting, subject to the *Hargray/ComSouth* condition, transfers of control involving average schedule companies and model-based support companies).

¹⁴ If it has not previously done so, Manti, if it becomes a newly converted cost company, must submit its prior three years of operating expense data to the National Exchange Carrier Association (NECA). NECA will then (1) validate and calculate that company's average operating expense for those three years and (2) combine this three-year averaged capped operating expense with the current year's inflation-adjusted operating expense data of any other affiliated cost companies to calculate the new total combined operating expense at which the newly converted and other cost-company affiliates will be capped. The new combined, capped operating expense will then be applied to determine High-Cost Loop Support (HCLS) and CAF-Broadband Loop Support (CAF-BLS). If the actual three-year operating expense average cannot be calculated for the newly converted cost company, NECA, in consultation with the Bureau, will use estimates based on NECA's average schedule support formula. See *Average Schedule Grant Public Notice*, 33 FCC Rcd at 6788, n.31; *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 18-129, Public Notice, 33 FCC Rcd 8087, 8089, n.15 (WCB 2018) (*Hospers Grant PN*) (granting, subject to the *Hargray/ComSouth* condition, the transfer of Hospers Telephone Exchange, Inc. d/b/a HTC Communications, an average schedule company, to Mutual Telephone Company of Sioux Center Iowa d/b/a Premier Communications, which owns both cost-based and fixed model-based support companies). The cap will not apply if the parties do not consummate the proposed transaction or if Manti does not convert to a cost company. See *Hospers Grant PN*, 33 FCC Rcd at 8090, n.20.

¹⁵ See 47 U.S.C. § 214(a); 47 CFR § 63.03.

¹⁶ The Applicants provide incumbent LEC services in their respective study areas. Within 30 days of closing the proposed transactions, they must notify USAC so that it can make any appropriate changes to the High Cost Universal Broadband (HUBB) on-line location reporting portal for universal service recipients.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1184

Released: November 25, 2024

**MEDIA BUREAU SEEKS COMMENT ON NATIONAL ASSOCIATION OF BROADCASTERS
PETITION FOR RULEMAKING AND EXTENSION OF WAIVER OF ACCESSIBLE
EMERGENCY INFORMATION REQUIREMENTS**

MB Docket No. 12-107

Comments Due: December 26, 2024
Reply Comments Due: January 9, 2025

The National Association of Broadcasters (NAB) has filed a petition¹ requesting that the Commission (i) modify the rule that requires broadcasters to provide an aural representation of visual, non-textual emergency information, such as radar maps or other graphics, on a secondary audio stream, to provide that the requirement is met if a station provides textual crawls that convey emergency information duplicative of or equivalent to the visual, non-textual information; and (ii) grant an 18-month extension of the current waiver, pending resolution of the rulemaking petition. Section 79.2(b)(2)(ii) of the Commission's rules requires video programming providers to ensure that emergency information provided visually during non-newscast programming is made accessible to individuals who are blind or visually impaired through the use of a secondary audio stream to provide such information aurally.² In the *Emergency Information Order*, the Commission found that if visual but non-textual emergency information (e.g., maps or other graphic displays) is shown during non-newscast programming, the aural description of this information must accurately and effectively convey the critical details regarding the emergency and how to respond to the emergency.³ The rule set a compliance deadline of May 26, 2015.⁴

On May 26, 2015, the Media Bureau granted NAB's request for an 18-month waiver of the requirement to aurally describe visual but non-textual emergency information to provide the broadcast

¹ Petition for Rulemaking and Extension of Waiver of the National Association of Broadcasters, MB Docket No. 12-107 (filed Nov. 15, 2024) (Petition).

² 47 CFR § 79.2(b)(2)(ii). In particular, the rule provides that the video programming provider or video programming distributor that creates the visual emergency information content and adds it to the programming stream is responsible for providing an aural representation of the information on a secondary audio stream, accompanied by an aural tone. *Id.* See also *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*; *Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 4871, 4899, para. 36 (2013) (*Emergency Information Order*).

³ See *Emergency Information Order*, 28 FCC Rcd at 4891-92, para. 24.

⁴ 47 CFR § 79.2(b)(2)(ii). See also *Emergency Information Order*, 28 FCC Rcd at 4900-01, para. 37.

industry time to develop a technical solution for compliance.⁵ At the time, NAB explained that an automated text-to-speech solution cannot be used to aurally describe maps and other graphics because they do not contain text files that can be converted to speech, and it noted that further work is needed to develop reliable automated solutions.⁶ The Bureau subsequently granted three requests to extend the waiver of the requirement to aurally describe visual but non-textual emergency information. First, on November 16, 2016, the Bureau granted a joint request of ACB, AFB, and NAB to extend the waiver for an additional 18 months.⁷ Second, on May 25, 2018, the Bureau granted a joint request of ACB, AFB, and NAB to further extend the waiver for an additional five years.⁸ Finally, on May 26, 2023, the Bureau granted in part NAB's request to further extend the waiver, providing an 18-month extension rather than the requested two years, and requiring submission of quarterly status reports.⁹ The waiver currently expires on November 26, 2024.

In the Petition, NAB contends that compliance with the existing rule “remains impossible,” and that the rule itself is unclear as to whether compliance requirements are met “if a station displays a visual image that conveys information duplicative of that provided in text crawls,” which are aurally described.¹⁰ According to NAB, absent a waiver, “many broadcasters will cease providing” visual but non-textual emergency information, due to concerns about potential FCC enforcement action.¹¹ Accordingly, NAB requests a further extension of the existing waiver, as well as a rule change “to specify that compliance is fulfilled if a station provides textual crawls that provide emergency information duplicative or equivalent to the information conveyed by the visual image.”¹² In addition, attached to the Petition, NAB provides a “draft best practices guide to help ensure that the content and frequency of text crawls provide access to emergency information equivalent to that conveyed by a visual image.”¹³ The Petition indicates that NAB has shared the draft best practices with advocates for individuals who are blind or visually impaired and “looks forward to incorporating their input in the final product.”¹⁴ We seek comment on the requests

⁵ See *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*; *Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Memorandum Opinion and Order, 30 FCC Rcd 5012, 5022-23, para. 17 (2015).

⁶ See *id.*

⁷ See *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Memorandum Opinion and Order, 31 FCC Rcd 12540 (2016). See also Joint Petition for Extension of Limited Waiver of the American Council of the Blind, the American Foundation for the Blind, and the National Association of Broadcasters, MB Docket No. 12-107 (filed Sept. 2, 2016).

⁸ See *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Memorandum Opinion and Order, 33 FCC Rcd 5059 (2018). See also Joint Petition for Extension of Waiver of the American Council of the Blind, the American Foundation for the Blind, and the National Association of Broadcasters, MB Docket No. 12-107 (filed Mar. 23, 2018).

⁹ See *Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Memorandum Opinion and Order, 38 FCC Rcd 4982 (2023). See also Petition for Extension of Waiver of the National Association of Broadcasters, MB Docket No. 12-107 (filed Apr. 5, 2023).

¹⁰ Petition at 2.

¹¹ *Id.* at 3.

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

in NAB's Petition.

Filing Requirements. All filings responsive to this Public Notice must reference MB Docket No. 12-107. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street, NE, Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (March 19, 2020).

People with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the FCC's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice).

Availability of Documents. Comments, reply comments, and *ex parte* submissions will be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

Additional Information. For additional information, contact Diana Sokolow, Diana.Sokolow@fcc.gov, of the Media Bureau, Policy Division, (202) 418-0588.

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Federal Communications Commission
Washington, D.C. 20554

November 26, 2024

DA 24-1186

SMALL ENTITY COMPLIANCE GUIDE

Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard

FCC 17-158; FCC 20-72; FCC 23-53

GN Docket No. 16-142

Released: November 20, 2017; June 16, 2020; June 23, 2023

In accordance with section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide in the above referenced docket and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule, or it may clarify or update the text of the Guide. Please direct your comments and recommendations, or requests for further assistance, to the FCC’s Consumer Center:

1-888-CALL-FCC (1-888-225-5322)

Videophone: 1-844-4-FCC-ASL (1-844-432-2275)

Fax: 1-866-418-0232

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I. OBJECTIVES OF THE PROCEEDING

This Small Entity Compliance Guide (Guide) summarizes rules and technological standards the Federal Communications Commission (Commission) adopted in *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN Docket No. 16-142, Second Report and Order and Order on Reconsideration (*Next Gen TV Second Report and Order*),¹ released June 16, 2020, and *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN Docket No. 16-142, Third Report and Order and Further Notice of Proposed Rulemaking (*Next Gen TV Third Report and Order*), released June 23, 2023.²

The “Next Generation” broadcast television (Next Gen TV) proceeding seeks to promote innovation in the television broadcast industry by creating rules that allow digital television (DTV) broadcasters to provide Next Gen TV service, also called “ATSC 3.0” or “3.0,” on a voluntary, market-driven basis. Full power and Class A DTV broadcasters that choose to deploy ATSC 3.0 service must also continue to deliver current-generation DTV service, also called “ATSC 1.0” or “1.0,” to their viewers. The requirement to continue to provide ATSC 1.0 service is called “local simulcasting.”

ATSC 3.0 is the new television transmission standard developed by Advanced Television Systems Committee as the world’s first Internet Protocol (IP)-based broadcast transmission platform. It combines the capabilities of over-the-air (OTA) broadcasting with the broadband viewing and information delivery methods of the Internet, using the same 6 MHz channels presently allocated for DTV service.

ATSC 3.0 technology gives Next Gen TV broadcasters the potential to provide consumers with more vivid pictures and sound – including Ultra High Definition (UHD) television, superior reception, mobile viewing capabilities, enhanced public safety capabilities, enhanced accessibility features, localized and/or personalized content, and interactive educational children’s content.

The *Next Gen TV Second Report and Order* provided guidance on how Commission staff will evaluate petitions for waiver of the local simulcasting rules and declined to permit broadcasters to use vacant in-band channels for purposes of voluntary ATSC 3.0 deployment. It also adopted the Commission’s tentative conclusion that the “significantly viewed” status of a Next Gen TV station will not change if it moves its ATSC 1.0 simulcast channel to a host facility.

The *Next Gen TV Third Report and Order* allows a Next Gen TV station to seek modification of its license to include certain of its non-primary video programming streams (multicast streams) that are aired on “host” stations during a transitional period. A host station is one whose facilities are being used to transmit programming originated by another station (i.e., “guest”) as part of a local simulcasting arrangement. The *Next Gen TV Third Report and Order* also extends the sunsets of the substantially similar rule for simulcast streams and the requirement to comply with the ATSC A/322 standard on primary 3.0 streams until at least July 17, 2027.³

¹ *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN Docket No. 16-142, Second Report and Order and Order on Reconsideration, 35 FCC Rcd 6793 (2020) (*Next Gen TV Second Report and Order*). The Next Gen TV First Report and Order was released November 20, 2017. *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 9930 (2017). The Guide for that order was released in April 2018. *Next Generation Broadcast Television Standard*, GN Docket No. 16-142, Small Entity Compliance Guide, 33 FCC Rcd 3765 (2018).

² *Authorizing Permissive Use of the “Next Generation” Broadcast Television Standard*, GN Docket No. 16-142, Third Report and Order, 38 FCC Rcd 6409 (2023) (*Next Gen TV Third Report and Order*).

³ The Commission will initiate a review approximately one year before these rules are set to expire to seek comment on whether they should be extended based on marketplace conditions at that time. *Next Gen TV Third Report and Order*, 38 FCC Rcd at 3439-40, para. 45. The *Order on Reconsideration* codified the sunset dates of July 17, 2023,

II. COMPLIANCE REQUIREMENTS

The *Next Gen TV First Report and Order* allowed DTV broadcasters to voluntarily deploy Next Gen TV/ATSC 3.0 transmission standard. The compliance requirements discussed below reflect the rule changes made by the *Next Gen TV Second Report and Order* and the *Next Gen TV Third Report and Order*.

A. Next Gen TV Broadcast Television Transmission Standard (47 CFR §§ 73.682(f)(2) and 73.8000)

DTV broadcasters may broadcast their signal in the new ATSC 3.0 format, provided they comply with the local simulcasting requirement in 47 CFR §§ 73.3801, 73.6029 or 74.782 (described below), or they may continue to broadcast their signal only in their current ATSC 1.0 format. Next Gen TV broadcasters must comply with the following ATSC 3.0 standards:

- ATSC A/321:2016, “System Discovery and Signaling” (March 23, 2016); and
- ATSC A/322:2017 “Physical Layer Protocol” (June 6, 2017), but only with respect to the transmission of at least one free over the air primary video programming stream. The requirement to comply with ATSC A/322 expires on July 17, 2027, absent Commission action to extend it.

B. Next Gen TV Station Interference Protection (47 CFR § 73.616(g))

The rules maintain the interference protection that applied to DTV station operations as of March 2018. The DTV relevant methodology and planning factors are used to calculate how ATSC 3.0 signals will interfere with ATSC 1.0 signals.⁴ The same DTV methodology and planning factors are used to define the service area of an ATSC 3.0 signal and to define the ATSC 3.0 interference criteria for co- and adjacent channel interfering signals at the same levels as specified in OET Bulletin No. 69 for DTV signals.⁵

Next Gen TV stations must offer at least one free ATSC 3.0 video programming stream comparable to a DTV signal and must provide a signal with a chosen modulation/coding scheme that requires a signal-to-noise-ratio/SNR threshold of no more than would be required of a DTV signal. This requirement preserves service to existing OTA viewers, all else being equal (*i.e.*, an ATSC 3.0 transmission from the same antenna, location, and power level, received by equipment with the same performance as a DTV transmission will cover the same area as a comparable DTV signal).

The methodology and planning factors defined in OET Bulletin No. 69 are used to define an ATSC 3.0 “DTV-equivalent” service area in which the ATSC 3.0 signal is protected from interference. ATSC 3.0 signals are protected from co-channel and adjacent channel interference as defined in OET Bulletin No. 69.

for the local simulcasting “substantially similar” requirement and corrected the sunset date to March 6, 2023 for the requirement to comply with the ATSC A/322 standard. *Next Gen TV Second Report and Order*, 35 FCC Red at 6812-13, 6814 paras. 39, 44.

⁴ See 47 CFR §§ 73.622, 73.624, and 74.703 (Digital Television Table of Allotments, Television Broadcast Stations, and Interference, respectively).

⁵ The FCC’s OET Bulletin No. 69 provides guidance on the implementation and use of Longley-Rice methodology for evaluating TV service coverage and interference in accordance with Sections 73.622, 73.623 and 74.704 of the FCC rules. See OET Bulletin No. 69 (Feb. 6, 2004) <https://www.fcc.gov/general/oet-bulletins-line#69>.

C. Mandatory Cable and Satellite Carriage of Next Gen TV Signals (47 CFR §§ 76.56(h) and 76.66(o))

A Next Gen TV broadcaster may assert cable or satellite mandatory carriage rights only with respect to its ATSC 1.0 signal, but may not assert those rights with respect to its ATSC 3.0 signal. If a Next Gen TV station moves its 1.0 simulcast signal to a host station's (*i.e.*, a station whose facilities are being used to transmit programming originated by another station) facilities, the station may assert mandatory carriage rights only if it (1) qualified for, and has been exercising, mandatory carriage rights at its original location, and (2) continues to qualify for mandatory carriage at the host station's facilities, including (but not limited to) delivering a good quality 1.0 signal to the cable system principal headend or the satellite carrier local receive facility, or agreeing to be responsible for the costs of delivering such 1.0 signal to the cable system or to the satellite carrier.

D. Local Simulcasting (47 CFR §§ 73.3801, 73.6029, and 74.782)

1. Entities Subject to Local Simulcasting Rules

Full-power commercial and noncommercial educational (NCE) stations and Class A stations that choose to deploy Next Gen TV service must simulcast in ATSC 1.0 format (in accordance with the local simulcasting requirements). Low-power and TV translator Next Gen TV stations are not required to simulcast in ATSC 1.0 format, but if they choose to do so, then they must comply with the local simulcasting requirements.

2. Simulcasting Arrangements

All television station classes may participate together in simulcast arrangements.⁶ A full power station may partner with one or more other full power stations or with one or more Class A, LPTV, or TV translator stations. In addition, NCE stations may partner with commercial stations.

- A Next Gen TV broadcaster that airs its ATSC 1.0 or ATSC 3.0 “guest” signal on a partner “host” station must operate that signal using the technical facilities of the host, but is responsible for the broadcast of such signal.
 - A Class A, LPTV, or TV translator station airing a 1.0 or 3.0 signal on a full power host station must operate its 1.0 or 3.0 “guest” signal using the technical facilities of the full power station, including the higher power limit specified in Part 73 of the rules.
 - A full power station airing a 1.0 or 3.0 signal on a Class A, LPTV, or TV translator station must operate that signal at the Class A, LPTV, or TV translator's lower Part 74 power level.
 - Next Gen TV stations airing a 1.0 or 3.0 guest signal on a partner host station will be licensed for such use under its own license (as opposed to the host) and will continue to be obligated to comply with the programming and other operational obligations of the station originating the guest signal (rather than those of the partner host station).
- In simulcasting arrangements the following definitions apply:
 - A “host” station is the station whose facilities are being used to transmit programming originated by another station.

A “guest” station is the station that is licensed to use another station's facilities to transmit its programming.

For example, in a reciprocal simulcasting arrangement between Station A and Station B in which Station A will convert to, and operate in, ATSC 3.0 format and Station B will continue to operate in ATSC 1.0

⁶ Such arrangements are needed because a TV station cannot, as a technical matter, simultaneously broadcast in both 1.0 and 3.0 format from the same facility on the same physical channel.

format, Station A will be the 3.0 host for Station B's guest 3.0 signal and Station B will be the 1.0 host for Station A's guest 1.0 simulcast signal.

3. Simulcasting Requirements

Stations that simulcast must comply with the below requirements:

- A full power or Class A TV station that chooses to air an ATSC 3.0 signal must simulcast the primary video programming stream of that signal in an ATSC 1.0 format.
- A LPTV or TV translator station that chooses voluntarily to simulcast must simulcast the primary video programming stream of their ATSC 3.0 signal in an ATSC 1.0 format.
- The simulcast requirement does not apply to any multicast streams aired on the ATSC 3.0 channel.

4. “Substantially Similar” Requirement

The programming aired on the ATSC 1.0 simulcast signal must be “substantially similar” to that aired on the ATSC 3.0 primary video programming stream. In this context, “substantially similar” means that the programming must be the same except for advertisements, promotions for upcoming programs, and programming features that are based on the enhanced capabilities of ATSC 3.0. These enhanced capabilities include:

- Hyper-localized content (*e.g.*, geo-targeted weather, targeted emergency alerts, and hyper-local news);
- Programming features or improvements created for the ATSC 3.0 service (*e.g.*, emergency alert “wake up” ability and interactive program features);
- Enhanced formats made possible by ATSC 3.0 technology (*e.g.*, 4K or HDR); and
- personalization of programming performed by the viewer and at the viewer's discretion.

This requirement expires on July 17, 2027, absent Commission action to extend it.⁷

Programming that airs at a different time on the ATSC 1.0 simulcast signal than on the primary video programming stream of the ATSC 3.0 signal is not considered “substantially similar.”

5. Coverage Requirements

Coverage Requirements for the ATSC 1.0 Simulcast Signal. Next Gen TV stations that convert their existing facilities to ATSC 3.0 format and move their ATSC 1.0 simulcast signal to a partner host station must select a host station that will allow it to satisfy the following coverage requirements to minimize 1.0 service loss to existing viewers:

- All 1.0 guest stations must select a host station that is assigned to the same Designated Market Area (DMA).
- Full power TV 1.0 guest stations must retain and continue to provide 1.0 service to its existing community of license and comply with the Commission's community of license signal requirement (47 CFR § 73.625).
- Class A TV, LPTV and TV translator 1.0 guest stations must maintain overlap between the protected contour (47 CFR § 73.6010(c)) of its existing signal and its ATSC 1.0 simulcast signal and may not move its ATSC 1.0 simulcast signal more than 30 miles from the reference coordinates of its original antenna location.

⁷ *Next Gen TV Third Report and Order*, 38 FCC Rcd at 6434-35, para. 39.

In evaluating license applications, the Commission will consider any loss in signal coverage resulting from the simulcast arrangement in determining whether to grant the application and will favor simulcast arrangements with a service loss of no more than five percent of the population served.

Waiver Standard. Next Gen TV stations may be eligible for a waiver of the obligation to provide ATSC 1.0 simulcast service if the station can demonstrate both that: (1) it has “no viable local simulcasting partner” in its market; and (2) it will make reasonable efforts to preserve 1.0 service to existing viewers in its community of license and/or otherwise minimize the impact on such viewers (for example, by providing free or low cost ATSC 3.0 converters to viewers).

- Under the first prong of the waiver standard a Next Gen TV station must not have a viable local simulcasting partner in its market.
 - A full power Next Gen TV station may be presumed to have “no viable local simulcasting partner” if it has fewer than three (*i.e.*, zero to two) potential full power simulcasting partners in the same DMA that can cover its entire community of license.
 - A Class A TV station may be presumed to have “no viable local simulcasting partner” if it has fewer than three potential Class A TV simulcasting partners in the same DMA that: (1) can provide overlap to its protected contour (47 CFR § 73.6010(c)); and (2) are not more than 30 miles from the reference coordinates of the transitioning station’s existing antenna location.
- Under the second prong of the waiver standard a Next Gen TV station must make “reasonable efforts” to preserve 1.0 service and minimize impact on viewers.
 - Waiver applicants are expected to explain in detail their plans for providing converter devices to eligible viewers, including: (1) what types of devices they intend to provide; (2) the cost, if any, that eligible viewers will be required to pay in order to receive the device; (3) how the applicant intends to inform viewers of the need for, and availability of, devices; and (4) how viewers will be able to request and obtain the device.
 - To provide greater predictability to applicants that chose to voluntarily provide ATSC 3.0 converters, the Media Bureau will look favorably on a plan in which the waiver applicant would provide affected over-the-air households located within its community of license which will no longer receive the station’s ATSC 1.0 signal, upon request, with one ATSC 3.0 converter at no cost. To the extent waiver applicants choose to charge a low cost to consumers for devices, the particular circumstances surrounding this charge will be considered, as well as the amount of the charge, on a case-by-case basis.
 - A waiver applicant choosing to provide ATSC 3.0 converter devices is expected to agree to provide an ATSC 3.0 converter upon request to each affected over-the-air household for as long as it operates pursuant to the waiver and would also be expected to inform viewers how they can obtain an ATSC 3.0 converter from the station.

Coverage Requirements for ATSC 3.0 Signals. Next Gen TV stations that choose to continue broadcasting in ATSC 1.0 on its existing facilities and transmit an ATSC 3.0 signal as a guest on the facilities of a host station must select a host station that is assigned to the same DMA.

Licensing of Next Gen TV Stations. Next Gen TV stations must obtain Commission approval to modify its license for authority to convert its existing facility to ATSC 3.0 operations, operate a guest 1.0 simulcast channel on a host station, or to operate a guest 3.0 channel on a host station.

- Each station participating in a simulcasting arrangement will continue to be licensed and operated separately, have its own call sign, and be separately subject to all applicable Commission obligations, rules, and policies.

- ATSC 1.0 and ATSC 3.0 signals aired on the facilities of a host station will be licensed as temporary second channels of the originating station. Each licensee remains responsible for its own signal. The host will be licensed for its signal(s) aired on its channel and the guest will be licensed for its signal(s) aired using the host's channel.
- The Commission will include a note on the originating station's license identifying any ATSC 1.0 or ATSC 3.0 signal being aired on the facilities of a host station.
- The Commission will also include a note on a host station's license identifying any ATSC 1.0 or ATSC 3.0 guest signal(s) being aired on the facilities of the host station.
- For more information on licensing requirements, see section III below.

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The *First Next Gen TV Report and Order* created new reporting and recordkeeping requirements. The *Third Report and Order* created new and modified reporting requirements. The requirements for those rules are set forth below.

A. License Application to FCC Required / FCC Form 2100 (47 CFR §§ 73.3801(f), 73.6029(f), and 74.782(g))

A broadcaster must file an application (FCC Form 2100 and the relevant schedules⁸) and receive Commission approval, before taking the following actions:

- Moving its ATSC 1.0 signal to the facilities of a host station, moving that signal from the facilities of an existing host station to the facilities of a different host station, or discontinuing an ATSC 1.0 guest signal;
- Commencing the airing of an ATSC 3.0 signal on the facilities of a host station (that has already converted to ATSC 3.0 operation), moving its ATSC 3.0 signal to the facilities of a different host station, or discontinuing an ATSC 3.0 guest signal; or
- Converting its existing station to transmit an ATSC 3.0 signal or converting the station from ATSC 3.0 back to ATSC 1.0 transmissions.

Streamlined & Expedited Processing. A broadcaster may file only an application for modification of license, provided no other changes are being requested in such application that would require the filing of an application for a construction permit as otherwise required by the rules. An application filed in accordance with the streamlined process will receive expedited processing provided, for stations requesting to air a primary ATSC 1.0 signal on the facilities of a host station, the station will provide ATSC 1.0 service to at least 95 percent of the predicted population within the noise limited service contour of its original ATSC 1.0 facility.

Required Application Information. An application must include the following information:

- Station or stations serving as the host or hosts, identified by call sign and facility identification number, if applicable,
- Technical facilities of the host station, if applicable,
- DMA of the originating broadcaster's facility and the DMA of the host station, if applicable,
- Web link to the exhibit described section II(B) of this Guide, if applicable; and
- Any other information deemed necessary by the Commission to process the application.
- If an application includes a request to air an ATSC 1.0 signal on the facilities of a host station or

⁸ Schedule B – Full Power License to cover application; Schedule D – LPTV/Translator License to cover application; and Schedule F – Class A License to cover application.

stations, the broadcaster must also indicate on the application (in addition to other required information):

- The predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal,
- The predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting/hosting arrangement or arrangements, including identifying areas of service loss by providing a contour overlap map, and
- Whether the ATSC 1.0 simulcast signal aired on the host station will serve at least 95 percent of the population.
- If an application includes a request to air an ATSC 1.0 signal on the facilities of a host station and does not meet the 95 percent standard for expedited processing, the application must contain the following information (in addition to other required information):
 - Whether there is another possible host station(s) in the market that would result in less service loss to existing viewers and, if so, why the Next Gen TV broadcaster chose to partner with a host station creating a larger service loss;
 - What steps, if any, the station plans to take to minimize the impact of the service loss (*e.g.*, providing ATSC 3.0 dongles, set-top boxes, or gateway devices to viewers in the loss area); and
 - Public interest benefits of the simulcasting arrangement and a showing of why the benefit(s) of granting the application would outweigh the harm(s). These applications will be considered on a case-by-case basis.

B. Multicast Streams: (47 CFR §§ 73.3801(i), 73.6029(i), and 74.782(j))

A Next Gen TV station is not required to license, under the simulcast rules for stations converting to ATSC 3.0, a “guest” multicast programming stream that it originates and which is aired on a host station. If it chooses to do so, it and each of its licensed guest multicast streams must comply with the requirements of this section (including those otherwise applicable only to primary streams), except for requirements to provide ATSC 1.0 service to at least 95 percent of the predicted population within the noise limited service contour of its original ATSC 1.0 facility, and as otherwise provided in this paragraph. For purposes of this section, a “multicast” stream refers to a video programming stream other than the primary video programming stream.

ATSC 1.0 Multicast Streams. A Next Gen TV station may license its guest ATSC 1.0 multicast stream(s) aired on one or more ATSC 1.0 hosts. Non-simulcast streams are not required to comply with the simulcast requirements.

- *Host Capacity Limit.* A Next Gen TV station that has converted its own facility to 3.0 must not license more capacity on one or more partner host stations, in the aggregate, than the station could use if it were still operating on its own facility in 1.0. It must demonstrate compliance with this limit in its license application exhibit.

ATSC 3.0 Multicast Streams. A Next Gen TV station may license its guest ATSC 3.0 multicast stream(s) aired on one or more ATSC 3.0 hosts.

Children's Television. A Next Gen TV station may rely on a multicast stream it is airing via a host partner to comply with the Commission's children's television programming requirement in Section 73.671 of the Commission's rules. This stream must either be carried on the same host as the Next Gen TV station's primary stream, or on a host that serves at least 95 percent of the predicted population served by the Next Gen TV station's pre-transition 1.0 signal.

Application Exhibit Required. A Next Gen TV station seeking to license hosted multicast streams must prepare and host on its public website (or its Online Public Inspection File if the station does not have a dedicated website) an exhibit that contains the following information:

- For each hosted stream: channel number (RF and virtual); network affiliation (or type of programming if unaffiliated); resolution (e.g., 1080i, 720p, 480p, or 480i); whether the stream will be simulcast; and if so, the identity of the paired stream in the other service; and
- For a station that has converted its own facility to 3.0, the exhibit must also demonstrate:
 - Compliance with the host capacity limit by either 1) showing that it is seeking hosting only for streams it was broadcasting on its own 1.0 facility prior to its transition to 3.0, or 2) identifying another 1.0 station that is carrying or has carried the same or a similar programming lineup at the same resolutions on the same type of facility (individual or shared); and
 - Compliance with the coverage requirement for guest multicast streams, including by providing a contour map showing the guest multicast stream will continue to serve the station's community of license.

Changes to the Exhibit. Changes to the affiliation or content of a stream that would not result in the use of additional capacity, the elimination of a stream, or non-substantive corrections may be made at the discretion of the applicant but must be reflected in a timely update to the existing public exhibit and an emailed notice to the Chief of the Media Bureau's Video Division or their designee. No other changes, including to the location of the exhibit itself, may be made without the filing and approval of a new application.

C. Next Gen TV Station On-Air Notices to Consumers -Third-Party Disclosure Requirements (47 CFR §§ 73.3801(g), 73.6029(g), and 74.782(h))

Commercial and noncommercial educational (NCE) broadcast TV stations that relocate their ATSC 1.0 signals (e.g., moving to a host station's facility, subsequently moving to a different host, or returning to its original facility) are required to air daily Public Service Announcements (PSAs) or crawls⁹ every day for 30 days prior to the date that the stations will relocate/terminate ATSC 1.0 operations on their existing facilities.

- Stations that transition directly to ATSC 3.0 will be required to air daily PSAs or crawls every day for 30 days prior to the date that the stations will terminate ATSC 1.0 operations.
- Broadcaster on-air notices to consumers will be used to inform consumers if stations they watch will be changing channels and encouraged to rescan their receivers for new channel assignments.

D. Next Gen TV Broadcaster Written Notices to Multichannel Video Programming Distributors - Third-Party Disclosure Requirements (47 CFR §§ 73.3801(h), 73.6029(h), and 74.782(i))

Next Gen TV stations relocating their ATSC 1.0 signals (e.g., moving to a temporary host station's facility, subsequently moving to a different host, or returning to its original facility) must provide notice to Multichannel Video Programming Distributors (MVPDs) that will: (1) no longer be required to carry the station's ATSC 1.0 signal due to the relocation; or (2) carry and continue to be obligated to carry the station's ATSC 1.0 signal from the new location. The applicable requirements for the notice are detailed below.

Content. The notice must contain the following information:

- Date and time of any ATSC 1.0 channel changes;
- The ATSC 1.0 channel occupied by the station before and after commencement of local simulcasting;

⁹ Crawls are text that advance very slowly across the bottom of the screen during a TV program.

- Modification, if any, to antenna position, location, or power levels;
- Stream identification information; and
- Engineering staff contact information.

Amended Notice. If any of the information provided in the Required Notice changes, then an amended notification must be sent.

Timing. Next Gen TV stations must provide notice at least 90 days in advance of relocating their ATSC 1.0 signals. If the anticipated date of the ATSC 1.0 signal relocation changes, the station must send a further notice to affected MVPDs informing them of the new anticipated date.

Method. Next Gen TV stations may choose whether to provide notice as required by this section either by a letter notification or electronically via email if the relevant MVPD agrees to receive such notices by email.

- Letter notifications to MVPDs must be sent by certified mail, return receipt requested to the MVPD's address in the FCC's Online Public Inspection File (OPIF), if the MVPD has an online file.
- For cable systems that do not have an online file, notices must be sent to the cable system's official address of record provided in the system's most recent filing in the FCC's Cable Operations and Licensing System (COALS).
- For MVPDs with no official address in OPIF or COALS, the letter must be sent to the MVPD's official corporate address registered with their State of incorporation.

E. Local Simulcasting Agreements (47 CFR §§ 73.3801(e), 73.6029(e), and 74.782(f))

Broadcasters must maintain a written copy of any local simulcasting agreement and provide it to the Commission upon request. The agreement must comply the requirements below.

Agreement Content. Local simulcasting agreements must contain provisions outlining each licensee's rights and responsibilities regarding:

- Access to facilities, including whether each licensee will have unrestrained access to the host station's transmission facilities;
- Allocation of bandwidth within the host station's channel;
- Operation, maintenance, repair, and modification of facilities, including a list of all relevant equipment, a description of each party's financial obligations, and any relevant notice provisions;
- Conditions under which the simulcast agreement may be terminated, assigned or transferred; and
- How a guest station's (i.e., a station originating programming that is being transmitted using the facilities of another station) signal may be transitioned off the host station.

IV. IMPLEMENTATION DATE

The rules in the *First Report and Order* took effect on March 5, 2018, except for 47 CFR §§ 73.3801, 73.6029, and 74.782, which took effect on July 17, 2018. The rules in the *Second Report and Order and Order on Reconsideration* took effect on August 17, 2020. The rules in the *Third Report and Order* took effect on August 16, 2023, except for the revisions to 47 CFR §§ 73.3801, 73.6029, and 74.782, which required approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act, and became effective November 16, 2023.

V. INTERNET LINKS

A copy of the FCC Orders are available at:

- *First Next Gen TV Report and Order* (FCC 17-158): <https://docs.fcc.gov/public/attachments/FCC-17-158A1.pdf>
- *Second Report and Order and Order on Reconsideration* (FCC 20-72): <https://docs.fcc.gov/public/attachments/FCC-20-72A1.pdf>
- *Third Report and Order* (FCC 23-53): <https://docs.fcc.gov/public/attachments/FCC-23-53A1.pdf>

A copy of the Federal Register document summaries are available at:

- *First Next Gen TV Report and Order*: <https://www.gpo.gov/fdsys/pkg/FR-2018-02-02/pdf/2018-01473.pdf>
- *Second Report and Order and Order on Reconsideration*: <https://www.govinfo.gov/content/pkg/FR-2020-07-17/pdf/2020-13837.pdf>
- *Third Report and Order*: <https://www.govinfo.gov/content/pkg/FR-2023-07-17/pdf/2023-14408.pdf>

A copy of the two ATSC 3.0 standards of the Advanced Television Systems Committee (ATSC) incorporated by reference into the FCC's rules are available as follows:

- ATSC A/321:2016 “System Discovery & Signaling” (A/321) is available at <https://www.atsc.org/wp-content/uploads/2016/03/A321-2016-System-Discovery-and-Signaling-3.pdf>; and
- A/322:2017 “Physical Layer Protocol” (A/322) is available at <https://www.atsc.org/wp-content/uploads/2016/10/A322-2017a-Physical-Layer-Protocol-1.pdf>



**Federal Communications Commission
Washington, DC 20554**

November 26, 2024

DA-1187

SMALL ENTITY COMPLIANCE GUIDE

**Modernizing and Expanding Access to the 70/80/90 GHz Bands
Report and Order**

**FCC 24-16
WT Docket No. 20-16
Released January 26, 2024**

In accordance with Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, this Small Entity Compliance Guide (Guide) is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the rules adopted in the above-referenced Federal Communications Commission (FCC or Commission) rulemaking dockets. This Guide is not intended to replace or supersede these rules, but to facilitate compliance with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide cannot anticipate all situations in which the rules apply. Furthermore, the Commission retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from this Guide. Any decision regarding a particular small entity will be based on the statute and any relevant rules.

In any civil or administrative action against a small entity for a violation of rules, the content of the Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide in the above referenced docket and the appropriateness of its application to a particular situation. The Commission will then consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The Commission may decide to revise this Guide without public notice to reflect changes in its approach to implementing a rule, or it may clarify or update the text of the Guide. Please direct comments and recommendations, or requests for further assistance, to the FCC's Consumer Center:

1-888-CALL-FCC (1-888-225-5322)

Videophone: 1-844-4-FCC-ASL (1-844-432-2275)

Fax: 1-866-418-0232

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I. OBJECTIVES OF THE PROCEEDING

In the *Modernizing and Expanding Access to the 70/80/90 GHz Bands, Report and Order (Report and Order)* adopted January 24, 2024,¹ the Commission updated and added to its rules for the 71–76 GHz, 81–86 GHz, 92–94 GHz, and 94.1–95 GHz bands (collectively, the 70/80/90 GHz bands), thereby furthering its long-standing goals of fostering innovation in provisioning broadband services and meeting the nation’s rapidly increasing demand for broadband services. Consistent with proposals set forth in a *Notice of Proposed Rulemaking* adopted in 2020,² and in two subsequent Public Notices that supplemented the Commission’s record,³ the *Report and Order* enabled both improved use of the 70/80/90 GHz bands by extant services, and novel use cases not previously authorized. These bands were first opened for non-federal use in 2003 under a two-step, non-exclusive licensing regime. Under that regime, users first obtained a nationwide blanket license before registering individual links with one of two active third-party database managers. The date and time of registration governed which link(s) received first-in-time protections.

Specifically, the rules adopted in the *Report and Order*:

- **Enable New Aeronautical and Maritime Services in Specific Bands.** The *Report and Order* adopted rule changes to authorize new point-to-point links to endpoints in motion in the 71–76 GHz (70 GHz) and 81–86 GHz (80 GHz) bands under the Commission’s preexisting part 101 rules. It does so to meet the Commission’s objective of enabling improved access to broadband on both airplanes and ships.
- **Facilitate Backhaul.** The *Report and Order* also authorized the use of smaller, lower-cost antennas in the 70 GHz and 80 GHz bands, while mandating a channelization plan in those bands. These changes should promote more intensive use of spectrum in the bands in question—including usage of the bands to provide backhaul service for high-capacity 5G service.
- **Update the Link Registration Process, Including Construction Certifications and De Minimis Modifications.** Finally, the *Report and Order* modernized the link registration process for the 70/80/90 GHz bands by establishing a construction certification requirement (tied to preexisting construction obligations). The certification requirement should help ensure that spectrum is actually being put to use and that the relevant databases’ data integrity is maintained. The Commission also newly permitted specific de minimis modifications to already-registered links without affecting a registrant’s first-in-time rights. Such de minimis modifications—which are narrowly defined—should help licensees maintain the existing operation of their links without sacrificing either the accuracy of the database or first-in-time interference protections.

¹ *Modernizing and Expanding Access to the 70/80/90 GHz Bands*, WT Docket No. 20-133, Report and Order and Further Notice of Proposed Rulemaking, FCC 24-16 (Jan. 26, 2024) (*Report and Order*).

² *Modernizing and Expanding Access to the 70/80/90 GHz Bands*, WT Docket No. 20-133, Notice of Proposed Rulemaking, 35 FCC Rcd 6039 (2020) (*Notice of Proposed Rulemaking*).

³ See generally *Wireless Telecommunications Bureau Seeks to Supplement the Record on 70/80/90 GHz Notice of Proposed Rulemaking*, WT Docket No. 20-133, Public Notice, 36 FCC Rcd 14375 (WTB 2021) (*HAPS Public Notice*); *Wireless Telecommunications Bureau Seeks to Refresh the Record in 70/80/90 GHz Bands Proceeding*, WT Docket No. 20-133, Public Notice, DA 23-988 (WTB 2023) (*Refresh Public Notice*).

II. COMPLIANCE REQUIREMENTS

A. Rules Relating to Newly Authorized Aeronautical and Maritime Operations

As noted above, the *Report and Order* adopted rules to authorize—for the first time—two new sets of operations in the 70 GHz and 80 GHz bands: point-to-point links to endpoints in motion on aircraft and on ships. An overview of the new rules relating to these new link types can be found immediately below; interested parties should consult the *Report and Order* in detail, given the highly technical nature of would-be providers' obligations.

1. Aeronautical Operations, 47 CFR §§ 101.111(a)(2)(vi), 101.113(a), 101.1501, 101.1507, 101.1523(a), 101.1528(a), 101.1528(c), and 101.1528(d)

The *Report and Order* authorized air-to-ground transmissions in the 71–76 GHz band; ground-to-air transmissions in the 81–86 GHz band; and air-to-air transmissions in both the 71–76 GHz and the 81–86 GHz bands. It also enumerated a range of technical and operational rules and restrictions on aeronautical operations in the bands, including:

- Emission limits for both ground-to-air and air-to-air transmissions in the 86–92 GHz passive band (-38.5 dBW per 100 MHz and -29.7 dBW per 100 MHz, respectively) (47 CFR § 101.111(a)(2)(vi));
- An Effective Isotropic Radiated Power (EIRP) limit for fixed and mobile stations used for aeronautical endpoints in motion of 57 dBW (47 CFR § 101.113(a)(14));
- Inclusion of ground-to-air stations—and associated ground-to-air and air-to-ground transmissions—in the preexisting non-exclusive nationwide license framework, and in the third-party database ecosystem (47 CFR §§ 101.1501, 101.1523(a));
- A minimum slant path distance of 50 kilometers between aircraft involved in air-to-air transmissions (47 CFR § 101.1528(a)(3));
- A minimum altitude of 10,000 feet for all air-to-air transmissions, and a maximum altitude of 50,000 feet (47 CFR § 101.1528(a)(4));
- A minimum elevation angle of five degrees for aeronautical ground stations (47 CFR § 101.1528(a)(5)); and
- A maximum elevation angle of forty-five degrees for aeronautical ground stations (47 CFR § 101.1528(a)(5)).

The *Report and Order* also detailed maximum allowable EIRP levels radiated along a line between airborne transmitters and certain federally operated radioastronomy (RAS) observatories (47 CFR § 101.1528(a)(9)(i), (c)(1)), and similar limits and obligations relating to enumerated military installations (47 CFR § 101.1528(a)(10), (c)(2)). Finally, the *Report and Order* established that would-be aeronautical operators must coordinate with federal operators and register their ground-to-air stations before commencing operations (47 CFR § 101.1528(a)(11)). Prior to operation of any aeronautical links, each licensee must demonstrate that its technologies are capable of meeting specific technical and operating requirements (47 CFR § 101.1528(d)). The details on certain coordination and registration obligations, and on the aforementioned demonstration process, will be set forth in future Bureau-level items.

2. Maritime Operations, 47 CFR §§ 101.111(a)(2)(vi), 101.113(a), 101.1501, 101.1507, 101.1523(a), 101.1528(b), 101.1528(c), and 101.1528(d)

The *Report and Order* also authorized ship-to-shore transmissions in the 81–86 GHz band; shore-to-ship transmissions in the 71–76 GHz band; shore-to-aerostat⁴ transmissions in the 71–76 GHz band; aerostat-to-ship transmissions in the 71–76 GHz band; and aerostat-to-shore transmissions in the 81–86 GHz band. Technical and operational rules and restrictions on maritime operations in the bands included:

- An emission limit for ship-to-shore and aerostat-to-shore transmissions in the 86–92 GHz passive band (-29.7 dBW per 100 MHz) (47 CFR § 101.111(a)(2)(vi));
- An EIRP limit for fixed and mobile stations used for maritime endpoints in motion of 57 dBW (47 CFR § 101.113(a) n.14);
- Inclusion of shore stations and aerostat relay stations in the preexisting non-exclusive nationwide license framework, and in the third-party database ecosystem (47 CFR §§ 101.1501, 101.1523(a));
- A maximum aerostat altitude limit of 1,000 feet (47 CFR § 101.1528(b)(6)); and
- A limit on ship-to-ship communications, which may only occur if the ships are located more than 30 km offshore (or closer only when the main beam of the transmit antenna is oriented at least 15 degrees away from any point on the shore) (47 CFR § 101.1528(b)(7)).

As with the *Report and Order*'s aeronautical rules, the Commission also adopted geographic limits on maritime operations to protect RAS and military installations. Ship stations and aerostat stations must only operate when there is a minimum separation of 150 km to a list of enumerated federal RAS facilities (47 CFR § 101.1528(b)(8), (c)(1)), and shore-to-ship and ship-to-shore transmission must only occur between stations that are at least 10 km from a list of enumerated federal military installations (47 CFR § 101.1528(b)(9), (c)(2)). Providers are allowed to enter into coordination agreements with the relevant federal operator(s) to change these obligations. Would-be maritime operators must coordinate with federal operators and register shore and aerostat transmitters before commencing operations. (47 CFR § 101.1528(b)(10)). Prior to the operation of any maritime links, each licensee must demonstrate that its technologies are capable of meeting specific technical and operating requirements (47 CFR § 101.1528(d)). The details on certain coordination and registration obligations, and on the aforementioned demonstration process, will be set forth in future Bureau-level items.

B. Rules Relating to Facilitating the Use of the Bands for Backhaul

1. Antenna Standards, 47 CFR § 101.115(b)(2) & Footnote 14

The *Report and Order* revised section 101.115(b)(2), and accompanying footnote 14, to update the Commission's standards for antennas in the 70 GHz and 80 GHz bands. Specifically, the update:

- Raised the maximum beamwidth to 2.2 degrees (up from 1.2 degrees);
- Reduced the minimum antenna gain to 38 dBi (from 43 dBi);
- Retained the proportional EIRP reduction requirement;

⁴ The Commission defines an "aerostat"—for purposes of the *Report and Order*—as an airborne transmitter operating within a small specified area, below 1,000 feet of elevation, regardless of method of propulsion.

- Eliminated the co-polar, and relaxed the cross-polar, discrimination requirements at angles less than 5 degrees; and
- Revised the co-polar and cross-polar discrimination requirements at angles between 5 degrees and 180 degrees.

These changes, taken together, relaxed the preexisting antenna standards for the 70 GHz and 80 GHz bands, bringing them closer in alignment to requirements for other point-to-point operations authorized by the Commission's part 101 rules.

2. Channelization Plan, 47 CFR § 101.147(z)(3)

Revised section 101.147(z)(3) articulated a new channelization plan for the 71,000–76,000 MHz and 81,000–86,000 MHz bands, aligning the Commission's rules with International Telecommunications Union (ITU) Recommendation F.2006.⁵ Specific frequency assignments for transmission and reception are articulated in subparts (z)(3)(i) through (z)(3)(xviii).

C. Rules Relating to the Updated Link Registration System

1. Construction and Operational Status, 47 CFR §101.63(b)

The *Report and Order* adopted a requirement that licensees certify that each link is constructed and operating within 12 months of successful registration in the link registration system administered by third-party database managers. Rules in place since 2003 already require licensees to construct their links within 12 months.⁶ The 12-month construction period commences on the date of registration of each individual link. Adding links does not change the overall renewal period of the license.

For each individual link, a licensee must certify in the third-party link registration database that the link is constructed and operational. The certification must be filed within 15 days of the expiration of the applicable construction period for each individual link. If operations have begun using some but not all of the authorized transmitters, the certification must specify the transmitters to which it applies. After the 15-day period ends, if the licensee has not met its certification obligation, the third-party database managers will delete the registration from the database.

2. De Minimis Modifications to Registrations, 47 CFR § 101.1523(e)

Finally, the *Report and Order* adopted a rule allowing licensees to make de minimis modifications to their registered link without losing first-in-time status. Except for de minimis modifications, any change to the technical data on a link registration will result in a new interference protection date.

A modification to a link registration in the 71–76 GHz and 81–86 GHz bands is considered de minimis—and the registration therefore retains its existing interference protection date—if the licensee certifies that the modification is necessary to repair or replace equipment specified in the registration that was constructed and operating under the registration.

To be considered de minimis, the modification also may not do any of the following:

- Increase the EIRP of a digital system or change the EIRP of an analog system;
- Increase the channel bandwidth;

⁵ See generally International Telecommunications Union (ITU), Recommendation ITUR F.2006, *Radio-Frequency Channel and Block Arrangements for Fixed Wireless Systems Operating in the 71–76 and 81–86 GHz Bands* (2012), https://www.itu.int/dms_pubrec/itu-r/rec/f/R-REC-F.2006-0-201203-I!!PDF-E.pdf.

⁶ See 47 CFR § 101.63(b),(c).

- Change the power density;
- Increase the receiver sensitivity;
- Increase the antenna beamwidth;
- Increase the antenna gain, except where there is a corresponding reduction to transmitter power so that there is no increase in EIRP;
- Involve a change to antenna with less off-axis attenuation at any angle; and/or
- Change any other technical parameters not mentioned above.

III. RECORDKEEPING AND REPORTING REQUIREMENTS

The new and amended rules in the *Report and Order* contain new information collection requirements for both link registrants operating in the 70/80/90 GHz bands generally, and for new aeronautical and maritime operators in particular. The details and specifics of the reporting and recordkeeping requirements adopted in the *Report and Order* are discussed in Section II of this guide under Compliance Requirements.

IV. IMPLEMENTATION DATE

The rules in the *Report and Order* took effect May 29, 2024, except for (1) 47 CFR § 101.147(z)(3) (i.e., the new band channel plan), which took effect on September 1, 2024; and (2) the following rules that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act: 47 CFR §§ 101.63(b), 101.1523(a), 101.1523(e), 101.1528(a)(11), 101.1528(b)(10), and 101.1528(d). These rules will become effective after the Commission publishes a notice in the Federal Register announcing OMB approval and the relevant effective date.

V. INTERNET LINKS

A copy of the *Report and Order* is available at: <https://docs.fcc.gov/public/attachments/FCC-24-16A1.pdf>.

A copy of the *Report and Order* Erratum is available at: https://docs.fcc.gov/public/attachments/DOC-401804A1_Erratum.docx.

A copy of the Federal Register Summary of the *Report and Order* is available at: <https://www.govinfo.gov/content/pkg/FR-2024-04-29/pdf/2024-05390.pdf>.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of Section 73.622(j),	)	MB Docket No. 24-224
Table of Allotments, Television Broadcast	)	RM-11988
Stations (Lubbock, Texas)	)	

**REPORT AND ORDER
(PROCEEDING TERMINATED)**

Adopted: November 26, 2024

Released: November 26, 2024

By the Chief, Video Division, Media Bureau:

1. The Video Division, Media Bureau (Bureau), has before it a Notice of Proposed Rulemaking¹ issued in response to a Joint Petition for Rulemaking filed by Gray Television Licensee, LLC (Gray), the licensee of KCBD, operating on channel 11, Lubbock, Texas (Lubbock), and SagamoreHill of Lubbock, LLC (SagamoreHill), the licensee of KJTV-TV, channel 35, Lubbock.² Gray previously requested the substitution of channel 36 for channel 11 at Lubbock in the Table of TV Allotments (Table),³ and held a construction permit for channel 36 which has since expired.⁴ The Joint Petitioners now propose to “swap” channels and equipment and authorize KCBD to operate on channel 35 and KJTV-TV to operate on channel 11.⁵ In order to effectuate this proposal, the Bureau must amend the Table to: (1) substitute channel 11 at Lubbock for channel 35 and (2) substitute channel 35 at Lubbock for channel 36.⁶ The Joint Petitioners filed comments in support of the Petition, as required by the Commission’s rules (rules), reaffirming their commitment to apply for channels 11 and 35.⁷ No other comments were received.

2. We conclude that the public interest would be served by the proposed channel substitutions at Lubbock. According to the Joint Petitioners, KJTV-TV’s channel 35 tube transmitter is failing, replacement parts are not available, and the cost for SagamoreHill to replace the transmitter for KJTV-TV’s 1000 kW facility is prohibitively expensive.⁸ The Joint Petitioners’ proposal will allow SagamoreHill to replace KJTV-TV’s failing equipment with the equipment currently used by KCBD on

¹ *Amendment of Section 73.622(j), Table of Allotments, Television Broadcast Stations (Lubbock, Idaho)*, MB Docket No. 24-224, Notice of Proposed Rulemaking, DA 24-731 (MB July 29, 2024) (*NPRM*).

² Joint Petition for Rulemaking (filed May 21, 2024), LMS File No. 0000245119 (Joint Petition). The parties are referred to collectively as the “Joint Petitioners.” Gray and SagamoreHill state that they are parties to a Shared Services Agreement whereby Gray provides certain operational services to KJTV-TV. *NPRM* at n.2.

³ 47 CFR § 73.622(j); *Amendment of Section 73.622(i), Post-Transition Table of DTV Allotments, Television Broadcast Stations (Lubbock, Texas)*, MB Docket No. 21-61, Report and Order, 36 FCC Rcd 7536 (MB 2021) (*Channel 36 R&O*). Accordingly, channel 11 is no longer allotted to Lubbock in the Table.

⁴ LMS File No. 0000149814 (expired June 14, 2024); *NPRM* at para. 2.

⁵ Joint Petition at 1-2.

⁶ See *supra* n.3.

⁷ Comments of Gray Television Licensee, LLC and SagamoreHill of Lubbock, LLC (rec. Sept. 9, 2024). See also 47 CFR §§ 1.415, 1.419; *Buffalo, Iola, Normangee, and Madisonville, Texas*, MB Docket No. 07-729, Report and Order, 24 FCC Rcd 8192, 8194, para. 9 (MB 2009).

⁸ *NPRM* at para. 3.

channel 11, which is in good operating condition.⁹ Because Gray had already planned to invest in a new 1000 kW transmitter for KCBD on channel 36, it has the funds necessary to replace KJTV-TV's failing channel 35 transmitter and operate KCBD on channel 35.¹⁰ In turn, Gray will provide SagamoreHill with its channel 11 equipment (i.e., antenna, transmitter, etc.) which it had planned to decommission following its move to channel 36, which never happened.¹¹ There would be no predicted loss area on channel 35 when compared to KCBD's previously-authorized channel 36 facility.¹² Further, the proposed channel 11 facility for KJTV-TV would result in no loss and instead provide additional service to approximately 8,000 persons.¹³

3. We find that channel 11 can be substituted for channel 35 at Lubbock as proposed, in compliance with the principal community coverage requirements of section 73.618(a) of the rules,¹⁴ at coordinates 33°-32'-29.9" N and 101°-50'-13.6" W. In addition, we find that this channel change meets the technical requirements set forth in section 73.622(a) of the rules.¹⁵ The proposed substitution of channel 11 for channel 35 would increase the population served within KJTV-TV's noise limited contour (NLSC), and provide KJTV-TV with more functional equipment.

4. We also find that channel 35 can be substituted for channel 36 at Lubbock as proposed, in compliance with the principal community coverage requirements of section 73.618(a) of the rules,¹⁶ at coordinates 33°-30'-08.3" N and 101°-52'-21.3" W. In addition, we find that this channel change meets the technical requirements set forth in section 73.622(a) of the rules. There would be no predicted loss area on channel 35 when compared to KCBD's previously-authorized channel 36 facility.

5. Accordingly, we will substitute the requested channels at Lubbock with the following specifications:

City and State	Channel	DTV Power (kW)	Antenna HAAT (m)	Service Pop.
Lubbock, Texas	11	41	234	433,372
	35	1000	282	426,315

6. We also conclude that good cause exists to make this channel change effective immediately upon publication in the Federal Register, pursuant to section 553(d)(3) of the Administrative Procedure Act.¹⁷ An expedited effective date will allow the Stations to expeditiously swap channels in order to ensure that KJTV-TV can commence operations on channel 11 prior to failure of its current equipment. It will also allow both KCBD and KJTV-TV to maintain uninterrupted service to their viewers.

7. Accordingly, pursuant to the authority contained in sections 4(i), 5(c)(1), 303(g), (r) and 307(b) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 155(c)(1), 303(g), (r), and 307(b), and sections 0.61, 0.204(b), and 0.283 of the rules, 47 CFR §§ 0.61, 0.204(b), and 0.283, **IT IS**

⁹ *Id.*

¹⁰ *See id.*

¹¹ *Id.*

¹² *Id.* at para. 4. We note that comparing KCBD's proposed channel 35 facility to its licensed channel 11 operation, the loss is approximately 350 persons, consistent with the *de minimis* value previously approved in KCBD's prior channel substitution to channel 36. *See Channel 36 R&O*, 36 FCC Rcd at 7536, para. 2 and Joint Petition, Engineering Statement at 4.

¹³ *NPRM* at para. 4.

¹⁴ 47 CFR § 73.618(a).

¹⁵ 47 CFR § 73.622(a) (formerly §§ 73.616 and 73.623).

¹⁶ 47 CFR § 73.618(a).

¹⁷ 5 U.S.C. § 553(d)(3).

ORDERED that, effective immediately upon the date of publication in the Federal Register, the Table of TV Allotments, section 73.622(j) of the Commission's rules, 47 CFR § 73.622(j), **IS AMENDED**, with respect to the community listed below, to read as follows:

<u>City and State</u>	<u>Channel Nos.</u>
Lubbock, Texas	11, 16, *25, 27, 31, 35

8. **IT IS FURTHER ORDERED** that, within 10 days of the effective date of this Order, Gray Television Licensee, LLC (Gray), the licensee of KCBD, and Sagamore Hill of Lubbock, LLC, the licensee of KJTV-TV, shall submit to the Commission minor change applications for a construction permit (Form 2100, Schedule A) specifying channels 35 and 11, respectively.

9. **IT IS FURTHER ORDERED** that, pursuant to section 801(a)(1)(A) of the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A), the Commission **SHALL SEND** a copy of the Order to Congress and to the Government Accountability Office.

10. **IT IS FURTHER ORDERED** that, should no petitions for reconsideration or petitions for judicial review be timely filed, MB Docket No. 24-224 and RM-11988 **SHALL BE TERMINATED** and its docket closed.

11. For further information concerning the proceeding listed above, contact Joyce Bernstein, Video Division, Media Bureau, at Joyce.Bernstein@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
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DA 24-1189

Released: November 26, 2024

STREAMLINED RESOLUTION OF REQUESTS UNDER THE SECURE AND TRUSTED COMMUNICATIONS NETWORKS REIMBURSEMENT PROGRAM

WC Docket No. 18-89

By this Public Notice, the Wireline Competition Bureau (Bureau) grants, pursuant to delegated authority, the following petitions requesting to extend certain deadlines under the Secure and Trusted Communications Networks Reimbursement Program (Reimbursement Program or Program).

As directed by the Secure and Trusted Communications Networks Act of 2019, as amended (Secure Networks Act), the Commission established the Reimbursement Program to reimburse providers of advanced communications service with ten million or fewer customers for reasonable costs incurred in the removal, replacement, and disposal of covered communications equipment or services from their networks that pose a national security risk, i.e., communications equipment or services produced or provided by Huawei Technologies Company (Huawei) or ZTE Corporation (ZTE), that were obtained by providers on or before June 30, 2020.¹ The Reimbursement Program is funded by a \$1.9 billion congressional appropriation,² which is less than the \$5.6 billion in collective funds requested by applicants to the Program.³ Because demand exceeded available funding, the Secure Networks Act

¹ Secure and Trusted Communications Networks Act of 2019, Pub. L. No. 116-124, § 4(a)-(c), 134 Stat. 158 (2020) (codified as amended at 47 U.S.C. §§ 1601-1609). The Commission adopted rules implementing the Secure Networks Act on December 10, 2020. *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Second Report and Order, 35 FCC Rcd 14284 (2020) (2020 *Supply Chain Order*). On July 13, 2021, the Commission amended its rules, consistent with amendments to the Secure Networks Act included in the Consolidated Appropriations Act, 2021. *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Third Report and Order, 36 FCC Rcd 11958, 11959, para. 2 (2021) (2021 *Supply Chain Order*). The Commission later clarified that, for purposes of the Reimbursement Program, covered communications equipment or services are limited to the communications equipment or services produced or provided by Huawei or ZTE that were obtained by providers on or before June 30, 2020. See 2021 *Supply Chain Order*, 36 FCC Rcd at 11959, 11965, paras. 2 and 18; see also generally *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs – Huawei Designation*, PS Docket No. 19-351, Order, 35 FCC Rcd 6604 (PSHSB 2020); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs – ZTE Designation*, PS Docket No. 19-352, Order, 35 FCC Rcd 6633 (PSHSB 2020).

² Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, § 906, 134 Stat. 1182 (2020) (CAA). Section 906 provides that “[t]here is appropriated to the Federal Communications Commission, out of amounts in the Treasury not otherwise appropriated, for fiscal year 2021, to remain available until expended— . . . (2) \$1,900,000,000 to carry out the Secure and Trusted Communications Networks Act of 2019 (47 U.S.C. 1601 et seq.), of which \$1,895,000,000 shall be used to carry out the program established under section 4 of that Act (47 U.S.C. 1603).”

³ See *Wireline Competition Bureau Announces the Grant of Applications for the Secure and Trusted Communications Networks Reimbursement Program*, WC Docket No. 18-89, Public Notice, DA 22-774, at 1-2 (WCB July 18, 2022) (*SCRIP Granted Applications Public Notice*) (explaining that “[e]ach applicant was required to (continued....)

required the Bureau to implement a prioritization scheme where funding was allocated first to approved applicants with 2,000,000 or fewer customers (Priority 1 applicants).⁴ Demand from Priority 1 applicants alone exceeded the congressional appropriation, and Commission rules therefore required that allocations to Priority 1 applicants be pro-rated on an equal basis.⁵ Consequently, recipients received funding allocations for approximately 39.5% of their reasonable and supported estimated costs for removing, replacing, and disposing of covered communications equipment and services.⁶

Reimbursement Program recipients must complete the removal, replacement, and disposal of covered communications equipment and services within one year from the initial disbursement of funds to the recipient.⁷ Pursuant to section 4(d)(6)(C) of the Secure Networks Act, the Commission may grant recipients extensions of this term on an individual basis.⁸ The Commission delegated authority to the Bureau to grant or deny individual petitions for an extension of a recipient's term.⁹ The Bureau "may grant an extension for up to six months after finding, that due to no fault of such recipient, such recipient is unable to complete the permanent removal, replacement, and disposal by the end of the term" and "may grant more than one extension request to a recipient if circumstances warrant."¹⁰ This can occur, for example, due to the lack of funding to fully reimburse recipients, which can require recipients to revise their plans in ways that cause them to need more time to remove, replace, and dispose of covered equipment, in addition to delays in receiving the necessary equipment to replace their covered equipment, which likewise can require a recipient to need more time to meet its obligations under the Reimbursement Program.¹¹

(Continued from previous page)

include in its application estimates for the costs that it will reasonably incur for the permanent removal, replacement, and disposal of covered communications equipment and services" and identifying that, across all filed applications, applicants sought a total of "approximately \$5.6 billion in gross program support").

⁴ See 47 U.S.C. § 1603(d)(5)(C); 47 CFR § 1.50004(f)(1); *SCRIP Granted Applications Public Notice* at 2-3.

⁵ The Commission's rules provide that "[i]f there is insufficient funding to fully fund all requests in a particular prioritization category, then the [Bureau] will pro-rate the available funding among all eligible providers in that prioritization category." 47 CFR § 1.50004(f)(1); see also 47 U.S.C. § 1603(d)(5)(A) ("[T]he Commission shall make reasonable efforts to ensure that reimbursement funds are distributed equitably among all applicants for reimbursements under the Program according to the needs of the applicants, as identified by the applications of the applicants.").

⁶ See 47 CFR § 1.50004(f)(1); see also *SCRIP Granted Applications Public Notice* at 2-3.

⁷ 47 U.S.C. § 1603(d)(6)(A); 47 CFR § 1.50004(h).

⁸ See 47 U.S.C. § 1603(d)(6)(C).

⁹ See 47 U.S.C. § 1603(d)(6)(C); 47 CFR § 1.50004(h)(2) ("Individual extensions. Prior to the expiration of the removal, replacement and disposal term, a Reimbursement Program recipient may petition the Wireline Competition Bureau for an extension of the term. The Wireline Competition Bureau may grant an extension for up to six months after finding, that due to no fault of such recipient, such recipient is unable to complete the permanent removal, replacement, and disposal by the end of the term. The Wireline Competition Bureau may grant more than one extension request to a recipient if circumstances warrant.").

¹⁰ 47 CFR § 1.50004(h)(2); see also *2020 Supply Chain Order*, 35 FCC Rcd at 14354-56, paras. 171, 173 and n.501.

¹¹ See, e.g., *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Order, DA 23-875, para. 7 (WCB Sept. 22, 2023) (*Stealth Extension Order*) (granting an extension based on supply chain issues); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Order, DA 23-938, paras. 12-16 (WCB Oct. 10, 2023) (*WorldCell et al. Extension Order*) (granting extensions based on both funding issues and supply chain issues); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Order, DA 23-1016, paras. 12-16 (WCB Oct. 27, 2023) (*Point/SI Wireless Extension Order*) (granting extensions based on both funding issues and supply chain issues); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, (continued....)

The Bureau strongly encourages recipients that intend to file a petition for an extension to do so as promptly as possible after determining that their circumstances meet the standard for an extension established in the statute and the Commission's implementing rules, and well in advance of the recipient's deadline, so the Bureau is able to fully consider and grant or deny the petition before the recipient's term expires. We remind recipients that requests for term extensions must specify both the specific grounds for the request and the underlying facts and circumstances on which the recipient relies in asserting those grounds. The Commission directed the Bureau to review individual extension requests on a case-by-case basis and to consider all factors when evaluating the request.¹² To this end, the facts and circumstances in an individual request should include the specific obstacles faced by the recipient, how they affected the recipient's ability to meet its term deadline, why the inability to meet the deadline exists through no fault of the recipient, and steps taken by the recipient to mitigate the impacts of the obstacles as it works towards meeting its removal, replacement, and disposal obligations. Recipients should also explain whether they expect to meet their new deadline if the Bureau grants their extension request. Consistent with rule 1.50004(h)(2), which permits the Bureau to grant more than one extension request "if circumstances warrant,"¹³ recipients making a second or subsequent extension request should ensure that the facts and circumstances described cover the time period since their prior extension request was made and explain progress made since that request. Requests that lack adequate support may be denied or the recipient may be required to provide additional support, which could delay a decision on the request.

The lack of full funding will not necessarily be a sufficient showing for multiple extension requests, as recipients should continually make progress toward completing their projects by the end of their removal, replacement, and disposal term. The Bureau will evaluate the sufficiency of each individual extension request at the time it is filed in determining whether to grant or deny it. We emphasize that a recipient's statutory obligation to complete the permanent removal, replacement, and disposal of covered communications equipment or services exists regardless of the amount of funding it may receive through the Reimbursement Program pursuant to the Secure Networks Act. The Secure Networks Act and the Commission's rules require each Reimbursement Program recipient to remove, replace, and dispose of "all" its covered equipment and services.¹⁴ Similarly, the Reimbursement Program FAQs (at 25) state that "[p]roviders are expected to remove, replace, and dispose of all Huawei and/or ZTE communications equipment and services in their networks as of the date of the submission of the application even if they receive a prorated allocation from the Reimbursement Program due to funding constraints."¹⁵

(Continued from previous page)

Order, DA 23-1110, paras. 8-11 (WCB Nov. 28, 2023) (*Triangle Telephone/Triangle Communication Extension Order*) (granting extension of time requests by Triangle Telephone Cooperative Association Inc. and Triangle Communication System, Inc. based on supply chain issues); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Order, DA 23-1196, para. 5 (WCB Dec. 21, 2023) (*GigSky Extension Order*) (granting extension of time request by GigSky, Inc. based on funding issues).

¹² 2021 Supply Chain Order, 36 FCC Rcd at 11998, para. 99.

¹³ 47 CFR § 1.50004(h)(2).

¹⁴ 47 U.S.C. § 1603(e)(4)(A)(ii) (recipient must file a final certification to show removal, replacement, and disposal of "all" covered equipment and services); 47 CFR 1.50004(m)(1) (same); *see also* 47 U.S.C. § 1603(d)(4)(A)(i)(I) (applicant must certify it has a plan to remove "any" covered equipment and services); 47 CFR § 1.50004(a)(3)(i)(A) (same).

¹⁵ FCC, *Secure and Trusted Communications Networks Reimbursement Program: Frequently Asked Questions*, <https://docs.fcc.gov/public/attachments/DA-24-234A2.pdf> (last visited, Nov. 20, 2024). Within 10 days following the expiration of the removal, replacement, and disposal term, a recipient must file a final certification with the Commission indicating whether it has fully complied with all terms and conditions of the Reimbursement Program. 47 U.S.C. § 1603(e)(4)(A); 47 CFR § 1.50004(m)(1).

Consistent with the Commission's goal of streamlining its internal review processes,¹⁶ and further pursuant to our delegated authority,¹⁷ we announced in our *January 2024 Streamlined Resolution Public Notice* that we would, with that Public Notice, begin issuing a Public Notice, as necessary but not more frequently than monthly, disposing of pending petitions which seek an extension of an applicants' removal, replacement, and disposal terms, do not involve complicated and/or controversial issues, and can be addressed in a manner consistent with Commission and/or Bureau precedent.¹⁸ Accordingly, we hereby grant the pending petitions listed below for an extension of a recipient's term to remove, replace, and dispose of its covered equipment.¹⁹

Recipient – Beamspeed LLC, SCRP0001010

Grounds for individual term extension – Beamspeed LLC (Beamspeed) requests a second six-month extension of the deadline to remove, replace, and dispose of covered equipment and services.²⁰ Beamspeed asserts that its ability to complete the removal, replacement, and disposal of covered equipment and services by its application deadline of December 21, 2024 has, through no fault of its own, been materially affected by lack of full funding and supply chain issues. Regarding lack of full funding, Beamspeed states that the funding shortfall has forced it to re-prioritize what work it can afford to do, and in what order, to avoid compromising network integrity, and to focus first on a few key sites, and that this has slowed its progress.²¹ Regarding supply chain issues, Beamspeed states that it continues to have difficulty finding telecom cabinets that will meet the needs of the summer climate in Arizona and is looking into specialized modifications to withstand the heat issues, which will take additional time.²² Beamspeed adds

¹⁶ See *Report on FCC Process Reform*, GN Docket No. 14-25 (Staff Working Group, Feb. 14, 2014) (*Process Reform Report*).

¹⁷ See 47 CFR §§ 0.91, 0.291, 1.50004(h)(2).

¹⁸ *Streamlined Resolution of Requests Under the Secure and Trusted Communications Networks Reimbursement Program*, WC Docket No. 18-89, Public Notice, 39 FCC Rcd 460, 462 (WCB Jan. 31, 2024) (*January 2024 Streamlined Resolution Public Notice*). This approach further speeds the disposition of petitions seeking extension of the removal, replacement, and disposal term and to ensure the continued efficient administration of the Reimbursement Program, while at the same time fulfilling our obligation to thoroughly review the record before us. *Id.* Prior to issuance of the *January 2024 Streamlined Resolution Public Notice*, we had resolved petitions for extensions of recipients' removal, replacement, and disposal terms in stand-alone orders addressing each petition. The Bureau routinely resolves other matters in the manner of the *January 2024 Streamlined Resolution Public Notice*, as appropriate. See, e.g., *Streamlined Process for Resolving Requests for Review of Decisions by the Universal Service Administrative Company*, CC Docket Nos. 96-45 and 02-6, WC Docket Nos. 02-60, 06-122, 08-71, 10-90, 11-42, and 14-58, Public Notice, 29 FCC Rcd 11094 (WCB 2014) (stating that the Bureau will resolve certain Universal Service Fund matters in a streamlined public notice).

¹⁹ This Public Notice does not take positions on the merits of grounds raised by requestors other than those identified and discussed herein. In addition, we expressly reject any suggestion in the requests that a recipient is required to meet its statutorily mandated removal, replacement, and disposal obligations only if full funding is made available by Congress.

²⁰ Request of Beamspeed LLC for Extension of Time for Application SCRP0001010, WC Docket No. 18-89, at 1 (filed Nov. 4, 2024) (Beamspeed Extension Request). Beamspeed previously filed for a six-month extension for the same application number. See Request of Beamspeed LLC for Extension of Time for Application SCRP0001010, WC Docket No. 18-89 (filed May 6, 2024). The Bureau granted that request in May 2024. See *Streamlined Resolution of Requests Under the Secure and Trusted Communications Networks Reimbursement Program*, WC Docket No. 18-89, Public Notice, DA-24-494 at 4-5 (WCB May 24, 2024) (*May 2024 Streamlined Resolution Public Notice*).

²¹ Beamspeed Extension Request at 1-2.

²² *Id.* at 1.

that it is facing three- to six-month lead times on replacement equipment and fiber, which extends the time it will need to complete the Program requirements.²³ The Bureau finds Beamspeed's showing persuasive and that its situation is consistent with the situation of other recipients that have been granted extensions on similar grounds of the lack of full funding²⁴ and supply chain issues,²⁵ and accordingly grants the requested extension for the application number listed above.

New RRD term expiration date – Beamspeed's deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED from December 21, 2024 to June 21, 2025.

Recipient – Commnet Wireless, LLC, SCRP0001026, SCRP0001027, SCRP0001028, SCRP0001029, and NTUA Wireless, LLC, SCRP0001024, SCRP0001025

Grounds for individual term extension – Commnet Wireless, LLC (Commnet) and NTUA Wireless, LLC (NTUA) (collectively, "Commnet/NTUA") request a second six-month extension of the deadlines to remove, replace, and dispose of covered equipment for the application numbers listed above.²⁶ Commnet/NTUA assert that their ability to complete the removal, replacement, and disposal of covered equipment and services by their application deadlines, which range from January 14, 2025 to February 4, 2025 has, through no fault of their own, been materially affected by lack of full funding and supply chain issues. Regarding lack of full funding, Commnet/NTUA claim that funding shortfalls have forced them to "re-engineer and reassess [their] Build Plan," "result[ing] in several phases of revision to [their] build plan as [they] seek[] to best utilize [their] limited funds," and that the funding shortfall has caused them to focus on prioritizing removal of covered equipment, which has led to delays in replacing covered equipment across their network.²⁷ Commnet/NTUA also assert that they have had to "minimize staffing and labor," which has delayed project progress.²⁸ Regarding supply chain issues, they state that recent supply chain issues have "exacerbated . . . delays."²⁹ Specifically,

²³ *Id.* at 2.

²⁴ See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.

²⁵ See, e.g., *Stealth Extension Order* at 3-5, paras. 6-11; *WorldCell et al. Extension Order* at 7-8, paras. 16-19; *Point/SI Wireless Extension Order* at 6-7, paras. 15-18; *Triangle Extension Order* at 4-5, paras. 8-11; *January 2024 Streamlined Resolution Public Notice* at 4-5.

²⁶ Commnet and NTUA filed separate, substantively identical extension requests for each application number. See Request of Commnet for Extension of Time for Application SCRP0001026, WC Docket No. 18-89 (filed Oct. 11, 2024); Request of Commnet for Extension of Time for Application SCRP0001027, WC Docket No. 18-89 (filed Oct. 11, 2024); Request of Commnet for Extension of Time for Application SCRP0001028, WC Docket No. 18-89 (filed Oct. 11, 2024); Request of Commnet for Extension of Time for Application SCRP0001029, WC Docket No. 18-89 (filed Oct. 11, 2024); Request of NTUA for Extension of Time for Application SCRP0001024, WC Docket No. 18-89 (filed Oct. 11, 2024); Request of NTUA for Extension of Time for Application SCRP0001025, WC Docket No. 18-89 (filed Oct. 11, 2024) (collectively, Commnet/NTUA Extension Request). The parties submitted a joint supplement to their requests. See Supplement to Request of Commnet/NTUA for Extension of Time, WC Docket No. 18-89 (filed Oct. 30, 2024) (Commnet/NTUA Supplement). The parties previously sought an extension for the same applications at issue here. See Request of Commnet Wireless, LLC, on behalf of itself and NTUA Wireless, LLC, for Extension of Time, WC Docket No. 18-89 (filed Apr. 12, 2024). The Bureau granted those requests in April 2024. See *Streamlined Resolution of Requests Under the Secure and Trusted Communications Networks Reimbursement Program*, WC Docket No. 18-89, Public Notice, DA 24-407 at 5-6 (WCB April 30, 2024) (*April 2024 Streamlined Resolution Public Notice*).

²⁷ Commnet/NTUA Extension Request at 1-2; see also Commnet/NTUA Supplement at 1-2.

²⁸ Commnet/NTUA Supplement at 1.

they explain that “extended lead times for critical equipment, price volatility and procurement uncertainties” have required “adjustments to [their] build and replacement plans.”³⁰ They also state they have also faced cost increases for labor due to these supply chain issues.³¹ Commnet/NTUA add that they have worked to mitigate these difficulties. Specifically, they state that they have “reorganized [their] workforce, prioritized critical network upgrades and renegotiated terms with key vendors.”³² Commnet/NTUA’s most recent status updates also state that they have continued to make progress toward completing their obligations under the Program. The Bureau finds Commnet/NTUA’s showing persuasive and that their situation is consistent with the situation of other recipients that have been granted extensions on similar grounds of lack of full funding³³ and supply chain issues,³⁴ and accordingly grants the requested extensions for the application numbers listed above.

New RRD term expiration date – Commnet’s deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED as follows:

- For File No. SCRP0001026, from January 14, 2025 to July 14, 2025.
- For File No. SCRP0001027, from January 26, 2025 to July 26, 2025.
- For File No. SCRP0001028, from January 27, 2025, to July 27, 2025.
- For File No. SCRP0001029, from January 27, 2025 to July 27, 2025.

NTUA’s deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED as follows:

- For File No. SCRP0001024 from February 3, 2025 to August 3, 2025.
- For File No. SCRP0001025 from February 4, 2025 to August 4, 2025.

Recipient – Eastern Oregon Telecom, LLC, SCRP0001037

Grounds for individual term extension – Eastern Oregon Telecom, LLC (Eastern Oregon) requests a second six-month extension of the deadline to remove, replace, and dispose of covered equipment and services.³⁵ Eastern Oregon asserts that its ability to complete the removal, replacement, and disposal of covered equipment and services by its January 6, 2025 deadline has, through no fault of its own, been materially affected by lack of full funding and supply chain issues. Regarding the funding shortfall, Eastern Oregon says that vendors have been “reluctant to negotiate costs” “due to the difficulties of navigating the short time frame of the program, as well

(Continued from previous page)

²⁹ *Id.* at 2.

³⁰ *Id.*

³¹ *Id.*

³² *Id.* at 1-2.

³³ See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.

³⁴ See, e.g., *Stealth Extension Order* at 3-5, paras. 6-11; *WorldCell et al. Extension Order* at 7-8, paras. 16-19; *Point/SI Wireless Extension Order* at 6-7, paras. 15-18; *Triangle Extension Order* at 4-5, paras. 8-11; *January 2024 Streamlined Resolution Public Notice* at 4-5.

³⁵ See Request of Eastern Oregon Telecom, LLC for Extension of Time for Application SCRP0001037, WC Docket No. 18-89 (filed Oct. 25, 2024) (Eastern Oregon Extension Request). Eastern Oregon previously filed for a six-month extension for the same application number. See Request of Eastern Oregon Telecom, LLC for Extension of Time for Application SCRP0001037, WC Docket No. 18-89 (filed May 10, 2024). The Bureau granted that request in the *May 2024 Streamlined Resolution Public Notice* at 4-5.

as a shortage of equipment and skilled labor.”³⁶ Eastern Oregon asserts that bringing testing and optimization of equipment in-house “is expected to save over \$300,000 over the term of this project” and will “allow[] completion of the RRD work to be done within the funding threshold, as the cost estimates that were received indicated that it would not have been possible” by using outside vendors.³⁷ However, as a result of moving the work in-house, Eastern Oregon also “pushed out the timeline as staff had to balance completing RRD work as well as completing their regular duties.”³⁸ In addition, in order to save over \$250,000, which was necessary in light of the funding shortfall, Eastern Oregon moved away from replacing “dense wavelength division multiplexing” equipment and will instead use a different platform, but the implementation work for this revised plan “is expected to be completed in December 2024,” close to its current deadline.³⁹ Regarding supply chain issues, Eastern Oregon states that its location in rural Oregon has resulted in “significant challenges in hiring and retaining vendors to complete this project” and that as a result it previously had to change vendors, adding seven months to its project schedule.⁴⁰ It also states it has faced issues with the interoperability of equipment obtained from vendors, which has “delayed service implementation by an additional 3-4 months.”⁴¹ Further, according to Eastern Oregon, the vendor it planned to work with for disposal of equipment is located in Florida and was impacted by Hurricanes Helene and Milton, leading Eastern Oregon to have to change vendors, which led to a further shift in the timeline, so that it now estimates overall completion in the spring of 2025 at the earliest.⁴² Eastern Oregon states that it has worked to mitigate these difficulties in order to meet its Program obligations. In addition to conserving funds by bringing work in-house and shifting towards a new equipment platform, it asserts that, since its last extension was granted in May, it “has made steady progress” towards compliance “including a 17% progression in project work completed, bringing the overall project to 52% complete.”⁴³ The Bureau finds Eastern Oregon’s showing persuasive and that its situation is consistent with the situation of other recipients that have been granted extensions on similar grounds of the lack of full funding⁴⁴ and supply chain issues,⁴⁵ and accordingly grants the requested extension.

New RRD term expiration date – Eastern Oregon’s deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED from January 6, 2025 to July 6, 2025.

Recipient – GigSky Inc, SCRP0001143

³⁶ Eastern Oregon Extension Request at 2.

³⁷ *Id.* at 2-3.

³⁸ *Id.* at 3.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.* at 4.

⁴³ *Id.* at 3.

⁴⁴ See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.

⁴⁵ See, e.g., *Stealth Extension Order* at 3-5, paras. 6-11; *WorldCell et al. Extension Order* at 7-8, paras. 16-19; *Point/SI Wireless Extension Order* at 6-7, paras. 15-18; *Triangle Extension Order* at 4-5, paras. 8-11; *January 2024 Streamlined Resolution Public Notice* at 4-5.

Grounds for individual term extension – GigSky Inc. (GigSky) requests a third six-month extension of the deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) for the application listed above.⁴⁶ GigSky claims that its ability to complete the removal, replacement, and disposal of covered equipment and services by its December 22, 2024 deadline, has, through no fault of its own, been materially affected by the lack of full funding. Specifically, GigSky asserts that the lack of full funding “has strained [its] resources” particularly in light of the fact it is a “small business that is still unprofitable.” Absent a six-month extension, it argues it would be “financially unsustainable . . . to complete the remaining project phases with the current timeframe.”⁴⁷ Such an extension, it argues, would allow it to “continue [its] efforts without compromising financial stability or the quality of the network upgrade.”⁴⁸ GigSky asserts that it has worked to mitigate these difficulties in order to meet its Program obligations. Specifically, it asserts that, since its last extension for these applications was granted six months ago, it has continued to “work diligently” to replace its current equipment, having made a “downpayment” on a critical piece of new equipment and leased other equipment to facilitate software testing.⁴⁹ The Bureau finds GigSky’s showing persuasive and that its situation is consistent with the situation of other recipients that have been granted extensions on similar grounds of lack of full funding,⁵⁰ and accordingly grants the requested extension.

New RRD term expiration date – GigSky’s deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED from December 22, 2024 to June 22, 2025.

Recipient – NE Colorado Cellular, Inc. d/b/a Viaero Wireless, SCRP0001111, SCRP0001121

Grounds for individual term extension – NE Colorado Cellular, Inc d/b/a Viaero Wireless (NE Colorado) requests a second six-month extension of the deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) for the applications listed above.⁵¹ NE Colorado asserts that its ability to complete the removal, replacement, and disposal of covered equipment and services by the deadlines for those applications, which range from January 15, 2025 to January 27, 2025, has, through no fault of its

⁴⁶ See Request of GigSky Inc. for Extension of Time for Application SCRP0001143, WC Docket No. 18-89 (filed Nov. 14, 2024) (GigSky Extension Request). GigSky previously requested a six-month extension in June 2024. See Supplemental Request of GigSky for Extension of Time, WC Docket No. 18-89 (filed June 20, 2024); Request of GigSky for Extension of Time, WC Docket No. 18-89 (filed June 5, 2024). The Bureau granted that request in *Streamlined Resolution of Requests Under the Secure and Trusted Communications Networks Reimbursement Program*, WC Docket No. 18-89, Public Notice, DA 24-625 at 6 (WCB June 28, 2024) (*June Streamlined Resolution Public Notice*). The Bureau granted GigSky its first extension in December 2023. See *GigSky Extension Order*.

⁴⁷ GigSky Extension Request at 2.

⁴⁸ *Id.*

⁴⁹ *Id.* at 1-2.

⁵⁰ See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.

⁵¹ See Request of NE Colorado Cellular Inc., d/b/a Viaero Wireless for Extension of Time for SCRP0001121, WC Docket No. 18-89 (filed Nov. 8, 2024); Request of NE Colorado Cellular Inc., d/b/a Viaero Wireless for Extension of Time for SCRP0001111, WC Docket No. 18-89 (filed Nov. 8, 2024) (together, NE Colorado Extension Requests). NE Colorado Cellular filed for an earlier extension request for these same applications. See Request of NE Colorado Cellular Inc for Extension of Time for SCRP000111, WC Docket No. 18-89 (filed May 17, 2024); see NE Colorado Cellular Inc for Extension of Time for SCRP0001121, WC Docket No. 18-89 (filed May 17, 2024). The Bureau granted those requests in May 2024. See *May 2024 Streamlined Resolution Public Notice* at 6-7.

own, been materially affected by the lack of full funding. NE Colorado states that the limited funding has forced it to reprioritize where it allocates its work crews in order to focus on completing work at the sites already under construction, and that this need to work on the overall project in clusters has caused it to make limited progress at other sites.⁵² NE Colorado also states that the lack of full funding has caused it to release some construction crews, which has caused project delays, and that its primary vendor has pulled its construction crews because NE Colorado has not received the funding needed to pay for scheduled work.⁵³ NE Colorado further states that the lack of full funding has forced it to limit or postpone some equipment orders and cancel or postpone others due to the lack of full funding.⁵⁴ Nevertheless, NE Colorado explains that it has continued working to mitigate the impact of the lack of full funding by continually reevaluating its project plan and timelines and has been able to complete a substantial amount of site preparation, along with completing the deployment of core equipment at its network operations centers, completing delivery of onsite hardware and software, and migrating all of its voice and data traffic off of the Huawei cores.⁵⁵ The Bureau finds NE Colorado's showing persuasive and that its situation is consistent with the situation of other recipients that have been granted extensions on similar grounds of the lack of full funding,⁵⁶ and accordingly grants the requested extensions for the application numbers listed above.

New RRD term expiration date – NE Colorado's deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED as follows:

- For File No. SCRP0001111, from January 27, 2025 to July 27, 2025.
- For File No. SCRP0001121, from January 15, 2025 to July 15, 2025.

Recipient – Pine Telephone Co., SCRP0001034, SCRP0001035, SCRP0001036

Grounds for individual term extension – Pine Telephone Co. (Pine Telephone) requests a second six-month extension of the deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) for the applications listed above.⁵⁷ Pine Telephone asserts that its ability to complete the removal, replacement, and disposal of covered equipment and services by its deadlines, which range from January 25, 2025 to February 12, 2025, has, through no fault of its own, been materially affected by lack of full funding and supply chain issues. Specifically, regarding lack of full funding, Pine Telephone states that the lack of full funding has forced it to focus its limited funds on obtaining replacement equipment in order to retain its existing network coverage, which is relied upon by many rural consumers who, it argues, would otherwise lack access, and to defer work on removing and disposing of covered

⁵² See, e.g., NE Colorado Request for Extension for Application SCRP0001111 at 2.

⁵³ *Id.*

⁵⁴ *Id.* at 2-3.

⁵⁵ *Id.* at 2.

⁵⁶ See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.

⁵⁷ See Request of Pine Telephone Company for Extension of Time for Applications SCRP0001034, SCRP0001035, and SCRP0001036, WC Docket No. 18-89 (filed Nov. 15, 2024). Pine Telephone previously requested a six-month extension for these same application numbers in June 2024. See Request of Pine Telephone Company for Extension of Time for Applications SCRP0001034, SCRP0001035, and SCRP0001036, WC Docket No. 18-89 (filed June 7, 2024). The Bureau granted that request in the *June Streamlined Resolution Public Notice* at 8-9.

equipment and services.⁵⁸ Regarding supply chain issues, Pine Telephone states that “supply chain issues significantly delayed multiple aspects of the project from the very outset” ultimately delaying the initial steps of the project by approximately a year.⁵⁹ Pine Telephone also asserts that it has worked to mitigate these difficulties in order to meet its Program obligations. Pine Telephone states that in the six months since the last granted extension for these same applications, it “finished replacement installation on 11 sites” and “cut new sites over to the new core.”⁶⁰ Pine Telephone “also anticipates [it] will finish replacement installation on an additional 8 sites” in the last quarter of 2024 and first quarter of 2025.⁶¹ The Bureau finds Pine Telephone’s showing persuasive and that its situation is consistent with the situation of other recipients that have been granted extensions on similar grounds of lack of full funding⁶² and supply chain issues,⁶³ and accordingly grants the requested extension for the application numbers listed.

New RRD term expiration date – Pine Telephone’s deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED as follows:

- For File No. SCRP0001034, from January 20, 2025 to July 20, 2025.
- For File No. SCRP0001035, from February 12, 2025 to August 12, 2025.
- For File No. SCRP0001036, from February 12, 2025 to August 12, 2025.

Recipient – SI Wireless, LLC, SCRP0001013

Grounds for individual term extension – SI Wireless, LLC (SI Wireless) requests a third six-month extension of the deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2).⁶⁴ SI Wireless asserts that its ability to complete the removal, replacement, and disposal of covered equipment and services by its deadline of November 24, 2024 has, through no fault of its own, been materially affected by lack of full funding and other issues. Regarding lack of funding, SI Wireless states that the funding shortfall caused it to make significant modifications to its overall plan.⁶⁵ SI Wireless further explains that these modifications led to material delays in its ability to obtain and install necessary replacement equipment, which has prevented it from being able to meet its current deadline.⁶⁶ Even so, SI Wireless states that it has continued to work and make progress toward

⁵⁸ Pine Telephone Extension Request at 2.

⁵⁹ *Id.* at 1.

⁶⁰ *Id.* at 1-2.

⁶¹ *Id.* at 2.

⁶² See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.

⁶³ See, e.g., *Stealth Extension Order* at 3-5, paras. 6-11; *WorldCell et al. Extension Order* at 7-8, paras. 16-19; *Point/SI Wireless Extension Order* at 6-7, paras. 15-18; *Triangle Extension Order* at 4-5, paras. 8-11; *January 2024 Streamlined Resolution Public Notice* at 4-5.

⁶⁴ Revised Request of SI Wireless, LLC for Extension of Time, WC Docket No. 18-89, at 1 (filed Nov. 22, 2024) (SI Wireless Revised Extension Request). SI Wireless previously filed for two six-month extensions for the same application number. See Request of SI Wireless, LLC for Extension of Time, WC Docket No. 18-89 (filed Apr. 23, 2024); Request of SI Wireless, LLC for Extension of Time for Application SCRP0001013, WC Docket No. 18-89 (filed Oct. 12, 2023). The Bureau granted those requests in April 2024 and October 2023. See *April 2024 Streamlined Resolution Public Notice* at 9-10; *Point/SI Wireless Extension Order* at 5-7, paras. 12-18.

⁶⁵ SI Wireless Revised Extension Request at 1.

⁶⁶ *Id.*

the complete removal, replacement, and disposal of its covered equipment and services in the past six months, and has been able to remove most of the covered equipment in its network and to install replacement equipment on a good portion of its cell sites.⁶⁷ The Bureau finds SI Wireless's showing persuasive and that its situation is consistent with the situation of other recipients that have been granted extensions based on the lack of full funding,⁶⁸ and accordingly grants the requested extension.

New RRD term expiration date – SI Wireless's deadline to remove, replace, and dispose of covered equipment and services in its network under 47 CFR § 1.50004(h)(2) IS EXTENDED from November 24, 2024 to May 24, 2025.

For additional information concerning this Public Notice, please contact Ty Covey in the Competition Policy Division, Wireline Competition Bureau, at ty.covey@fcc.gov or (202) 418-1372.

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⁶⁷ *Id.*

⁶⁸ See, e.g., *WorldCell et al. Extension Order* at 5-7, paras. 11-15; *Point/SI Wireless Extension Order* at 5-6, paras. 12-14; *GigSky Extension Order* at 2, paras. 4-5; *January 2024 Streamlined Resolution Public Notice* at 5.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov
TTY: 888-835-5322

DA 24-1190

Released: November 26, 2024

APPLICATIONS OF T-MOBILE AND USCELLULAR FOR PROPOSED TRANSFER OF WIRELESS OPERATIONS, CUSTOMERS, AND CERTAIN SPECTRUM LICENSES AND LEASES

NRUF REPORTS AND LNP REPORTS PLACED INTO THE RECORD, SUBJECT TO THE PROTECTIVE ORDER

GN Docket No. 24-286

CC Docket No. 99-200

In connection with the Commission's review of the applications for a proposed transfer of wireless operations, customers, and certain spectrum licenses and spectrum leases from United States Cellular Corporation (UScellular) to T-Mobile US, Inc. (T-Mobile) (collectively, the Applicants), the Commission is examining information contained in the biannual Numbering Resource Utilization and Forecast (NRUF) reports filed by wireless telecommunications carriers,¹ carrier-specific local number portability (LNP) data related to wireless telecommunications carriers, and further disaggregated monthly carrier-specific local number portability data (Carrier-to-Carrier LNP Data) related to wireless telecommunications carriers. These data may assist the Commission in assessing the competitive effects of the transaction. Accordingly, the NRUF reports for all wireless telecommunications carriers for June 2024 (updated when available) and the monthly LNP reports for all wireless telecommunications carriers for January 2024 through June 2024 (updated when available) are being placed in the record in these proceedings, subject to the provisions of a protective order.²

Section 251 of the Communications Act grants the Commission jurisdiction over the North American Numbering Plan (NANP) and related telephone numbering issues.³ To monitor better the way numbering resources are used within the NANP and allocate NANP resources efficiently, the Commission requires telecommunications carriers to provide the Commission with a utilization report of their current inventory of telephone numbers and a five-year forecast of their numbering resource requirements.⁴ LNP data are collected by the LNP Administrator and provided to the Commission.

The Commission has recognized that disaggregated, carrier-specific forecast and utilization data should be treated as confidential and should be exempt from public disclosure under 5 U.S.C. § 552(b)(4).⁵ The NRUF and LNP reports are being placed into the record subject to the provisions of a

¹ 47 CFR §§ 1.907, 52.5.

² A protective order will be adopted shortly.

³ 47 U.S.C. § 251.

⁴ 47 CFR § 52.15(f); see *Numbering Resource Optimization*, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7578-79, para. 5 (2000) (*Numbering Report and Order*).

⁵ *Numbering Report and Order*, 15 FCC Rcd at 7607, para. 78.

protective order. As such, the NRUF and LNP data will not be available to the public except pursuant to the terms of the protective order, as outlined below.

Persons seeking to review the NRUF and LNP data may do so only for purposes of participating in this proceeding. Pursuant to the protective order, outside persons participating or intending to participate in the proceeding who are not involved in competitive decision-making activities and who have signed the Acknowledgment of Confidentiality attached to the protective order may review the NRUF and LNP data. We emphasize that persons seeking to review the NRUF and LNP data must have adequate protections in place to prevent improper use or disclosure of the information.

Affected parties have until **Friday, December 6, 2024** to oppose the limited disclosure of their NRUF and LNP data pursuant to the protective order.⁶ In addition, affected parties will have five business days after the filing of an acknowledgment of confidentiality to object to the release of their data to a particular person who requests permission to review it.

Filing Requirements. Interested parties may submit of filings and other documents, referencing GN Docket No. 24-286, on or before the date identified above. Filings may be submitted using the Commission's Electronic Comment Filing System (ECFS).

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing ECFS: <https://www.fcc.gov/ecfs/>.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing.
 - Filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. **All filings must be addressed to the Secretary, Federal Communications Commission.**
 - Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
 - Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
 - Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

One copy of each filing must be delivered electronically, by email, or if delivered as paper copy, by messenger delivery, commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (according to the procedures set forth above for paper filings), to: (1) Susannah Larson, Wireless Telecommunications Bureau, at Susannah.Larson@fcc.gov; (2) Nicholas Copeland, Office of Economics and Analytics, at Nicholas.Copeland@fcc.gov; and (3) Joel Rabinovitz, Office of General Counsel, at Joel.Rabinovitz@fcc.gov. Any submission emailed to these individuals should include in the subject line of the email, for example: (1) GN Docket No. 24-286; (2) the name of the submitting party; and (3) a brief description or title identifying the type of document being submitted (e.g., GN Docket No. 24-286, Widget Corp., NRUF Objection).

People with Disabilities. To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Government Affairs Bureau at (202) 418-0530 (voice).

This action is taken pursuant to sections 4(i) and 310(d) of the Communications Act, 47 U.S.C. §§ 154(i), 310(d), section 4 of the Freedom of Information Act, 5 U.S.C. § 552(b)(4), and authority

⁶ If disclosure is opposed, the procedures set forth in 47 CFR § 0.461(i) shall apply.

delegated under section 0.331 of the Commission's rules, 47 CFR § 0.331, and is effective upon its adoption.

For further information regarding this proceeding, please contact Susannah Larson, Susannah.Larson@fcc.gov; Nicholas Copeland, Nicholas.Copeland@fcc.gov; or Joel Rabinovitz, Joel.Rabinovitz@fcc.gov.

-FCC-

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Applications of T-Mobile US, Inc. and	)	GN Docket No. 24-286
United States Cellular Corporation	)	
	)	
For Consent To Transfer Control of Licenses,	)	
Authorizations, and Leases	)	

NRUF/LNP PROTECTIVE ORDER

Adopted: November 26, 2024

Released: November 26, 2024

By the Chief, Wireless Telecommunications Bureau:

1. In connection with the Commission's review of the transactions at issue in this proceeding, the Commission is examining information contained in the Numbering Resource Utilization and Forecast (NRUF) reports filed by carriers engaged in the provision of wireless telecommunications services¹ (Wireless Telecommunications Carriers) and disaggregated, carrier-specific local number portability (LNP) data related to Wireless Telecommunications Carriers. We find that such materials are necessary to develop a more complete record on which to base the Commission's decision. We also anticipate that parties participating in the proceeding may seek to review this data.

2. Section 251 of the Communications Act of 1934, as amended, grants the Commission jurisdiction over the North American Numbering Plan (NANP) and related telephone numbering issues.² In order to better monitor the way numbering resources are used within the NANP and efficiently allocate NANP resources, the Commission requires telecommunications carriers to provide the Commission with a utilization report of their current inventory of telephone numbers and a five-year forecast of their numbering resource requirements—the NRUF report.³ LNP data are collected by the LNP Administrator and provided to the Commission. The Commission has recognized that disaggregated, carrier-specific forecast and utilization data should be treated as confidential and should be exempt from general public disclosure under 5 U.S.C. § 552(b)(4).⁴

3. While we are mindful of the highly sensitive nature of such information, we are also mindful of the right of the public to participate in this proceeding in a meaningful way. Therefore, consistent with past practice,⁵ the NRUF reports and LNP data will not be available to the public except pursuant to the terms of this NRUF/LNP Protective Order; we will make such information available to participants in this proceeding, but limit such access to their Outside Counsel of Record and Outside

¹ 47 CFR §§ 1.907, 52.5.

² 47 U.S.C. § 251.

³ 47 CFR § 52.15(f); see *Numbering Resource Optimization*, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574, 7578-79, para. 5 (2000) (*Numbering Report and Order*).

⁴ *Numbering Report and Order*, 15 FCC Rcd at 7607, para. 78.

⁵ See, e.g., *AT&T Inc. and Deutsche Telekom AG for Consent To Assign or Transfer Control of Licenses and Authorizations*, Protective Order, 26 FCC Rcd 6031 (WTB 2011); *AT&T Inc. and Centennial Communications Corp. for Consent To Transfer Control of Licenses, Authorizations, and Spectrum Leasing Arrangements*, Protective Order, 24 FCC Rcd 13915 (WTB 2009).

Consultants whom they retain to assist them in this proceeding, and their Outside Counsel's and Outside Consultants' employees. We conclude that the procedures we adopt in this NRUF/LNP Protective Order give appropriate access to the public while protecting particularly competitively sensitive information from improper disclosure, and that the procedures we adopt thereby serve the public interest.⁶

4. *Definitions.* As used herein, capitalized terms not otherwise defined in this NRUF/LNP Protective Order shall have the following meanings:

"Acknowledgment" means the Acknowledgment of Confidentiality attached as Appendix A hereto.

"Competitive Decision-Making" means that a person's activities, association, or relationship with any of his or her clients involve advice about or participation in the relevant business decisions or the analysis underlying the relevant business decisions of the client in competition with or in a business relationship with a Wireless Telecommunications Carrier.

"NRUF/LNP Confidential Information" means the NRUF reports, the data contained in those reports, the LNP data, and any information derived from the reports or the data that is not otherwise available from publicly available sources.

"Outside Counsel of Record" or "Outside Counsel" means the attorney(s), firm(s) of attorneys, or sole practitioner(s), as the case may be, retained by a Participant in this proceeding, provided that such attorneys are not involved in Competitive Decision-Making. The term "Outside Counsel of Record" includes any attorney representing a non-commercial Participant in this proceeding, provided that such attorney is not involved in Competitive Decision-Making.

"Outside Consultant" means a consultant or expert retained for the purpose of assisting Outside Counsel or a Participant in this proceeding, provided that such consultant or expert is not involved in Competitive Decision-Making. The term "Outside Consultant" includes any consultant or expert employed by a non-commercial Participant in this proceeding, provided that such consultant or expert is not involved in Competitive Decision-Making.

"Outside Firm" means a firm, whether organized as a partnership, limited partnership, limited liability partnership, limited liability company, corporation, or otherwise, of Outside Counsel or Outside Consultants.

"Participant" means a person or entity that has filed, or has a good faith intention to file, an application, petition to deny, or material comments in this proceeding.

"Reviewing Party" means a person who has obtained access to NRUF/LNP Confidential Information pursuant to paragraphs 5 or 7 of this NRUF/LNP Protective Order.

"Support Personnel" means employees of a Reviewing Party's Outside Firm and third-party contractors and employees of third-party contractors who are assisting in this proceeding, provided such persons are involved solely in performing clerical or ministerial functions with regard to documents and information connected with this proceeding, including performing one or more aspects of organizing, filing, coding, converting, storing, or retrieving documents or data or designing programs for handling data connected with this proceeding.

5. *Procedure for Obtaining Access to NRUF/LNP Confidential Information.* Access to NRUF/LNP Confidential Information (including Stamped Highly Confidential Documents) is limited to Outside Counsel of Record, Outside Consultants, their employees and employees of their Outside Firms, and Support Personnel. Any person other than Support Personnel seeking access to NRUF/LNP Confidential Information shall sign and date the Acknowledgment agreeing to be bound by the terms and

⁶ This NRUF/LNP Protective Order does not constitute a resolution of the merits concerning whether any information submitted under the NRUF/LNP Protective Order would be released publicly by the Commission upon a proper request under the Freedom of Information Act (FOIA) or otherwise.

conditions of this NRUF/LNP Protective Order, and file the Acknowledgment with the Commission, so that it is received at least five business days prior to such person's reviewing or having access to the NRUF/LNP Confidential Information. Each Wireless Telecommunications Carrier shall have an opportunity to object to the disclosure of its NRUF/LNP Confidential Information to any such person. A Wireless Telecommunications Carrier must file any such objection at the Commission and serve it on Counsel representing, retaining, or employing such person within five business days after that person's Acknowledgment has been filed with the Commission. Until any timely objection is resolved by the Commission in favor of the person seeking access and, if a motion for a judicial stay is timely filed, until such a motion is acted upon, a person subject to an objection from a Wireless Telecommunications Carrier shall not have access to that carrier's NRUF/LNP Confidential Information.⁷ If an objection is not timely filed with the Commission, the Commission will nonetheless consider the objection and retains its discretion to prohibit further access to NRUF/LNP Confidential Information by the Reviewing Party until the objection is resolved.

6. *Review of NRUF/LNP Confidential Information.* A Reviewing Party shall contact Nicholas Copeland, Nicholas.Copeland@fcc.gov, Office of Economics and Analytics, or Susannah Larson, Susannah.Larson@fcc.gov, Wireless Telecommunications Bureau, to receive instructions on how to obtain and review NRUF/LNP Confidential Information. A Reviewing Party may temporarily load onto a computer NRUF/LNP Confidential Information. Once loaded, any files containing NRUF/LNP Confidential Information shall be password protected immediately. The NRUF/LNP Confidential Information may not be stored on a computer after being analyzed. After the analysis is complete, the results of such analysis may be stored by saving the results (but not the original underlying NRUF/LNP Confidential Information) to a mobile data storage medium. All files containing NRUF/LNP Confidential Information shall be deleted from the computer as soon as practicable. The mobile storage medium containing the results shall be stored securely and a record kept of any persons given access to them.

7. *Use of NRUF/LNP Confidential Information.* Persons obtaining access to NRUF/LNP Confidential Information under this NRUF/LNP Protective Order shall use the information solely for the preparation and conduct of this proceeding before the Commission and any subsequent judicial proceeding arising directly from this proceeding and, except as provided herein, shall not use such information for any other purpose, including without limitation business, governmental, or commercial purposes, or in other administrative, regulatory, or judicial proceedings. Should the Commission rely upon or otherwise make reference to the contents of any NRUF/LNP Confidential Information in its decision in this proceeding, it will do so either by redacting any NRUF/LNP Confidential Information from the public version of the decision and by making the unredacted version of the decision available only to a court and to those persons entitled to access to NRUF/LNP Confidential Information under this NRUF/LNP Protective Order or by aggregating the NRUF/LNP Confidential Information such that no information of any Wireless Telecommunications Carrier (other than the Applicants) is revealed.

8. *Permissible Disclosure.* A Reviewing Party may discuss and share the contents of NRUF/LNP Confidential Information with another Reviewing Party, with Support Personnel, as appropriate, and with the Commission and its staff. A Wireless Telecommunication Carrier's own NRUF/LNP Confidential Information may also be disclosed to employees and Counsel of the carrier.

9. *Filings with the Commission.* A Reviewing Party may in any document that it files in this proceeding disclose NRUF/LNP Confidential Information only if it complies with the following procedure. The party shall file in the Electronic Comment Filing System (ECFS) as confidential one copy

⁷ An objection ordinarily will first be ruled upon by the Wireless Telecommunications Bureau (Bureau). If the Bureau rejects the objection, the objecting party will be provided 10 business days to file an Application for Review with the Commission; if an Application for Review is not filed within that time, the NRUF/LNP Confidential Information shall be made available to the Reviewing Party. If an Application for Review is timely filed and is denied by the Commission, the objecting party will be provided 10 business days to seek a judicial stay of the Commission's Order; if a motion for stay is not filed within that time, the NRUF/LNP Confidential Information shall be made available to the Reviewing Party.

of the filing containing NRUF/LNP Confidential Information (the “NRUF/LNP Confidential Filing”) and an accompanying cover letter. The cover or first page of the NRUF/LNP Confidential Filing and each page of the NRUF/LNP Confidential Filing that contains or discloses NRUF/LNP Confidential Information must be clearly marked “HIGHLY CONFIDENTIAL INFORMATION—SUBJECT TO PROTECTIVE ORDER IN GN DOCKET NO. 24-286 before the Federal Communications Commission.” The cover letter shall also contain this legend. The NRUF/LNP Confidential Filing will not be placed in the Commission’s public file. The party shall also submit in ECFS a copy of the filing in redacted form, i.e., containing no Confidential Information (the “Redacted NRUF/LNP Confidential Filing”).⁸ The Redacted NRUF/LNP Confidential Filing and the accompanying cover letter shall be stamped “REDACTED—FOR PUBLIC INSPECTION.” The cover letter accompanying the Redacted NRUF/LNP Confidential Filing shall state that the party is filing a redacted version of the filing. Each Redacted NRUF/LNP Confidential Filing shall have the same pagination as the NRUF/LNP Confidential Filing from which it is derived. To the extent that any page of the NRUF/LNP Confidential Filing contains any type of Confidential Information and non-confidential information, only the Confidential Information (of whatever type) shall be redacted and the page of the unredacted Confidential Filing shall clearly distinguish among the various types of Confidential Information and the non-confidential information. One copy of each Redacted NRUF/LNP Confidential Filing and the accompanying cover letter must also be sent by email to Susannah Larson, Susannah.Larson@fcc.gov. Parties should not provide courtesy copies of pleadings containing NRUF/LNP Confidential Information to Commission staff unless the Bureau so requests, and any such courtesy copies shall be submitted under seal.

10. *Non-Disclosure of NRUF/LNP Confidential Information.* Except as provided under this NRUF/LNP Protective Order, NRUF/LNP Confidential Information shall not be disclosed further.

11. *Protection of Stamped NRUF/LNP Confidential Information.* A Reviewing Party shall have the obligation to ensure that access to NRUF/LNP Confidential Information is strictly limited as prescribed in this NRUF/LNP Protective Order. A Reviewing Party shall further have the obligation to ensure that NRUF/LNP Confidential Information is used only as provided in this NRUF/LNP Protective Order.

12. *Requests for Additional Disclosure.* If any person requests disclosure of NRUF/LNP Confidential Information outside the terms of this NRUF/LNP Protective Order, such a request will be treated in accordance with sections 0.442 and 0.461 of the Commission’s rules.

13. *Client Consultation.* Nothing in this NRUF/LNP Protective Order shall prevent or otherwise restrict Outside Counsel from rendering advice to their clients relating to the conduct of this proceeding and any subsequent judicial proceeding arising therefrom and, in the course thereof, relying generally on examination of NRUF/LNP Confidential Information; *provided, however*, that in rendering such advice and otherwise communicating with such client, Outside Counsel shall not disclose NRUF/LNP Confidential Information.

14. *No Waiver of Confidentiality.* Disclosure of NRUF/LNP Confidential Information as provided herein by any person shall not be deemed a waiver by any affected party of any privilege or entitlement to confidential treatment of such NRUF/LNP Confidential Information. Reviewing Parties, by viewing this material agree: (1) not to assert any such waiver; (2) not to use NRUF/LNP Confidential Information to seek disclosure in any other proceeding; and (3) that accidental disclosure of NRUF/LNP Confidential Information shall not be deemed a waiver of any privilege or entitlement.

15. *Subpoena by Courts, Departments, or Agencies.* If a court or a federal or state department or agency issues a subpoena for or orders the production of NRUF/LNP Confidential

⁸ If a party is not able to submit filings via ECFS, it must submit two copies each of the NRUF/LNP Confidential Filing and Redacted NRUF/LNP Confidential Filing, along with their respective cover letters, to the Office of the Secretary, Federal Communications Commission, via first-class or overnight U.S. Postal Service mail addressed to 45 L Street, NE, Washington, DC 20554, or via commercial courier (any deliveries not by U.S. Postal Service) to 9050 Junction Drive, Annapolis Junction, MD 20701.

Information that a party has obtained under terms of this NRUF/LNP Protective Order, such party shall promptly notify the Commission and each affected Wireless Telecommunications Carrier of the pendency of such subpoena or order. Consistent with the independent authority of any court, department, or agency, such notification must be accomplished such that the Commission and each affected Wireless Telecommunications Carrier has a full opportunity to oppose such production prior to the production or disclosure of any NRUF/LNP Confidential Information.

16. *Violations of NRUF/LNP Protective Order.* Should a Reviewing Party violate any of the terms of this NRUF/LNP Protective Order, such Reviewing Party shall immediately convey that fact to the Commission. Further, should such violation consist of improper disclosure of NRUF/LNP Confidential Information, the violating person shall take all necessary steps to remedy the improper disclosure. The Commission retains its full authority to fashion appropriate sanctions for violations of this NRUF/LNP Protective Order, including but not limited to suspension or disbarment of Counsel or Outside Consultants from practice before the Commission, forfeitures, cease and desist orders, and denial of further access to NRUF/LNP Confidential Information in this or any other Commission proceeding. Nothing in this NRUF/LNP Protective Order shall limit any other rights and remedies available to the affected Wireless Telecommunications Carriers at law or in equity against any person using NRUF/LNP Confidential Information in a manner not authorized by this NRUF/LNP Protective Order.

17. *Termination of Proceeding.* The provisions of this NRUF/LNP Protective Order shall not terminate at the conclusion of this proceeding. Within two weeks after conclusion of this proceeding and any administrative or judicial review, Reviewing Parties shall destroy or return to the Commission all NRUF/LNP Confidential Information and all copies of the same. No material whatsoever containing NRUF/LNP Confidential Information may be retained by any person having access thereto, except Outside Counsel and Outside Consultants may retain, under the continuing strictures of this NRUF/LNP Protective Order, two copies of pleadings (one of which may be in electronic format) prepared in whole or in part by that party that contain NRUF/LNP Confidential Information, and one copy of orders issued by the Commission or Bureau that contain NRUF/LNP Confidential Information. All Reviewing Parties shall certify compliance with these terms and shall deliver such certification to the Commission not more than three weeks after conclusion of this proceeding. The provisions of this paragraph regarding retention of NRUF/LNP Confidential Information shall not be construed to apply to the Commission or its staff.

18. *Questions.* Substantive questions concerning this Protective Order should be addressed to Nicholas Copeland, Nicholas.Copeland@fcc.gov, Office of Economics and Analytics; Susannah Larson, Susannah.Larson@fcc.gov, Wireless Telecommunications Bureau; and Joel Rabinovitz, Joel.Rabinovitz@fcc.gov.

19. *Authority.* This Order is issued pursuant to sections 4(i), 214, and 310(d) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 214, and 310(d), section 4 of the Freedom of Information Act, 5 U.S.C. § 552(b)(4), and authority delegated under section 0.331 of the Commission's rules, 47 CFR § 0.331, and is effective upon its adoption.

FEDERAL COMMUNICATIONS COMMISSION

Joel Taubenblatt
Chief, Wireless Telecommunications Bureau

APPENDIX A**Acknowledgment of Confidentiality****GN Docket No. 24-286**

I hereby acknowledge that I have received and read a copy of the foregoing NRUF/LNP Protective Order in the above-captioned proceeding, and I understand it.

I agree that I am bound by the NRUF/LNP Protective Order and that I shall not disclose or use NRUF/LNP Confidential Information except as allowed by the NRUF/LNP Protective Order.

I acknowledge that a violation of the NRUF/LNP Protective Order is a violation of an order of the Federal Communications Commission. I further acknowledge that the Commission retains its full authority to fashion appropriate sanctions for violations of the Protective Order, including but not limited to suspension or disbarment of Counsel or Consultants from practice before the Commission, forfeitures, cease and desist orders, and denial of further access to NRUF/LNP Confidential Information in this or any other Commission proceeding.

I acknowledge that nothing in the NRUF/LNP Protective Order limits any other rights and remedies available at law or in equity against me if I use NRUF/LNP Confidential Information in a manner not authorized by the NRUF/LNP Protective Order.

I certify that I am not involved in Competitive Decision-Making.

Without limiting the foregoing, to the extent that I have any employment, affiliation, or role with any person or entity other than a conventional private law firm (such as, but not limited to, a lobbying or advocacy organization), I acknowledge specifically that my access to any information obtained as a result of the NRUF/LNP Protective Order is due solely to my capacity as Outside Counsel or Outside Consultant to a Participant or as a person described in paragraph 7 of the foregoing NRUF/LNP Protective Order and agree that I will not use such information in any other capacity.

I acknowledge that it is my obligation to ensure that NRUF/LNP Confidential Information is not duplicated except as specifically permitted by the terms of the Protective Order and to ensure that there is no disclosure of NRUF/LNP Confidential Information in my possession or in the possession of those who work for me, except as provided in the Protective Order.

I certify that I have verified that there are in place procedures at my firm or office to prevent unauthorized disclosure of NRUF/LNP Confidential Information.

Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to them in the NRUF/LNP Protective Order.

Executed this ____ day of _____, 20__.

[Name]

[Position]

[Address]

[Telephone]



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>

DA 24-1192

Released: November 26, 2024

CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU ANNOUNCES CHANGE TO REASSIGNED NUMBERS DATABASE USAGE CHARGE

CG Docket No. 17-59

With this Public Notice, the Consumer and Governmental Affairs Bureau supplements previous guidance on the Reassigned Numbers Database (RND or Database) to improve its utility to subscribers. Specifically, we grant the Reassigned Numbers Database Administrator's (Administrator) request that we clarify that subscribers' unused queries will be added to the queries purchased with a new subscription.

The Commission established the Database to prevent a consumer from getting unwanted calls intended for someone who previously held their phone number. Callers can use the database to determine whether a telephone number may have been reassigned so they can avoid calling consumers who do not want to receive the calls.

In October 2021, the Bureau announced the initial interim subscription tiers and rates for use of the RND.¹ In the *Pricing PN* the Bureau also established three options for subscribers who exhaust their queries before the end of the purchased subscription term: buy a new subscription, upgrade to a higher tier, or top off the subscription.²

Currently, when a subscriber exercises the first option, the new subscription starts immediately and any unused queries from its initial subscription are forfeited.³ Subscribers requested that any unused queries roll over to the new subscription when they purchase a new subscription prior to using 100% of their queries. The Administrator recommended this modification as it better meets the needs of subscribers, explaining that, for example, subscribers must exercise the first option in some cases prior to the end of their current subscription to ensure that large batch requests process.

We have reviewed the Administrator's recommendation and find it reasonable. The proposed change serves the interests of fairness by allowing a subscriber to, within certain parameters, keep the queries it has paid for but not yet used. Therefore, we clarify that, effective February 5, 2025, if a subscriber buys a new subscription prior to the end of its current subscription, any unused queries will be added to the queries purchased with the new subscription.

¹ *Consumer and Governmental Affairs Bureau Announces Interim Usage Charges for the Reassigned Numbers Database*, CG Docket 17-59, Public Notice, 36 FCC Rcd 14268 (2021) (*Pricing PN*).

² *Id.* at 14269.

³ Under the RND's Performance Work Statement, the Administrator notifies the subscriber when the subscriber has used 75% of its queries "to give the subscriber the opportunity to adjust its subscription without interrupting its ability to query the RND." Federal Communications Commission North American Numbering Plan Administrator, Pooling Administrator, and Reassigned Numbers Database Administrator Performance Work Statement at § 1.5, <https://sam.gov/opp/2858385497a641eab4b8068ad337fdb0/view#attachments-links>, attachment 1 – NANPA-PA-RND PWS revised 07-10-2020.

People with Disabilities. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice).

Additional Information. For further information regarding the Public Notice please contact Rebecca Maccaroni of the Consumer and Governmental Affairs Bureau, at (202) 418-7603 or rebecca.maccaroni@fcc.gov.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	ICFS File Nos.:
	)	
Space Exploration Holdings, LLC	)	SAT-LOA-20200526-00055
	)	SAT-AMD-20210818-00105
Request for Deployment and Operating Authority	)	SAT-AMD-20221216-00175
for the SpaceX Gen2 NGSO Satellite System	)	SAT-AMD-20241017-00228
	)	Call Sign: S2992/3069
	)	
Application for Authority for Modification of the	)	SAT-MOD-20230207-00021
SpaceX NGSO Satellite System to Add a Direct to	)	SAT-AMD-20240322-00061
Cellular System	)	Call Sign: S3069
	)	
Application for Modification of the SpaceX V-band	)	SAT-MOD-20240423-00089
Satellite System	)	Call Sign: S2992/3069
	)	
Space Bureau and Wireless Telecommunications	)	GN Docket No. 23-135
Bureau Seek Comment on Filings of SpaceX and	)	
T-Mobile Requesting to Establish Supplemental	)	
Coverage from Space	)	
	)	
	)	

ORDER AND AUTHORIZATION

Adopted: November 26, 2024

Released: November 26, 2024

By the Chief, Space Bureau:

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I. INTRODUCTION

1. In this Order and Authorization (Order), we grant in part and defer in part, with conditions, the application, as amended, of Space Exploration Holdings, LLC (SpaceX) to construct, deploy, and operate a constellation of second generation non-geostationary orbit (NGSO) fixed-satellite service (FSS) satellites, known as its Gen2 Starlink constellation (SpaceX Gen2 Application, as amended).¹ We also grant in part and defer in part, with conditions, SpaceX's modification application, as amended, to provide Supplemental Coverage from Space (SCS) within the United States and to operate on certain frequency bands for the purpose of performing direct-to-cellular (direct-to-cell)² operations outside the United States using its previously authorized 7,500 Gen2 Starlink satellites (SpaceX SCS Modification Application and SpaceX SCS Modification Amendment)³ and grant SpaceX's modification application to operate using V-band frequencies at altitudes ranging from 340 km to 360 km (SpaceX V-band Modification Application).⁴

2. Specifically, we authorize SpaceX to operate its previously authorized 7,500 Gen2 Starlink satellites at the previously proposed altitudes of 340 km, 345 km, 350 km, and 360 km. SpaceX is authorized to communicate with these satellites in the previously authorized Ku-, Ka-, E-, and V-band frequencies,⁵ in conformance with the technical specifications SpaceX has provided to the Commission,⁶

¹ See Space Exploration Holdings, LLC, Application for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-LOA-20200526-00055 (filed May 26, 2020) (SpaceX Gen2 Application); Space Exploration Holdings, LLC, Amendment to Pending Application for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-AMD-20210818-00105 (dated Aug. 18, 2021) (SpaceX Gen2 Amendment); Space Exploration Holdings, LLC, Amendment to Pending Application for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-AMD-20221216-00175 (filed Dec. 16, 2022) (SpaceX Gen2 Beacon Amendment).

² SpaceX and other parties often use the term “direct-to-cell” to mean communications directly from satellites to mobile devices such as cellular phones.

³ See Space Exploration Holdings, LLC, Application for Modification of the Authorization for the SpaceX Gen2 NGSO Satellite System to Add a Direct to Cellular System, ICFS File No. SAT-MOD-20230207-00021 (filed Feb. 7, 2023) (SpaceX SCS Modification); Space Exploration Holdings, LLC, Amendment to Application for Modification of the Authorization for the SpaceX Gen2 NGSO Satellite System to Add a Direct-to-Cellular System, ICFS File No. SAT-AMD-20240322-00061 (filed Mar. 22, 2024) (SpaceX SCS Modification Amendment).

⁴ See Space Exploration Holdings, LLC, Request for Modification of the Authorization for the SpaceX V-band NGSO Satellite System, ICFS File No. SAT-MOD-20240423-00089 (filed Apr. 23, 2024) (SpaceX Second V-band Modification Application).

⁵ See *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, 37 FCC Rcd 14882 (2022) (*SpaceX Gen2 First Partial Grant*); *Space Exploration Holdings, LLC, Application for Modification of Authorization of the SpaceX V-band NGSO Satellite System*, Grant Stamp, ICFS File No. SAT-MOD-20230322-00062 (SB, SPDP, granted-in-part/dismissed-in-part Oct. 13, 2023) (*SpaceX First V-band Modification Grant*); *Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, DA 24-222 (SB rel. Mar. 8, 2024) (*SpaceX E-Band Partial Grant*).

⁶ See SpaceX Gen2 Application, Narrative and Technical Attachment, and SpaceX Second V-band Modification Application, Narrative and Technical Attachment.

3. As part of this authorization, we address comments raised in the record of the Gen2 application, as amended, that we deferred in our first partial grant of the Gen2 Starlink constellation.¹³ In

¹³ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14883, 14897-97, 14922, 14923, 14932-33, 14937, paras. 2, 18-19, 76, 79, 100-101, 112; see also Letter from Kathy Smith, Chief Counsel, National Telecommunications and Information Administration, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20210818-00105 (dated Feb. 8, 2022) (NTIA Letter); Letter from Kathy Smith, Chief Counsel, National Telecommunications and Information Administration, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20210818-00105 (dated Feb. 8, 2022) (NTIA Letter).
(continued...)

connection with this partial grant of SpaceX's SCS modification application, as amended, we address the Petition to Dismiss or Deny filed by DISH Network Corporation (DISH); DISH's Petition for Reconsideration of our December 2023 partial grant of the SpaceX's SCS Modification Application; the Petitions to Deny filed by EchoStar Corporation (EchoStar), and AT&T Services, Inc. (AT&T), the informal objection filed by Omnispace, LLC (Omnispace), the Oppositions filed by the National Radio Astronomy Observatory (NRAO), Omnispace, and Verizon, and the various comments and letters filed regarding this application.¹⁴ We also dismiss EchoStar's Petition for a Protective Order as moot.¹⁵

4. Authorization to permit SpaceX to operate up to 7,500 Gen2 satellites in lower altitude shells will enable SpaceX to begin providing lower-latency satellite service to support growing demand in rural and remote areas that lack terrestrial wireless service options.¹⁶ This partial grant also strikes the right balance between allowing SpaceX's operations at lower altitudes to provide low-latency satellite service and permitting the Commission to continue to monitor SpaceX's constellation and evaluate issues

(Continued from previous page)

Information Administration, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20210818-00105 (dated Mar. 10, 2022) (NTIA March 10, 2022 Letter); Petition of Viasat, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Feb. 8, 2022) (Viasat Petition); Reply of Viasat, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Mar. 8, 2022) (Viasat Reply); Petition to Dismiss or Deny in Part of DISH Network Corporation, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Feb. 8, 2022) (DISH Gen2 Petition); Comments of Kepler Communications, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Jan. 24, 2021) (Kepler Comments); Letter from Darren McKnight, LeoLabs, to Karl A. Kensinger, Chief, Satellite Division, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105, IB Docket No. 18-313 (dated March 29, 2022) (LeoLabs March 29, 2022 Letter); Letter from Professor Andy Lawrence, Institute for Astronomy, University of Edinburgh, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated Sept. 18, 2022) (Andy Lawrence September 18, 2022 Letter); Letter from Jarrett S. Taubman, Vice President and Deputy Chief, Government Affairs, Viasat, Inc., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated Oct. 4, 2022) (Viasat October 4, 2022 Letter).

¹⁴ Petition to Dismiss or Deny of DISH Network Corporation, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 (filed May 18, 2023) (DISH SCS Petition); Opposition of the National Radio Astronomy Observatory, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 (filed May 4, 2023) (NRAO May 4, 2023 Opposition); Opposition of Omnispace LLC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 (filed May 18, 2023) (Omnispace May 18, 2024 Opposition); Petition for Reconsideration of DISH, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 (filed Jan. 2, 2024) (DISH SCS Petition for Reconsideration) (seeking reconsideration of the Space Bureau's partial grant of SpaceX's request to operate in the 1910-1915 MHz and 1990-1995 MHz bands); Petition to Deny Amended Waiver Request and Issue Protective Order of EchoStar, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 (filed May Aug. 12, 2024) (EchoStar Petition); Petition to Deny of AT&T, GN Docket No. 23-135, ICFS File Nos. SAT-MOD-20230207-00021, SAT-AMD-20240322-00061 (filed Aug. 12, 2024) (AT&T Petition); Opposition of Verizon, GN Docket No. 23-135, ICFS File Nos. SAT-MOD-20230207-00021, SAT-AMD-20240322-00061 (filed Aug. 12, 2024) (Verizon August 12, 2024 Opposition). Although Omnispace's August 12, 2024 pleading was titled "Petition to Deny," we will consider it an informal objection because it lacks an affidavit required by our rules. 47 CFR § 25.154(a)(4), (b)(1). See Informal Objection of Omnispace, GN Docket No. 23-135, ICFS File Nos. SAT-MOD-20230207-00021, SAT-AMD-20240322-00061 (filed Aug. 12, 2024) (Omnispace Informal Objection).

¹⁵ Request for Protective Order of EchoStar Corporation, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, GN Docket No. 23-135 (filed Jun. 28, 2024) (EchoStar June 28, 2024 Request for Protective Order).

¹⁶ See Letter from David Goldman, Vice President of Satellite Policy, Space Exploration Holdings LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated Feb. 20, 2024) (SpaceX February 20, 2024 Letter).

previously raised on the record.¹⁷ Additionally, our action today supports the Commission's goal of promoting innovative and efficient use of spectrum resources through SpaceX's provision of SCS in the United States as well as through SpaceX's capability to perform direct-to-cell operations outside the United States. Finally, we find that this action will facilitate SpaceX's operations for its Gen2 system, which the Commission previously found would bring improved broadband connectivity to unserved and underserved areas of the United States.¹⁸

II. BACKGROUND

5. *Original Gen2 Starlink Applications.* On May 26, 2020, SpaceX filed its application¹⁹ as part of the processing round initiated for the 10.7-12.7 GHz, 12.75-13.25 GHz, 13.85-14.5 GHz, 17.7-18.6 GHz, 18.8-20.2 GHz, and 27.5-30 GHz bands by NGSO FSS systems (the 2020 Ku/Ka-band Processing Round).²⁰ The application requests up to 29,988 Gen2 Starlink satellites operating between 340 km and 614 km.²¹ On August 18, 2021, SpaceX initially amended its application to modify the configuration of the Gen2 Starlink satellites.²² Approximately two thirds of the satellites (19,440) would be deployed in shells centered at altitudes from 340 km to 360 km (below the International Space Station (ISS)), approximately one third (10,080) would be deployed in shells centered at altitudes from 525 km to 535 km, and 468 satellites would be deployed into retrograde inclinations in shells centered at altitudes of 604 km and 614 km.²³ The International Bureau, Satellite Division²⁴ found the SpaceX application, as amended, acceptable for filing and placed it on public notice on December 23, 2021.²⁵ A large number of parties filed in response to the SpaceX application, including government agencies, satellite operators,

¹⁷ See generally, *SpaceX Gen2 First Partial Grant*.

¹⁸ See *id.* at 14899, para. 21.

¹⁹ See SpaceX Gen2 Application.

²⁰ See *Cut-Off Established for Additional NGSO FSS Applications or Petitions for Operations in the 10.7-12.7 GHz, 12.75-13.25 GHz, 13.8-14.5 GHz, 17.7-18.6 GHz, 18.8-20.2 GHz, And 27.5-30 GHz Bands, Satellite Policy Branch Information*, Report No. SPB-279, DA 20-325 (rel. Mar. 24, 2020) (2020 Ku/Ka-band Processing Round Public Notice).

²¹ See SpaceX Gen2 Amendment, Narrative at 5.

²² See SpaceX Gen2 Amendment.

²³ See *id.*, Narrative at 5. We note that SpaceX has recently filed two applications, one to modify the orbital parameters, operational characteristics, and frequency use of the previously authorized 7,500 Gen2 satellites, and one to amend the orbital configuration, operational characteristics, and frequency use of the deferred portion of its Gen2 application, as amended. See ICFS File Nos. SAT-MOD-20241011-00224 and SAT-AMD-20241017-00228. These applications remain pending, and this authorization is without prejudice to any potential future action in connection with these applications.

²⁴ On January 4, 2023, the Commission adopted an Order that established the Space Bureau to handle the policy and licensing matters related to satellite communications and other in-space activities formerly handled by the International Bureau, which the Order eliminated. See *Establishment of the Space Bureau and the Office of International Affairs and Reorganization of the Consumer and Governmental Affairs Bureau and the Office of the Managing Director*, MD Docket No. 23-12, Order, 38 FCC Rcd 608, paras. 1-2 (2023). The Space Bureau officially launched on April 11, 2023. See Press Release, FCC, FCC Space Bureau & Office of International Affairs to Launch Next Week (April 7, 2023), <https://docs.fcc.gov/public/attachments/DOC-392418A1.pdf>. All references in this document to the International Bureau and the Satellite Division refer to filings made with, or actions taken by, the International Bureau prior to the establishment of the Space Bureau.

²⁵ *Satellite Policy Branch Information, Space Station Applications Accepted for Filing*, Report No. SAT-01598 (Dec. 23, 2021).

environmental groups, astronomers, students, and members of the general public.²⁶

6. *SpaceX Gen2 Authorizations.* On November 29, 2022, the Commission granted in part and deferred in part SpaceX's application, as amended, authorizing SpaceX to construct, deploy, and operate up to 7,500 Gen2 Starlink satellites, communicating in the Ku- and Ka-bands,²⁷ subject to a number of conditions.²⁸ The Commission deferred action on the remaining satellites requested by SpaceX, and also deferred action on SpaceX's request to operate in orbital shells in the 340 km, 345 km, 350 km, and 360 km altitude range.²⁹ In the *SpaceX Gen2 First Partial Grant*, the Commission granted certain waiver requests, authorized SpaceX to conduct communications during orbit-raising and deorbit of its satellites for launch and early-orbit phase (LEOP) operations, and granted authority for "testing communications equipment performance during the orbit-raising process."³⁰ Two parties appealed the *SpaceX Gen2 First Partial Grant* to the D.C. Circuit Court of Appeals, raising issues related to interference into other satellite systems and environmental review.³¹ In July 2024, the D.C. Circuit upheld the *SpaceX Gen2 First Partial Grant*.³² Two additional parties have submitted petitions for reconsideration of the *SpaceX Gen2 First Partial Grant* to the Commission, both of which remain pending.³³

7. The Space Bureau, Satellite Programs and Policy Division later granted, with conditions, SpaceX's request for modification of its Gen2 license to authorize SpaceX to operate in the V-band, 37.5-40.0 GHz (space-to-Earth), 40.0-42.0 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space), and 50.4-51.4 GHz (Earth-to-space), using its Gen2 satellites (*SpaceX First V-band Modification Grant*).³⁴ In a further partial grant, the Space Bureau authorized SpaceX to operate using E-band frequencies in the 71.0-76.0 GHz (space-to-Earth) and the 81.0-86.0 GHz (Earth-to-space) bands on its 7,500 authorized Gen2 satellites (*SpaceX E-band Partial Grant*).³⁵ On November 20, 2024, the Space Bureau authorized SpaceX to operate very high frequency (VHF) beacons on up to 450 of its Gen2 Starlink satellites for purposes of backup telemetry, tracking, and command (TT&C) during orbit raising operations and in the

²⁶ See, e.g., *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14887-88, 14889-93, paras. 6, 9, n.35, n.51, n.52, n.54, n.55, n.56, n.57, n.58, n.59, n.60, n.61 (describing the record before the Commission adopted the *SpaceX Gen2 First Partial Grant*).

²⁷ Specifically, the Commission granted SpaceX authority to operate in the Ku-band in the 10.7-12.75 GHz (space-to-Earth), 12.75-13.25 GHz (Earth-to-space), and 14.0-14.5 GHz (Earth-to-space) bands and in the Ka-band in the 17.8-18.6 GHz (space-to-Earth), 18.8-19.3 GHz (space-to-Earth), 19.7-20.2 GHz (space-to-Earth), 27.5 GHz (Earth-to-space), and 29.5-30.0 GHz (Earth-to-space) bands. See *id.* at 14911, para. 42; 14915, para. 53.

²⁸ See generally *SpaceX Gen2 First Partial Grant*.

²⁹ See *id.* at 14897, para. 19.

³⁰ See *id.* at 14927-28, paras. 90-91.

³¹ *International Dark-Sky Association v. FCC*, No. 22-1337 (D.C. Cir. filed Dec. 29, 2022), *Dish Network Corp. v. FCC*, No. 23-1001 (D.C. Cir. filed Jan. 3, 2023).

³² See *International Dark-Sky Association, Inc., v. FCC*, 106 F.4th 1206 (D.C. Cir. 2024).

³³ See Petition for Reconsideration of LeoLabs, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Dec. 30, 2022); Petition for Clarification of Viasat, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Jan. 3, 2023).

³⁴ See *SpaceX First V-band Modification Grant*. SpaceX was originally authorized to operate up to 7,500 satellites as part of a separate V-band constellation, but later committed to instead deploying the V-band capabilities on its Gen2 satellites. See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14883, 14896, paras. 2, 19. SpaceX has submitted a further modification application related to its V-band capabilities, requesting modification of the bond and milestone conditions applicable to its V-band operations. See ICFS File No. SAT-MOD-20240813-00183. This modification request remains pending.

³⁵ *SpaceX E-Band Partial Grant*.

event of an anomaly once the satellites reached their operational altitudes.³⁶

8. *SCS-Related Requests and NPRM.* On February 7, 2023, SpaceX filed an application requesting modification of its U.S. license for its Gen2 Starlink satellites (1) to deploy antennas capable of communicating with mobile devices in the 1429-2690 MHz range outside of the United States; and (2) to operate in the 1910-1915 MHz and 1990-1995 MHz bands within the United States to communicate with commercial, off-the-shelf mobile devices pursuant to a long-term spectrum manager lease arrangement with T-Mobile (SpaceX SCS Application).³⁷ SpaceX sought to support these operations with feeder links utilizing frequencies in the Ka-band and E-band for gateway operations.³⁸ SpaceX and T-Mobile filed a long-term spectrum manager lease notification informing the Commission of an arrangement whereby SpaceX satellites would provide SCS to T-Mobile's terrestrial network on Personal Communications Service (PCS) G Block spectrum, *i.e.* the 1910-1915 MHz and 1990-1995 MHz bands, licensed to T-Mobile.³⁹

9. On March 17, 2023, the Commission released a Notice of Proposed Rulemaking seeking comment on establishing an SCS framework through which satellite operators collaborating with terrestrial service providers would be able to obtain Commission authorization to operate space stations on currently licensed, flexible-use spectrum allocated to terrestrial services, thus expanding coverage to the terrestrial licensee's subscribers, especially in remote, unserved, and underserved areas.⁴⁰

10. On April 18, 2023, the Space Bureau and Wireless Telecommunications Bureau (WTB) jointly placed the SpaceX SCS Modification Application and T-Mobile's lease notification on public notice.⁴¹ DISH filed a Petition to Dismiss or Deny, Omnispace and the NRAO filed Oppositions, and several parties filed comments.⁴²

11. On December 1, 2023, the Satellite Programs and Policy Division issued a limited grant-in-part of the SpaceX SCS Modification Application (*SpaceX SCS Modification Partial Grant*) authorizing SpaceX to deploy Gen2 Starlink satellites with the capability to operate in certain frequencies in the 1429 MHz to 2690 MHz range and also operate these satellites on frequencies within the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) frequency bands for limited on-orbit check out of the antennas immediately following deployment of each satellite for a period of 10 days or

³⁶ *SpaceX Gen2 Beacon Order.*

³⁷ See SpaceX SCS Modification, Technical Annex at 1, 13. Previously, on December 6, 2022, SpaceX filed a petition for a declaratory ruling granting market access to operate its Gen2 Starlink satellites in the United States in the 1910-1915 MHz and 1990-1995 MHz bands to communicate with commercial, off-the-shelf mobile devices that are intended to communicate with terrestrial networks. See ICFS File No. SAT-PPL-20221206-00170. SpaceX received a license for the requested operations through the German Administration, which had submitted the system for coordination with the ITU. See ICFS File No. SAT-PPL-20221206-00170, Petition at 1. SpaceX subsequently withdrew this request.

³⁸ See SpaceX SCS Modification, Narrative at 9.

³⁹ See ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (filed Dec. 6, 2022 and amended on Feb. 7, 2023 and Sept. 23, 2024; granted on Nov. 26, 2024).

⁴⁰ *Single Network Future: Supplemental Coverage from Space, Space Innovation*, GN Docket No. 23-65, IB Docket No. 22-271, Notice of Proposed Rulemaking, 38 FCC Rcd 2790 (2023).

⁴¹ *Space Bureau and Wireless Telecommunications Bureau Seek Comment on Filings of SpaceX and T-Mobile Requesting to Establish Supplemental Coverage from Space; Space Exploration Holdings, LLC Application Accepted for Filing*, GN Docket No. 23-135, Public Notice, 38 FCC Rcd 3434 (SB/WTB 2023).

⁴² See *e.g.*, DISH SCS Petition; Omnispace May 18, 2024 Opposition; NRAO May 4, 2023 Opposition.

less, to ensure initial functionality of the satellite antenna.⁴³ This grant did not include authorization of other testing or commercial operations.⁴⁴ Following this partial grant, DISH filed a Petition for Reconsideration.⁴⁵ SpaceX then sought special temporary authority (STA) under the Commission's part 5 experimental licensing framework in order to test with antennas capable of performing SCS in the United States and direct-to-cell operations outside the United States.⁴⁶ The Office of Engineering and Technology has granted SpaceX several experimental STAs for this type of testing.⁴⁷ SpaceX has also requested and received from the Satellite Programs and Policy Division two limited part 25 STAs to provide SCS in areas of the United States affected by Hurricanes Helene and Milton.⁴⁸

12. *300 km Altitude Requests and SCS Application Amendment.* On February 20, 2024, SpaceX filed a letter in the docket for its Gen2 application, as amended, requesting to “leverage the shells included in its application in the 340 km-360 km range as an option within its authorized first tranche of 7,500 satellites.”⁴⁹ On March 22, 2024, SpaceX amended its SCS modification application to include its

⁴³ See *Space Exploration Holdings, LLC, Application for Modification of the Authorization for the SpaceX Gen2 NGSO Satellite System*, Grant Stamp, ICFS File No. SAT-MOD-20230207-00021 (granted-in-part/deferred-in-part Dec. 1, 2023) (*SpaceX SCS Modification Partial Grant*), petition for reconsideration pending.

⁴⁴ See *id.* at condition 6.

⁴⁵ See generally DISH SCS Petition for Reconsideration.

⁴⁶ See ELS File Nos. 1279-EX-CN-2023 (granted Sept. 26, 2023); 2479-EX-ST-2023 (granted Dec. 20, 2023); 0519-EX-ST-2024 (granted Mar. 29, 2024); 0934-EX-ST-2024 (granted June 21, 2024; re-issued Oct. 2, 2024); 1210-EX-ST-2024 (granted Jul. 9, 2024; re-issued Sept. 20, 2024); 1287-EX-ST-2024 (granted Sept. 26, 2024); 1209-EX-ST-2024 (granted Oct. 7, 2024); 0661-EX-ST-2024 (filed Apr. 8, 2024); 1798-EX-ST-2024 (granted Nov. 8, 2024; re-issued Nov. 18, 2024); 2103-EX-ST-2024 (filed Nov. 8, 2024).

⁴⁷ See ELS File Nos. 1279-EX-CN-2023 (granted Sept. 26, 2023); 2479-EX-ST-2023 (granted Dec. 20, 2023); 0519-EX-ST-2024 (granted Mar. 29, 2024); 0934-EX-ST-2024 (granted June 21, 2024; re-issued Oct. 2, 2024); 1210-EX-ST-2024 (granted Jul. 9, 2024; re-issued Sept. 20, 2024); 1287-EX-ST-2024 (granted Sept. 26, 2024); 1209-EX-ST-2024 (granted Oct. 7, 2024); 1798-EX-ST-2024 (granted Nov. 8, 2024; re-issued Nov. 18, 2024).

⁴⁸ See ICFS File Nos. SAT-STA-20241007-00215 (granted Oct. 4, 2024 and renewed Oct. 23, 2024); SAT-STA-20241007-00216 (granted Oct. 7, 2024 and renewed Oct. 23, 2024).

⁴⁹ See SpaceX February 20, 2024 Letter. Two parties, Kuiper Systems LLC (Kuiper) and O3b Limited (O3b) responded to SpaceX's letter, raising interference concerns and requesting the Commission place the SpaceX Gen2 Application, as amended, on public notice again to give interested parties an opportunity to raise any additional concerns with respect to SpaceX's request to operate at lower altitudes. See Letter from Suzanne Malloy, Vice President Legal and Regulatory Affairs, O3b Limited, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated Feb. 28, 2024) (O3b February 28, 2024 Letter); Letter from Michael J. Carlson, Senior Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated March 8, 2024) (Kuiper March 8, 2024 Letter). SpaceX replied to these letters, objecting to the possibility of the Commission placing its Gen2 application, as amended, on public notice for a second time, noting that the application had already been placed on public notice on December 23, 2021. See *Satellite Policy Branch Information, Space Station Applications Accepted for Filing*, Report No. SAT-01598 (Dec. 23, 2021); Letter from Jameson Dempsey, Satellite Policy Director, Space Exploration Holdings, LLC, to Marlene H. Dortch, Secretary, FCC ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (dated Mar. 11, 2024) (SpaceX March 11, 2024 Letter). In response, the Satellite Programs and Policy Division on July 12, 2024 placed the application, as amended, on public notice again, but only with respect to the additional information provided in the SpaceX June 20, 2024 Response. See Letter from David Goldman, Vice President of Satellite Policy, Space Exploration Technologies Corp., to Merissa L. Velez, Chief, Satellite Programs and Policy Division, FCC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, and GN Docket No. 23-135 (dated June 20, 2024) (SpaceX June 20, 2024 Response); see also *Satellite Licensing Division and Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing*, Report No. SAT-01836 (Jul. 12, 2024) (SPPD July 12, 2024 Public

(continued....)

request to operate in the 340 km, 345 km, 350 km, and 360 km range.⁵⁰ In this amendment, SpaceX requests authority to operate its Gen2 Starlink satellites in the mobile-satellite service (MSS) using frequencies in the 1429-2690 MHz (space-to-Earth and Earth-to-space) range for links to end-user devices outside the United States.⁵¹ On April 23, 2024, SpaceX filed a modification⁵² seeking to operate using authorized V-band frequencies in the 340 km to 360 km altitude shells.⁵³ On June 6, 2024, SpaceX supplemented its amendment with a request for a waiver, *inter alia*, of section 25.202(k)(1) of the Commission's rules regarding out of band emission (OOBE) limits.⁵⁴

13. On June 7, 2024, the Satellite Programs and Policy Division requested SpaceX provide additional information to assist in the review of SpaceX's 300 km altitude request and SCS application, as amended.⁵⁵ SpaceX responded on June 20, 2024.⁵⁶ Because part of SpaceX's response, specifically SpaceX's average direct-to-cell transmit antenna pattern, was filed confidentially, EchoStar filed a request for a protective order to allow outside counsel and experts for interested parties to review the information SpaceX designated as confidential, which Omnispace supported and SpaceX objected to.⁵⁷ On July 12, 2024, the Satellite Programs and Policy Division accepted SpaceX's requests for filing and placed the

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Notice). The Public Notice also clarified that it did not initiate a second petition-to-deny period. *See id.* *See also* GN Docket No. 23-135.

⁵⁰ *See* SpaceX SCS Modification Amendment.

⁵¹ *See id.*, Narrative at 6; Schedule S at 3. We note that SpaceX has recently submitted two filings seeking to modify the orbital parameters, operational characteristics, and frequency use of the previously authorized 7,500 Gen2 satellites, as well as amend the deferred portion of its Gen2 application, as amended, including a request to use the 1429-2690 MHz band for MSS across all of its proposed 29,988 Gen2 Starlink satellites. *See* ICFS File Nos. SAT-MOD-20241011-00224 and SAT-AMD-20241017-00228. These requests remain pending, and this authorization is without prejudice to any potential future action in connection with these filings.

⁵² *See* SpaceX Second V-band Modification Application.

⁵³ SpaceX filed a request for STA on May 22, 2024, seeking to operate satellites at lower altitudes while its underlying request, amendment, and modification applications were reviewed. *See* Space Exploration Holdings, LLC, Request for Special Temporary Authority, ICFS File No. SAT-STA-20240522-00108 (filed May 22, 2024). *See also* Letter from Jameson Dempsey, Director of Satellite Policy, Space Exploration Holdings LLC, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-STA-20240522-00108 (dated Aug. 31, 2024). To date, no action has been taken on this STA request.

⁵⁴ 47 CFR § 25.202(k)(1); *see* SpaceX June 6, 2024 Letter at 1-2.

⁵⁵ *See* Letter from Merissa L. Velez, Chief, Satellite Programs and Policy Division, Space Bureau, Federal Communications Commission, to William M. Wiltshire, Counsel, Space Exploration Holdings, LLC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, GN Docket No. 23-135 (dated Jun. 7, 2024) (Commission June 7, 2024 Information Request).

⁵⁶ *See* SpaceX June 20, 2024 Response.

⁵⁷ EchoStar June 28, 2024 Request for Protective Order; Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135 (dated Jul. 5, 2024) (Omnispace July 5, 2024 Letter); Letter from Jameson Dempsey, Director of Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, and SAT-AMD-20240322-00061, GN Docket No. 23-135 (dated Jul. 9, 2024) (SpaceX July 9, 2024 Letter); Letter from Pantelis Michalopoulos, Counsel, EchoStar Corporation, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, GN Docket No. 23-135 (dated Jul. 12, 2024) (EchoStar July 12, 2024 Letter).

applications on public notice.⁵⁸ EchoStar and AT&T filed Petitions to Deny,⁵⁹ Omnispace filed an informal objection,⁶⁰ and Verizon filed an opposition.⁶¹ SpaceX and T-Mobile filed consolidated oppositions,⁶² and EchoStar, AT&T, and the Rural Wireless Association (RWA) filed replies.⁶³ SpaceX has also submitted multiple *ex parte* filings.⁶⁴ We note that with the exception of Omnispace's informal objection, no commenters raised concerns regarding SpaceX's proposed operations at lower altitudes, while all other commenters, with T-Mobile excepted, raise concerns regarding SpaceX's request for waiver of the Commission's OOB limit for SCS operations.⁶⁵ The Space Bureau and WTB requested SpaceX provide additional information on September 6, 2024, and SpaceX responded on September 13, 2024.⁶⁶ Also, on September 18, 2024, SpaceX filed reference patterns and a comma-separated values (CSV)⁶⁷ file with the specific data points in the pattern, and SpaceX withdrew its average direct-to-cell

⁵⁸ See SPPD July 12, 2024 Public Notice. In this public notice, the Division also placed the original Gen2 application, as amended, on public notice for a second time, but only with respect to the additional information provided in the SpaceX June 20, 2024 Response. *Id.* See *supra* n.49. See also GN Docket No. 23-135.

⁵⁹ See EchoStar Petition; AT&T Petition.

⁶⁰ See Omnispace Informal Objection; see also *supra* n.14.

⁶¹ See Verizon August 12, 2024 Opposition.

⁶² Opposition of Space Exploration Holdings LLC, ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (filed Aug. 22, 2024) (SpaceX August 22, 2024 Opposition); Response of T-Mobile USA, ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (filed Aug. 22, 2024) (T-Mobile August 22, 2024 Response).

⁶³ Reply of EchoStar Corporation, ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (filed Aug. 27, 2024) (EchoStar Reply); Reply of AT&T Inc., ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (filed Aug. 29, 2024) (AT&T August 29, 2024 Reply); Reply of The Rural Wireless Association Inc., ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (filed Aug. 30, 2024) (RWA August 30, 2024 Reply).

⁶⁴ See e.g., Ex Parte Presentation of Space Exploration Holdings LLC, ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (dated Aug. 12, 2024) (SpaceX August 12, 2024 Ex Parte); Ex Parte Presentation of Space Exploration Holdings LLC, ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, GN Docket No. 23-135 (dated Aug. 23, 2024) (SpaceX August 23, 2024 Letter).

⁶⁵ See e.g., EchoStar Petition at 2-4 (arguing that the Commission has already responded to, and rejected, SpaceX's call for a weaker aggregate out-of-band emissions limit and that there is still no evidence that SpaceX's proposed operations can provide any protection from harmful interference for services operating in adjacent bands); AT&T Petition at 3, 6 (arguing that granting the waiver request will cause harmful interference to incumbent terrestrial mobile networks and that SpaceX has yet to demonstrate why it cannot meet the Commission's aggregate PFD limit); Verizon Opposition at 3 (arguing that SpaceX's proposal would undermine the Commission's core goal of protecting incumbent terrestrial licensee operations from SCS satellite operations in adjacent bands by subjecting them to harmful interference).

⁶⁶ See Letter from Merissa L. Velez, Chief, Satellite Programs and Policy Division, Space Bureau, Federal Communications Commission, to William M. Wiltshire, Counsel, Space Exploration Holdings, LLC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, SAT-STA-20240522-00108, GN Docket No. 23-135, ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (dated Sept. 6, 2024) (Commission September 6, 2024 Information Request); see also Letter from David Goldman, Vice President Satellite Policy, Space Explorations Technologies Corp., to Merissa Velez, Chief, Satellite Programs and Policy Division, Space Bureau, Federal Communications Commission, File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, SAT-STA-20240522-00108, GN Docket No. 23-135, ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (dated Sept. 13, 2024) (SpaceX September 13, 2024 Letter).

⁶⁷ A CSV file "is a text file in which information is separated by commas." See Dave Johnson, *What is a CSV file? How to Open and Use the Popular Spreadsheet File* (Apr. 8, 2022),

(continued....)

transmit antenna pattern for which SpaceX had sought confidential treatment.⁶⁸

14. *The Commission's SCS Framework.* On March 14, 2024, in the *SCS R&O*, the Commission adopted an SCS licensing framework.⁶⁹ The Commission modified the United States Table of Frequency Allocations to authorize bi-directional, secondary MSS operations in certain spectrum bands that have no primary, non-flexible-use legacy incumbents, federal or non-federal.⁷⁰ The Commission further adopted rules that would authorize SCS only where one or more terrestrial licensees—together holding all licenses on the relevant channel throughout a defined geographically independent area (GIA)—lease access to their spectrum rights to a participating satellite operator, whose part 25 license reflects these frequencies and the GIA in which they will offer SCS.⁷¹ Similarly, the Commission adopted entry criteria that satellite operators must meet to apply for or modify an existing part 25 space station license to operate satellites in certain bands that will be available for the provision of SCS (SCS Bands) while imposing technical rules and other recommendations to mitigate potential harmful interference to existing services.⁷² The Commission also clarified applicable international coordination obligations and outlined steps to ensure that SCS operations will be consistent with relevant ITU Radio Regulations.⁷³ In a Further Notice of Proposed Rulemaking accompanying the *SCS R&O (SCS FNPRM)*,⁷⁴ the Commission seeks comment on improving 911 service for SCS and on procedures related to the protection of radio astronomy.

III. DISCUSSION

15. Below, we address the various outstanding issues raised by SpaceX's applications and comments raised on the record. Where appropriate we defer matters of general applicability to ongoing or potential future rulemakings.

A. Public Interest Considerations

16. We find that it is in the public interest to authorize SpaceX to provide SCS in the United States and to operate with the purpose of performing direct-to-cell operations outside the United States with all of its 7,500 previously authorized Gen2 Starlink satellites and to authorize SpaceX to operate its previously authorized 7,500 Gen2 Starlink satellites at altitudes of 340 km, 345 km, 350 km, and 360 km.

17. In the *SCS R&O*, the Commission recognized that satellite-to-device connectivity can support critical public interest benefits, including ubiquitous connectivity, access to 911 service from remote areas, technological advancement, and innovative spectrum use.⁷⁵ The Commission also found that the SCS framework will expand the reach of communications services, particularly emergency services, spur advancements in cutting-edge, space-based technologies, and continue the Commission's

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<https://www.businessinsider.com/guides/tech/what-is-csv-file>. It can be “open[ed] in a wide variety of programs, including any program that works with plain text.” *See id.*

⁶⁸ See Letter from David Goldman, Vice President of Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, and SAT-MOD-20230207-00021; GN Docket No. 23-135; ULS File Nos. 0010303032, 0010303084, 0010303124, 0010303146 at 1 (dated Sept. 18, 2024) (SpaceX September 18, 2024 Letter).

⁶⁹ *See generally SCS R&O.*

⁷⁰ *See id.* at para. 47.

⁷¹ *See id.* at para. 63.

⁷² *See id.* at paras. 62-77, 140-152, 193-222.

⁷³ *See id.* at paras. 223-235.

⁷⁴ *See id.* at paras. 239-256.

⁷⁵ *See SCS R&O*, para. 18.

efforts to promote the innovative and efficient use of our nation's spectrum resources.⁷⁶ We find that, in utilizing the SCS framework that the Commission established, SpaceX is directly furthering those goals that the Commission envisioned. Through its lease arrangement with T-Mobile, SpaceX's Gen2 Starlink satellites can enable consumers outside the range of T-Mobile's network to be connected while using their existing devices.⁷⁷ We find that SpaceX and T-Mobile's SCS operations will yield many benefits, including an increase in access to emergency services in areas where consumers would otherwise not have the capability to access a terrestrial network to call or text 911, as evidenced, for example, through SpaceX's provision of emergency SCS in areas affected by Hurricanes Helene and Milton.⁷⁸ Also, SpaceX and T-Mobile's SCS service is reflective of an increase in innovation, investment, and competition in the marketplace that the Commission sought to encourage in the *SCS R&O*.⁷⁹ Similarly, by utilizing this SCS framework, SpaceX is able to provide a service that will benefit consumers while minimizing any risk of harmful interference to terrestrial providers and other satellite operators.⁸⁰

18. Moreover, we conclude that authorization to operate at lower altitudes will improve service to SpaceX's customers, as well as reduce risk of long-term debris at these altitudes by reducing collision risk and satellite demise times in the event of an anomaly on orbit. Granting SpaceX's request to include the lower altitudes of 340 km, 345 km, 350 km, and 360 km as an option for deployment for its previously-authorized 7,500 satellites, conditioned on limited deployment to these lower altitudes consistent with SpaceX's coordination with NASA pursuant to their Space Act Agreement, will allow the Commission to continue to monitor operations, noting additional issues raised in the Gen2 application record regarding interference, orbital debris mitigation, and impacts on optical astronomy with respect to SpaceX's entire proposed constellation of nearly 30,000 satellites.⁸¹

19. In an *ex parte* letter, Kuiper raises questions about the extent to which the Space Bureau can "modify the altitudes" adopted in the *SpaceX Gen2 First Partial Grant*, which was adopted by the Commission, or whether this amounts to an untimely Petition for Reconsideration.⁸² The Space Bureau has delegated authority under the Commission's rules to "act upon applications for satellite systems and earth stations pursuant to part 25."⁸³ Our action today is consistent with prior actions, including prior

⁷⁶ See *id.* at para. 2.

⁷⁷ See *id.* at para. 1; SpaceX SCS Modification, Narrative at 13; ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (filed Dec. 6, 2022, and amended on Feb. 7, 2023 and Sept. 23, 2024; granted on Nov. 26, 2024). But see AT&T June 5, 2023 Reply at 5 (arguing that replacing fifth-generation terrestrial mobile broadband services with the basic texting capability SCS currently offers contravenes the public interest). AT&T's argument is incorrect since SCS will only be enabled where there has not been fifth-generation buildout by the mobile broadband provider.

⁷⁸ See ICFS File Nos. SAT-STA-20241007-00215 (granted Oct. 4, 2024 and renewed Oct. 23, 2024); SAT-STA-20241007-00216 (granted Oct. 7, 2024 and renewed Oct. 23, 2024); see e.g., Chris Velazco, *When Storms Knock Out Cell Service, Satellites Can Help Keep You Connected* (Oct. 10, 2024), <https://www.washingtonpost.com/technology/2024/10/10/how-text-message-satellite-without-cell-service/>.

⁷⁹ See *SCS R&O*, paras. 2, 44, 238; SpaceX SCS Modification, Narrative at 5, 10; see also Letter from Kara Azocar, Vice President, Regulatory, Iridium Communications Inc., and L. Barbee Ponder IV, General Counsel and Vice President, Regulatory Affairs, Globalstar, Inc., to Marlene H. Dortch, Secretary, FCC at 3 (dated June 28, 2023).

⁸⁰ See *SCS R&O*, para. 3; SpaceX SCS Modification, Narrative at 12. But see Reply of DISH Network Corporation, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2 (filed June 5, 2023) (DISH SCS Reply); Reply of AT&T Services, Inc., GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 5-6 (filed June 5, 2023) (AT&T June 5, 2023 Reply).

⁸¹ As noted, SpaceX's request that its license cover deployment and operations of satellites in its proposed Gen2 system beyond the 7,500 satellites previously authorized remains pending.

⁸² See Kuiper March 8, 2024 Letter at 2, fn. 8.

⁸³ 47 CFR § 0.261(a)(2).

modifications or further grants in part of SpaceX's licenses made at the Bureau level after an initial authorization at the Commission level.⁸⁴ We make our findings in these application proceedings taking into account prior Commission determinations and guidance, including the Commission's SCS rulemaking proceeding and the Commission's initial license grant for SpaceX's Gen2 system. Consistent with our delegated authority, we address any concerns raised in the record and process the modification requests consistent with the Commission's rules and the established SCS framework. In addition, we are not "modifying the altitudes" adopted in the *SpaceX Gen2 First Partial Grant*, as Kuiper claims.⁸⁵ Instead, we are further granting in part SpaceX's application, as amended, for its Gen2 system, which originally included a request to operate at the 340 km, 345 km, 350 km, and 360 km shells that we authorize today.⁸⁶ Finally, we are not authorizing any additional satellites beyond the 7,500 already authorized in the *SpaceX Gen2 First Partial Grant*.

20. Additionally, we disagree with Kuiper's characterization that SpaceX's February 20, 2024 request to add the 340 km, 345 km, 350 km, and 360 km orbital shells as options for deployment for its Gen2 satellites is an untimely Petition for Reconsideration.⁸⁷ When the Commission adopted the *SpaceX Gen2 First Partial Grant*, it deferred consideration of SpaceX's proposed operations at lower altitudes and higher altitudes, as well as the additional 22,488 satellites SpaceX proposed to operate as part of its Gen2 Starlink constellation, but the Commission did not deny SpaceX's application for these operations.⁸⁸ Petitions for Reconsideration may only be filed on final Bureau or Commission actions.⁸⁹ Therefore, SpaceX is not requesting the Commission reconsider the *SpaceX First Partial Grant*, but rather requesting further action on the pending portion of its Gen2 application, as amended, to expand operational flexibility based on new information on the performance of its Gen2 satellites at lower altitudes that SpaceX did not have at the time the Commission adopted the *SpaceX Gen2 First Partial Grant*.⁹⁰ Our action today is therefore a further partial grant of SpaceX's Gen2 Application, as amended, and not an action taken on an untimely Petition for Reconsideration.

21. Kuiper also requests that the Commission "establish a clear process for future expansions of SpaceX's Gen2 system."⁹¹ We decline to adopt a bespoke process for consideration of future expansions of SpaceX's Gen2 system, as requested by Kuiper.⁹² Kuiper states that such a process need not be overly lengthy or formalistic but should ensure that interested parties have a reasonable opportunity to comment on any changes proposed by SpaceX.⁹³ Interested parties, however, had appropriate notice and time to comment on SpaceX's request to operate in the 300 km shells during the

⁸⁴ See e.g., *Space Exploration Holdings, LLC*, Grant Stamp, ICFS File No. SAT-MOD-20230215-00036 (granted Aug. 16, 2024) (*SpaceX Gen1 Fourth Modification Grant Stamp*) (Bureau-level grant stamp modifying initial Commission-level Order authorizing SpaceX's Gen1 system, see *Space Exploration Holdings, LLC, Application for Approval for Orbital Deployment and Operating Authority for the SpaceX NGSO Satellite System*, Memorandum Opinion, Order and Authorization, 33 FCC Rcd 3391 (2018)); *SpaceX E-band Partial Grant* (Bureau-level Order modifying initial Commission-level Order authorizing SpaceX's Gen2 system).

⁸⁵ Kuiper March 8, 2024 Letter at 2, fn. 8.

⁸⁶ See SpaceX Gen2 Application, as amended. We also note that Kuiper's arguments were concerned only with SpaceX's Gen2 Application, as amended, and were not filed on SpaceX's V-band or SCS Modifications.

⁸⁷ See Kuiper March 8, 2024 Letter at 2, fn. 8.

⁸⁸ See generally *SpaceX Gen2 First Partial Grant*.

⁸⁹ 47 CFR § 1.106(a).

⁹⁰ See generally SpaceX February 20, 2024 Request.

⁹¹ See Kuiper March 8, 2024 Letter at 2.

⁹² See *id.*

⁹³ See *id.*

public notice period for SpaceX's original Gen2 application, as amended.⁹⁴ Additionally, interested parties had appropriate notice and time to comment on SpaceX's request to modify its V-band authorization⁹⁵ and SpaceX's amended request to modify its SCS authorization.⁹⁶ Finally, interested parties were also able to comment on any new information related to SpaceX's operations at 340-360 km that was provided in SpaceX's June 20, 2024 letter responding to the Space Bureau's information request.⁹⁷ With respect to the issues raised during the initial comment period for SpaceX's Gen2 system that were deferred in the *SpaceX Gen2 First Partial Grant*, we address those concerns in this Order as they pertain to the 7,500 satellites authorized today. We will continue to consider these issues concerning SpaceX's proposed operations at lower shells and address them in any future grants of authority for operations at lower shells or for deployment of additional satellites. We also note that this authorization is without prejudice to any further action regarding aspects of SpaceX's various applications deferred today or any other application SpaceX has filed with the Commission or may file in the future.⁹⁸

B. Supplemental Coverage from Space

22. After review of the record, we grant in part SpaceX's application, as amended, authorizing SpaceX to provide SCS in the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) bands in the United States pursuant to a lease arrangement with T-Mobile and to operate its satellites in the MSS in certain sub-bands within the 1429 MHz to 2690 MHz (space-to-Earth and Earth-to-space) bands for the purpose of direct-to-cell operations outside the United States, as conditioned.⁹⁹ We defer consideration of SpaceX's request for waiver of the OOB limit required for SCS operations in section 25.202(k)(1) of the Commission's rules.

1. Grant of Application to Provide SCS

23. In the *SCS R&O*, the Commission adopted entry criteria for NGSO and geostationary satellite orbit (GSO) operators that seek to apply for or modify an existing part 25 license to operate satellites in the SCS Bands in the United States and its territories.¹⁰⁰ Specifically, the Commission established an SCS framework allowing satellite operators to apply to modify a current part 25 license to

⁹⁴ See *Satellite Policy Branch Information, Space Station Applications Accepted for Filing*, Report No. SAT-01598 (Dec. 23, 2021). Commenters filed numerous letters, *ex parte* presentations, and comments on the record for SpaceX's Gen2 Application, as amended, prior to the application being placed on public notice and well after the deadline for filing comments. See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14887-88, para. 6. Additionally, pursuant to a request from Kuiper supported by Viasat, the Satellite Division extended the original deadline for filing petitions to deny on SpaceX's Gen2 Application, as amended, from January 24, 2022, to February 8, 2022. See *Satellite Policy Branch Information, Actions Taken*, Report No. SAT-01601 (Jan. 13, 2021). Interested parties have had adequate notice and time to comment on SpaceX's request to operate in the 300 km shells, and parties have continued to file comments on the record in the two years since the *SpaceX Gen2 First Partial Grant*.

⁹⁵ See SpaceX Second V-band Modification Application. This application was placed on public notice on July 12, 2024. See SPPD July 12, 2024 Public Notice.

⁹⁶ See SpaceX SCS Modification Amendment. This application was placed on public notice on July 12, 2024. See SPPD July 12, 2024 Public Notice.

⁹⁷ See SPPD July 12, 2024 Public Notice. In this public notice, the Division also placed the original Gen2 application, as amended, on public notice for a second time, but only with respect to the additional information provided in the SpaceX June 20, 2024 Response. *Id.* See *supra* n.49. See also GN Docket No. 23-135.

⁹⁸ See e.g. ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, SAT-MOD-20240423-00089, SAT-MOD-20240813-00138, SAT-MOD-20241011-00224, and SAT-AMD-20241017-00228.

⁹⁹ In this document, the term "United States" refers to the contiguous United States (CONUS), as well as Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands and all U.S. territories.

¹⁰⁰ See *SCS R&O*, at paras. 62-77.

include SCS where: (1) the satellite operator has one or more leasing notification(s) or application(s), or in the case of FirstNet, a Form 601, on file with the Commission to access the spectrum allocated for MSS provision of SCS from a single terrestrial licensee or multiple licensees that hold, collectively or individually, all co-channel licenses throughout a GIA; (2) the current part 25 space station licensee or part 25 grantee of market access for NGSO or GSO satellite operation seeks modification of authority to provide SCS in the same geographic areas covered in the relevant GIA; and (3) the terrestrial devices involved in SCS qualify as “licensed by rule” earth stations under the new provisions of part 25.¹⁰¹

24. As informed by these entry criteria, we find that SpaceX’s application supports the grant of a license for the provision of SCS in the United States.¹⁰² SpaceX holds an existing part 25 license for its Gen2 Starlink satellites and has a lease arrangement with T-Mobile who holds all co-channel licenses throughout all relevant GIAs, namely CONUS, Alaska, Hawaii, and Puerto Rico.¹⁰³ In addition, SpaceX has certified that the lease notification covering the arrangement between SpaceX and T-Mobile is on file with the Commission.¹⁰⁴ SpaceX further states that this lease arrangement covers CONUS, Alaska, Hawaii, and Puerto Rico—across which SpaceX will provide SCS.¹⁰⁵ Earlier today, the Commission granted SpaceX and T-Mobile’s applications for SpaceX’s SCS leases of T-Mobile’s PCS-G spectrum.¹⁰⁶ SpaceX likewise certifies that the terrestrial devices used for SCS will qualify as “licensed by rule” earth stations.¹⁰⁷ We also find, as a whole, SpaceX has provided a comprehensive and consistent proposal for the prospective SCS system on FCC Form 312, Main Form and Schedule S in accordance with the Commission’s rules.¹⁰⁸ DISH argues that SpaceX has not provided clarity about the number of satellites it seeks to deploy and the timeline for launch of those satellites and that such information is critical to evaluating the instant application.¹⁰⁹ However, we find that the information SpaceX has provided is sufficient for this grant, as conditioned. SpaceX’s application solely seeks to add a new antenna to 7,500 currently authorized Gen2 Starlink satellites, and SpaceX has provided the necessary information about those 7,500 satellites, including analysis relating to issues including the potential for harmful interference,

¹⁰¹ See 47 CFR § 25.125; *SCS R&O*, at para. 63.

¹⁰² We note that some of the rules encompassing our entry criteria are not yet effective, pending completion of Paperwork Reduction Act review. See *SCS R&O*, Appx. B, paras. 2, 16; see also OMB Control Numbers 3060-1058, 3060-0678. Here, we take into account information that SpaceX provided in its application of its own volition, and we consider that information in light of the Commission’s policy determinations in the *SCS R&O*.

¹⁰³ See 47 CFR § 25.125(a); SpaceX SCS Modification Amendment, Narrative, Exh. B at B-2; ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 Second Amended Description of Transaction, at 2 (filed Dec. 6, 2022 and amended on Feb. 7, 2023 and Sept. 23, 2024; granted on Nov. 26, 2024); see also 47 CFR §§ 1.9047, 25.103.

¹⁰⁴ See SpaceX SCS Modification, Narrative at 7; see also File Nos. 0010303032, 0010303084, 0010303124, and 0010303146.

¹⁰⁵ See SpaceX SCS Modification, Technical Annex at 8; SpaceX September 18, 2024 Letter at 1; ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (filed Dec. 6, 2022 and amended on Feb. 7, 2023 and Sept. 23, 2024; granted on Nov. 26, 2024).

¹⁰⁶ ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (filed Dec. 6, 2022 and amended on Feb. 7, 2023 and Sept. 23, 2024; granted on Nov. 26, 2024).

¹⁰⁷ See SpaceX September 18, 2024 Letter at 1.

¹⁰⁸ See 47 CFR § 25.114. DISH argued that SpaceX’s application should be rejected pursuant to the unbuilt system rule under section 25.159(b) of the Commission’s rules. See DISH SCS Petition at 3-5. However, section 25.159(b) has since been revised and the unbuilt system restriction removed from the Commission’s rules, and this argument is thus dismissed as moot. See *Expediting Initial Processing of Satellite and Earth Station Applications; Space Innovation*, Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 8838, 8853, para. 31 (2023) (*Streamlining Satellite Application Processing Order*).

¹⁰⁹ See DISH SCS Petition at 8; DISH SCS Reply at 3-4.

coordination with other operators, orbital debris mitigation, and collision mitigation.¹¹⁰ In addition, EchoStar argues that SpaceX has submitted multiple ITU filings, FCC applications, and FCC modifications, and such volume prevents regulators and other satellite operators and members of the public from understanding SpaceX's exact request and its implications.¹¹¹ Despite the number of SpaceX filings and applications associated with the Gen2 Starlink satellites, SpaceX's comprehensive proposals, coupled with our public notices seeking comment as well as our requests for additional information from SpaceX when needed, have provided us and interested parties with sufficient information to understand SpaceX's requests and the implications of those requests.¹¹²

25. Given that SpaceX filed its application before adoption and release of the *SCS R&O*, some commenters raised concerns about SCS generally.¹¹³ However, we will not revisit general issues

¹¹⁰ See Consolidated Opposition to Petitions and Response to Comments of Space Exploration Holdings, LLC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 8, 23 (filed May 30, 2023) (SpaceX Consolidated Opposition) (clarifying that, with the addition of the new antenna, satellite operations will fall within the area-to-mass ratio of the largest form factor that the Commission approved for the Gen2 Starlink system in the SpaceX Gen2 Partial Grant). In addition, SpaceX provided information about two of its new antenna form factors and sample DAS logs that demonstrate that this new antenna fits within the parameters SpaceX already provided. See *id.* at 24, Attachment A; see also SpaceX Gen2 Application, Technical Attachment at 35-49; SpaceX Gen2 Amendment, Technical Attachment at 15-18; SpaceX October 4, 2022 Letter at Exhibit B.

¹¹¹ See Letter from Pantelis Michalopoulos and Christopher Bjornson, Counsel, DISH Network Corporation, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 6 (dated Jan. 2, 2024) (DISH January 2, 2024 Letter).

¹¹² When we have had additional questions for SpaceX or otherwise found a need for SpaceX to clarify its requests, we have asked SpaceX for additional information or clarification. See, e.g., Letter from Kathryn J. Medley, Acting Chief, Satellite Licensing Division, Space Bureau, FCC, to Mr. William M. Wiltshire, Counsel, Space Exploration Holdings, LLC, ICFS File No. SAT-MOD-20230207-00021; GN Docket No. 23-135; Call Sign: S3069 (dated Nov. 7, 2023); Letter from Merissa L. Velez, Chief, Satellite Programs and Policy Division, Space Bureau, FCC to Mr. William M. Wiltshire, Counsel, Space Exploration Holdings, LLC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, and SAT-AMD-20240322-00061; GN Docket No. 23-135; Call Sign: S3069 (dated June 7, 2024); Letter from Merissa Velez, Chief, Satellite Programs and Policy Division, Space Bureau, FCC et al., to Mr. William M. Wiltshire, Counsel, Space Exploration Holdings, LLC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20240423-00089, SAT-MOD-20230207-00021, SAT-STA-20240522-00108 and SAT-AMD-20240322-00061; Call Sign: S3069; GN Docket No. 23-135; ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 (dated Sept. 6, 2024).

¹¹³ See NRAO May 4, 2023 Opposition at 2-3 (arguing about the classification of SpaceX's operations as MSS, potential derogation of ITU Radio Regulations, and the status of mobile handsets as earth stations); Comments of AT&T Services, Inc., GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2-3, 11 (filed May 18, 2023) (AT&T Comments) (arguing that WTB should be gatekeeper for operations in terrestrial frequencies and about a sufficient OOB limit); DISH SCS Reply at 4 (arguing about applicable OOB limits); Reply Comments of TerreStar Solutions Inc., GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 3 (filed May 30, 2023) (TerreStar Reply) (arguing about possible reduced terrestrial spectrum and advocating for use of existing MSS allocations); Letter from Jennifer A. Manner, Senior Vice President, Regulatory Affairs, EchoStar Corporation, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-65, IB Docket No. 22-271, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021, Attach. at 1 (dated Jan. 26, 2024) (EchoStar January 26, 2024 Letter) (arguing that there must be studies before the Commission can finalize technical rules or, an alternative, that applicants submit showings that they will not cause harmful interference that are subject to public comment); Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD-20230207-00021 at 2 (dated Dec. 13, 2023) (Omnispace December 13, 2023 Letter) (arguing that the 3GPP standards associated with that service should be the basis for the MSS service offered); Letter from Steve B. Sharkey Vice President, Government Affairs Technology and Engineering Policy, T-Mobile, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-65, IB Docket No. 22-271, ICFS File No. SAT-MOD-20230207-00021, ULS File No. 0010303032, et al. at 2 (dated Mar. 5, 2024) (T-Mobile March 5, 2024 Letter) (suggesting various refinements to the Commission's draft *SCS R&O*);

(continued....)

about SCS raised in the record that were already addressed in the *SCS R&O*.¹¹⁴ Relatedly, since we grant SpaceX's application for SCS following the release of the *SCS R&O*, we see no reason to address arguments about whether we can grant such operations before the rulemaking concludes.¹¹⁵ Although the *SCS FNPRM* is still pending,¹¹⁶ we find that we are able to proceed with the grant without final resolution of the issues on which we sought comment in the *SCS FNPRM*. We note that, in the *SCS R&O*, the Commission established interim 911 requirements that apply to SpaceX and T-Mobile's SCS network while it continues to consider final 911 rules for SCS.¹¹⁷ Similarly, we address herein radio astronomy issues specific to SpaceX's planned operations—consistent with the *SCS R&O*—and therefore need not wait for final resolution of the questions related to radio astronomy covered in the *SCS FNPRM*.¹¹⁸ Should the Commission adopt additional or more stringent requirements for satellite operators in the SCS rulemaking proceeding, the grant here is conditioned on SpaceX's compliance with those future rules.

2. Operations in the 1910-1915 MHz and 1990-1995 MHz Bands

26. We grant SpaceX authority to provide SCS within the United States using the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) bands on a secondary basis.¹¹⁹ The *SCS R&O* identified a list of SCS Bands, which includes Broadband PCS, *i.e.* the greater 1850-1915 MHz and 1930-1995 MHz bands.¹²⁰ Moreover, the *SCS R&O* modified the United States Table of Frequency Allocations by adding a secondary and bidirectional MSS allocation in certain bands, including Broadband PCS, through non-federal footnote NG33A.¹²¹ In accordance with footnote NG33A of the United States Table of Frequency Allocations, SpaceX may provide SCS on a secondary basis using the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) bands, but SpaceX's SCS operations may not cause harmful interference to—and are not entitled to interference protection from—any primary service operating in those bands.¹²²

27. *Terrestrial Co-Channel Interference.* In the *SCS R&O*, the Commission adopted rules to limit SCS authorizations to GIAs where the terrestrial wireless licensee partner(s) hold all co-channel licenses because it would minimize the risk of potential interference between geographically adjacent

(Continued from previous page)

see also Letter from Michael P. Goggin, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-STA20231002-00240 at 1-2 (dated Oct. 10, 2023) (AT&T October 10, 2023 Letter).

¹¹⁴ See *SCS R&O*, paras. 28-31, 65, 78-87, 202-207, 224-236.

¹¹⁵ See SpaceX Consolidated Opposition at 6; Response to Comments and Petitions of T-Mobile USA, Inc., GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 3 (filed May 30, 2023) (T-Mobile May 30, 2023 Response); AT&T June 5, 2023 Reply at 3; DISH SCS Reply at 2.

¹¹⁶ See *SCS R&O*, paras. 239-256.

¹¹⁷ See *id.* at paras. 173-192 (noting the interim 911 requirements).

¹¹⁸ See *id.* at paras. 252-256.

¹¹⁹ Under the Commission's rules, 47 CFR § 2.105(c)(2), stations of a secondary service: (i) Shall not cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date; (ii) Cannot claim protection from harmful interference from stations of a primary service to which frequencies are already assigned or may be assigned at a later date; and (iii) Can claim protection, however, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date.

¹²⁰ See *SCS R&O*, para. 28.

¹²¹ See 47 CFR § 2.106(a)(d)(33)(i); *SCS R&O*, para. 47.

¹²² See 47 CFR § 2.106(d)(33)(i).

markets.¹²³ AT&T argues that SpaceX must show how its service will not cause interference to T-Mobile's own operations in the PCS G Block.¹²⁴ However, because SpaceX will be complying with the framework adopted in the *SCS R&O*, we find that SpaceX can avoid harmful interference with in-band terrestrial operations and that it is in T-Mobile's best interest to ensure that SpaceX will not cause harmful interference. Consistent with the Commission's obligations for spectrum manager leases, SpaceX and T-Mobile have agreed to technical limits for satellite operations in T-Mobile's PCS G Block spectrum such that they will be indistinguishable from terrestrial PCS G Block operations from an interference perspective and will not cause harmful interference to existing in-band terrestrial operations.¹²⁵ SpaceX and T-Mobile also commit to continued coordination to enable efficient use of PCS G Block spectrum in the public interest.¹²⁶ We accordingly find that our existing secondary market rules will adequately ensure that the risk of harmful interference to T-Mobile's terrestrial operations is mitigated.¹²⁷

28. *Satellite-to-Satellite Co-Channel Interference.* While the United States has assigned the 1990-1995 MHz band for downlink terrestrial operations, a global allocation remains in the 1990-1995 MHz band for MSS uplinks.¹²⁸ Some commenters raise concerns about the potential for satellite-to-satellite interference from SpaceX's downlink operations in the 1990-1995 MHz band to existing MSS operations performing uplink operations in that same band.¹²⁹ Omnispace purports that SpaceX's downlink transmissions will increase the noise floor of Omnispace's receivers, which conform to the directionality imposed by the global MSS allocation for the S-band in the International Table of Frequency Allocations, and SpaceX's downlink transmissions will therefore disrupt Omnispace's ability to provide MSS outside the United States.¹³⁰ Omnispace also argues that, although T-Mobile suggests that tens of millions of handsets are already in operation that use the 1990-1995 MHz band for downlink, the degree of interference caused by T-Mobile's terrestrial base stations is of reduced power and over a

¹²³ See *SCS R&O*, paras. 54-55, 60.

¹²⁴ See AT&T Comments at 8 (we also note that AT&T discusses concerns about the potential for interference to services in adjacent bands in this part of its comments); AT&T June 5, 2023 Reply at 5; see also AT&T Comments at 10 (arguing that Space X should provide predictive modeling demonstrating that its deployments will comply with the technical rules and not cause any harm to T-Mobile's network and should show that it will comply with PCS frequency stability requirements with respect to Doppler shifts).

¹²⁵ See SpaceX Consolidated Opposition at 14; Letter from David Goldman, Vice President, Satellite Policy, SpaceX, to Marlene H. Dortch, Secretary, FCC, Attach. B at 3, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 (dated Aug. 1, 2024) (SpaceX August 1, 2024 Letter).

¹²⁶ See *id.*, Attach. B at 3.

¹²⁷ See *SCS R&O*, para. 195; Letter from David Goldman, Vice President, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD-20230207-00021, Attach. B at 3 (dated Jul. 26, 2023) (SpaceX July 26, 2023 Letter).

¹²⁸ See ITU Radio Regulations, Art. 5; see also Omnispace May 18, 2024 Opposition at 1.

¹²⁹ See Omnispace May 18, 2024 Opposition at 5; DISH SCS Petition at 4-5; DISH January 2, 2024 Letter at 1-2; see also TerreStar Reply at 2-3.

¹³⁰ See Omnispace May 18, 2024 Opposition at 6; Omnispace, LLC Reply Comments to Responses, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2 (filed June 5, 2023) (Omnispace June 5, 2023 Reply); Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD20230207-00021 at 1-2 (dated Oct. 20, 2023) (Omnispace October 20, 2023 Letter); Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD-20230207-00021 at 1 (dated Nov. 17, 2023) (Omnispace November 17, 2023 Letter); Omnispace December 13, 2023 Letter at 1; Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD-20230207-00021 at 2-3 (dated Feb. 9, 2024) (Omnispace February 9, 2024 Letter).

more limited area than the satellite-to-satellite interference that is their concern.¹³¹ Omnispace further contends that satellite-to-satellite interference will occur even if large distances separate the two satellite systems.¹³² Omnispace has submitted technical analyses in support of its interference concerns with SpaceX's proposal for SCS in this band.¹³³ Relatedly, Omnispace claims that SpaceX does not adequately model the complete dynamics of its constellation.¹³⁴

29. SpaceX, on the other hand, contends that it has sufficiently demonstrated that proposed downlink operations do not pose a risk of harmful interference to other satellite operators, including Omnispace.¹³⁵ T-Mobile additionally argues that SpaceX's satellites will operate within the same directionality scheme in the band that the already-existing system uses and will cause no greater harm than exists today.¹³⁶ SpaceX submitted a Monte Carlo analysis¹³⁷ that simulates its 7,500-satellite constellation, split into multiple operational planes with transmit power, antenna gains values from their link path profile, as well as PFD levels as measured on the ground.¹³⁸ SpaceX also submitted maps showing its coverage across all of T-Mobile's nationwide PCS G Block service territories along with an

¹³¹ See Omnispace June 5, 2023 Reply at 17-18; Omnispace October 20, 2023 Letter at 1-2.

¹³² See Omnispace June 5, 2023 Reply at 2.

¹³³ *Id.* at 12-16; Omnispace October 20, 2023 Letter, Attach. at 3-16; Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD-20230207-00021, Attach. at 3-11 (dated Aug. 18, 2023) (Omnispace August 18, 2023 Letter).

¹³⁴ See Omnispace August 18, 2023 Letter, Attach at 6-11; Omnispace October 20, 2023 Letter at 2; Omnispace November 17, 2023 Letter at 2-3; Omnispace December 13, 2023 Letter, Attach. at 2-8; *see also* DISH January 2, 2024 Letter at 2, 4-5 (arguing that SpaceX has not provided sufficient information to refute Omnispace's technical analysis, including minimum elevation angles in this band and the power levels at which its satellites would transmit at various angles below 34.3 degrees.).

¹³⁵ See SpaceX Consolidated Opposition at 16-17; *see also* Letter from David Goldman, Vice President, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 1-3 (dated Sept. 29, 2023) (SpaceX September 29, 2023 Letter); Letter from David Goldman, Vice President, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 1-2 (dated Nov. 24, 2023) (SpaceX November 24, 2023 Letter); Letter from David Goldman, Vice President, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2 (dated Jan. 29, 2024) (SpaceX January 29, 2024 Letter); Letter from David Goldman, Vice President, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 1 (dated Feb. 14, 2024) (SpaceX February 14, 2024 Letter).

¹³⁶ See T-Mobile May 30, 2023 Response at 9; *see also* Reply to Response of T-Mobile USA, Inc., GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 3-4 (filed June 2, 2023) (T-Mobile June 2, 2023 Reply).

¹³⁷ A Monte Carlo simulation is a "computer-based numerical method[] for carrying out precise, quantitative risk analyses of complex projects." Michael Asbury, *JSTAR Monte Carlo Simulation* (Jul. 29, 2024), <https://www.nasa.gov/monte-carlo-simulation/#:~:text=This%20unique%20analytical%20advantage%20over,associated%20with%20such%20an%20occurrence>.

¹³⁸ See Letter from Jameson Dempsey, Principal, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021, Exh. A at A-1-A-8 (dated Nov. 14, 2023) (SpaceX November 14, 2023 Letter); Letter from Jameson Dempsey, Principal, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021, Exh. A at A-1-A-7 (dated Nov. 30, 2023) (SpaceX November 30, 2023 Letter); SpaceX SCS Modification Amendment, Narrative, Attach. A at A-1-A-7; SpaceX June 20, 2024 Response at 9.

explanation of how SpaceX will dynamically meet applicable limits.¹³⁹

30. As the Commission acknowledged in the *SCS R&O*, the 1910-1915 MHz/1990-1995 MHz band presents a level of technical complexity for SCS.¹⁴⁰ We have conducted a rigorous analysis of SpaceX's application, as amended, and in particular the technical materials submitted, to ensure compliance with our entry criteria and any applicable rules and requirements.¹⁴¹ We have also reviewed the technical analyses and the results of measurements Omnispace submitted.¹⁴² Ultimately, we find that SpaceX has demonstrated that it can adjust its equivalent isotropically radiated power (EIRP) to conduct downlink SCS in the 1990-1995 MHz band and maintain the level of sidelobe power towards Omnispace satellites to effectively reduce PFD as measured on the ground, and therefore will maintain 100% of the time an interference level below the harmful interference threshold for Omnispace satellites and other satellites performing uplink operations in the 1990-1995 MHz band.¹⁴³ In analyzing potential interference, we evaluate the likelihood of harmful interference to incumbent services. Based on its analysis, Omnispace anticipates an increase in the noise floor from SpaceX's SCS downlink where the Omnispace satellites are authorized to operate;¹⁴⁴ however, this increase does not appear to rise to a level of harmful interference. Our close review of Omnispace's analysis finds that it initially relied on ITU-R S.1528 recommendations and later changed to ITU-R M.1184 recommendations, which do not accurately reflect the actual modeled/measured sidelobe off-axis gain of SpaceX's system. These latter assumptions consequently grossly overestimated the anticipated levels of interference. Moreover, in its link budget analysis, SpaceX shows that it will maintain a maximum PFD level that ensures that it will not cause harmful interference to other satellite operators, including Omnispace.¹⁴⁵ In addition, as SpaceX deploys its constellation, it is able to dynamically adjust its PFD level to avoid causing harmful interference to any other system.¹⁴⁶ Finally, SpaceX's satellites will operate within the technical parameters identified for SCS operations in the *SCS R&O*, which will mitigate concerns of harmful interference given that T-Mobile's base stations currently operate with the same directionality in the 1990-1995 MHz band in the United States.¹⁴⁷ Should harmful interference ever occur, under the SCS rules, SpaceX must cease such

¹³⁹ See SpaceX November 14, 2023 Letter, Exh. B at B-1-B-3; SpaceX November 30, 2023 Letter, Exh. B at B-1; SpaceX SCS Modification Amendment, Narrative, Attach. A at B-1; SpaceX January 29, 2024 Letter at 1-2. *But see* DISH January 2, 2024 Letter at 2.

¹⁴⁰ See *SCS R&O*, para. 194.

¹⁴¹ See *id.*

¹⁴² See *supra* para. 28.

¹⁴³ See, e.g., SpaceX November 14, 2023 Letter, Exh. A at A-4; SpaceX November 30, 2023 Letter, Exh. A at A-5; SpaceX SCS Modification Amendment, Narrative, Attach. A at A-5; SpaceX June 20, 2024 Response at 8-10 (showing how SpaceX can adjust PFD while remaining below the applicable interference threshold even in the worst-case scenario at the lower altitude shells granted herein).

¹⁴⁴ See, e.g., Omnispace May 18, 2024 Opposition at 6-8; *id.* at Annex 1 at 19-22; Omnispace June 5, 2023 Reply at 11, 13-16; Omnispace August 18, 2023 Letter, Attach. at 9-10; Omnispace October 20, 2023 Letter, Attach. at 16.

¹⁴⁵ See SpaceX November 14, 2023 Letter, Exh. A at A-4; SpaceX November 30, 2023 Letter, Exh. A at A-1-A-5; SpaceX SCS Modification Amendment, Narrative, Attach. A at A-1-A-5; SpaceX June 20, 2024 Response at 9; *see also* SpaceX February 13, 2024 Letter at 1 ("Omnispace is wrong that SpaceX's direct-to-cellular antennas will have grating lobes in the PCS G Block. They will not.").

¹⁴⁶ See SpaceX November 14, 2023 Letter, Exh. A at A-4; SpaceX November 30, 2023 Letter, Exh. A at A-4; SpaceX SCS Modification Amendment, Narrative, Attach. A at A-4; SpaceX June 20, 2024 Response at 8-10; *see also* SpaceX November 24 Letter at 2; SpaceX September 18, 2024 Letter.

¹⁴⁷ See *SCS R&O*, paras. 193-223; T-Mobile May 30, 2023 Response at 4-5. *But see* Omnispace June 5, 2023 Reply at 18.

operations.¹⁴⁸

31. We also find that SpaceX's calculations relied upon reasonable data points to demonstrate that its operations will not cause in-band harmful interference to other satellite operators.¹⁴⁹ SpaceX performed its calculations using EIRP values as measured in its lab and values provided by Omnispace for the Omnispace constellation.¹⁵⁰ SpaceX also utilized different PFD levels at different satellite counts, given that SpaceX can dynamically adjust its PFD levels.¹⁵¹ Also, although Omnispace and SpaceX disagree over the appropriate thermal noise floor to use in showing non-harmful interference, we believe SpaceX has successfully shown that its operations will not cause harmful interference to the operations of Omnispace using both the thermal noise floor values assumed by Omnispace and the thermal noise floor value assumed by SpaceX.¹⁵² In addition, we find SpaceX properly and reasonably relied on the ITU-R Rec. S.1528 antenna patterns, which more closely represents a real world antenna pattern, since the patterns provided in Rec. M.1184 would produce flat sidelobes at 10 dBi in all directions outside the main beam when using a 30 dBi reference antenna and therefore would not reflect the actual parameters of Omnispace's satellite operations.¹⁵³

32. In the alternative, Omnispace argues that, if the Commission decides to proceed with authorizing SpaceX to use the 1990-1995 MHz band as a nonconforming MSS use, SpaceX should be required to operate on an unprotected, non-interference basis for NGSO systems properly notified at the ITU.¹⁵⁴ We adopt a similar requirement here: that, for operations in the 1990-1995 MHz band insofar as SpaceX's SCS downlink operations conflict with the ITU Radio Regulations and the International Table, such operations are authorized on an unprotected, non-harmful interference basis with respect to the services in other countries that are operating in accordance with ITU Radio Regulations, and any harmful interference must be immediately eliminated pursuant to No. 4.4 of the ITU Radio Regulations.¹⁵⁵ In addition, we require SpaceX as an SCS provider to mitigate harmful interference with operations outside the United States, as discussed below.¹⁵⁶ Similarly, Omnispace argues that we should condition any grant for the 1990-1995 MHz band with "(1) appropriate non-interference conditions amenable to Omnispace that SpaceX would have to satisfy prior to commencing operations; and (2) a binding requirement to immediately cease operations once any harmful interference to these operators or systems is identified or

¹⁴⁸ ITU Radio Regulation No. 4.4; *see also SCS R&O*, para. 227.

¹⁴⁹ The Commission did not adopt 3GPP standards in the SCS framework as Omnispace suggested, and we accordingly not apply 3GPP standards here. *See SCS R&O*, at para. 11; Omnispace November 17, 2023 Letter at 2.

¹⁵⁰ *See* SpaceX November 30, 2023 Letter, Exh. A at A-4; *see also* SpaceX August 1, 2024 Letter, Attach. B at 4 (explaining that, after correcting the assumption Omnispace made regarding SpaceX's average EIRP toward Omnispace's satellites, Omnispace's assumption regarding the number of satellites SpaceX's analysis assumed in view, and use of a worst-case example that is representative of how the satellites operate, the aggregate interference of SpaceX SCS downlink into Omnispace satellite uplink will fall significantly below internal noise power).

¹⁵¹ *See* SpaceX November 30, 2023 Letter Exh. A at A-4-A-5; SpaceX November 14 Letter, Exh. A at A-4; SpaceX June 20, 2024 Response at 9.

¹⁵² *See* SpaceX November 24, 2023 Letter at 2; *see also* Letter from David Goldman, Vice President of Satellite Policy, SpaceX Technologies, Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File No. SAT-MOD-20230207-00021; ULS File Nos. 0010303032, 0010303084, 0010303124, and 0010303146 at 1 (dated Feb. 13, 2024). *But see* Omnispace November 17, 2023 Letter at 3; Omnispace February 9, 2024 Letter at 3.

¹⁵³ *See* SpaceX November 24, 2023 Letter at 2-3.

¹⁵⁴ *See* Omnispace June 5, 2023 Reply at 18.

¹⁵⁵ *See* ITU Radio Regulation No. 4.4; *SCS R&O*, para. 194; Letter from Amit Saluja, General Counsel, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File Nos. SAT-MOD-20230207-00021; SAT-AMD20240322-00061 at 2 (dated Nov. 22, 2024) (Omnispace November 22, 2024 Letter).

¹⁵⁶ *See infra* paras. 41-42.

deemed to have occurred.”¹⁵⁷ Because SpaceX’s operations shall be in accordance with No. 4.4 of the ITU Radio Regulations requiring it to avoid causing harmful interference to stations operating in accordance with the ITU Radio Regulations and will be operating in accordance with the conditions adopted herein, we do not require SpaceX to reach a binding agreement with other satellite operators. SpaceX has also agreed to engage in coordination with other spectrum users and must do so accordingly.¹⁵⁸

33. In addition to the competing studies submitted in the record, in response to SpaceX’s part 5 STA applications, Omnispace raised concerns as to the real-world impact of SpaceX’s part 5 testing on Omnispace’s operations in the 1990-1995 MHz band, as measured by Omnispace’s satellite currently in orbit.¹⁵⁹ In the interest of addressing all relevant technical issues, we conclude here that we do not find that Omnispace’s studies and related arguments regarding SpaceX’s part 5 testing weigh against grant of SpaceX’s part 25 modification. As noted above, our international commitments focus on eliminating harmful interference; simply noting an increase in the noise floor over an area in which no actual operations are occurring—as Omnispace has done here¹⁶⁰—does not constitute harmful interference. Accordingly, we find that granting SpaceX’s modification request with the conditions adopted herein and consistent with the *SCS R&O* will serve the public interest.

34. *Adjacent Band Interference.* In the *SCS R&O*, the Commission adopted an aggregate OOBE PFD limit of -120 dBW/m²/MHz for the SCS bands.¹⁶¹ SpaceX petitioned the Commission to reconsider the aggregate OOBE limit adopted in the *SCS R&O* and also requested a waiver of the SCS OOBE limit.¹⁶² In comments to the instant application filed by SpaceX and in response to SpaceX’s

¹⁵⁷ See Omnispace Informal Objection at 5-6; see also Omnispace November 22, 2024 Letter at 2.

¹⁵⁸ See SpaceX July 26, 2023 Letter at 1. *But see* Omnispace February 9, 2024 Letter at 4 (arguing that 2 GHz MSS operators will have no equivalent impact on SpaceX for its uplink operations in the 1905-1910 MHz band as SpaceX’s downlink operations have on 2 GHz MSS uplink operations, and SpaceX therefore does not have incentive to work with affected operators to cooperatively manage interference between systems).

¹⁵⁹ See Letter from Mindel De La Torre Chief Regulatory and International Strategy Officer Omnispace, LLC, GN Docket No. 23-65 and IB Docket No. 22-271; Call Sign WW9XPI, File Nos. 2479-EX-ST-2023, 0519-EX-ST-2024, 0661-EX-ST-2024 (dated May 17, 2024) (Omnispace May 17, 2024 Letter); see also Letter from Amit Saluja, General Counsel, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135; ICFS File Nos. SAT-MOD-20230207-00021; SAT-AMD-20240322-00061 at 2 (dated Oct. 7, 2024) (summarizing Omnispace studies regarding SpaceX part 5 testing in the record for the part 25 application); Omnispace November 1, 2024 Letter at 1-3, 9, 14.

¹⁶⁰ Omnispace May 17, 2024 Letter at 5 (arguing that the increase in noise floor caused by SpaceX transmissions detected by Omnispace’s Omni-F2 satellite operating over Asia was sufficient to demonstrate harmful interference to Omnispace’s proposed operations over South America).

¹⁶¹ See 47 CFR § 25.202(k)(1); *SCS R&O*, paras. 202, 205.

¹⁶² Petition for Reconsideration of SpaceX, GN Docket No. 23-65, SB Docket No. 22- 271 (filed May 30, 2024); Federal Communications Commission, Petition for Reconsideration of Action in Rulemaking Proceeding, 89 FR 51864 (June 20, 2024) (*SCS PFR*); SpaceX June 6, 2024 Letter at 2. By rule, with certain exceptions, only the full Commission can act upon a Petition for Reconsideration and as such, we cannot and do not opine upon the reconsideration request, which remains pending. 47 CFR § 1.429(a), 1.429(1). The public comment periods for both SpaceX’s petition for reconsideration and waiver request have closed. See *SCS PFR* (noting deadlines of July 5, 2024, and July 15, 2024); Satellite Licensing Division and Satellite Programs and Policy Division Information, Space Station Applications Accepted for Filing, Public Notice, Report No. SAT-01836 (Jul. 12, 2024) (referring to 47 CFR § 25.154); Space Bureau and Wireless Telecommunications Bureau Clarify Filing Procedures for Recent PN, GN 23-135, ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, Public Notice, DA 24-726 (Jul. 26, 2024) (listing deadlines of August 12, 2024, August 22, 2024, and August 27, 2024); Space Bureau and Wireless Telecommunications Bureau Correct Reply Comment Deadline on Recent Public Notice, GN Docket (continued....)

request for a waiver of the OOB limit, parties have expressed concern that SpaceX's operations, either as described in SpaceX's application, or upon receipt of SpaceX's requested OOB waiver, would not adequately protect adjacent services.¹⁶³ With this Order, we require SpaceX to comply with the OOB limit in section 25.202(k)(1) of the Commission's rules. As such, we find that SpaceX is able to adequately protect adjacent band users during downlink SCS in the 1990-1995 MHz band.¹⁶⁴ Many commenters' concerns regarding adjacent band interference were raised before the Commission adopted the OOB limit in section 25.202(k)(1), and we therefore find those concerns about the appropriate OOB limit for SCS to be resolved, and we find concerns about SpaceX's compliance with different OOB limits to be not applicable here.¹⁶⁵ At this time, we defer consideration of SpaceX's request for a waiver of the aggregate OOB PFD limit of -120 dBW/m²/MHz on SCS operations, and we will not address the merits of either SpaceX's waiver request or filings from other parties on the matter. SpaceX supports prompt grant of the authority to provide SCS even if that means deferring consideration of SpaceX's Petition for Reconsideration regarding the OOB limit for SCS in the United States.¹⁶⁶ AT&T

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No. 23-135; ICFS File Nos. SAT-MOD-20230207-00021 and SAT-AMD-20240322-00061, Public Notice, DA 24-819 (Aug. 14, 2024) (correcting the third deadline to August 29, 2024).

¹⁶³ Comments filed in response to SpaceX's waiver request can be found in GN Docket No. 23-135. Other comments were filed in response to SpaceX's application, most of which were filed prior to the *SCS R&O*, the *SCS PFR*, and SpaceX's waiver request. See DISH SCS Petition at 6; Comments of Rural Wireless Association, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2-3 (filed May 18, 2023) (RWA May 18, 2023 Comments); AT&T Comments at 8; AT&T June 5, 2023 Reply at 5; TerreStar Reply at 3; Letter from Mindel De La Torre, Chief Regulatory and International Strategy Officer, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File Nos. SAT-MOD-20230207-00021, SAT-STA-20231002-00240 at 3 (dated Nov. 2, 2023) (Omnispace November 2, 2023 Letter); DISH January 2, 2024 Letter at 6; Letter from Michael P. Goggin, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-65, IB Docket No. 22-271, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2-4 (dated Feb. 7, 2024) (AT&T February 7, 2024 Letter); RWA May 18, 2023 Comments at 2; Letter from Amit Saluja, General Counsel, Omnispace, LLC, to Marlene H. Dortch, Secretary, FCC GN Docket No. 23-135; ICFS File Nos. SAT-MOD-20230207-00021; SATAMD-20240322-00061 at 7-9 (dated Nov. 1, 2024) (Omnispace November 1, 2024 Letter); see also Omnispace November 2, 2023 Letter at 3. We grant RWA a waiver of section 25.154(a)(5) of the Commission's rules which requires that comments must contain a certificate of service showing that it has been mailed to the applicant no later than the date the pleading is filed with the Commission. See 47 CFR § 25.154(a)(5). RWA served its comments on SpaceX two days after filing in the publicly available ICFS docket. See Waiver Request of Rural Wireless Association, Inc., GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 2 (filed May 22, 2023). We therefore find that the purpose of this rule was not frustrated, and SpaceX was made aware of RWA's comments in a timely fashion and had an opportunity to respond in the response and reply to response periods. TerreStar Reply at 2-3. SpaceX argues that TerreStar's reply comments were filed two weeks late. See Reply of Space Exploration Holdings, LLC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 1 (filed June 2, 2023) (SpaceX June 2, 2023 Reply). However, TerreStar filed its reply comments on May 30, 2023, which was within the reply comment period specified in the public notice. *Space Bureau and Wireless Telecommunications Bureau Seek Comment on Filings of SpaceX and T-Mobile Requesting to Establish Supplemental Coverage from Space; Space Exploration Holdings, LLC Application Accepted for Filing*, Public Notice, DA 23-338 (Apr. 18, 2023). Nothing in our rules prohibits a commenter from filing during the reply comment period when that commenter did not file during the initial comment or response period. DISH SCS Petition at 6-8.

¹⁶⁴ See *SCS R&O*, paras. 202-207.

¹⁶⁵ See DISH SCS Petition at 4; DISH SCS Reply at 4; DISH January 2, 2024 Letter at 6; AT&T February 7, 2024 Letter at 2-4. Some commenters address compliance with the limits in section 24.238 of the Commission's rules, 47 CFR § 24.238. See DISH SCS Petition at 7; AT&T Comments at 11. Others address compliance with the limits in section 25.202 of the Commission's rules, 47 CFR § 25.202. See DISH January 2, 2024 Letter at 6.

¹⁶⁶ See Letter from David Goldman, Vice President of Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD20240423-00089, SAT-MOD-20230207-00021, SAT-STA-20240522-00108 and SAT-AMD-20240322-00061; Call Sign: S3069; GN Docket No. 23-135; ULS File Nos. 0010303032, (continued....)

also supports prompt grant for SpaceX's SCS system provided it meets the OOB limit established in the *SCS R&O*.¹⁶⁷

35. *Protection of Radio Astronomy.* Under the SCS licensing framework, satellite operators and terrestrial licensees providing SCS are required to comply with existing satellite and terrestrial rules to avoid harmful interference into radio astronomy and related services.¹⁶⁸ In the *SCS R&O*, the Commission likewise found that addressing federal and other stakeholders' concerns with respect to radio astronomy in the licensing context would serve the public interest by allowing us to strike a reasonable balance among competing public interest benefits and narrowly tailor any remedies that may be appropriate on a case-by-case basis.¹⁶⁹

36. NRAO raises concerns about the effect of SpaceX's SCS on radio astronomy operations and the effect of SCS on radio astronomy operations more generally. NRAO contends that the Gen2 Starlink satellites' peak surface level PFD from a satellite overhead will bathe the National Radio Quiet Zone (NRQZ) at harmfully-interfering levels and will moot the protections afforded to the NRQZ.¹⁷⁰ SpaceX offers that it has coordinated in good faith with the National Science Foundation (NSF), the NRAO, and the wider radio astronomy community.¹⁷¹ In addition, SpaceX states that SpaceX and NSF recently reached a coordination agreement addressing SpaceX's first- and second-generation satellite systems, and the parties continue to collaborate in good faith to extend that agreement to cover SpaceX's application to enable T-Mobile to provide SCS to its subscribers.¹⁷² SpaceX also states that it remains committed to continuing to work with NRAO on this and the other issues through its direct coordination efforts.¹⁷³ This authorization has been coordinated with federal spectrum users through the National Telecommunications Information Administration (NTIA) and we condition this grant on SpaceX's continued coordination with both the NSF and NRAO, and compliance with any resulting coordination agreements. We further require that SpaceX complete coordination with NSF for SCS operations prior to commencing SCS operations pursuant to this Order. If SpaceX completes coordination with NSF for a specific geographic area, once SpaceX notifies the Commission of the completion of this coordination, SpaceX may commence SCS operations in that specific geographic area. T-Mobile adds that its own operations currently respect the NRQZ, as required by the Commission's rules,¹⁷⁴ and we require that SpaceX also respects the NRQZ while providing SCS.

37. More generally, NRAO submits that a very high degree of isolation from SCS operations

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0010303084, 0010303124, and 0010303146; ICFS File Nos. SAT-AMD-20240311-00053, SAT-AMD-20230717-00172, SAT-AMD20201028-00126, SAT-AMD-20200727-00088, and SAT-LOA-20200413-00034 at 1 (dated Oct. 18, 2024).

¹⁶⁷ See Letter from Raquel Noriega, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-MOD-20230207-00021, SAT-AMD-20240322-00061; GN Docket No. 23-135 at 1 (dated Oct. 7, 2024).

¹⁶⁸ See *SCS R&O*, para. 211.

¹⁶⁹ See *id.*

¹⁷⁰ See NRAO May 4, 2023 Opposition at 4-5; see also Letter from Harvey Steven Liszt, Astronomer and Spectrum Manager, NRAO, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-65, IB Docket No. 22-271, GN Docket No. 23-135 at 1 (dated Feb. 24, 2024) (NRAO February 24, 2024 Letter).

¹⁷¹ See Letter from David Goldman, Senior Director Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File No. SAT-MOD-20230207-00021 at 1 (dated May 18, 2023) (SpaceX May 18, 2023 Letter); SpaceX July 26, 2023 Letter at 8.

¹⁷² See SpaceX May 18 Response at 1; SpaceX Consolidated Opposition at 21-22; see also SpaceX November 14, 2023 Letter at 2; SpaceX SCS Modification Amendment, Narrative, Attach. C at 2.

¹⁷³ See SpaceX May 18, 2023 Letter at 1; SpaceX July 26, 2023 Letter at 8.

¹⁷⁴ See T-Mobile May 30, 2023 Response at 8.

will be needed to reproduce NRQZ levels.¹⁷⁵ NRAO also purports that, while coordination may be possible, study is needed to determine for example how large a coordination zone would maintain protection of the passive receivers in the NRQZ at the same level at which they are currently protected from fixed transmitters, such as cellular towers.¹⁷⁶ Moreover, NRAO argues that prospective satellite operators providing SCS should provide technical analyses demonstrating how their system will achieve the isolation needed to protect radio astronomy operations in the NRQZ, while also assessing the impact of SCS operation on instruments like the Very Large Array (VLA) that do not enjoy the formal protections of the NRQZ.¹⁷⁷ While we recognize NRAO's more general concerns regarding protections of radio astronomy and SCS, we have addressed, and continue to address such issues in the SCS proceeding, which is the appropriate forum for such issues of general applicability.¹⁷⁸ Should we adopt additional protections for radio astronomy services in connection with the *SCS FNPRM*, SpaceX shall be required to comply with those protections as well.

3. Operations in the 1429-2690 MHz Band

38. SpaceX seeks authority to operate its satellites to conduct MSS operations outside the United States on frequencies within the broader 1429-2690 MHz (space-to-Earth and Earth-to-space) band for the purpose of performing direct-to-cell operations.¹⁷⁹ The International Table of Frequency Allocations contains an MSS allocation for some, but not all, of those requested bands. In the *SCS R&O*, the Commission established a regulatory framework to consider satellite applications for SCS on an unprotected, non-harmful interference basis with respect to the services in other countries that are operating in accordance with ITU Radio Regulations.¹⁸⁰ Pursuant to the *SCS R&O* framework, SpaceX provided detailed interference analyses and associated link budgets showing that its requested operations will not cause harmful interference to stations operating in accordance with the ITU Radio Regulations.¹⁸¹ Specifically, SpaceX has provided link budgets at a variety of PFD levels, accounting for different elevation angles and constellation deployment.¹⁸² Further, for this analysis, SpaceX provided a dynamic Monte Carlo analysis and time-based statistics.¹⁸³ SpaceX has also described the measures that it will take to immediately eliminate any harmful interference issues for operations outside the United States.¹⁸⁴ SpaceX further specifies that its direct-to-cell network and topology software can re-plan the network in near real-time, allowing it to quickly cease operations by all satellites and over any number of geographic areas.¹⁸⁵ SpaceX expects to refine its keep-out distances to further eliminate coverage gaps near international borders while complying with applicable cross-border limits while using a dynamic, software-based approach and existing field strength limits to protect any other geographic areas where it is required to reduce power. In addition, SpaceX has agreed to enter into cooperative arrangements with local terrestrial providers to protect services allocated under Safety-of-Life, Radio Astronomy, Space

¹⁷⁵ See NRAO February 24, 2024 Letter at 1-2.

¹⁷⁶ See NRAO May 4, 2023 Opposition at 5.

¹⁷⁷ See NRAO February 24, 2024 Letter at 2.

¹⁷⁸ See *SCS R&O*, paras. 210-212, 252-256; SpaceX Consolidated Opposition at 22.

¹⁷⁹ See SpaceX SCS Modification Amendment, Schedule S at 3; SpaceX June 20, 2024 Response at 8.

¹⁸⁰ See *SCS R&O*, para. 225.

¹⁸¹ See ITU Radio Regulation 4.4; *SCS R&O*, para. 226; TerreStar Reply at 3-4; T-Mobile June 2, 2023 Reply at 3-4.

¹⁸² See SpaceX Nov. 14 Letter, Exh. A at A-1-A-3; SpaceX SCS Modification Amendment, Narrative, Attach. A at A-1-A-3.

¹⁸³ See SpaceX Nov. 14 Letter, Exh. A at A-3-A-7; SpaceX SCS Modification Amendment, Narrative, Attach. A at A-3-A-7.

¹⁸⁴ See *SCS R&O*, para. 226; TerreStar Reply at 3-4.

¹⁸⁵ SpaceX November 14, 2023 Letter at 3; SpaceX SCS Modification Amendment, Narrative, Attach. C at 3.

Research, Radionavigation Satellite, Aeronautical Radionavigation, Earth-Exploration Satellite, and Space Operations.¹⁸⁶

39. We conclude that SpaceX's initial demonstrations are sufficient to grant SpaceX authority in part, with conditions, to operate satellites in bands within the 1429-2690 MHz band for operations outside the United States. In particular, outside the United States, SpaceX is authorized to transmit in the 1475-1518 MHz, 1805-1880 MHz, 1930-2000 MHz, 2110-2180 MHz, 2180-2200 MHz, 2345-2360 MHz, and 2620-2690 MHz (space-to-Earth) bands and to receive in the 1429-1470 MHz, 1710-1785 MHz, 1850-1920 MHz, 1920-1980 MHz, 2000-2020 MHz, 2305-2320 MHz, and 2500-2570 MHz (Earth-to-space) bands.¹⁸⁷ Each of these authorized sub-bands is recognized internationally for International Mobile Telecommunications (IMT).¹⁸⁸ When operating in part of the 1429-2690 MHz band in a manner that is not in conformity with the International Table of Frequency Allocations or the provisions of the ITU Radio Regulations, SpaceX shall not cause harmful interference to, and shall not claim protection from harmful interference caused to it by, a station operating in accordance with the ITU Radio Regulations. Furthermore, in the unforeseen and unlikely case that harmful interference occurs, SpaceX must cease transmissions from its satellites and immediately eliminate any harmful interference pursuant to No. 4.4 of the ITU Radio Regulations.¹⁸⁹ We also require that any direct-to-cell operations outside the United States be duly authorized by the relevant administrations and will be subject to the laws, regulations, and requirements applicable to such operations in the territories of the authorizing administrations.¹⁹⁰ Likewise, SpaceX's operations must be consistent with the parameters specified in its ITU filings.¹⁹¹ We also remind SpaceX that it shall protect any radio astronomy operations from harmful interference in any adjacent bands allocated to Radio Astronomy on a primary or secondary basis in the ITU Radio Regulations while conducting direct-to-cell operations outside the United States. SpaceX is limited to operations in the sub-bands outside the United States specified herein, and any further addition of other services or modifications within internationally harmonized Global Positioning System (GPS) bands, safety bands, or in the adjacent bands will be considered with great scrutiny to ensure the principal purpose to protect the safety of life, health or property of Americans is maintained and is in support of the public interest.

40. Furthermore, we emphasize that SpaceX, prior to initiation of communications with earth stations in a particular country, must inform the Commission that it has obtained all necessary authorizations from the relevant country and demonstrate that such operations will not cause harmful interference to operations in conformity with the ITU Radio Regulations before the initiation of service in that country.¹⁹² This includes certifying to the Space Bureau and the Office of International Affairs (OIA) that SpaceX has obtained all necessary authorizations from the relevant country and includes steps that were taken to address harmful interference concerns and that provision of SCS will not result in harmful interference to operations that are in conformity with the ITU Radio Regulations in neighboring or nearby

¹⁸⁶ See SpaceX SCS Modification, Technical Annex at 13.

¹⁸⁷ We remind SpaceX that that to provide service outside the United States in any of these bands, SpaceX must receive authorization from other countries and must demonstrate that such a service will not cause harmful interference. See *infra* conditions 89yy, fff, jjj.

¹⁸⁸ Should SpaceX seek authority to perform direct-to-cell operations in additional sub-bands within the 1429-2690 MHz band, SpaceX must make a request for a further grant in part for specific sub-bands via a letter to be filed with the Commission.

¹⁸⁹ ITU Radio Regulation No. 4.4; see also 47 CFR § 25.207; Omnispace May 18, 2024 Opposition at 2.

¹⁹⁰ See *SCS R&O*, para. 228;

¹⁹¹ See *infra* condition 89jjj.

¹⁹² See *SCS R&O*, para. 236.

countries.¹⁹³ In addition to this certification, SpaceX shall also provide a demonstration specifying the measures that SpaceX will take to eliminate any harmful interference immediately, in the event that it is notified of harmful interference resulting from such SCS operations.¹⁹⁴ SpaceX shall only commence operations in another country after the Space Bureau and OIA have reviewed such certification and demonstration and have notified SpaceX that such documentation is acceptable or if additional documentation is required.¹⁹⁵ In addition, prior to conducting space-to-Earth direct-to-cell operations in 2300-2395 MHz within radio line-of-sight of any NASA Deep Space Network facility outside the United States, SpaceX must certify to the Space Bureau that it has completed successful coordination with NASA.¹⁹⁶

4. Cross-Border Interference

41. We find that SpaceX has also addressed mitigation of cross-border interference for SCS in the United States and direct-to-cell operations outside the United States. SpaceX has designed its SCS system to dynamically avoid international borders and will implement software controls at service territory edges.¹⁹⁷ Furthermore, SpaceX has agreed to engage in coordination with cross-border users.¹⁹⁸ And specifically for SCS within the United States, SpaceX has committed to space downlink beams away from borders to protect primary terrestrial mobile operations in Canada and Mexico from interference.¹⁹⁹

42. We also adopt conditions to further ensure mitigation of cross-border interference in accordance with the framework adopted in the *SCS R&O*. First and foremost, when providing SCS in the United States or direct-to-cell operations outside the United States, in accordance with the ITU Radio Regulations and the *SCS R&O*, SpaceX shall operate on a non-harmful interference basis to other countries' operations and must address and eliminate any harmful interference cases immediately.²⁰⁰ For operations in the United States, SpaceX shall respect all existing rules and limits in the 1910-1915 MHz and 1990-1995 MHz bands to protect incumbent users.²⁰¹ This includes observing a maximum PFD based on the section 25.208(w) field strength limits.²⁰² Finally, for operations both inside and outside the

¹⁹³ See *id.* at para. 235.

¹⁹⁴ See *id.*

¹⁹⁵ See *id.*

¹⁹⁶ Letter from Jennifer A. Manner, Senior Advisor, Space and Satellite Policy, Office of Spectrum Management, NTIA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 23-135, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-20230207-00021, SAT-AMD-20240322-00061, SAT-MOD-20240423-00089, SAT-STA-20240522-00108 (dated Nov. 22, 2024) (NTIA November 22, 2024 Letter). As with any coordination, we would expect that both parties would coordinate in good faith towards a timely and mutually acceptable coordination agreement.

¹⁹⁷ SpaceX July 26, 2023 Letter, Attach. B at 5; SpaceX July 26, 2023 Letter at 1.

¹⁹⁸ SpaceX July 26, 2023 Letter at 1.

¹⁹⁹ 47 CFR § 24.236; see SpaceX Consolidated Opposition at 18; SpaceX August 1, 2024 Letter, Attach. B at 5; SpaceX July 26, 2023 Letter at 1; TerreStar Reply at 3-4. *But see* AT&T Comments at 11-12 (arguing that SpaceX should demonstrate how it will comply with field strength limits at edge-of-service area at the border with Canada and Mexico).

²⁰⁰ See ITU Radio Regulation No. 4.4; *SCS R&O*, para. 231; see also Omnispace August 18, 2023 Letter at 2; Omnispace November 17, 2023 Letter at 3.

²⁰¹ See *SCS R&O*, para. 231.

²⁰² 47 CFR § 25.208(w); see also SpaceX Consolidated Opposition at 18. However, we note that SpaceX is required to meet, at a minimum, the Commission's OOB limit for operations inside the United States and at U.S. borders. See Letter from Pantelis Michalopoulos et al., Counsel to EchoStar Corporation, to Marlene H. Dortch, Secretary,

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United States, we condition this authorization such that, in accordance with the framework adopted in the *SCS R&O*, SpaceX's operations remain subject to bilateral agreements that ensure terrestrial licensees meet a particular signal level limit at the relevant international border, including field strength and PFD limits. SpaceX may only exceed PFD limits where it has been authorized pursuant to an approval from the regulatory authority of the appropriate border country and after providing documentation of such approval to the Commission.²⁰³ Cross-border coordination and any negotiated technical parameters must be mutually acceptable to all involved, including U.S. counterpart agencies who oversee or regulate spectrum use in other countries.²⁰⁴

5. SCS in Lower Altitude Shells

43. In addition to its initial request to operate the direct-to-cell antennas on up to 7,500 satellites within the orbital shells at altitudes of 525 km, 530 km, and 535 km, SpaceX requests the option to operate its direct-to-cell antennas in lower orbital shells at altitudes of 340 km, 345 km, 350 km, and 360 km.²⁰⁵ As such, we address herein SpaceX's proposed operations in both the 500 km and 300 km shells.²⁰⁶

44. As part of our interference analyses at the lower altitude shells granted herein, we reviewed reference antenna patterns provided by SpaceX and a CSV file with the specific data points in the pattern that address possible satellite-to-satellite interference given the sidelobe angles.²⁰⁷ Initially, SpaceX submitted and requested confidential treatment for SpaceX's average direct-to-cell transmit antenna pattern to address mitigation of possible satellite-to-satellite interference.²⁰⁸ EchoStar filed a petition seeking the Commission issue a protective order regarding these patterns to allow outside counsel and experts for interested parties to review the information SpaceX designated as confidential.²⁰⁹ However, SpaceX has since withdrawn these initial antenna patterns and filed reference antenna patterns and an accompanying CSV file in the publicly available record.²¹⁰ In our analyses, we relied solely on

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FCC, GN Docket No. 23-135, ELS File Nos. 0661-EX-ST2024, 0934-EX-ST-2024, 1209-EX-ST-2024, and 1210-EX-ST-2024 at 1-4 (dated Jul. 10, 2024).

²⁰³ See *SCS R&O*, para. 229.

²⁰⁴ See *id.* at paras. 229, 231. SpaceX argued that the Commission should alter the precedent set in the *Lynk Order* regarding field strength limits and the requirement to obtain separate coordination agreements with each border country. See Letter from Jameson Dempsey, Principal, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 23-65, 23-135; ICFS File No. SAT-MOD-20230207-00021 at 1-2 (dated Feb. 21, 2024); *Lynk Global, Inc. Application to deploy and operate space stations filed under the FCC streamlined small space station authorization process*, 47 CFR § 25.122, Order and Authorization, 37 FCC Rcd 10681 (2022) (*Lynk Order*). DISH objects to SpaceX's requests and argues over the validity of the *Lynk Order*. See Letter from Jennifer A. Manner, Senior Vice President, Regulatory Affairs, EchoStar Corporation, to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 23-65, 23-135; IB Docket No. 22-271 at 1-3 (dated Apr. 3, 2024). Since the Commission has established the SCS framework in the *SCS R&O*, and we have addressed the issues of field strength limits and procedures for direct-to-cell operations outside the United States, we will consider SpaceX's arguments moot. See also Letter from Jameson Dempsey, Director, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 23-65, 23-135; ICFS File No. SAT-MOD-20230207-00021 at 1-2 (dated Apr. 8, 2024).

²⁰⁵ See SpaceX SCS Modification Amendment.

²⁰⁶ See *supra* paras. 27-34.

²⁰⁷ See SpaceX September 18, 2024 Letter.

²⁰⁸ See SpaceX June 21, 2024 Letter.

²⁰⁹ See EchoStar June 28, 2024 Request for Protective Order; EchoStar Petition at 4; see also Omnispace July 5, 2024 Letter at 1-2.

²¹⁰ See SpaceX September 18, 2024 Letter.

this updated publicly available information, and not on the initial filing SpaceX submitted containing proprietary information.²¹¹ As such, we find EchoStar's Petition for a Protective Order, as well as SpaceX's request for confidential treatment, moot.

45. Only Omnispace objects to SpaceX's SCS operations at these lower orbital shells and filed an informal objection to SpaceX's amended application requesting such authority.²¹² Omnispace argues that SpaceX's requested use of the 1990-1995 MHz band, including at the 340 km, 345 km, 350 km, and 360 km altitudes, is incompatible with primary MSS systems licensed by other administrations and properly notified at the ITU, including those of Omnispace.²¹³ However, Omnispace does not raise any additional concerns that differ from those we address above regarding possible harmful interference from SpaceX's SCS downlink.²¹⁴ In fact, Omnispace purports that the interference risk is even lower at lower altitudes.²¹⁵ Because we have considered Omnispace's concerns regarding harmful interference as applied to both the requested 500 km and 300 km altitude shells in this authorization, we deny Omnispace's informal objection.²¹⁶ We note that the Commission previously deferred consideration of SpaceX's proposal to operate satellites at altitudes of 340-360 km, based on concerns raised on the record regarding interference, orbital debris mitigation, and satellite reflectivity; we address these concerns below with respect to the up to 7,500 satellites we authorize SpaceX to potentially deploy and operate at 340 km, 345 km, 350 km, and 360 km in this Order.

6. ITU Filings

46. We find that SpaceX has properly submitted materials to support an ITU filing for its proposed operations. Omnispace and TerreStar argue that SpaceX's proposed use of the 1990-1995 MHz band for MSS downlink is inconsistent with its ITU filings.²¹⁷ Omnispace also purports that grant of SpaceX's application must be on a secondary basis with regard to already existing MSS systems that have been properly notified at the ITU and planned systems that will be coordinated in the future.²¹⁸ Omnispace further contends that one of SpaceX's associated ITU filings, USASAT-NGSO-ULS, is only an Advance Publication Information (API) filing, which has no coordination status except to start the seven-year time clock for satellite coordination, notification and bringing into use (BIU) of the satellite filing.²¹⁹ Moreover, Omnispace contends that because the 1990-1995 MHz band has no ITU allocation for operating MSS as a downlink, there is no duty to coordinate under Article 9, and SpaceX must operate on a non-interference basis under No. 4.4 of the ITU Radio Regulations and initiate coordination for operations that rely on the USASAT-NGSO-ULS filing.²²⁰

47. Along with this modification application, SpaceX has submitted ITU filing materials to

²¹¹ *See id.*

²¹² *See generally* Omnispace Informal Objection.

²¹³ *See id.* at 2.

²¹⁴ *See supra* paras. 27-33.

²¹⁵ *See* Omnispace Informal Objection at 4; Consolidated Opposition to Petitions and Response to Comments of Space Exploration Holdings, LLC at 14 (filed Aug. 22, 2024).

²¹⁶ *See supra* paras. 27-33.

²¹⁷ *See* Omnispace May 18, 2024 Opposition at 8; TerreStar Reply at 4.

²¹⁸ *See* Omnispace May 18, 2024 Opposition at 9.

²¹⁹ *See* Omnispace June 5, 2023 Reply at 3.

²²⁰ *See* Omnispace June 5, 2023 Reply at 4. Omnispace relatedly argues that SpaceX does not meet the standards to gain U.S. market access. *See id.* at 5. However, given that SpaceX is requesting a modification of its U.S. license and submitted the necessary ITU materials to the Commission, and is no longer seeking a grant of market access, we consider this argument moot.

the Commission.²²¹ In turn, on behalf of the United States, we found those materials satisfactory to submit to the ITU. The USASAT-NGSO-MVLS (CR) filing includes all frequencies in which SpaceX's operations align with the service allocations and directionality of the International Table of Frequency Allocations, and the USASAT-NGSO-MULS (API) filing include all frequencies that either do not require coordination or fall outside of the allocations or directionality of the International Table of Frequency Allocations, but do align with the directionality that the Commission established for PCS G Block mobile services.²²² We thus find that SpaceX's ITU filings cover all necessary frequencies.²²³ We do note, as discussed above, that operations that do not conform with the International Table of Frequency Allocations must be conducted pursuant to No. 4.4 of the ITU Radio Regulations, and SCS within the United States must be conducted on a secondary basis.

7. DISH Petition for Reconsideration of SCS Deployment Partial Grant

48. On January 2, 2024, DISH filed a Petition for Reconsideration of the partial, limited grant, issued by the Satellite Programs and Policy Division, permitting SpaceX to deploy a modified version of the previously authorized Gen2 Starlink satellites with the capability to operate in certain frequencies in the 1429 MHz to 2690 MHz range and to operate these satellites on frequencies within the 1910-1915 MHz and 1990-1995 MHz bands for limited on-orbit check out of the antennas.²²⁴ DISH argues that the grant was not sufficiently limited,²²⁵ and expresses concerns regarding out-of-band interference to adjacent and near-adjacent band spectrum users.²²⁶ DISH requests reconsideration of the grant until SpaceX can answer and resolve questions of harmful interference and further requests that the grant be limited to fewer satellites.²²⁷ We disagree that the partial grant for SpaceX was overly broad. The grant was designed to address deployment-only authority, with a limited on-orbit checkout typically lasting as little as a few minutes per day, which has occurred.²²⁸ Additional operations have been authorized under experimental STA. This authorization grants SpaceX's broader request for SCS operations, effectively superseding the operations authorized in the earlier grant, and addresses potential interference concerns in detail. Therefore, we dismiss DISH's Petition for Reconsideration of the prior limited grant as moot.

8. Additional SCS-Related Waiver Requests

49. SpaceX requests waivers of the Commission's rules related specifically to its SCS operations, and we address those requests here.²²⁹ We first note that, since the adoption of the *SCS R&O*

²²¹ See USASAT-NGSO-MVLS and USASAT-NGSO-MULS. SpaceX initially filed a request for U.S. market access to provide SCS, identifying a German ITU filing. The U.S. market access application was subsequently withdrawn and replaced with a request for modification of its U.S. Gen2 license to provide SCS and direct-to-cell operations. U.S. ITU filings have also now been submitted for these operations. Therefore, to the extent that DISH and Omnispace argued that SpaceX improperly sought to provide SCS pursuant to a German ITU filing, see DISH SCS Petition at 4; Omnispace June 5, 2023 Reply at 6; DISH SCS Reply at 7, we dismiss the arguments as moot. We also note that SpaceX has coordinated its U.S. filing with the previous German filings so that its U.S. filings have maintained the same priority status as prior German filings.

²²² See SpaceX November 14, 2023 Letter at 4; SpaceX SCS Modification Amendment, Narrative, Attach. C at 4.

²²³ See SpaceX Consolidated Opposition at 11.

²²⁴ See generally DISH SCS Petition for Reconsideration; *SpaceX SCS Modification Partial Grant*.

²²⁵ DISH SCS Petition for Reconsideration at 1, 3.

²²⁶ See *id.* at 4.

²²⁷ See *id.* at 5.

²²⁸ See Opposition of Space Exploration Holdings, LLC to Petition for Reconsideration at 2 (filed Jan. 17, 2024).

²²⁹ SpaceX requested waivers of section 25.112(a)(3) of the Commission's rules, which provided that the Commission will dismiss applications that request authority to operate space stations in bands not allocated

(continued....)

and the SCS framework, fewer of SpaceX's initial requests remain relevant.²³⁰ Of those relevant waiver requests, we have addressed our deferral of SpaceX's OOB limit waiver request above. SpaceX also requests waiver of the United States Table of Frequency Allocations, section 2.106 of the Commission's rules, and the Ka-band Plan to allow designation of gateway links in the Ka-band and E-band spectrum for use as MSS feeder links.²³¹ However, we find that SpaceX's feeder link operations in the Ka-band and E-band can be classified as fixed-satellite service (FSS) operations, since SpaceX's satellites will be communicating directly with fixed earth stations when performing feeder link operations.²³² Therefore, SpaceX's proposed gateway operations conform with the United States Table of Frequency Allocations, and SpaceX's request for this waiver is unnecessary and therefore dismissed as moot.

C. Operations in Previously Authorized Frequency Bands at 340 km, 345 km, 350 km, and 360 km Altitudes

50. We authorize SpaceX to conduct operations in the Ku-, Ka-, V-, and E-bands with all of its previously authorized 7,500 satellites at operational altitudes of 340 km, 345 km, 350 km, and 360 km. As discussed in more detail below, SpaceX's operations below the ISS are limited to the number of satellites for which SpaceX has completed physical coordination with NASA.²³³

51. As discussed in prior authorizations for the Gen2 Starlink constellation, SpaceX has previously provided the Commission with the relevant technical specifications for its operations in the

(Continued from previous page)

internationally for the requested operations under the ITU Radio Regulations, and relatedly of section 25.112(b) of the Commission's rules, which formerly cited to section 25.112(a)(3). *See* SpaceX SCS Modification, Waiver Requests at 3-5, 7-9. NRAO similarly argued that we should not accept SpaceX's application for filing under section 25.112(a)(3) of the Commission's rules. *See* NRAO May 4, 2023 Opposition at 3. However, section 25.112(a)(3) has since been removed from the Commission's rules, and SpaceX's request is thus dismissed as moot. *See Streamlining Satellite Application Processing Order*, 38 FCC Rcd at 8850, para. 27. We similarly find NRAO's related arguments moot.

²³⁰ SpaceX sought waiver sections 2.106 and 25.202(a)(1) of the Commission's rules, 47 CFR §§ 2.106(a) and 25.202(a)(1), to operate in the 1910-1915 MHz and 1990-1995 MHz bands, which were not allocated for satellite use. *See* SpaceX SCS Modification, Waiver Requests at 4-5. However, the Commission has since updated the U.S. Table to add a secondary MSS allocation for these requested bands with corresponding footnote NG33A, which permits SCS in these bands. 47 CFR § 2.106(a)&(d)(33)(i). Thus, SpaceX's waiver request is unnecessary and dismissed as moot. SpaceX further requested waiver of the Commission's processing round rules, 47 CFR §§ 25.156(d)(1) and 25.157. *See* SpaceX SCS Modification, Waiver Requests at 5-7. However, the Commission has established that applications to modify an authorization to provide SCS in the bands identified in § 2.106(d)(33)(i) of the Commission's rules, which include the 1910-1915 MHz and 1990-1995 MHz bands, will not be subject to the processing round procedures. *See* 47 CFR § 25.125(b)(3). Thus, SpaceX's waiver request is unnecessary and dismissed as moot. Furthermore, SpaceX sought a waiver of the requirement to license earth stations communicating with the direct-to-cellular system, *id.* §§ 25.102(a) and 25.115(a)(1)(i). *See* SpaceX SCS Modification, Waiver Requests at 9-10. However, in the United States, SpaceX's user terminals will be unmodified, commercial off-the-shelf cellular phones that will already be certified to operate under Part 24 rules within the United States. *See* SpaceX SCS Modification, Technical Annex at 4. In addition, SpaceX certifies that all terrestrial devices involved in provision of SCS will qualify as "licensed-by-rule" pursuant to 47 CFR § 25.125. *See* SpaceX September 18, 2024 Letter at 1. Thus, SpaceX's user terminals will qualify as SCS earth stations under the Commission's rules, *see* 47 CFR §§ 25.115(q) and 25.103, and SpaceX's waiver request is unnecessary and dismissed as moot.

²³¹ *See* SpaceX SCS Modification, Waiver Requests at 1-3.

²³² FSS is a radiocommunication service between earth stations at given positions, when one or more satellites are used; the given position may be a specified fixed point or any fixed point within specified areas. *See* 47 CFR § 2.1.

²³³ *See* NASA November 19, 2024 Letter ("NASA writes to clarify that it requests that the Commission condition SpaceX authorization to operate satellites below the International Space Station ("ISS") on continuously operating up to the number of satellites the parties have coordinated").

Ku-, Ka-, V-, and E-bands, as well as for its operations with VHF beacons.²³⁴ We reiterate that SpaceX is required to operate consistent with these technical specifications provided to the Commission as part of its application, including any supplemental specifications.²³⁵ The relevant technical information includes antenna beam patterns; GSO avoidance angle; physical characteristics; frequencies used for satellite communications, including outside the United States; and other technical information.²³⁶ Should SpaceX wish to alter these technical specifications, it must apply for a license modification from the Commission. We also note that SpaceX is not authorized to conduct operations at orbital altitudes and inclinations that differ from this authorization, which is based on the information provided in the Schedule S forms in the SpaceX Gen2 application, as amended; the V-band modification application, and the SCS modification application, as amended.²³⁷

52. *Ku-band.* We grant SpaceX's request to operate in the 10.7-12.7 GHz (space-to-Earth), 12.75-13.25 GHz (Earth-to-space), and 14.0-14.5 GHz (Earth-to-space) bands operating at 340 km, 345 km, 350 km, and 360 km altitudes. For these satellites operating at lower altitudes, we adopt the same conditions as those applicable to SpaceX's operations at the previously authorized higher altitudes.²³⁸ We also grant SpaceX's request to communicate in the 12.7-12.75 GHz (space-to-Earth) frequency band with these satellites at these lower altitudes, limited to operations outside the United States consistent with the Commission's prior grant. All conditions previously adopted that required coordination before commencement of operations will continue to apply, and SpaceX must ensure that coordination has been completed with respect to its operations in the authorized orbital shells of 340 km, 345 km, 350 km, and 360 km.

53. In its original Petition to Deny the SpaceX Gen2 application, as amended, DISH argues that the satellites operating below 400 km will result in more frequent, though briefer, instances of potential interference for direct broadcast service (DBS) customers.²³⁹ DISH characterizes SpaceX plans to reduce the EIRP of these satellites and only communicate with these satellites with minimum earth station elevation angles of 25 degrees as a "positive development from an interference perspective," but DISH argues the "exponential" increase in the number of satellites (i.e., the nearly 20,000 satellites SpaceX has proposed for operations below 400 km) negates these mitigation efforts.²⁴⁰ We note that our authorization today is for only 7,500 satellites operating at altitudes of 340 km, 345 km, 350 km, and 360

²³⁴ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14910-14920, paras. 42-69; *SpaceX First V-band Modification Grant*; *SpaceX E-band Partial Grant*, at paras. 6-7; *SpaceX Gen2 Beacon Order* at paras. 5-6; see also generally *SpaceX Gen2 Application*, Narrative and Technical Attachment; *SpaceX Second V-band Modification Application*, Narrative and Technical Attachment.

²³⁵ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14910-14920, paras. 42-69; *SpaceX First V-band Modification Grant*; *SpaceX E-band Partial Grant* at paras. 6-7; *SpaceX Beacon Order* at para. 6; see generally, *SpaceX Gen2 Application*, Narrative and Technical Attachment; *SpaceX Gen2 Amendment*, Narrative and Technical Attachment; *SpaceX Second V-band Modification Application*, Narrative and Technical Attachment.

²³⁶ See *SpaceX Gen2 Application*, Narrative and Technical Attachment; *SpaceX Gen2 Amendment*, Narrative and Technical Attachment; *SpaceX Beacon Amendment*, Narrative and Technical Attachment; *SpaceX Second V-band Modification Application*, Narrative and Technical Attachment.

²³⁷ See *SpaceX Gen2 Application*, Schedule S; *SpaceX Gen2 Amendment*, Schedule S; *SpaceX Beacon Amendment*, Schedule S; *SpaceX Second V-band Modification Application*, Schedule S; *SpaceX SCS Modification Application*, Schedule S; *SpaceX SCS Amendment*, Schedule S.

²³⁸ See *SpaceX E-band Partial Grant*, at para. 22.

²³⁹ See *DISH Gen2 Petition* at 6-7, 21-22. We note that the D.C. Circuit rejected arguments made in DISH's original petition to deny and found that DISH did not present sufficient evidence that SpaceX would cause unacceptable interference to DISH's system. See *International Dark-Sky Association, Inc., v. FCC*, 106 F.4th at 1212-13. The Court concluded that the initial partial grant of SpaceX's Gen2 system was reasonable. See *id.* at 1217.

²⁴⁰ *DISH Gen2 Petition* at 6-7, 21-22 (citing *SpaceX Gen2 Application*, Technical Attachment at 17, 20).

km, which is slightly more than one third of the total number of satellites SpaceX proposes at these altitudes in its Gen2 constellation, as amended. We also note that while we authorize SpaceX to conduct operations with up to 7,500 satellites at these lower altitudes, at this time SpaceX is limited to deploying only the number of satellites for which it has completed physical coordination with NASA.²⁴¹ We find that the smaller number of satellites coupled with SpaceX's 25 degree minimum elevation angle, which will reduce the potential for in-line interference events, and the lower EIRP for the satellites operating at these altitudes, which will reduce the received power level at the victim receivers (all of which DISH found to be a "positive development from an interference perspective"),²⁴² will result in no additional interference into GSO systems. We reiterate that SpaceX's authorization is conditioned on SpaceX operating consistent with all technical specifications provided to the Commission, including the reduced power levels.²⁴³ We do, however, commit to continuing to review this issue in any potential future authorizations for SpaceX's Gen2 Starlink satellites at altitudes below 400 km.²⁴⁴

54. *Ka-band.* We grant SpaceX's request for communications in the Ka-band with up to a total of 7,500 satellites operating in the authorized orbital shells of 340 km, 345 km, 350 km, and 360 km, limited to the total number of satellites SpaceX has coordinated with NASA under their Space Act Agreement. No comments were filed specifically regarding SpaceX's proposed operations in the Ka-band at lower altitudes. For these satellites operating at lower altitudes, we adopt the same conditions as those applicable to SpaceX's operations at the higher altitudes.²⁴⁵ All conditions previously adopted that required coordination before commencement of operations will continue to apply, and SpaceX must ensure that coordination has been completed with respect to its operations in the authorized orbital shells of 340 km, 345 km, 350 km, and 360 km.

55. *Processing Round Considerations for Ku- and Ka-band.* SpaceX originally applied for authorization as part of the 2020 Ku/Ka-band processing round.²⁴⁶ SpaceX is required to continue to comply with all obligations regarding its participation in the 2020 Ku- and Ka-band processing round.²⁴⁷ SpaceX must coordinate its Gen2 Starlink system operations with other operational systems that were licensed or granted U.S. market in certain prior NGSO FSS processing rounds—specifically those referred to in Public Notices DA 16-804, 31 FCC Rcd 7666 (IB 2016) and DA 17-524, 32 FCC Rcd 4180 (IB 2017). If such coordination cannot be successfully completed, SpaceX must make a showing to the Commission demonstrating and certifying that its operations will not cause harmful interference to those

²⁴¹ See NASA November 19, 2024 Letter.

²⁴² See DISH Gen2 Petition at 22.

²⁴³ See SpaceX Gen2 Application, Narrative and Technical Attachment; SpaceX Gen2 Amendment, Narrative and Technical Attachment

²⁴⁴ SpaceX has recently filed a modification and amendment application, seeking to change the orbital configuration, operational characteristics, and frequency use of the previously authorized Gen2 satellites as well as the pending portions of its Gen2 application, as amended, including changes to its minimum elevation angle. See ICFS File Nos. SAT-MOD-20241011-00224 and SAT-AMD-20241017-00228. We reiterate that partial grant of this authorization is without prejudice to any potential future action in connection with these applications or any other pending applications for the Gen2 Starlink constellation, call signs S2992 and S3069, and SpaceX is not authorized to conduct operations outside the scope of this Order.

²⁴⁵ See *SpaceX E-band Partial Grant*, at para. 22.

²⁴⁶ See 2020 Ku/Ka-band Processing Round Public Notice; SpaceX has made no changes to its proposed operations at lower altitudes in the Ku- and Ka-bands, and so we need not analyze whether further partial grant of SpaceX's Gen2 application, as amended, requires placement in a later processing round. 47 CFR § 25.117(d)(2)(ii); see also *Space Exploration Holdings, LLC, Request for Modification of the Authorization for the SpaceX NGSO Satellite System*, Order and Authorization and Order on Reconsideration, 36 FCC Rcd 7995, 8006-07, para. 16 (2021) (*SpaceX Third Modification Order*).

²⁴⁷ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14951-52, paras. 135u and v.

operational systems, which will be subject to Commission approval.²⁴⁸ O3b posits that SpaceX's demonstration and certification of no harmful interference to operational systems authorized in the earlier processing rounds must take into account all operational altitudes, including operations in the lower altitude orbital shells authorized in this grant.²⁴⁹ We agree, and condition this authorization accordingly.²⁵⁰ We also note that the Commission recently adopted rules governing methodologies to be used for demonstrations of protection of earlier-round systems.²⁵¹ SpaceX must comply with these rules when they come into effect.

56. *E-band.* We authorize SpaceX to conduct communications in the E-band with up to 7,500 satellites operating at 340 km, 345 km, 350 km, and 360 km, limited to the total number of satellites SpaceX has coordinated with NASA under their Space Act agreement. We note that no comments were filed on the record specifically with respect to SpaceX's proposed operations in the E-band at these lower altitudes. SpaceX's operations in the E-band at these lower altitudes must be conducted in accordance with the technical parameters SpaceX has provided in its Gen2 application, as amended, and subject to the same conditions we adopted in prior orders for operations in the E-band at higher altitudes.²⁵² All conditions previously adopted that required coordination before commencement of operations will continue to apply, and SpaceX must ensure that coordination has been completed with respect to its operations in the authorized orbital shells of 340 km, 345 km, 350 km, and 360 km.²⁵³ We reiterate in particular that SpaceX must comply with any sharing requirements adopted as part of a future E-band processing round. And SpaceX is also required to complete coordination with federal operators utilizing the 86-92 GHz band for passive services prior to SpaceX commencing operations, including operations at 340 km, 345 km, 350 km, and 360 km. We also adopt an additional condition, similar to the conditions on SpaceX's Ku- and V-band operations, requiring SpaceX to operate its gateway earth stations in the E-band with minimum elevation angles of 25 degrees, except in regions above 62 degrees latitude, where it may operate with a minimum elevation angle of 5 degrees.²⁵⁴

57. *V-band.* SpaceX filed its original V-band application in response to an International Bureau public notice that initiated a processing round for additional NGSO applications in the 37.5-40.0 GHz, 40.0-42.0 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz bands (First V-band Processing Round).²⁵⁵ On April 23, 2024, SpaceX filed its Second V-Band Modification Application, proposing to communicate between its Gen2 Starlink satellites at altitudes of 340 km, 345 km, 350 km, and 360 km and gateway and user terminals in the 37.5-40.0 GHz (space-to-Earth), 40.0-42.0 GHz (space-to-Earth), 47.2-50.2 GHz

²⁴⁸ In the event that it becomes necessary for SpaceX to make such a demonstration to the Commission, SpaceX may commence operations at its own risk, on a non-harmful interference, unprotected basis with respect to any operations authorized in earlier processing rounds for which coordination has not been completed, prior to the approval of its showing by the Commission. *See SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14952-53, para. 135v.

²⁴⁹ *See* O3b February 28, 2024 Letter at 1-2.

²⁵⁰ *See infra*, para. 89x.

²⁵¹ *See generally* *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems, Second Report and Order and Order on Reconsideration*, FCC-24-117 (2024).

²⁵² *See SpaceX E-band Partial Grant*, at para. 22.

²⁵³ *See infra*, para. 89.

²⁵⁴ SpaceX has committed to operating in this manner in its Gen2 application, as amended, and addition of this condition is consistent with similar conditions on SpaceX's operations in the Ku- and V-bands. *See SpaceX E-band Partial Grant* at paras. 7, 22; SpaceX Gen2 Application, Technical Attachment at 13.

²⁵⁵ *Boeing Application Accepted for Filing in Part*, ICFS File No. SAT-LOA-20160622-00058; *Cut-off Established for Additional NGSO-Like Satellite Applications or Petitions for Operations in the 37.5-40.0 GHz, 40.0-42.0 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz Bands*, Public Notice, 31 FCC Rcd 11957 (IB 2016).

(Earth-to-space), and 50.4-51.4 GHz (Earth-to-space) bands.²⁵⁶ SpaceX is authorized to operate with a minimum elevation angle of 35 degrees in the 37.5-40.0 GHz band and with a minimum elevation angle of 25 degrees in the 40.0-42.0 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz bands²⁵⁷ and SpaceX does not propose to modify these minimum elevation angles.²⁵⁸ Specifically, SpaceX proposes a maximum EIRP density between 14.2 dBW/MHz and 14.7 dBW/MHz, depending on the operational altitude of the satellites.²⁵⁹ SpaceX states that with respect to operations at the 350 km altitude in the 40.0-42.0 GHz and 37.5-40.0 GHz bands, as a satellite steers its beam, it adjusts power to maintain a constant PFD on the surface of the Earth.²⁶⁰ Additionally, SpaceX states that all of its V-band operations will comply with the PFD limits on the surface of the Earth.²⁶¹

58. The Commission has addressed the impact of modifications on processing round status.²⁶² Specifically, under our rules governing modifications, “applications for modifications of space station authorizations will be granted,” unless one of several enumerated exceptions applies, including the provision stating that the modification will not be granted if it “would not serve the public interest, convenience, and necessity.”²⁶³ The Commission has applied the Bureau’s interpretation of that provision and found that in the context of applications to modify authorized NGSO systems that were originally subject to modified processing round procedures, a proposed modification will be granted generally if such modification “does not present any significant interference problems and is otherwise consistent with Commission policies.”²⁶⁴ But if the modification “presents significant interference problems,” that modification would be treated as a newly filed application and considered in a subsequent satellite processing round.²⁶⁵

59. As SpaceX is a participant in the First V-band Processing Round, we therefore must consider whether its request to further modify its V-band authorization would present significant interference concerns,²⁶⁶ necessitating consideration of this modification application as a newly filed application to be placed in a subsequent processing round.²⁶⁷ SpaceX states that this modification request

²⁵⁶ SpaceX Second V-Band Modification Application, Technical Attachment at 5.

²⁵⁷ See *SpaceX First V-band Modification Grant*.

²⁵⁸ See SpaceX Second V-Band Modification Application, Technical Attachment at 5-6.

²⁵⁹ See *id.* at 7.

²⁶⁰ See *id.* at 6.

²⁶¹ See *id.* at 8.

²⁶² See *SpaceX Third Modification Order*, 36 FCC Rcd at 8006-07, para. 16.

²⁶³ 47 CFR § 25.117(d)(2)(ii); see also *SpaceX Third Modification Order*, 36 FCC Rcd at 8006-07, para. 16. None of the other exceptions in Section 25.117(d)(2) appear to be relevant, and none have been raised in connection with SpaceX’s modification request.

²⁶⁴ *SpaceX Third Modification Order*, 36 FCC Rcd at 8006-07, para. 16 (quoting *Teledesic LLC*, Order and Authorization, 14 FCC Rcd 2261, 2264, para. 5 (IB 1999)).

²⁶⁵ See *id.* (concluding that the SpaceX Third Modification Application would not present significant interference problems and granting the modification without treating it as a newly filed application).

²⁶⁶ As discussed above, we need not conduct this analysis for SpaceX’s operations in the Ku-, Ka-, and E-bands at lower altitudes, as these operations were part of SpaceX’s original proposal in its Gen2 Application, as amended, and are therefore contemplated as part of the 2020 Ku/Ka-Band Processing Round in the case of the Ku- and Ka-bands or part of a potential future processing round, in the case of the E-band.

²⁶⁷ We note that SpaceX has filed an additional application, seeking to modify its V-band authorization to extend its milestone deadline by placing the remaining V-band satellites, which SpaceX has not yet launched, into a subsequent processing round, arguing that under the Commission’s standard, extending a milestone will present significant interference problems to the environment of the current processing round. See generally *Space*

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will not have any significant interference impact on other users of the V-band.²⁶⁸ On the contrary, SpaceX asserts that operating V-band payloads at orbital altitudes of 340 km, 345 km, 350 km, and 360 km will improve the spectrum sharing environment among authorized V-band systems rather than increase interference.²⁶⁹ This is because there will be no increase in the number of satellites and SpaceX will be able to operate its V-band payloads at these lower altitudes at a lower EIRP to maintain the same PFD at the surface of the Earth that SpaceX is currently authorized for operations at higher altitudes.²⁷⁰ In addition, because the satellite downlink transmit power is adjustable on orbit, SpaceX has the ability to manage each satellite's PFD levels during all phases of the mission, as needed. All downlink spot beams on each SpaceX satellite are independently steerable over the full field of view of the Earth. Earth stations communicate only with satellites above a minimum elevation angle. SpaceX has provided a technical analysis that confirms and quantifies this commitment that V-band operations at 340 km, 345 km, 350 km, and 360 km will not present significant interference concerns.²⁷¹ No parties filed comments on SpaceX's operations in the V-band at lower altitudes. Space Bureau staff have reviewed SpaceX's technical demonstration and determined that SpaceX has provided sufficient information to demonstrate that its V-band operations at lower altitudes will not present interference concerns. We therefore find that SpaceX's V-band Modification Application will not increase interference into the environment of the First V-band Processing Round.

60. We therefore grant SpaceX authority to operate its previously authorized 7,500 satellites in the 37.5-40.0 GHz and 40.0-42.0 GHz (space-to-Earth) and 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) bands at altitudes of 340 km, 345 km, 350 km, and 360 km. This authorization is also subject to the same conditions we have placed upon these operations at higher altitudes in prior authorizations. Again, we note that for conditions previously adopted for higher-altitude satellites that required coordination before commencement of operations, SpaceX must likewise complete the same coordination for the satellites we authorize to operate at altitudes of 340 km, 345 km, 350 km, and 360 km.

61. *VHF Beacons.* SpaceX is authorized to operate VHF beacons on up to 450 Gen2 Starlink satellites for backup telemetry, tracking, and command (TT&C) during orbit raising and emergency situations while at operational altitudes.²⁷² The *SpaceX Gen2 Beacon* Order did not include authorization for communications using the VHF beacons at operational altitudes of 340 km, 345 km, 350 km, and 360 km, and instead stated that operations at these altitudes would be considered as part of SpaceX's general request to include these lower altitudes in its authorization.²⁷³ We now authorize SpaceX to communicate using its VHF beacons on up to 450 Gen2 Starlink satellites during emergency situations for backup TT&C at operational altitudes of 340 km, 345 km, 350 km, and 360 km, in addition to the previously-authorized communications during orbit raising and while at operational altitudes of 525 km, 530 km, and 535 km. The *SpaceX Gen2 Beacon* Order authorized SpaceX to conduct communications with the VHF beacons during orbit raising from insertion orbit—which is lower than the operational altitudes of 340-

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Exploration Holdings, LLC, Application for Modification of Authorization of the SpaceX V-band NGSO Satellite System, ICFS File No. SAT-MOD-20240813-00183 (filed Aug. 13, 2024). We do not address these issues here and instead focus on any potential interference concerns raised in the instant application to include V-band antennas on Gen2 Starlink satellites operating at 340 km, 345 km, 350 km, and 360 km.

²⁶⁸ See SpaceX Second V-Band Modification Application, Technical Attachment at 11.

²⁶⁹ See *id.*, Narrative at 5.

²⁷⁰ See *id.*; see also, *SpaceX First V-Band Modification Grant*.

²⁷¹ See SpaceX Second V-Band Modification Application, Technical Attachment at Annex 1.

²⁷² See generally *SpaceX Gen2 Beacon Order*.

²⁷³ See *id.* at para. 7.

360 km—as well as for backup TT&C at operational altitudes of 525-535 km,²⁷⁴ and the technical parameters for SpaceX’s operations with the VHF beacons are consistent regardless of operational altitude,²⁷⁵ so we find that SpaceX’s proposed operations with the VHF beacons for emergency TT&C at altitudes of 340 km, 345 km, 350 km, and 360 km do not raise any additional interference concerns that were not already fully considered in the *SpaceX Gen2 Beacon Order*. SpaceX’s operations with these beacons remain subject to all conditions adopted in the *SpaceX Gen2 Beacon Order*.²⁷⁶ Finally, we reiterate that for conditions previously adopted for operations of the beacons on higher-altitude satellites that required coordination before commencement of operations, SpaceX must likewise complete the same coordination for the communications we authorize at altitudes of 340 km, 345 km, 350 km, and 360 km.

D. Orbital Debris Mitigation

62. In the *SpaceX Gen2 First Partial Grant*, the Commission approved SpaceX’s orbital debris mitigation plans for up to 7,500 Gen2 Starlink satellites operating at 525 km, 530 km, and 535 km, but deferred consideration of several issues specifically related to SpaceX’s proposed orbital shells below 400 km.²⁷⁷ Specifically, the Commission deferred authorization for any satellites operating below 400 km, citing concerns raised by NASA and others related to protection of inhabitable space stations, protection of launch windows for ISS resupply and NASA’s science missions, the functioning of SpaceX’s autonomous collision avoidance system at low altitudes, and general concerns related to congestion and collision risk in LEO.²⁷⁸

63. We approve SpaceX’s orbital debris mitigation plan, as modified to account for operations of up to 7,500 satellites at altitudes of 340 km, 345 km, 350 km, and 360 km. The operations of satellites in these lower orbits will result in a lower collision risk in the event of an anomaly during normal operations and will shorten the time required for post-mission disposal maneuvers.²⁷⁹ SpaceX has certified that its orbital debris mitigation plans and supplemental information previously submitted to the Commission, including plans to reserve sufficient propellant for collision avoidance maneuvers and information on risk of collision with small debris and meteoroids, remain unchanged.²⁸⁰ These plans comply with our rules and were approved by the Commission for satellite operations at higher altitudes.²⁸¹ Finally, SpaceX has completed coordination with NASA for physical operations for up to 400 satellites to operate below the ISS,²⁸² and coordination remains ongoing for additional satellites.²⁸³ NASA has

²⁷⁴ See *id.* at para. 15III; see also *SpaceX Gen2 First Partial Grant* 37 FCC Rcd at 14953, para. 135cc.

²⁷⁵ See *SpaceX Gen2 Beacon Order* at para. 5-6.

²⁷⁶ See *id.* at para. 13-21.

²⁷⁷ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14920-27, para. 70-86.

²⁷⁸ See *id.* at 14922-23, 14926, paras. 76-77, 79, 88.

²⁷⁹ The Commission has previously stated that operations at lower altitudes pose less risk to the orbital environment. See e.g. *SpaceX Third Modification Order*, 36 FCC Rcd at 8027, para. 54 (“we agree with SpaceX that specification of a lower altitude provides for operations that present considerably lower risk than at the higher altitude”).

²⁸⁰ See SpaceX Second V-band Modification Application, Technical Attachment at 12-13; SpaceX SCS Modification Application, Technical Attachment at 14; SpaceX September 13, 2024 Letter at 2; see also *SpaceX SCS Modification Partial Grant* at N.16 (addressing comments on the record and affirming that the addition of SCS antennas to the SpaceX Gen2 Starlink satellites will not change the previously submitted orbital debris mitigation plans).

²⁸¹ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14920, para. 71.

²⁸² See Letter from Lauren E. Morgan, NASA Representative to the Commercial Transportation Interagency Group Space Operation Mission Directorate, Launch Services Office, to Marlene H. Dortch, Secretary, FCC, ICFS File Nos. SAT-LOA-20200526-00055, SAT-AMD-20210818-00105, SAT-AMD-20221216-00175, SAT-MOD-

(continued....)

indicated this completed and ongoing coordination has resolved its prior concerns, and likewise we are satisfied that this coordination resolves the concerns previously raised. Below, we address specific issues deferred in prior orders as they relate to the orbital debris mitigation plans for the Gen2 satellites we authorize to operate at 340 km, 345 km, 350 km, and 360 km in this Order.²⁸⁴

64. *Protection of Inhabitable Space Stations.* The ISS operates in an orbit of roughly 400 km altitude. In connection with SpaceX's Gen2 application as initially filed, NASA and LeoLabs both expressed concerns that satellites SpaceX proposes to operate in its lower altitude shells would pose safety risks to inhabitable space stations, including the ISS.²⁸⁵ NASA has subsequently indicated that it has completed coordination with SpaceX for up to 400 satellites operating below the ISS, and that such coordination allays its concerns regarding risks to the ISS posed by these particular Gen2 Starlink satellites.²⁸⁶ NASA has also indicated that its physical coordination with SpaceX is ongoing, that it is conducting a study of impacts on ISS visiting vehicles, and that once that study is complete it expects to be able to complete physical coordination with SpaceX for an increased number of Gen2 Starlink satellites operating below the ISS.²⁸⁷ We agree this coordination is sufficient to address these concerns.

65. NASA recommends we condition this authorization on SpaceX only deploying the number of satellites for which it has completed physical coordination with NASA under SpaceX and NASA's Space Act agreement.²⁸⁸ Such an approach would therefore limit SpaceX's deployment to 400 satellites initially, which is the number of satellites NASA and SpaceX have completed physical coordination for,²⁸⁹ but would allow SpaceX to operate additional satellites below the ISS as the parties complete further coordination.²⁹⁰ We agree that such an approach will serve the public interest by lessening the burden on Commission staff to repeatedly authorize an increasing number of Gen2 Starlink satellites at these altitudes at a rapid clip. We note that concerns raised on the original record of the SpaceX Gen2 application, as amended, went beyond physical coordination with NASA and also included concerns regarding interference into other systems, SpaceX's impacts on orbital congestion and therefore access to space for other commercial operators, and increased satellite reflectivity, but we have addressed these concerns and applied conditions where appropriate throughout this order for all 7,500 Gen2 Starlink satellites. NASA recommends the Commission require SpaceX to provide an update on physical

(Continued from previous page) _____

20230207-00021, SAT-AMD-20240322-00061, SAT-MOD-20240423-00089, SAT-STA-20240522-00108, and GN Docket No. 23-135 (dated Oct. 29, 2024) (NASA October 29, 2024 Letter).

²⁸³ See NASA November 19, 2024 Letter.

²⁸⁴ We address only comments specific to operations at 340 km, 345 km, 350 km, and 360 km. We do not address comments previously filed on the record that relate solely to the scale of SpaceX's proposed Gen2 Starlink constellation, as we do not increase the number of authorized satellites in this authorization beyond the 7,500 satellites authorized in the *SpaceX Gen2 First Partial Grant* and subsequent orders. We also do not revisit comments on the record that we have addressed in prior orders. See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14920-27, para. 70-86; *SpaceX SCS Modification Partial Grant* at N.16 (addressing comments filed by DISH on the record and affirming that the addition of SCS antennas to the SpaceX Gen2 Starlink satellites will not change the previously submitted orbital debris mitigation plans).

²⁸⁵ See NTIA Letter, NASA Letter at 4; LeoLabs March 29, 2022 Letter at 4.

²⁸⁶ See NASA October 29, 2024 Letter.

²⁸⁷ See *id.*; NASA November 19, 2024 Letter.

²⁸⁸ See NASA November 19, 2024 Letter.

²⁸⁹ See NASA October 29, 2024 Letter.

²⁹⁰ See NASA November 19, 2024 Letter.

coordination with NASA in its semiannual report for the Gen2 constellation,²⁹¹ but as the Commission has committed to continued monitoring of a number of aspects of SpaceX's deployment, including deployment at altitudes below the ISS, we require SpaceX to notify the Commission of any increase in the number of satellites coordinated with NASA prior to launch of those satellites. We also note that regardless of additional coordination with NASA, SpaceX's operations are limited to the operations described in its Gen2 application, as amended, as well as SpaceX's second V-band modification application and SpaceX's SCS Modification Application, as amended, including the Schedule S and other supplemental technical information provided,²⁹² and SpaceX may not operate satellites in orbital shells it has requested in additional amendments or modifications that the Commission has not acted upon.²⁹³ We therefore condition this authorization such that SpaceX may only continually operate the total number of satellites at altitudes of 340 km, 345 km, 350 km, and 360 km that SpaceX and NASA have coordinated in their Space Act Agreement. SpaceX must provide a certification of the completion of coordination of additional satellites with NASA to the Commission at least 30 days prior to the launch of the additional satellites.

66. *Coordination of Launch Windows for NASA Missions.* NASA also originally expressed concerns that SpaceX's proposed 19,440 Gen2 Starlink satellites at altitudes below the ISS might impact launch windows for NASA missions, including ISS resupply missions and science missions with narrow launch windows such as NASA's Europa Clipper.²⁹⁴ In the *SpaceX Gen2 First Partial Grant*, we required SpaceX to coordinate with NASA to resolve these concerns, and SpaceX has completed physical coordination with NASA.²⁹⁵ We find that, based on the coordination between SpaceX and NASA, the coordinated operations will not endanger launch windows for NASA missions. SpaceX must continue to communicate and collaborate with NASA to ensure that deployment and operation of its satellites does not unduly constrain deployment and operation of NASA assets and missions, supports safety of both SpaceX and NASA assets and missions, and preserves long-term sustainable space-based communications services.

67. *Autonomous Collision Avoidance.* NASA also raised concerns on the record of the Gen2 application, as amended, about the functioning of SpaceX's autonomous collision avoidance system, particularly at lower altitudes where atmospheric drag is higher.²⁹⁶ SpaceX has previously confirmed to the Commission that it is continuing to coordinate with NASA regarding the use of its autonomous collision avoidance system, including frequent and regular meetings regarding these matters.²⁹⁷ As we acknowledged in the *SpaceX Gen2 First Partial Grant*, "through its partnership with NASA, both NASA and SpaceX are confident NASA's assets can remain safe while sharing space with Gen2 Starlink, and neither NASA nor SpaceX have identified issues that cannot be resolved by continued coordination."²⁹⁸

²⁹¹ See *id.*

²⁹² See generally SpaceX Gen2 Application; SpaceX Gen2 Amendment; SpaceX Gen2 Beacon Amendment; SpaceX Second V-band Modification Application; SpaceX SCS Modification Application; SpaceX SCS Amendment.

²⁹³ See e.g. ICFS file nos. SAT-MOD-20241011-00224 and SAT-AMD-20241017-00228.

²⁹⁴ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14926, para. 88.

²⁹⁵ See NASA October 29, 2024 Letter.

²⁹⁶ See Letter from Kathy Smith, Chief Counsel, National Telecommunications and Information Administration, to Marlene H. Dortch, Secretary, FCC, ICFS File No. SAT-AMD-20210818-00105 (dated Feb. 8, 2022); *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14922, paras. 75-76.

²⁹⁷ See SpaceX August 19, 2022 Letter at 5; see also *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14922-23, para. 77.

²⁹⁸ *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14922-23, para. 77 (citing SpaceX August 19, 2022 Letter at 5).

In its June 20, 2024 letter, SpaceX indicated that discussions remain ongoing with NASA regarding its autonomous collision avoidance system, but to date these discussions have not required SpaceX to make any changes to its use of its automated collision avoidance system “beyond those that SpaceX has proactively made based on its on-orbit experience.”²⁹⁹ SpaceX has indicated that its autonomous collision avoidance system has functioned as planned, even on recently launched satellites at lower altitudes, including during the geomagnetic storm in May 2024 and while avoiding debris from the Russian antisatellite test in 2021.³⁰⁰

68. We find requiring SpaceX to coordinate with NASA to ensure safety of NASA missions is sufficient to resolve these concerns regarding potential operations of currently authorized satellites at altitudes of 340 km, 345 km, 350 km, and 360 km, especially as deployment to these altitudes of more than the 400 satellites SpaceX has already coordinated with NASA is contingent on further coordination with NASA.³⁰¹ We also continue to condition SpaceX’s authorization to require reporting with respect to any collision avoidance system outages or unavailability, either on a system wide basis or for individual satellites, due to any cause other than disabling of the system for a single satellite in order to facilitate operator-to-operator coordination. An “outage” would include any individual satellite anomaly that results in a satellite not achieving targeted risk mitigation via maneuver. We also commit to continuing to monitor and evaluate this issue, particularly once SpaceX begins operating satellites at the altitudes authorized today. While we are confident in the performance of SpaceX’s autonomous collision avoidance system to date, we note that the limitation on the number of satellites SpaceX may deploy and operate below 400 km should allow any unanticipated malfunctions to be identified and remedied before a larger deployment. To that end, the functioning of SpaceX’s autonomous collision avoidance system at low altitudes will impact any future authorization for additional satellites at altitudes below 400 km.

69. *Congestion and Collision Risk at Lower Altitudes.* In the *SpaceX Gen2 First Partial Grant*, we deferred consideration of issues raised on the record by NASA and commercial operators regarding increased congestion in low-Earth orbit that would be caused by SpaceX’s proposed 19,440 satellites operating between 340 km and 360 km, as well as specific issues regarding collision risk at these altitudes.³⁰² We reiterate that this authorization permits SpaceX to operate up to a total of 7,500 satellites at altitudes of 340 km, 345 km, 350 km, and 360 km, diminishing the risks these commenters raise regarding a full deployment of 19,440 satellites. We also reiterate that SpaceX has successfully coordinated physical operations for up to 400 satellites with NASA at this time, and deployment of satellites at these lower altitudes beyond that 400 satellites is conditioned on further coordination with NASA and certification to the Commission of that coordination at least 30 days prior to launch of additional satellites destined for operations below the ISS.³⁰³

70. Viasat previously argued that SpaceX satellites planned for operations at 360 km did not comply with the Commission’s collision risk limits should a satellite’s propulsion fail.³⁰⁴ We did not reach this issue in the *SpaceX Gen2 First Partial Grant*, but we note today that SpaceX has provided

²⁹⁹ See SpaceX June 20, 2024 Response at 4.

³⁰⁰ See *id.*

³⁰¹ See *infra*, conditions 89yyy, zzz, ffff.

³⁰² See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14923, para. 79; Viasat Petition at I-II, 10-12; Viasat Reply at 3, 6-7; Kepler Comments at 2; Viasat October 4, 2022 Letter at 4-5.

³⁰³ See NASA October 29, 2024 Letter; NASA November 19, 2024 Letter.

³⁰⁴ See Viasat October 4, 2022 Letter at 4-5. *But see SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14923, para. 79, N.306 (“SpaceX later stated there had been an administrative error in its DAS calculations and provided the correct large object collision risk value for the satellites at 360 km, demonstrating that they do comply with the Commission’s collision risk limit”) (citations omitted).

updated collision risk information for its satellites operating at 340 km, 345 km, 350 km, and 360 km.³⁰⁵ Under our rules, SpaceX's satellites are assumed to have a collision risk of zero because they are equipped with propulsion, and the collision risk information SpaceX has provided complies with our rules in the event a Gen2 Starlink satellite becomes non-maneuverable.³⁰⁶ We also note that SpaceX has recently informed the Commission that it now conducts maneuvers for conjunction events with a 1 in 1 million chance of collision, two orders of magnitude more sensitive than industry standards,³⁰⁷ which we find will further work to reduce collision risk on orbit. Therefore, we find that SpaceX's updated collision risk information for these lower altitudes in conjunction with its low threshold for maneuvering to avoid collisions with other space objects, resolve Viasat's concerns on this matter.

71. In addition to the conditions discussed above, we continue to require SpaceX to submit semiannual reports to the Commission, detailing the number of conjunction events for its Gen2 Starlink constellation; the satellites SpaceX has screened from future deployment; the satellites that have reentered the atmosphere; and any satellites that have experienced disposal failures, *i.e.* satellites that have lost maneuverability above injection orbit and therefore will not complete post-mission disposal as planned.³⁰⁸

72. In conclusion, we approve SpaceX's orbital debris mitigation plan with regard to up to 7,500 satellites for potential operations at altitudes of 340 km, 345 km, 350 km, and 360 km. SpaceX must comply with all conditions previously adopted for satellite operations at higher altitudes, and SpaceX's deployment at altitudes below the ISS is conditioned on SpaceX completing coordination with NASA. We continue to defer consideration of issues raised on the record of the Gen2 application, as amended, for any larger deployment of satellites at altitudes below the ISS.

E. Orbital Tolerances

73. SpaceX requests to operate its satellites at lower altitudes with orbital tolerances of +70/-50 km (*i.e.* satellites could operate from 290 km to 430 km).³⁰⁹ SpaceX has explained that larger orbital tolerances are necessary, particularly at lower altitudes, due to the effects of solar radiation on its spacecraft: this orbital tolerance will allow the satellites in Gen2 Starlink not only to raise to a higher altitude to retain their operational life in periods of high drag but also to lower the altitude if it appears a satellite may become non-maneuverable to maintain low passive decay times.³¹⁰ We also understand that the requested orbital tolerances may give SpaceX additional flexibility with respect to locating its satellites to reduce collision risks, if needed.³¹¹ SpaceX further states that it "will ensure that its operations in its lower-altitude shells do not affect any operations of crewed space stations within its orbital tolerance, including the ISS and the Chinese space station, by avoiding ongoing, nominal operations between altitudes of 385 km and 430 km, except as necessary to ensure space sustainability and subject to crewed

³⁰⁵ See SpaceX June 20, 2024 Response at 6, Attachment A. SpaceX states that the large object collision risk for these satellites has remained relatively stable and even decreased slightly. *Id.* at 6.

³⁰⁶ 47 CFR § 25.114(d)(14)(iv)(A); *see also* *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14921, paras. 72-73.

³⁰⁷ See Report of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 at 2 (filed Jul. 1, 2024).

³⁰⁸ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14924-25, 14952-53, paras. 84-85, 135y, z; *SpaceX Gen2 E-band Partial Grant*, at paras. 22bbb, ccc.

³⁰⁹ We note that this Order does not impact the decision made in the *SpaceX Gen2 First Partial Grant* rejecting SpaceX's request pertaining to orbital tolerances at higher altitudes. *See SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14924, para. 82.

³¹⁰ See *id.* at 14923-24, paras. 80-82 (citing SpaceX August 19, 2022 Letter at 4).

³¹¹ SpaceX September 13, 2024 Letter at 2-3; *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14923-24, paras. 80-82 (citing SpaceX August 19, 2022 Letter at 4).

station movement.”³¹²

74. Based on SpaceX’s coordination with NASA and statement that it will generally operate below 385 km, we authorize SpaceX’s requested orbital tolerances at these lower altitudes. However, we will continue to monitor SpaceX’s operations and may reevaluate SpaceX’s orbital tolerances at lower altitudes in the future, particularly taking into account any potential increase in the number of satellites operating below the ISS and Chinese space stations. We therefore require SpaceX to operate in such a way as to minimize risk of collision with, and avoid operational constraints to, any inhabitable space stations, including the ISS. We also require SpaceX to file a report with the Commission within ten days of operating with any satellite that is part of its lower-altitude shells above 385 km, other than for purpose of transiting to a higher altitude. These reports must include the satellite or satellites operating above 385 km, the reasons for the higher-altitude operations within the orbital shells, and the amount of time the satellite or satellites is anticipated to spend at the above-385 km altitude. We will continue to address these considerations on a going forward basis if we proceed with any potential further grants authorizing additional SpaceX satellites to operate at altitudes below the ISS or at any altitudes near inhabitable space stations.

75. Finally, we also note that SpaceX must comply with Resolution 8 of WRC-23 for all satellites at all operational altitudes, and therefore SpaceX must provide the Commission, by March 15, 2025, the required information for each deployed Gen2 Starlink satellite, identified by NORAD tracking number, for submission to the ITU.³¹³ Additionally, for purposes of compliance with ITU milestone rules, we note that SpaceX must maintain orbital tolerances of +/-30 km altitude and of +/-2 degrees of inclination in order to count the satellites for the successive ITU milestones.³¹⁴

F. Authority for Orbit Raising, Testing, and Deorbit Operations

76. The Commission has previously authorized SpaceX to conduct TT&C operations on an ongoing basis with its Gen2 Starlink satellites during launch and early orbit phase (LEOP) operations, including testing of communications equipment at injection altitudes, as well as TT&C operations during post-mission disposal.³¹⁵ The Commission found that these operations serve the public interest by permitting SpaceX to test its satellites’ communications equipment before orbit raising the satellites, thereby identifying any satellites that do not function properly and allowing SpaceX to deorbit them in a matter of weeks, which minimizes the risk of satellites experiencing a disposal failure at their operational altitude and lessens the collision risk posed by the Gen2 Starlink constellation.³¹⁶ SpaceX’s authority to conduct these transition phase operations is subject to a number of conditions.³¹⁷ Specifically, during orbit-raising, including launch and early orbit phase operations, and deorbit of its satellites, SpaceX must operate on a non-harmful interference basis, *i.e.* SpaceX must not cause harmful interference and must

³¹² SpaceX September 13, 2024 Letter at 2-3.

³¹³ Int’l Telecomm. Union [ITU], Resolution 8 (WRC-23), Agenda for the 2027 world radiocommunication conference, at resolves 2 (2023); https://www.itu.int/dms_pub/itu-r/opb/act/R-ACT-WRC.16-2024-PDF-E.pdf.

³¹⁴ *Id.*

³¹⁵ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14927-28, paras. 90-91; *SpaceX E-band Partial Grant* at para. 18.

³¹⁶ See *SpaceX Gen2 First Partial Grant* 37 FCC Rcd at 14927-28, paras. 90-91. Additionally, SpaceX’s rapid launch cadence and the sheer number of satellites it seeks to deploy, coupled with the satellites’ five-year operational life, means SpaceX is conducting LEOP and deorbit operations on a continuous basis, and ongoing authority to conduct these operations obviates the need for SpaceX to file, and Commission staff to process, a never-ending stream of requests for special temporary authority. *Id.*

³¹⁷ See *id.* at 14927-28, para. 91.

accept any interference received. In the event of any harmful interference under this grant, SpaceX must immediately cease operations upon notification of such interference and inform the Commission, in writing, of such an event. Additionally, SpaceX may not deploy any of its authorized 7,500 Gen2 Starlink satellites directly to their operational altitudes.

77. In authorizing SpaceX to deploy and operate satellites in the 340 km, 345 km, 350 km, and 360 km altitude shells proposed in its original Gen2 application, as amended, we continue to authorize SpaceX to conduct TT&C during LEOP and deorbit of its satellites and testing of communications equipment at injection altitude, including for satellites destined for lower altitudes, subject to all of these same conditions. We continue to find that SpaceX's testing of its satellites at injection altitude is in the public interest.³¹⁸ We limit the testing SpaceX may perform during LEOP to testing of the functionality of the Gen2 Starlink satellites. SpaceX has received experimental authority for additional testing of its SCS communications equipment. We note, however, that SpaceX's experimental authority does not contain any separate authority with respect to operations at specific orbital altitudes. SpaceX has indicated that it typically maintains satellites at their low insertion altitude for between 21 and 50 days to test the communications equipment before orbit raising the satellites to their operational altitudes.³¹⁹ Given this time range, and in light of the potentially large number of satellites that SpaceX may be operating at lower altitudes during LEOP because of SpaceX's launch cadence,³²⁰ we find it is in the public interest to require SpaceX to file a report with the Commission every thirty days containing the total number of Gen2 Starlink satellites currently conducting LEOP operations and the number of those satellites currently located below 400 km.

G. Consideration of Optical Astronomy

78. In response to the SpaceX Gen2 application, as amended, NASA, NSF, and several individual astronomers and amateur astronomy groups raised concerns regarding the protection of science missions involving astronomy and Earth observation that could be impacted by reflected sunlight from SpaceX's satellites.³²¹ In the *SpaceX Gen2 First Partial Grant*, the Commission found that SpaceX's efforts to mitigate the effects of reflected sunlight from its satellites, coupled with the limited number of satellites authorized in that grant and the Commission's commitment to continuing to monitor the situation, were sufficient to allay these concerns.³²² The Commission also conditioned SpaceX's authorization on continued coordination with NASA and NSF and reporting to the Commission on its ongoing efforts to mitigate satellite brightness.³²³ The Commission's findings were upheld by the D.C. Circuit on appeal, finding the Commission reasonably took into account SpaceX's mitigations.³²⁴

79. Some commenters expressed concerns specifically with operations at lower altitudes, in particular, that such operations would result in satellites appearing brighter.³²⁵ To date, SpaceX has taken a number of measures to mitigate reflected sunlight from its satellites. In particular, as we explained in the *SpaceX Gen2 First Partial Grant*, SpaceX has incorporated brightness mitigation into the design of its satellites and made changes to material specifications, satellite geometries, and maneuver operations to

³¹⁸ See *id.* at 14927-28, paras. 90-91.

³¹⁹ SpaceX June 20, 2024 Response at 3.

³²⁰ See NASA November 19, 2024 Letter.

³²¹ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14928-31, paras. 92-96.

³²² See *id.* at 14930-31, paras. 96-97.

³²³ See *id.* at 14931-32, para. 98-99.

³²⁴ See *International Dark Sky Association v. FCC*, 106 F.4th at 1212, 1219-20.

³²⁵ See Andy Lawrence September 18, 2022 Letter at 2.

reduce brightness.³²⁶ While SpaceX has explained that its satellites will be bright enough to be visible to the naked eye immediately after launch and during orbit-raising and deorbit phases, as well as during collision avoidance burns, as during these times SpaceX cannot maneuver to mitigate reflected sunlight while also meeting mission objectives, SpaceX is continuing to refine its mitigation practices to resolve this problem.³²⁷ And SpaceX has continued to coordinate with NSF, NASA, and the astronomy community to minimize the impact of its satellites on science missions,³²⁸ including to ensure any increased brightness of lower altitude satellites is offset by benefits such as transiting more quickly through the field of view, being visible to fewer observers, and passing into Earth's shadow more quickly after sunset.³²⁹

80. In considering concerns on the record regarding increased brightness of lower altitude operational satellites, we reiterate that at this time we are not authorizing SpaceX to deploy the nearly 20,000 satellites it proposes for the 340 km, 345 km, 350 km, and 360 km orbital shells in its Gen2 application, as amended, and contemplated in the letters from NASA, NSF, and astronomers in 2022. SpaceX's authorization remains limited to 7,500 satellites in total, and our authorization for operations below 400 km is conditioned on SpaceX completing physical coordination with NASA, which will limit SpaceX's deployment at lower altitudes initially to 400 satellites. NSF also approves of this approach and notes that satellites at lower altitudes have less impact on optical astronomy.³³⁰ We find that these limitations, along with SpaceX's continued mitigation of satellite reflectivity, indicate the impact of these satellites, if any, will be small. As we stated in the *SpaceX Gen2 First Partial Grant*, SpaceX continues to make highly accurate satellite tracking data available to astronomers so they can avoid the Gen2 Starlink satellites in their images, and the Gen2 Starlink satellites still do not reflect sunlight during the darkest parts of the night due to their low altitudes.³³¹ We also commit to continuing to monitor the impact of SpaceX's satellites on optical astronomy and other science missions using the electromagnetic spectrum. We maintain the conditions on SpaceX's authorization requiring SpaceX to continue to coordinate and collaborate with NASA to promote a mutually beneficial space environment that would minimize impacts to NASA's science missions involving astronomy and to require SpaceX to coordinate with NSF to achieve a mutually acceptable coordination agreement to mitigate the impact of its satellites on optical ground-based astronomy. We also continue to require SpaceX to submit an annual report to the Commission, by January 1st each year, covering the preceding year and containing the following information: (1) whether it has reached a coordination agreement with NSF addressing optical astronomy; and (2) any steps SpaceX has taken to reduce the impact of its satellites on optical astronomy, including but not limited to darkening, deflecting light away from the Earth, attitude maneuvering, and provision of orbital information to astronomers for scheduling observations around satellites' locations.³³² SpaceX shall also provide a copy of the annual report to NTIA, NASA, and NSF.

81. We note that the Commission previously considered potential impacts of the Gen2

³²⁶ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14930-31, para. 96; Report of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105, Attachment 2 at 1-2 (filed Dec. 29, 2023).

³²⁷ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14930-31, para. 96.

³²⁸ See *id.* Report of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105, Attachment 2 at 1-2 (filed Dec. 29, 2023); SpaceX June 20, 2024 Response at 7-8.

³²⁹ See SpaceX June 20, 2024 Response at 7-8.

³³⁰ See NASA November 19, 2024 Letter; NTIA November 19, 2024 Letter.

³³¹ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14930-31, para. 96.

³³² See Report of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Dec. 30, 2022); Report of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Dec. 29, 2023).

Starlink satellites on diffuse sky glow and thus the human environment, along with other potential impacts on the human environment, and concluded that any potential impact on diffuse sky glow was mitigated by SpaceX's improvements to satellite reflectivity and conditions adopted to require coordination with NSF and the astronomy community regarding satellite reflectivity.³³³ Given NSF's statement that satellites operating at lower altitudes are less likely to impact optical astronomy than satellites operating at higher altitudes,³³⁴ along with the Commission's prior conclusion that the conditions we adopt to reduce effects on astronomy services will also address other satellite sunlight reflectivity concerns involving the general public,³³⁵ we continue to find that the conditions on SpaceX's authorization are sufficient to alleviate these concerns. We also note that we are not authorizing SpaceX to deploy any additional satellites as part of today's authorization, and with the exception of areas where we have addressed substantive issues regarding operations at lower altitudes and imposed additional conditions today, our previous analysis regarding these issues remains unchanged.

H. Waiver Requests

82. SpaceX requested waiver of several Commission rules in the various requests and applications we are acting on today. In addition to the requests for waiver related to specific frequency bands discussed above, we address SpaceX's requests that apply across all of its applications.

83. Generally, the Commission may waive any rule for good cause shown.³³⁶ Waiver is appropriate only if both (1) special circumstances warrant a deviation from the general rule, and (2) such deviation better serves the public interest.³³⁷ In making this determination, we may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual

³³³ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14944-45, para. 122-123. The Commission also addressed concerns that increased rocket launches of Gen2 Starlink satellites, increased risk of collisions in space or human casualty from satellites surviving reentry, and atmospheric effects from the ablation of reentering satellites may have a significant impact on the human environment. The Commission found that the Federal Aviation Administration had addressed any impacts from rocket launches, that our existing orbital debris mitigation requirements substantively addressed the concerns regarding collision and casualty risk, and that at the time the existing research did not support a conclusion that reentering satellites would have a harmful impact on the upper atmosphere. *Id.* at 14937-46, paras. 113-125. This partial grant does not increase the total number of satellites SpaceX is authorized to deploy, and so we find our previous analysis, which was upheld by the D.C. Circuit Court of Appeals, remains valid. *Id.*; see also *International Dark-Sky Association, Inc., v. FCC*, 106 F.4th at 1219-1220. Additionally, we continue to address any differences in SpaceX's operations at lower altitudes which could increase collisions in space, human casualty risk, and satellite reflectivity from its operations at higher altitudes through our existing orbital debris mitigation requirements and authority under the Communications Act to ensure authorizations for communications by radio serve the public interest, convenience, and necessity. Regarding satellite reentry, we note that SpaceX has not specified any changes to the expected five-year operational lifetimes for individual satellites across all operational altitudes. We take this opportunity to reiterate that SpaceX's authorization is conditioned on SpaceX following its commitment to work with the scientific community to explore methods to collect observational data on the formation of alumina from satellite reentry, implement reasonable methods that are discovered to the extent practicable, and report findings from these measurements to the Commission. Additionally, as part of our orbital debris reporting requirements, we require SpaceX to report the satellites that have reentered the atmosphere and whether they reentered the atmosphere less than five years after deployment. See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14952-53, para. 135y; *SpaceX E-band Partial Grant* at para. 22bbb. Based on these reports, we may seek additional information or apply additional conditions regarding this matter in the future.

³³⁴ NTIA November 19, 2024 Letter.

³³⁵ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14944-45, para. 122-123.

³³⁶ 47 CFR § 1.3.

³³⁷ *NetworkIP, LLC v. FCC*, 548 F.3d 116, 125-128 (D.C. Cir. 2008) (citing *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990)).

basis.³³⁸

84. We grant SpaceX's requests for waiver of the Commission's rules governing information to be submitted on the Commission's Schedule S form.³³⁹ As required by the Commission's rules,³⁴⁰ SpaceX has submitted with both its V-band modification application and its SCS amendment completed Schedule S forms, which contains certain technical information in a prescribed form, including orbital characteristics and frequency bands requested. However, SpaceX has found that it cannot accurately describe its system in certain respects due to limitations in Schedule S itself and the size of the constellation SpaceX seeks to describe on the form.³⁴¹ In its V-band modification application and SCS amendment, SpaceX cites five aspects of its operations that fall into this category: (1) the impracticability of submitting complete orbital parameter data for the Gen2 System using the Schedule S web form; (2) the inability to enter "not applicable" under the section 25.114(c)(4)(v) request for maximum and minimum Saturation Flux Density values, as this question only applies to "bent pipe" systems; (3) the inability to enter more than two digits for the active service arc end angle; (4) the inability to enter any channel plan other than a single, static channel plan; and (5) the impracticability of entering all possible contours for a representative satellite at all altitudes as contemplated by section 25.114(c)(4)(vi)(B).³⁴² For both applications, SpaceX has provided information on how it completed the Schedule S and additional information to compensate for these difficulties, as appropriate, including complete frequency use and orbital information for its constellation in separate databases, and SpaceX requests that we waive these aspects of Schedule S, to the extent necessary. We agree that given the scale of SpaceX's constellation, as well as the characteristics of its satellites, orbital information, and frequency use, SpaceX is not able to complete certain aspects of the Commission's Schedule S form. Consistent with prior authorizations of SpaceX's system, including the *SpaceX Gen2 First Partial Grant*,³⁴³ and because SpaceX has again implemented workarounds to provide the relevant information on its application, we find that a waiver of the requirement to complete certain aspects or fields of Schedule S is warranted and will serve the public interest.

IV. ORDERING CLAUSES

85. Accordingly, IT IS ORDERED, that the Gen2 Starlink Application, as amended, filed by Space Exploration Holdings, LLC (SpaceX), IS GRANTED-IN-PART and DEFERRED-IN-PART to the extent set forth above, pursuant to sections 0.51 and 0.261 of the Commission's rules, 47 CFR §§ 0.51 and 0.261, and section 309(a) of the Communications Act of 1934, as amended, 47 USC § 309(a).

86. IT IS FURTHER ORDERED that the SCS modification application, as amended, filed by Space Exploration Holdings, LLC (SpaceX), IS GRANTED-IN-PART and DEFERRED-IN-PART to the

³³⁸ *Northeast Cellular*, 897 F.2d at 1166 ("[A] waiver is appropriate only if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest. The agency must explain why deviation better serves the public interest and articulate the nature of the special circumstances to prevent discriminatory application and to put future parties on notice as to its operation"); *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969) ("The agency's discretion to proceed in difficult areas through general rules is intimately linked to the existence of a safety valve procedure for consideration of an application for exemption based on special circumstances.").

³³⁹ See SpaceX Second V-band Modification Application, Waiver Requests at 1; SpaceX SCS Amendment, Waiver Requests at 1-2.

³⁴⁰ See 47 CFR § 25.114(a)(1).

³⁴¹ See SpaceX Second V-band Modification Application, Waiver Requests at 1; SpaceX SCS Amendment, Waiver Requests at 1-2.

³⁴² See SpaceX Second V-band Modification Application, Waiver Request at 1-4; SpaceX SCS Amendment, Waiver Requests at 2-3.

³⁴³ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14900-01, para. 25.

extent set forth above, pursuant to sections 0.51 and 0.261 of the Commission's rules, 47 CFR §§ 0.51 and 0.261, and section 309(a) of the Communications Act of 1934, as amended, 47 USC § 309(a).

87. IT IS FURTHER ORDERED that the V-band modification application filed by Space Exploration Holdings, LLC (SpaceX), IS GRANTED, pursuant to sections 0.51 and 0.261 of the Commission's rules, 47 CFR §§ 0.51 and 0.261, and section 309(a) of the Communications Act of 1934, as amended, 47 USC § 309(a).

88. IT IS FURTHER ORDERED that this authorization of SpaceX's Gen2 Starlink application, as amended, is subject to all requirements and conditions specified in prior orders, included below,³⁴⁴ as well as the new conditions specified at paragraphs 89a, vv, ww, xx, yy, zz, aaa, bbb, ccc, ddd, eee, fff, ggg, hhh, iii, jjj, kkk, ll, mmm, zzz, aaaa, cccc, and dddd and the modified conditions specified at paragraphs 89o, sss, ttt, yyy, and gggg.

89. IT IS FURTHER ORDERED that this authorization is subject to the following requirements and conditions:

a. SpaceX is authorized to construct, deploy, and operate up to 7,500 Gen2 Starlink satellites operating at altitudes of 340 km, 345 km, 350 km, 360 km, 525 km, 530 km, and 535 km. SpaceX may only continually operate the total number of satellites at altitudes of 340 km, 345 km, 350 km, and 360 km that SpaceX and NASA have coordinated pursuant to their Space Act Agreement. SpaceX must provide a certification of the completion of coordination of additional satellites with NASA to the Commission at least 30 days prior to the launch of the additional satellites.

b. SpaceX must timely provide the Commission with the information required for Advance Publication, Coordination, and Notification of the frequency assignment(s) for this constellation, including due diligence information, pursuant to Articles 9 and 11 of the ITU Radio Regulations. This authorization may be modified, without prior notice, consistent with the coordination of the frequency assignment(s) with other Administrations. See 47 CFR § 25.111(b). SpaceX is responsible for all cost-recovery fees associated with the ITU filings. 47 CFR § 25.111(d).

c. In connection with the provision of service in any particular country, SpaceX is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.

d. Operations in the 10.7-11.7 GHz (space-to-Earth) frequency band are authorized up to the applicable power flux-density limits in 47 CFR § 25.208(b), and up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations, as well as Resolution 76 (Rev. WRC-15) of the ITU Radio Regulations.

e. In the 10.7-11.7 GHz band, operations must be coordinated with the radio astronomy observatories listed in 47 CFR § 2.106(c)(131), to achieve a mutually acceptable agreement regarding the protection of the radio telescope facilities operating in the 10.6-10.7 GHz band. For the purposes of coordination with these listed facilities or the National Radio Quiet Zone, correspondence should be directed to the National Science Foundation Spectrum Management Unit (Email: esm@nsf.gov).

f. Operations in the 11.7-12.2 GHz (space-to-Earth) frequency band are authorized up to the power flux-density limits in Article 21 of the ITU Radio Regulations, and up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations, as well as Resolution 76 (Rev. WRC-15) of the ITU Radio Regulations.

³⁴⁴ We note that SpaceX has previously satisfied some of these conditions. We also note that our decision to specify all of the conditions included in the *SpaceX Gen2 First Partial Grant* in this authorization is without prejudice to the pending petitions for reconsideration and clarification on that order. See Petition for Reconsideration of LeoLabs, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Dec. 30, 2023); Petition for Clarification of Viasat, Inc., ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Jan. 3, 2023).

g. Operations in the 12.2-12.7 GHz (space-to-Earth) frequency band are authorized up to the power flux-density limits in 47 CFR § 25.208(o) and Article 21 of the ITU Radio Regulations, and up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations, as well as Resolution 76 (Rev. WRC-15) of the ITU Radio Regulations.

h. Operations in the 12.2-12.7 GHz (space-to-Earth) frequency band are subject to the condition that SpaceX may not use more than one satellite beam from any of its authorized Gen2 Starlink satellites in the same frequency in the same or overlapping areas at a time.

i. Operations in the 12.75-13.25 GHz (Earth-to-space) frequency band must be in accordance with footnote 5.441 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(b)(5.441), which states that operations in this band are subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations. Non-geostationary-satellite systems in the fixed-satellite service in the 12.75-13.25 GHz (Earth-to-space) frequency band shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated.

j. Operations of non-geostationary-satellite systems in the 12.75-13.25 GHz (Earth-to-space) frequency band with earth stations in the United States are restricted to individually licensed earth stations in accordance with footnote NG57 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(d)(57). Licensing of earth stations (i.e. filed after Sept. 19, 2022) for operations in the 12.75-13.25 GHz band will be subject to the filing freeze on applications for new or modified authorizations for use of the 12.7-13.25 GHz band. *See* Public Notice, DA 22-974 (released Sept. 19, 2022); *Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use*, Notice of Inquiry and Order, GN Docket No. 22-352, FCC 22-80 (rel. Oct. 28, 2022).

k. In the 13.85-14.5 GHz (Earth-to-space) frequency band, reception is permitted for levels up to the equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations.

l. SpaceX's operations in the 13.85-14.0 GHz band must comply with footnotes 5.502 and US356 to the International and United States Table of Frequency Allocations, 47 CFR § 2.106(b)(5.502), (c)(356).

m. In the 14.47-14.5 GHz band, operations are subject to footnote US342 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(c)(342), and all practicable steps must be taken to protect the radio astronomy service from harmful interference. Prior to commencing operations in the 14.47-14.5 GHz band, SpaceX must certify that it has updated its coordination agreement with the National Science Foundation to protect the radio astronomy service from harmful interference.

n. SpaceX's operations in the Ku-band are limited to minimum elevation angles of 25 degrees for all user terminals located below 62 degrees north latitude and minimum elevation angles of 5 degrees for user terminals located at or above 62 degrees north latitude.

o. Space-to-Earth operations in the 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz frequency bands must complete coordination with U.S. Federal systems, in accordance with footnote US334 to the United States Table of Frequency Allocations, 47 CFR § 2.106(c)(334), prior to being used. The use of space-to-Earth operations in the 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz bands must be in accordance with any signed coordination agreement between SpaceX and U.S. Federal operators. Two weeks prior to the start of any operations in the 17.8-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz bands, SpaceX must provide contact information for a 24/7 point of contact for the resolution of any harmful interference to Jimmy Nguyen, Email: Jimmy.Nguyen@us.af.mil, or alternate contact provided by the U.S. Air Force.

p. Operations in the 18.8-19.3 GHz (space-to-Earth) frequency band are authorized up to the power flux-density limits in Article 21 of the ITU Radio Regulations.

q. Operations in the 19.7-20.2 GHz frequency band are subject to the condition that SpaceX may not use more than one satellite beam from any of its authorized Gen2 Starlink satellites in the same frequency in the same or overlapping areas at a time.

r. In the 27.5-28.6 GHz and 29.5-30 GHz (Earth-to-space) frequency bands reception is permitted at levels up to the applicable equivalent power flux-density requirements of Article 22 of the ITU Radio Regulations.

s. Operations in the 27.5-28.35 GHz (Earth-to-space) frequency band are secondary with respect to Upper Microwave Flexible Use Service (UMFUS) operations, except for FSS operations associated with earth stations authorized pursuant to 47 CFR § 25.136.

t. Operations in the 28.35-28.6 GHz and 29.5-30 GHz (Earth-to-space) frequency bands are on a secondary basis with respect to GSO FSS operations.

u. Under 47 CFR § 25.146(a), SpaceX must receive a favorable or “qualified favorable” finding in accordance with Resolution 85 (WRC-03) with respect to its compliance with applicable equivalent power flux-density limits in Article 22 of the ITU Radio Regulations. SpaceX must communicate the ITU finding to the Commission, and in case of an unfavorable finding, SpaceX must adjust its operation to satisfy the ITU requirements. SpaceX must cooperate with other NGSO FSS operators in order to ensure that all authorized operations jointly comport with the applicable limits for aggregate equivalent power flux-density in the space-to-Earth direction contained in Article 22 of the ITU Radio Regulations, as well as Resolution 76 (WRC-03) of the ITU Radio Regulations.

v. SpaceX must make available to any requesting party the data used as input to the ITU-approved validation software to demonstrate compliance with applicable Equivalent Power Flux Density (EPFD) limits, including the data that combine the Gen2 Starlink satellites into one consolidated file.

w. SpaceX operations in the Ku- and Ka-band frequencies must comply with spectrum sharing procedures among NGSO FSS space stations specified in 47 CFR § 25.261 with respect to any NGSO system licensed or granted U.S. market access pursuant to the 2020 Ku/Ka-band processing round initiated in Public Notice DA 20-325. Spectrum sharing between SpaceX’s operations and operations of NGSO systems granted U.S. market access, where such operations do not include communications to or from the U.S. territory, are governed only by the ITU Radio Regulations and are not subject to section 25.261.

x. Prior to commencing operations in the Ku- and Ka-band frequency bands, SpaceX must certify that it has made a coordination agreement with, or make a showing to the Commission demonstrating and certifying that its operations at all authorized altitudes and inclinations will not cause harmful interference to, any operational system licensed or granted U.S. market access in the NGSO FSS processing rounds referred to in Public Notices DA 16-804, 31 FCC Rcd 7666 (IB 2016) and DA 17-524, 32 FCC Rcd 4180 (IB 2017). SpaceX may commence operations at its own risk, on a non-interference, unprotected basis with respect to any operations authorized in earlier processing rounds for which coordination has not been completed, prior to the approval of its showing by the Commission.

y. Operations in the 37.5-40.0 GHz band are unprotected with respect to the non-federal fixed and mobile services, except as authorized pursuant to 47 CFR § 25.136.

z. Operations in the 37.5-40.0 GHz band are authorized up to the power flux-density limits in 47 CFR § 25.208(r)(1). Prior to starting operation in this band, SpaceX must present the showing described in Section 25.114(c)(8) to confirm compliance with these power flux-density limits.

aa. Operations in the 37.5-38.0 GHz and 40.0-40.5 GHz bands must be successfully coordinated with Federal Space Research Service (SRS) facilities, pursuant to Recommendation ITU-R SA.1396, “Protection Criteria for the Space Research Service in the 37-38 GHz and 40.0-40.5 GHz Bands.”

bb. Operations in the 40-42 GHz band are authorized up to the power-flux density limits in

47 CFR § 25.208(s) and (t). We note that as part of the first modification to its original V-band authorization, SpaceX reduced its power flux density by 8 dB in the 40.0-42.0 GHz (space-to-earth) frequency band.³⁴⁵ Therefore, SpaceX must operate its system consistent with this reduced PFD in the 40.0-42.0 GHz band.

cc. In accordance with 47 CFR § 2.106(c)(211), SpaceX is urged to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference from its operations in the 40.5-42 GHz band.

dd. Operations in the 47.2-48.2 GHz band must provide interference protection to the fixed and mobile services, except as authorized pursuant to 47 CFR § 25.136.

ee. Any future grant of earth station licenses for operations with the SpaceX system will be subject to the following condition, unless the condition is satisfied prior to such license grant: in the 48.94-49.04 GHz band, operations must be coordinated with radio astronomy stations operating on a co-primary basis in this band. Operations in the 47.2-50.2 GHz band are subject to rules adopted in the *Spectrum Frontiers Proceeding*, GN Docket 14-177.

ff. In accordance with 47 CFR § 2.106(c)(342), SpaceX is urged to take all practicable steps to protect radio astronomy observations from harmful interference from its operations in the 48.94-49.04 GHz band.

gg. Unwanted earth station emissions into the 50.2-50.4 GHz band, as measured at the antenna port, must comport with either of the applicable limits contained in ITU-R Resolution 750 (REV. WRC-19):

- i. -42 dBW into the 200 MHz of the EESS (passive) band for earth stations not employing uplink power control, or
- ii. -42 dBW into the 200 MHz of the EESS (passive) band at zenith increasing to a maximum level of -35 dBW into the 200 MHz of the EESS (passive) band at a minimum elevation angle of 15° for earth stations employing uplink power control.

hh. Operations in the 50.4-51.4 GHz band (Earth-to-space) must provide interference protection to the fixed and mobile services, except for earth stations authorized pursuant to 47 CFR § 25.136.

ii. Operations in the 50.4-51.4 GHz band (Earth-to-space) must not cause unacceptable interference to, or claim protection from, a geostationary satellite orbit (GSO) fixed satellite service or GSO broadcast satellite service network. These operations must comply with ITU Radio Regulations Nos. 22.5L and 22.5M.

jj. We note that as part of the modification to its original V-band authorization, SpaceX reduced its equivalent isotropic radiated power (EIRP) in the 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands.³⁴⁶ Therefore, SpaceX must operate its system in accordance with this reduced EIRP in the 47.2-50.2 and 50.4-51.4 GHz bands.

kk. SpaceX may conduct operations in the 40.0-42.0 GHz (space-to-Earth) and 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands down to a minimum elevation angle of 25 degrees. SpaceX may conduct operations in the 37.5-40.0 GHz band (space-to-Earth) frequency band down to a minimum elevation angle of 35 degrees.

³⁴⁵ See Space Exploration Holdings, LLC, Application for Modification of the Authorization for the SpaceX V-band NGSO Satellite System, ICFS File No. SAT-MOD-20230322-00062, Legal Narrative at 10 (filed Mar. 22, 2023) (SpaceX First V-band Modification Application).

³⁴⁶ *Id.*

ll. SpaceX operations in V-band frequencies must comply with the spectrum sharing procedures among NGSO FSS space stations specified in 47 CFR § 25.261 with respect to any NGSO system licensed or granted U.S. market access pursuant to the processing round initiated in Public Notice, DA 16-1244. Spectrum sharing between SpaceX's operations and operations of NGSO systems granted U.S. market access, where such operations do not include communications to or from U.S. territory, are governed only by the ITU Radio Regulations and are not subject to Section 25.261.

mm. SpaceX operations in V-band frequencies shall not cause interference to, and shall not claim protection from, GSO networks operating in the FSS and BSS in accordance with Section 25.289 of the Commission's rules, 47 CFR § 25.289. In the event that relevant EPFD limits or procedures related to sharing between GSO and NGSO networks are adopted by the Commission or the ITU, operations must be in conformance with such limits and procedures.

nn. SpaceX must coordinate its proposed frequency use for operations in the 71.0-76.0 GHz (space-to-Earth) and 81.0-86.0 GHz (Earth-to-space) frequency bands with any existing U.S. licensees or U.S. market access grantees in the Fixed-Satellite Service whose facilities could be affected by SpaceX's E-band operations, in terms of frequency interference or restricted capacity, and SpaceX must cooperate fully with other future co-frequency Fixed-Satellite Service satellites or satellite systems in coordinating operations in these bands.

oo. SpaceX must comply with any sharing requirements adopted as part of a future E-band processing round that includes the 71.0-76.0 GHz and 81.0-86.0 GHz bands.

pp. Operations in the 71.0-76.0 GHz (space-to-Earth) and 81.0-86.0 GHz (Earth-to-space) frequency bands must comply with the default service rules in section 25.217 of the Commission's rules, 47 CFR § 25.217. Should the Commission develop service rules specific to these frequency bands, SpaceX must come into compliance with those rules.

qq. Prior to filing an application for a gateway earth station for operations in the 71.0-76.0 GHz and 81.0-86.0 GHz bands, SpaceX must complete coordination with Federal users and non-federal terrestrial licensees (47 CFR § 101.1523) in accordance with the provisions in 47 CFR § 25.203(c) for links registered or pending in the third-party database.

rr. In the 81.0-86.0 GHz band, operations must be coordinated with the radio astronomy observatories listed in 47 CFR § 2.106(c)(161).

ss. In the 81.0-86.0 GHz band, operations are subject to footnote US342 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(c)(342), and all practicable steps must be taken to protect the radio astronomy service from harmful interference. Prior to commencing operations in the 81.0-86.0 GHz band, SpaceX must certify that it has updated its coordination agreement with the National Science Foundation to protect the radio astronomy service from harmful interference.

tt. Prior to commencing operations of downlink and uplink operations in the 71.0-76.0 GHz and 81.0-86.0 GHz frequency bands, respectively, SpaceX must demonstrate compliance with operational conditions as prescribed and coordinated with NTIA and the U.S. Federal Fixed Satellite Service (FSS) systems. Downlink and uplink operations in the 71.0-76.0 GHz and 81.0-86.0 GHz frequency bands, respectively, must be in accordance with any signed coordination agreement between SpaceX and U.S. Federal FSS operators. Two weeks prior to the start of any operations in the 71.0-76.0 GHz and 81.0-86.0 GHz bands, SpaceX must provide contact information for a 24/7 point of contact for the resolution of any harmful interference to Jimmy Nguyen, Email: Jimmy.Nguyen@us.af.mil, or alternate contact provided by the U.S. Air Force.

uu. In the 86.0-92.0 GHz band, operations are subject to footnote US246 to the U.S. Table of Frequency Allocations, 47 CFR § 2.106(c)(246). Prior to commencing operations in the 81.0-86.0 GHz band, SpaceX must certify that it has a signed coordination agreement or agreements with U.S. federal operators utilizing the 86-92 GHz band for passive services.

vv. SpaceX's operations in the E-band are limited to minimum elevation angles of 25 degrees

for all gateway earth stations located below 62 degrees north latitude and minimum elevation angles of 5 degrees for user terminals located at or above 62 degrees north latitude.

ww. SpaceX is authorized to operate SCS in the following bands: 1910-1915 MHz (Earth-to-space) (in the United States) and 1990-1995 MHz (space-to-Earth) (in the United States). SpaceX is authorized to operate in the MSS for the purpose of direct-to-cell operations within the 1429-2690 MHz band (space-to-Earth and Earth-to-space) in the following sub-bands: 1475-1518 MHz, 1805-1880 MHz, 1930-2000 MHz, 2110-2180 MHz, 2180-2200 MHz, 2345-2360 MHz, and 2620-2690 MHz (space-to-Earth) (outside the United States only); and 1429-1470 MHz, 1710-1785 MHz, 1850-1920 MHz, 1920-1980 MHz, 2000-2020 MHz, 2305-2320 MHz, and 2500-2570 MHz (Earth-to-space) (outside the United States only).

xx. SCS operations in the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) bands are allocated on a secondary basis in the U.S. Table of Allocations, 47 CFR § 2.106(a). Accordingly, SpaceX must accept harmful interference from and not cause harmful interference to any services, including Federal operations, operating on a primary basis in the 1910-1915 MHz and 1990-1995 MHz bands. *See* 47 CFR § 2.105(c)(2).

yy. When conducting direct-to-cell operations in the 1429-2690 MHz (space-to-Earth and Earth-to-space) band outside the United States, SpaceX shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the Constitution, the Convention, and the ITU Radio Regulations.³⁴⁷

zz. SpaceX's SCS operations in the 1910-1915 MHz and 1990-1995 MHz bands shall not cause harmful interference to other countries' operations and SpaceX must address and eliminate any harmful interference cases immediately. SpaceX must comply with all existing rules and limits in the 1910-1915 MHz and 1990-1995 MHz bands to protect incumbent users.

aaa. When conducting SCS operations outside the United States in the 1429-2690 MHz band, SpaceX shall operate in accordance with the cooperative arrangements with local terrestrial providers to protect services allocated under Safety-of-Life, Radio Astronomy, Space Research, Radionavigation Satellite, Aeronautical Radionavigation, Earth-Exploration Satellite, and Space Operations.

bbb. SpaceX shall only operate SCS in the 1910-1915 MHz (Earth-to-space) and 1990-1995 MHz (space-to-Earth) bands pursuant to the terms of its lease arrangement with T-Mobile.

ccc. SpaceX must cease SCS throughout the affected GIA and frequencies if SpaceX's lease with T-Mobile that allows for the use of the 1910-1915 MHz and 1990-1995 MHz bands terminates or if T-Mobile's underlying license(s) no longer covers the entire relevant GIA.

ddd. SpaceX's SCS operations must comply with the emission limitations set forth in section 25.202(k)(1) of the Commission's rules, 47 CFR § 25.202(k)(1).

eee. For operations in the 1910-1915 MHz and 1990-1995 MHz bands in the United States, SpaceX shall observe a maximum PFD based on the field strength limits identified in section 25.208(w) of the Commission's rules, 47 CFR § 25.208(w). SpaceX's SCS in the United States and direct-to-cell operations outside the United States remain subject to bilateral agreements that ensure terrestrial licensees meet a particular signal level limit at the relevant international border, including field strength and PFD limits, unless the relevant administrations agree to alternative limits along with, in some cases, a

³⁴⁷ *See* ITU Radio Regulation No. 4.4 (stating that "[a]dministrations of the Member States shall not assign to a station any frequency in derogation of either the Table of Frequency Allocations in this Chapter or the other provisions of these Regulations, except on the express condition that such a station, when using such a frequency assignment, shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the Constitution, the Convention and these Regulations"); *see also* SCS R&O, paras. 224-36.

coordination requirement for stations placed within a certain distance of the border.

fff. For SCS in the United States and direct-to-cell operations outside the United States, SpaceX may only operate on a non-harmful interference basis to cross-border operations. Under such circumstances, SpaceX may only exceed PFD limits where it has been authorized pursuant to an approval from the regulatory authority of the appropriate border country and after providing documentation of such approval to the Commission. Cross-border coordination and any negotiated technical parameters must be mutually acceptable to all involved, including U.S. counterpart agencies who oversee or regulate spectrum use in other countries.

ggg. For SCS within the United States and direct-to-cell operations outside the United States, SpaceX shall engage in coordination with in-band, out-of-band, and cross-border spectrum users.

hhh. For SCS operations in the United States, SpaceX shall ensure that all practicable steps shall be taken to protect the radio astronomy service from harmful interference.

iii. Prior to commencing SCS operations in the 1990-1995 MHz (space-to-Earth) and 1910-1915 MHz (Earth-to-space) bands, SpaceX must coordinate with NSF to ensure a mutually acceptable agreement to mitigate the impact of its satellites on ground-based radio, optical and infrared astronomy sites.³⁴⁸ This coordination shall include locations of earth stations to preferentially avoid key U.S. radio observatories, and SpaceX is encouraged to minimize the impact on astronomical laser closure windows (NSF ESM office: esm@nsf.gov).

jjj. Prior to conducting any direct-to-cell operations with earth stations outside the United States, SpaceX must ensure that all of its operations are duly authorized by the country in which such communications will occur, and that it will satisfy all terms and conditions of any foreign license or authorization, including but not limited to any transmit power, out of band emission, geographic, or other limits. Such operations must also be consistent with the parameters specified in SpaceX's ITU filings.

kkk. Prior to conducting any direct-to-cell operations with earth stations outside the United States, SpaceX must certify to the Space Bureau and OIA that it has obtained all necessary authorizations from the relevant country prior to initiation of communications with earth stations in that country. The certification must include steps that were taken to address harmful interference concerns and that provision of direct-to-cell will not result in harmful interference to operations that are in conformity with the ITU Radio Regulations in other countries. The certification must also be accompanied by a demonstration specifying the measures that SpaceX will take to eliminate any harmful interference immediately, in the event that it is notified of harmful interference resulting from such direct-to-cell operations. The Space Bureau and Office of International Affairs will review such certification and demonstration and will jointly notify SpaceX if such documentation is acceptable or if additional documentation is required.

lll. Prior to conducting space-to-Earth direct-to-cell operations in 2300-2395 MHz within radio line-of-sight of any NASA Deep Space Network facility outside the United States, SpaceX must certify to the Space Bureau that it has completed successful coordination with NASA.

mmm. SpaceX may only communicate with earth stations licensed by rule pursuant to section 25.115 of the Commission's rules, 47 CFR § 25.115. To be licensed by rule pursuant to 47 CFR § 25.115, a device, among other things, must meet all applicable equipment authorization or equipment certification requirements outlined in 47 CFR § 25.115 and part 2 of the Commission's rules. A device that does not have all applicable equipment authorizations or certifications, or loses such equipment authorizations or certifications, does not qualify as licensed by rule and cannot be communicated with for the purposes of SCS within the United States.

³⁴⁸ SpaceX also continues to be subject to the broader condition regarding coordination of its operations with NSF to address potential impacts to optical astronomy. *See infra* condition 89gggg.

nnn. Operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to telemetry, tracking, and command (TT&C) operations on no more than 450 satellites at any one time.

ooo. Operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to those earth stations coordinated with U.S. federal operators. SpaceX shall provide the FCC with an updated list of coordinated earth stations within ten business days following any changes to that list.³⁴⁹

ppp. SpaceX's operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are subject to the same technical limitations as the operations of Swarm Technologies Inc.³⁵⁰ in these frequencies, except as further limited in this Order.

qqq. SpaceX's operations in the 137.0-138.0 MHz and 148.0-150.05 MHz bands are limited to channels centered at 137.055 MHz, 137.145 MHz, 137.8463 MHz, 137.8763 MHz, and 137.9663 MHz (space-to-Earth) and 148.2825 MHz, 148.3125 MHz, 148.3425 MHz, 148.3725 MHz, 148.4025 MHz, 148.4325 MHz, 148.4625 MHz, 148.4925 MHz, 148.5225 MHz, 148.5525 MHz, 148.6625 MHz, 148.6925 MHz, 148.7225 MHz, and 149.9250 MHz (Earth-to-space).

rrr. Operations in the 137.0-138.0 MHz band (earth-to-space) must conform to ITU-R Resolution 660 that states the power flux-density at any point on the earth's surface produced by a space station of NGSO systems used for short duration missions shall not exceed $-140 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$

sss. During orbit-raising, including launch and early orbit phase operations, and deorbit of its satellites, SpaceX must operate on a non-harmful interference basis, *i.e.*, SpaceX must not cause harmful interference and must accept any interference received. In the event of any harmful interference under this grant, SpaceX must immediately cease operations upon notification of such interference and inform the Commission, in writing, of such an event. SpaceX must file a report with the Commission every thirty days including the total number of satellites currently conducting launch and early orbit phase operations, and the number of those satellites that are currently located below 400 km.

ttt. SpaceX must operate consistent with the technical specifications provided to the Commission, including any supplemental specifications, in connection with this application, as amended, for its Gen2 Starlink constellation, including operational altitude, antenna beam patterns; GSO avoidance angle; physical characteristics; frequencies used for satellite communications, including outside the United States; and other technical information. Should SpaceX wish to alter these technical specifications, it must apply for a license modification from the Commission, and SpaceX may not begin operations with modified parameters until such modification is granted.

uuu. SpaceX shall maintain full control of its satellites at all times and shall operate its satellites in accordance with any existing coordination agreements.

vvv. SpaceX must provide a semi-annual report, by January 1 and July 1 each year, covering the preceding six-month period, respectively, from June 1 to November 30 and December 1 to May 31. The report should include the following information:

- i. The number of conjunction events identified for Starlink satellites during the reporting period, and the number of events that resulted in an action (maneuver or coordination with another operator), as well as any difficulties encountered in connection with the collision avoidance process and any measures taken to address those difficulties.
- ii. Satellites that, for purposes of disposal, were removed from operation or screened from further deployment at any time following initial deployment, and identifying whether this

³⁴⁹ A list of earth stations already coordinated with federal agencies is attached as Appendix A to this grant.

³⁵⁰ See *Swarm Technologies, Inc., Application for Authority to Deploy and Operate a Non-Voice, Non-Geostationary Low-Earth Orbit Satellite System in the Mobile-Satellite Service*, Memorandum Opinion, Order and Authorization, 34 FCC Rcd 9469 (IB 2019).

occurred less than five years after the satellite began regular operations or were available for use as an on-orbit replacement satellite,

- iii. Satellites that re-entered the atmosphere,
- iv. Satellites for which there was a disposal failure, i.e., a satellite that loses the capability to maneuver effectively after being raised from its injection, including a discussion of any assessed cause of the failure and remedial actions. For each such satellite, SpaceX shall report an estimated orbital lifetime for the satellite following the failure, and for the Gen2 Starlink constellation the cumulative number of failed satellite object years,
- v. Identification of any collision avoidance system outages or unavailability, either on a system-wide basis or for individual satellites. An “outage” would include any individual satellite anomaly that results in a satellite not achieving targeted risk mitigation via maneuver.

www. In the event of satellite failures resulting in more than 100 post-failure object years, SpaceX may not deploy any additional satellites until the Commission has approved a license modification that includes an updated orbital debris mitigation plan addressing reduction in the failure rate or mitigation of the risk of satellite failures.

xxx. SpaceX must maintain satellite orbits so as to operate all of its satellites at or below 580 km.

yyy. SpaceX must communicate and collaborate with NASA to ensure that deployment and operation of its satellites does not unduly constrain deployment and operation of NASA assets and missions, supports safety of both SpaceX and NASA assets and missions, and preserves long-term sustainable space-based communications services.³⁵¹ SpaceX must report on the progress of its communications and collaboration efforts to the Commission in its regular reports specified in condition vvv.

zzz. SpaceX must operate in such a way as to minimize risk of collision with, and avoid operational constraints to, any inhabitable space stations, including the International Space Station.

aaaa. SpaceX must file a report to the Commission within ten days following the operation of any Gen2 Starlink satellites authorized for regular operations in the 340 km, 345 km, 350 km, and/or 360 km shells at or above 385 km for purposes other than transiting to a higher altitude. This report must include the satellite or satellites operating at or above 385 km, the reason for the operations at or above 385 km, and the duration of the operations at or above 385 km.

bbbb. SpaceX may not deploy any satellites authorized for its Gen2 system directly to their operational altitude.³⁵²

cccc. SpaceX must comply with Resolution 8 of WRC-23 and therefore must provide the Commission, by March 15, 2025, the required information for each deployed Gen2 Starlink satellite, identified by NORAD tracking number, for submission to the ITU.

dddd. In accordance with Resolution 8 of WRC-23, in order to count its satellites for the successive ITU milestones, SpaceX must maintain orbital tolerances of +/-30 km altitude and +/-2 degrees inclination.

eeee. Upon receipt of a conjunction warning from the 18th Space Control Squadron or other source, SpaceX must review and take all possible steps to assess the collision risk and mitigate collision

³⁵¹ See *SpaceX Gen2 First Partial Grant*, 37 FCC Rcd at 14952-53, para. 135bb. Language change from the initial ordering clause is to avoid any confusion with respect to FAA’s role in launch collision avoidance.

³⁵² See *id.* at 14927-28, para. 91.

risk if necessary. As appropriate, steps to assess and mitigate should include, but are not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.

ffff. SpaceX must continue to coordinate and collaborate with NASA to promote a mutually beneficial space environment that would minimize impacts to NASA's science missions involving astronomy.

gggg. SpaceX must coordinate with NSF to achieve a mutually acceptable agreement to mitigate the impact of its satellites on optical ground-based astronomy. SpaceX must submit an annual report to the Commission, by January 1st each year covering the preceding year containing the following information: (1) whether it has reached a coordination agreement with NSF addressing optical astronomy; and (2) any steps SpaceX has taken to reduce the impact of its satellites on optical astronomy, including but not limited to darkening, deflecting light away from the Earth, attitude maneuvering, and provision of orbital information to astronomers for scheduling observations around satellites' locations. SpaceX must also provide this report to NTIA, NASA, and NSF.

hhhh. SpaceX must follow its commitment to work with the scientific community to explore methods to collect observational data on formation of alumina from satellite reentry, to implement reasonable methods that are discovered to the extent practicable, and to report findings from these measurements taken to the Commission, as part of its annual report specified in condition gggg.

iiii. This authorization is subject to modification to bring it into conformance with any rules or policies adopted by the Commission in the future. Accordingly, any investments made toward SpaceX's Gen2 operations, including but not limited to any operations in bands authorized in this Order, assume the risk that operations may be subject to additional conditions or requirements as a result of any future Commission actions. This includes, but is not limited to, any conditions or requirements resulting from any action in the proceedings associated with IB Docket 22-271 and IB Docket 18-313,³⁵³ WT Docket 20-443,³⁵⁴ WT Docket 20-133,³⁵⁵ IB Docket 21-456,³⁵⁶ GN Docket 22-352,³⁵⁷ And GN Docket 23-65.³⁵⁸

jjjj. All operations of the Gen2 Starlink system must also comport with any additional terms and conditions contained in the *SpaceX Gen2 First Partial Grant*, the *SpaceX E-band Partial Grant*, the *SpaceX Gen2 Beacon Order*, the *SpaceX First V-band Modification Grant*, and the *SpaceX SCS*

³⁵³ See generally *Orbital Debris in the New Space Age, Report and Order and Further Notice of Proposed Rulemaking*, 35 FCC Rcd 4156 (2020); *Space Innovation; Mitigating Orbital Debris in the New Space Age*, Second Report and Order, FCC 22-74 (2022).

³⁵⁴ See generally *Expanding Flexible Use of the 12.2-12.7 GHz Band*, Notice of Proposed Rulemaking, 36 FCC Rcd 606 (2021).

³⁵⁵ See generally *Modernizing and Expanding Access to the 70/80/90 GHz bands, et al.*, Notice of Proposed Rulemaking, 35 FCC Rcd 6039 (2020).

³⁵⁶ See generally *Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems; Revision of Section 25.261 of the Commission's Rules to Increase Certainty in Spectrum Sharing Obligations Among NGSO FSS Systems*, Order and Notice of Proposed Rulemaking, 36 FCC Rcd 17871 (2021).

³⁵⁷ See generally *Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use*, Notice of Inquiry and Order, FCC 22-80 (rel. Oct. 28, 2022).

³⁵⁸ See generally *Single Network Future: Supplemental Coverage from Space*, Notice of Proposed Rulemaking, FCC 23-22 (Mar. 17, 2023).

*Modification Partial Grant.*³⁵⁹

90. IT IS FURTHER ORDERED that SpaceX is subject to the rules regarding the sharing of ephemeris data in section 25.146(e) of the Commission's rules, 47 CFR § 25.146(e).

91. IT IS FURTHER ORDERED that this authorization is also subject to the following requirements:

- a. Applicable to SpaceX Gen2 satellites:
 - i. SpaceX must post a surety bond in satisfaction of 47 CFR §§ 25.165(a)(1) & (b) no later than December 31, 2022,³⁶⁰ and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(1); and
 - ii. SpaceX must launch 50% of the maximum number of proposed space stations, place them in the assigned orbits, and operate them in accordance with the station authorization no later than December 1, 2028, and SpaceX must launch the remaining space stations necessary to complete its authorized service constellation, place them in their assigned orbits, and operate each of them in accordance with the authorization no later than December 1, 2031. 47 CFR § 25.164(b).³⁶¹
- b. Applicable to SpaceX operations in the V-band³⁶²:
 - i. SpaceX must post a surety bond in satisfaction of 47 CFR §§ 25.165(a)(1) & (b) no later than December 19, 2018,³⁶³ and thereafter maintain on file a surety bond requiring payment in the event of a default in an amount, at minimum, determined according to the formula set forth in 47 CFR § 25.165(a)(1); and
 - ii. SpaceX must launch 50 percent of the maximum number of proposed space stations with V-band capabilities, place them in the assigned orbits, and operate them in accordance with this grant no later than November 19, 2024, and must launch the remaining space stations necessary to complete its authorized V-band system, place them in their assigned orbits, and operate them in accordance with the authorization no later than November 19, 2027. 47 CFR § 25.164(b).
- c. Failure to post and maintain a surety bond will render this grant null and void automatically, without further Commission action.
- d. Failure to meet the milestone requirements of 47 CFR § 25.164(b) may result in SpaceX's authorization being reduced to the number of satellites in use at the milestone date. Failure to comply with the milestone requirements of 47 CFR § 25.164(b) will also result in forfeiture

³⁵⁹ See generally *SpaceX Gen2 First Partial Grant*; *SpaceX E-band Partial Grant*; *SpaceX First V-band Modification Grant*; *SpaceX SCS Modification Partial Grant*.

³⁶⁰ SpaceX has satisfied this part of the condition by posting the surety bond for its Gen2 satellites operating in the Ku-, Ka-, and E-band frequencies. See Bond of Space Exploration Holdings LLC, ICFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818-00105 (filed Dec. 30, 2022).

³⁶¹ We note that the *NGSO FSS Order* modified section 25.164(b) to offer additional flexibility and requires launch and operation of 50% of an authorized system within six years of grant and the remaining satellites within nine years of grant.

³⁶² See *SpaceX First V-band Modification Grant*. The separate milestones applicable to SpaceX's V-band operations are consistent with SpaceX's original V-band authorization.

³⁶³ SpaceX has satisfied this part of the condition by filing of its surety bond in accordance with the condition on its original V-band authorization on December 3, 2018. See Bond of Space Exploration Holdings, LLC, ICFS File No. SAT-LOA-20170301-00027 (filed Dec. 3, 2018).

of SpaceX's surety bond. SpaceX must either demonstrate compliance with each of the milestone requirements or notify the Commission in writing, within 15 days after the specified deadline, if the particular requirement was not met. 47 CFR § 25.164(f).

92. IT IS FURTHER ORDERED that SpaceX's requests for waiver of the Commission's rules due to various limitations in the Schedule S software ARE GRANTED.

93. IT IS FURTHER ORDERED that the request of SpaceX for a waiver of the U.S. Table of Frequency Allocations, section 2.106, for operation of gateway links in the Ka-band and E-band IS DISMISSED.

94. IT IS FURTHER ORDERED that the request of SpaceX for waivers of sections 25.112(a)(3) and 25.112(b), which provided that we dismiss applications that request authority to operate space stations in bands not allocated internationally for the requested operations, IS DISMISSED AS MOOT.

95. IT IS FURTHER ORDERED that the request of SpaceX for a waiver of section 25.202(k)(1), which establishes an OOB limit for SCS, IS DEFERRED.

96. IT IS FURTHER ORDERED that the request of SpaceX for a waiver of the U.S. Table of Frequency Allocations, section 2.106, for operations in the 1910-1915 MHz and 1990-1995 MHz bands IS DISMISSED AS MOOT.

97. IT IS FURTHER ORDERED that the request of SpaceX for a waiver of the Commission's processing round rules, sections 25.156(d)(1) and 25.157, IS DISMISSED AS MOOT regarding the 1910-1915 MHz and 1990-1995 MHz bands.

98. IT IS FURTHER ORDERED that the request of SpaceX for a waiver of sections 25.102(a) and 25.115(a)(1)(i) regarding blanket earth station licensing IS DISMISSED AS MOOT.

99. IT IS FURTHER ORDERED that the Petition to Deny or Dismiss filed by DISH and the Informal Objection filed by Omnispace ARE DENIED.

100. IT IS FURTHER ORDERED that the Petition for Reconsideration filed by DISH IS DISMISSED AS MOOT.

101. IT IS FURTHER ORDERED that the Petition for a Protective Order filed by EchoStar is DISMISSED AS MOOT.

102. IT IS FURTHER ORDERED that the EchoStar Petition to Deny Amended Waiver Request and AT&T Petition to Deny ARE DEFERRED.

103. This grant is without prejudice to any future action taken in connection with the SpaceX Gen2 Starlink constellation, call signs S2992 and S3069.

104. This grant does not alter the license term for the SpaceX Starlink Gen2 satellite system.

FEDERAL COMMUNICATIONS COMMISSION

Julie M. Kearney
Chief
Space Bureau

APPENDIX A**List of Earth Stations Coordinated with Federal Operators**

1. Sussex, NJ, Call Sign E190858
2. Wailuku, HI, Call Sign E190859
3. Piti, Guam, Call Sign E191406
4. Draper, UT, Call Sign E210061
5. Aasiaat, Greenland
6. Awarua, New Zealand
7. Azores, Portugal
8. Goonhilly, United Kingdom
9. Leeheim, Germany
10. Mauritius
11. St. Helena
12. Wagin, Australia
13. Yass, Australia



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov

DA 24-1194

Released: November 26, 2024

T-MOBILE-USCELLULAR TRANSFER OF CONTROL AND ASSIGNMENT APPLICATIONS REFERRED TO THE COMMITTEE FOR THE ASSESSMENT OF FOREIGN PARTICIPATION IN THE UNITED STATES TELECOMMUNICATIONS SERVICE SECTOR

GN Docket No. 24-286

On November 19, 2024, the U.S. Department of Justice (DOJ), on behalf of the Committee for the Assessment of Foreign Participation in the United States Telecommunications Service Sector (Committee), filed a letter in this proceeding requesting that the Commission refer the transfer of control and assignment applications filed by T-Mobile US, Inc. (T-Mobile) and United States Cellular Corporation (UScellular) to the Committee for its review.¹ The DOJ further requests that the Commission defer action on the applications until the Committee has concluded its review and offered its recommendation.²

Through this Public Notice, pursuant to Commission practice, the Office of International Affairs and the Wireless Telecommunications Bureau refer the T-Mobile-UScellular transfer of control and assignment applications to the Committee for its views on any national security or law enforcement concerns related to the applications.³

¹ Letter from Makenzie B. Skopowski, Attorney Advisor, Foreign Investment Review Section, National Security Division, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 24-286 (filed Nov. 19, 2024).

² *Id.*

³ See *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, IB Docket 16-155, Report and Order, 35 FCC Rcd 10927 (2020). The applications being referred are listed in the Attachment to this Public Notice.

ATTACHMENT

Parts 24, 27, 30, And 101—Wireless Radio Services

<u>File No.</u>	<u>Licensee</u>	<u>Lead Call Sign</u>
0011180491 ⁴	UNITED STATES CELLULAR OPERATING COMPANY LLC	WHT381
0011227092	Advantage Spectrum, L.P.	WQXW424
0011227112	Advantage Spectrum, L.P.	WQXW422
0011227171	Advantage Spectrum, L.P.	WQXW427
0011227216	Advantage Spectrum, L.P.	WQXW509
0011181428	BANGOR CELLULAR TELEPHONE, L.P.	WLT437
0011181434	CALIFORNIA RURAL SERVICE AREA #1, INC.	WLR339
0011181438	CEDAR RAPIDS CELLULAR TELEPHONE, L.P.	WLT332
0011181441	DUBUQUE CELLULAR TELEPHONE, L.P.	WLT769
0011181447	HARDY CELLULAR TELEPHONE COMPANY	WMG753
0011181450	JACKSONVILLE CELLULAR TELEPHONE COMPANY	WLL515
0011181454	KANSAS #15 LIMITED PARTNERSHIP	WMK428
0011181460	KENOSHA CELLULAR TELEPHONE, L.P.	WLS605
0011227307	King Street Wireless, LP	WQLE654
0011227342	King Street Wireless, LP	WQLE660
0011227390	King Street Wireless, LP	WQLE657
0011181463	MADISON CELLULAR TELEPHONE COMPANY	WPOV373
0011181470	MAINE RSA #1, INC.	WMQ586
0011181472	MAINE RSA #1, INC.	KNLF933
0011181481	MAINE RSA #4, INC.	WPJD830
0011181484	MCDANIEL CELLULAR TELEPHONE COMPANY	WLU826
0011181494	NH #1 RURAL CELLULAR, INC.	WLK946
0011181500	OREGON RSA #2, INC.	WLS661
0011181505	OREGON RSA #2, INC.	WQYB217
0011181509	PCS WISCONSIN, LLC	KNLG200
0011181514	RACINE CELLULAR TELEPHONE COMPANY	WML773
0011181520	UNITED STATES CELLULAR OPERATING COMPANY LLC	WQUI699
0011164921	UNITED STATES CELLULAR OPERATING COMPANY OF CHICAGO, LLC	WQNT941
0011181533	UNITED STATES CELLULAR OPERATING COMPANY OF KNOXVILLE	WLB807
0011181544	UNITED STATES CELLULAR OPERATING COMPANY OF MEDFORD	WLR434
0011237194	UNITED STATES CELLULAR OPERATING COMPANY OF MEDFORD	WQZM894
0011164929	USCC SERVICES, LLC	WRJI984
0011181548	USCOC NEBRASKA/KANSAS, LLC	WLS717
0011181557	USCOC NEBRASKA/KANSAS, LLC	WQGD659
0011181560	USCOC OF CENTRAL ILLINOIS, LLC	WHA717
0011181565	USCOC OF CUMBERLAND, LLC	WLV260
0011181572	USCOC OF GREATER IOWA, LLC	WHB481
0011181577	USCOC OF GREATER IOWA, LLC	KNLF881
0011181583	USCOC OF GREATER MISSOURI, LLC	WLR440
0011181586	USCOC OF GREATER NORTH CAROLINA, LLC	WLL518

⁴ This application is the lead application for the wireless radio services.

<u>File No.</u>	<u>Licensee</u>	<u>Lead Call Sign</u>
0011181592	USCOC OF GREATER OKLAHOMA, LLC	WLA261
0011181599	USCOC OF GREATER OKLAHOMA, LLC	KNLF590
0011181602	USCOC OF LACROSSE, LLC	WLU542
0011181615	USCOC OF OREGON RSA #5, INC.	WMQ867
0011237204	USCOC OF OREGON RSA #5, INC.	WQZM878
0011181631	USCOC OF PENNSYLVANIA RSA NO. 10-B2, LLC	WQVL740
0011181634	USCOC OF RICHLAND, INC.	WLS669
0011181641	USCOC OF VIRGINIA RSA #3, INC.	WMJ224
0011181643	USCOC OF WASHINGTON-4, INC.	WLS666
0011181650	VERMONT RSA NO. 2-B2, INC.	WPOR638
0011181659	WESTERN SUB-RSA LIMITED PARTNERSHIP	WMS469
0011181669	YAKIMA MSA LIMITED PARTNERSHIP	WMR566

Part 27 – Wireless Radio Services Spectrum Leasing Arrangements

<u>File No.</u>	<u>Lessee/Sublessee</u>	<u>Lead Call Sign or Lease ID</u>
7007ATNL24	USCC Services, LLC	WQXW422 ⁵
7008WYNL24	USCC Services, LLC	WQLE654 ⁶
0011239681	USCC Services, LLC	L000043874

Part 63 – International Section 214 Authorization

<u>File No.</u>	<u>Authorization Holder</u>	<u>Authorization Number</u>
ITC-ASG-20240913-00139	USCC Wireless Holdings, LLC	ITC-214-19981009-00698

-FCC-

⁵ See also Sublease File Number 6053ATSL24 (filed Sept. 13, 2024) for related sublease application.

⁶ See also Sublease File Number 6054WYSL24 (filed Sept. 13, 2024) for related sublease application.

Federal Communications Commission

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
One Internet America, LLC	)	File No.: EB-FIELDWR-22-00034611
Licensee of Station WRDA230	)	FRN: 026633081
Owner of Unregistered Antenna Structure	)	
	)	
Ontario, California	)	
	)	
	)	

NOTICE OF VIOLATION

Released: November 26, 2024

By the Regional Director, Region Three, Enforcement Bureau:

1. This is a Notice of Violation (Notice) issued pursuant to section 1.89 of the Commission's rules¹ to One Internet America, LLC, licensee of radio station WRDA230 and owner of an antenna structure located at 3833 Ebony St. in Ontario, California. Pursuant to section 1.89(a) of the Commission's rules, issuance of this Notice does not preclude the Enforcement Bureau from further action if warranted, including issuing a Notice of Apparent Liability for Forfeiture for the violation(s) noted herein.²

2. On March 12, 2024, an agent of the Enforcement Bureau's Los Angeles Office inspected an antenna structure located at 3833 Ebony St., Ontario, CA 91761, and observed the following violation(s):

- a. 47 CFR § 17.4(a): "The owner of any proposed or existing antenna structure that requires notice of proposed construction to the Federal Aviation Administration (FAA) due to physical obstruction must register the structure with the Commission." Los Angeles Agents determined that the subject antenna structure required such notice to the FAA but had never been registered with the Commission. As of the date of this Notice, the structure still has not been registered with the Commission.

3. Pursuant to section 403 of the Communications Act of 1934, as amended (Act), and section 1.89 of the Commission's rules, we seek additional information concerning the violations and any remedial actions taken.³ Therefore, One Internet America, LLC must submit a written statement concerning this matter within twenty (20) days of release of this Notice. The response (i) must fully explain each violation, including all relevant surrounding facts and circumstances, (ii) must contain a statement of the specific action(s) taken to correct each violation and preclude recurrence, and (iii) must include a time line for completion of any pending corrective action(s). The response must be complete in

¹ 47 CFR § 1.89.

² 47 CFR § 1.89(a).

³ 47 U.S.C. § 403; 47 CFR § 1.89.

Federal Communications Commission

itself and must not be abbreviated by reference to other communications or answers to other notices.⁴

4. In accordance with section 1.16 of the Commission's rules, we direct One Internet America, LLC to support its response to this Notice with an affidavit or declaration under penalty of perjury, signed and dated by an authorized officer of One Internet America, LLC with personal knowledge of the representations provided in One Internet America, LLC's response, verifying the truth and accuracy of the information therein, and confirming that all of the information requested by this Notice which is in the licensee's possession, custody, control, or knowledge has been produced.⁵ To knowingly and willfully make any false statement or conceal any material fact in reply to this Notice is punishable by fine or imprisonment under title 18 of the U.S. Code.⁶

5. All replies and documentation sent in response to this Notice should be marked with the File Number, specified above, and mailed to the following address:

Federal Communications Commission
Los Angeles Regional Office
11331 183Rd Street, PMB 365
Cerritos, CA 90703

6. This Notice shall be sent to One Internet America, LLC at its address of record and to One Internet America, LLC's counsel of record Annalisa Mai.

7. The Privacy Act of 1974⁷ requires that we advise you that the Commission will use all relevant material information before it, including any information disclosed in your reply, to determine what, if any, enforcement action is required to ensure compliance.

FEDERAL COMMUNICATIONS COMMISSION



Lark Hadley
Regional Director, Region Three
Enforcement Bureau

⁴ 47 CFR § 1.89(c).

⁵ Section 1.16 of the Commission's rules provides that "[a]ny document to be filed with the Federal Communications Commission and which is required by any law, rule or other regulation of the United States to be supported, evidenced, established or proved by a written sworn declaration, verification, certificate, statement, oath or affidavit by the person making the same, may be supported, evidenced, established or proved by the unsworn declaration, certification, verification, or statement in writing of such person Such declaration shall be subscribed by the declarant as true under penalty of perjury, and dated, in substantially the following form . . . : 'I declare (or certify, verify, or state) under penalty of perjury that the foregoing is true and correct. Executed on (date). (Signature)'." 47 CFR § 1.16.

⁶ 18 U.S.C. §§ 1001, *et seq.*; *see also* 47 CFR § 1.17.

⁷ 5 U.S.C. § 552a(e)(3).



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: www.fcc.gov
TTY: 888-835-5322

DA 24-1197

Released: November 27, 2024

OFFICE OF ECONOMICS AND ANALYTICS RELEASES RESULTS FROM SUPPLY CHAIN ANNUAL REPORTS FOR 2022 AND 2023

WC Docket No. 18-89

By this Public Notice, the Office of Economics and Analytics (OEA) releases updated, public results from the Supply Chain Annual Report filings.

Section 5 of the Secure and Trusted Communications Networks Act of 2019 directed the Commission to require providers of advanced communications service to report and certify annually whether the provider purchased, rented, leased, or otherwise obtained any covered communications equipment or service on the list of covered communications equipment and services (Covered List).¹ Specifically, for equipment or services placed on the initial Covered List, providers must report covered equipment or services obtained on or after August 14, 2018. If the Commission subsequently adds equipment or services to the Covered List, filers must report any equipment or services obtained 60 days or more after the date they are added to the list. If a provider cannot certify that it has no covered communications equipment or services, it must provide information regarding the locations, types, suppliers, historic and replacement cost, functionality, replacement plans, and a detailed justification of why such equipment was obtained.

In the *2020 Supply Chain Order*, the Commission adopted the reporting requirement for providers of advanced communications service and codified it in 47 CFR § 1.50007.² The Commission defined “advanced communications service” as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology with connection speeds of at least 200 kbps in either direction.³

Consistent with the Commission’s directive to “release to the public a list of providers that have reported covered equipment or services in their networks,”⁴ attached are lists of such providers for the 2022 and 2023 Supply Chain Annual Reports.⁵ Further information related to these reports remains

¹ Secure and Trusted Communications Networks Act of 2019, Pub. L. No. 116-124, 133 Stat. 158 (2020) (codified as amended at 47 U.S.C. §§ 1601–1609) (*Secure Networks Act*). The current Covered List is available at <https://www.fcc.gov/supplychain/coveredlist>.

² See *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Second Report and Order, 35 FCC Rcd 14284, 14369, para. 212 (2020) (*2020 Supply Chain Order*); 47 CFR § 1.50007.

³ 47 CFR § 1.50001(a).

⁴ *2020 Supply Chain Order*, 35 FCC Rcd at 14369, para. 214.

⁵ To the extent we receive further information pertaining to these annual reports following this Public Notice, we may publicly release an update to this list with any similarly situated providers added. Entities identified on previous versions of the list that are not on the subsequent list have since certified that they no longer possess covered equipment or services subject to the annual reporting requirement.

presumptively confidential.⁶ Many of the providers listed herein are participants in the Secure and Trusted Communications Networks Reimbursement Program, which supports the removal, replacement, and disposal of communications equipment and services produced or provided by Huawei Technologies Company or ZTE Corporation.⁷

For additional information, including a link to the reporting portal, instructions, and other information regarding the Annual Reporting requirement, visit the FCC's Supply Chain webpage at <https://www.fcc.gov/supplychain>. For questions regarding the FCC's Supply Chain Annual Reporting requirement, send an email to SupplyChainData@fcc.gov.

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⁶ *Id.* at 14369-70, para. 214.

⁷ See *Secure Networks Act*; *2020 Supply Chain Order*. On July 13, 2021, the Commission amended its rules, consistent with amendments to the Secure Networks Act included in the Consolidated Appropriations Act, 2021. *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Third Report and Order, 36 FCC Rcd 11958, 11959, para. 2 (2021) (*2021 Supply Chain Order*). The Commission later clarified that, for purposes of the Reimbursement Program, covered communications equipment or services are limited to the communications equipment or services produced or provided by Huawei or ZTE that were obtained by providers on or before June 30, 2020. See *2021 Supply Chain Order*, 36 FCC Rcd at 11959, 11965, paras. 2 & 18; see also generally *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs – Huawei Designation*, PS Docket No. 19-351, Order, 35 FCC Rcd 6604 (PSHSB 2020); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs – ZTE Designation*, PS Docket No. 19-352, Order, 35 FCC Rcd 6633 (PSHSB 2020).

ATTACHMENT A

PROVIDERS THAT REPORTED COVERED EQUIPMENT AS OF DECEMBER 31, 2022

Argent Communications, LLC
Blu Space Inc
Blue Mountain Networks LLC
Board of Trustees, Northern Michigan University
Bristol Bay Cellular Partnership
Bulloch County Rural Telephone Cooperative, Inc.
Cellco Partnership
Central Louisiana Cellular, LLC
China Telecom (Americas) Corporation⁸
City of Wilson
Commnet Wireless, LLC
Computer 5, Inc. dba LocalTel Communications
Copper Valley Wireless, LLC
Country Wireless LLC
DayStarr LLC dba DayStarr Communications
Everfast Fiber Networks LLC
Farmers Telecommunications Cooperative, Inc.
France Telecom Long Distance USA, LLC dba Orange Carriers USA
Gallatin Wireless Internet, LLC
Gogo Business Aviation LLC
Hargray Communications Group, Inc.
Horry Telephone Cooperative, Inc
Hotwire Communications, Ltd.
Hunter Communications & Technologies LLC
Inland Cellular LLC
i-wireless, LLC
James Valley Cooperative Telephone Company
KENNEBEC TELEPHONE COMPANY, INC
Kerman Telephone Co
La Grange County Rural Membership Corporation
LakeNet LLC

⁸ In 2021, the Commission revoked the section 214 authority of China Telecom (Americas) Corporation and other entities that are majority-owned and controlled by the Chinese government, based on recommendations and comments from interested Executive Branch agencies regarding evolving national security and law enforcement concerns. *China Telecom (Americas) Corporation*, GN Docket No. 20-109, File Nos. ITC-214-20010613-00346, ITC-214-20020716-00371, ITC-T/C-20070725-00285, Order on Revocation and Termination, 36 FCC Rcd 15966, 15966-67, para. 1 (2021) (*China Telecom Americas Order on Revocation and Termination*), *aff'd*, *China Telecom (Ams.) Corp. v. FCC*, 57 F.4th 256 (D.C. Cir. 2022). Pursuant to section 5 of the Secure Networks Act, providers of advanced communications service that have purchased, rented, leased, or otherwise obtained any covered communications equipment or service on the Covered List on or after August 14, 2018 must report and certify annually information about such equipment or service to the Commission. See 47 U.S.C. § 1604. In the *Safeguarding and Securing the Open Internet Order*, the Commission excluded China Telecom (Americas) Corporation and other similarly situated providers from grant of blanket section 214 authority for the provision of broadband Internet access service. *Securing and Safeguarding the Open Internet; Restoring Internet Freedom*, WC Docket Nos. 23-320 and 17-108, Declaratory Ruling, Order, Report and Order, and Order on Reconsideration, FCC 24-52 (rel. May 7, 2024). That *Order* is currently subject to a stay by the United States Court of Appeals for the Sixth Circuit. *In re: MCP No. 185; Federal Communications Commission, In the matter of Safeguarding and Securing the Open Internet, Declaratory Ruling, Order, Report and Order, and Order On Reconsideration*, FCC 24-52, 89 Fed. Reg. 45404, Published May 22, 2024, No. 24-7000 (6th Cir. Aug. 1, 2024).

Latam Telecommunications, L.L.C.
Leaco Rural Telephone Cooperative, Inc.
Level 3 Communications, LLC
Liberty Mobile Puerto Rico Inc.
Ligtel Communications Inc.
Mark Twain Communications Company
Marshall Municipal Utilities
Mediacom Communications Corporation
Metro Fibernet, LLC
MHG Telco LLC
NE Colorado Cellular Inc
Northeast Louisiana Telephone Co., Inc.
NTInet, inc
Orange Business Services U.S., Inc.
Piedmont Communications Services, Inc
Pine Belt Cellular, Inc.
Pine Telephone Company
Plant Telephone Company
Plateau Telecommunications, Incorporated
Point Broadband Fiber Holding, LLC
Puerto Rico Telephone Company, Inc.
Red River Rural Telephone Association, Inc.
S & T Communications LLC
S&T Telephone Cooperative Association, Inc.
SAGEBRUSH CELLULAR, INC.
Santel Communications Cooperative, Inc.
Skybeam, LLC
South Canaan Telephone Company
South Central Telephone Coop Inc
Spring City Cable TV, Inc.
Spruce Knob Seneca Rocks Telephone, Inc.
SRT Communications, Inc.
Star Telephone Membership Corp
Stealth Communications
Texas 10, LLC
Transtelco, Inc.
TUTTLE DEVELOPMENT AUTHORITY
Union Telephone Company
Utah Broadband
United Wireless Communications, Inc.
Utah Telecommunication Open Infrastructure Agency
Velocity Telephone, Inc.
Vero Broadband, LLC
Virginia Everywhere, LLC
Vivicalling
Windstream Communications LLC
Xiber, LLC
Yelcot Telephone Company

ATTACHMENT B

PROVIDERS THAT REPORTED COVERED EQUIPMENT AS OF DECEMBER 31, 2023⁹

Blue Mountain Networks LLC
Board of Trustees, Northern Michigan University
Bristol Bay Cellular Partnership
Bulloch County Rural Telephone Cooperative, Inc.
Central Louisiana Cellular, LLC
China Telecom (Americas) Corporation¹⁰
City of Wilson
Commnet Wireless, LLC
Computer 5, Inc. DBA LocalTel Communications
Copper Valley Wireless, LLC
Country Wireless LLC
DayStarr LLC dba DayStarr Communications
Farmers Telecommunications Cooperative, Inc.
France Telecom Long Distance USA, LLC d/b/a Orange Carriers USA
Gallatin Wireless Internet, LLC
Gogo Business Aviation LLC
Hargray Communications Group, LLC
Horry Telephone Cooperative, Inc
Hotwire Communications, Ltd.
i-wireless, LLC
Inland Cellular LLC
James Valley Cooperative Telephone Company
KENNEBEC TELEPHONE COMPANY, INC
Kerman Telephone Co
LakeNet LLC
Latam Telecommunications, L.L.C.
Leaco Rural Telephone Cooperative, Inc.
Level 3 Communications, LLC
Liberty Mobile Puerto Rico Inc.
LIGTEL COMMUNICATIONS INC.
Mark Twain Communications Company
Marshall Municipal Utilities
Mediacom Communications Corporation
Metro Fibernet, LLC
MHG Telco LLC
Mitel Cloud Services Inc
NE Colorado Cellular Inc
Northeast Louisiana Telephone Co., Inc.
Piedmont Communications Services, Inc
Pine Belt Cellular, Inc.
Pine Telephone Company

⁹ As part of its participation in the Supply Chain Reimbursement Program (*see* 47 U.S.C. § 1603; 47 CFR § 1.50004), Windstream Communications LLC filed a final certification with the Commission in 2023 in which it certified that it had completed the removal, replacement, and disposal of all communications equipment and services produced or provided by Huawei Technologies Company or ZTE Corporation that it obtained on or before June 30, 2020.

¹⁰ *See supra* note 8.

Plant Telephone Company
Plateau Telecommunications, Incorporated
Point Broadband Fiber Holding, LLC
Puerto Rico Telephone Company, Inc.
SAGEBRUSH CELLULAR, INC.
Santel Communications Cooperative, Inc.
Skybeam, LLC
South Canaan Telephone Company
South Central Rural Telecommunications Cooperative Inc.
Spring City Cable TV, Inc.
Star Telephone Membership Corp
Stealth Communications
Stowe Communications LLC
TelAlaska Cellular, Inc.
Transtelco, Inc.
Union Telephone Company
United Wireless Communications, Inc.
Utah Broadband
Utah Telecommunication Open Infrastructure Agency
Vero Broadband, LLC
Xiber, LLC
Yelcot Telephone Company



PUBLIC NOTICE

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DA 24-1199

Released: November 27, 2024

**WIRELINE COMPETITION BUREAU ANNOUNCES MERCURY WIRELESS INDIANA, LLC;
MERCURY WIRELESS KANSAS, LLC; PVT NETWORKS, INC.; CABLE ONE, VOIP LLC
D/B/A SPARKLIGHT; AND FIDELITY CABLEVISION, LLC DEFAULTS ON CERTAIN RDOF
CENSUS BLOCK GROUPS IN IDAHO, ILLINOIS, INDIANA, KANSAS, MICHIGAN,
MISSOURI, AND NEW MEXICO**

**AU Docket No. 20-34
WC Docket No. 19-126
WC Docket No. 10-90**

By this Public Notice, the Wireline Competition Bureau (WCB or Bureau) announces that certain Rural Digital Opportunity Fund (RDOF) census block groups (CBG) are now eligible for other funding programs. Specifically, Mercury Wireless Indiana, LLC (Mercury Indiana) has notified the Commission it will not fulfill its commitment to offer voice and broadband service to certain CBGs within its RDOF support service areas in Indiana (study area code (SAC) 329028) and Michigan (SAC 319048).¹ Further, Mercury Wireless Kansas, LLC (Mercury Kansas) has notified the Commission of its decision to withdraw from the RDOF support program in all of the CBGs covered by its authorized winning bids in Illinois (SAC 349051), Kansas (SAC 419045), and Missouri (SAC 429042).² PVT NetWorks, Inc. (PVT) has also notified the Commission that it will not fulfill its commitment to offer voice and broadband

¹ Letters from AJ Long, Chief Financial Officer, Mercury Broadband, LLC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 19-126 et al. (filed Oct. 23, 2024) (*First Mercury Withdrawal Letters*); Letters from AJ Long, Chief Financial Officer, Mercury Broadband, LLC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 19-126 et al. (filed Nov. 6, 2024) (*Second Mercury Withdrawal Letters*); Letters from AJ Long, Chief Financial Officer, Mercury Broadband, LLC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 19-126 et al. (filed Nov. 18, 2024) (*Third Mercury Withdrawal Letters*); Letter from AJ Long, Chief Financial Officer, Mercury Broadband, LLC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 19-126 et al. (filed Nov. 25, 2024) (*Fourth Mercury Withdrawal Letter*). Mercury Wireless, Inc. assigned its Indiana, Michigan, and Ohio winning bids to Mercury Indiana. *Long-Form Applicants in the Rural Digital Opportunity Fund Phase I Auction (Auction 904)*, AU Docket No. 20-34 et al., Public Notice, 36 FCC Rcd 4140 (WCB/OEA 2021) (*Auction 904 Long-Form Applicants Public Notice*). In July 2022, Mercury Indiana was authorized to receive \$9,437,647 in RDOF support over 10 years to serve 13,529 locations in Indiana, \$37,598,649 in RDOF support over 10 years to serve 77,925 locations in Michigan, and \$6,456,923 in RDOF support over 10 years to serve 17,842 locations in Ohio. *Rural Digital Opportunity Fund Support Authorized for 1,605 Winning Bids*, AU Docket No. 20-34 et al., 37 FCC Rcd 8331 (WCB/OEA 2022) (*Mercury Authorization Public Notice*). Mercury Indiana is defaulting on 9,082 model-estimated locations in Indiana and 55,175 model-estimated locations in Michigan. Mercury Indiana remains committed to meeting its RDOF obligations in the remaining CBGs in its RDOF auction supported areas.

² *First Mercury Withdrawal Letters*; *Second Mercury Withdrawal Letters*. Mercury Wireless, Inc. assigned its Illinois, Kansas, and Missouri winning bids to Mercury Kansas. *Auction 904 Long-Form Applicants Public Notice*. In July 2022, Mercury Kansas was authorized to receive \$4,849,688 in RDOF support over 10 years to serve 8,398 locations in Illinois, \$683 in RDOF support over 10 years to serve 29 locations in Kansas, and \$3,378,309 in RDOF support over 10 years to serve 5,023 locations in Missouri. *Mercury Authorization Public Notice*.

service to certain CBGs within its RDOF support service area in New Mexico (SAC 499026).³ Additionally, Cable One VOIP LLC d/b/a Sparklight (Cable One) has notified the Commission of its decision to withdraw from the RDOF support program in all of the CBGs covered by its authorized winning bids in Idaho (SAC 479030),⁴ and Fidelity Cablevision LLC (Fidelity) has notified the Commission of its decision to withdraw from the RDOF support program in all of the CBGs covered by its authorized winning bids in Missouri (SAC 429002).⁵ The carriers will be subject to penalties, as described below, for their defaults. We also refer Mercury Indiana and Mercury Kansas' defaults to the Enforcement Bureau for further consideration.

Although some defaults after auctions are expected because of changing business plans or economic circumstances, we expect carriers to live up to their deployment commitments, and those who fail to meet their obligations can jeopardize the opportunity to bring broadband to the promised areas and undermine the integrity of the programs. Such defaults are particularly regrettable when the carrier waits years after authorization to default, making it difficult to correct the problem and otherwise accommodate the defaulted areas in other deployment programs. On July 3, 2024, the Bureau released a public notice strongly encouraging carriers that were contemplating a default to contact the Bureau, as well as the relevant state or territory broadband offices and Tribal governments, as soon as possible to discuss their specific situation.⁶ We emphasized that early defaults ensure that states and territories timely receive the necessary information for their Broadband Equity Access and Deployment (BEAD) planning and ensure that our sister federal agencies timely receive this information to target funding for their broadband deployment programs.⁷

When notified of a default, our Broadband Deployment Alignment Plan (BDAP) procedures provide for taking immediate action to coordinate with other federal and state agencies to minimize the impact on consumers and the geographic areas to which the defaulting carriers committed. BDAP is part of the Rural Broadband Accountability Plan which seeks to ensure that high-cost funds are properly

³ Letter from Salvatore Taillefer, Jr., Counsel to PVT NetWorks, Inc., to Marlene H. Dortch, Secretary, FCC, AU Docket No. 20-34 et al. (filed Nov. 5, 2024). PVT was authorized to receive \$12,039 in RDOF support over 10 years to serve 38 locations in New Mexico. *Rural Digital Opportunity Fund Support Authorized for 469 Winning Bids*, AU Docket No. 20-34 et al., Public Notice, 36 FCC Rcd 14528 (WCB/OEA 2021) (*PVT Authorization Public Notice*). PVT is defaulting on 18 model-estimated locations in New Mexico. PVT remains committed to meeting its RDOF obligations in the remaining CBGs in its RDOF auction supported areas.

⁴ Letter from Cherie Kiser and Angela Collins, Counsel to Cable One, VOIP LLC d/b/a Sparklight, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 19-126 et al. (filed Oct. 17, 2024) (*Cable One Withdrawal Letter*). Wisper-CABO 904 Consortium assigned its winning bids in Idaho to Cable One. *Auction 904 Long-Form Applicants Public Notice*. In June 2022, Cable One was authorized to receive \$3,225,684 in RDOF support over 10 years to serve 863 locations in Idaho. *Rural Digital Opportunity Fund Support Authorized for 513 Winning Bids*, AU Docket No. 20-34 et al., Public Notice, 37 FCC Rcd 7271, Attach. A (WCB/OEA 2022) (*Cable One and Fidelity Authorization Public Notice*).

⁵ Letter from Cherie Kiser and Angela Collins, Counsel to Fidelity Cablevision LLC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, AU Docket No. 20-34 et al. (filed Oct. 17, 2024). Wisper-CABO 904 Consortium assigned its winning bids in Missouri to Fidelity. *Auction 904 Long-Form Applicants Public Notice*. In June 2022, Fidelity was authorized to receive \$37,979 in RDOF support over 10 years to serve 39 locations in Missouri. *Cable One and Fidelity Authorization Public Notice*.

⁶ *Wireline Competition Bureau Provides Guidance for RDOF and CAF Phase II Support Recipients on Procedures for Provider Defaults to Ensure that Broadband Networks are Deployed to All Consumers*, AU Docket No. 20-34 et al., DA 24-646, at 2 (WCB Jul. 3, 2024).

⁷ *Id.*

invested and produce new broadband services to consumers lacking connectivity.⁸ First, the Bureau ensures that the carrier has notified the relevant state broadband offices about the carrier's inability to deploy broadband infrastructure to the defaulted locations. Second, the Bureau notifies the National Telecommunications and Information Administration (NTIA) to begin a similar dialogue about the locations. These notifications allow the state and NTIA to promptly consider the implications for the ongoing BEAD Program and other, similar programs. Third, where feasible, the Bureau discusses with both the relevant state broadband office and the carrier whether there is another entity that may be interested in serving the area and assuming the defaulting carrier's RDOF obligations. Finally, if another carrier does not assume the obligation, the Bureau notifies NTIA, the Rural Utility Service of the U.S. Department of Agriculture (RUS), and the U.S. Department of Treasury of the circumstances so that the defaulted area can be given priority consideration in other federal broadband funding programs, in accordance with agreed-upon best practices. The Bureau also makes enforcement referrals where appropriate.

Our BDAP procedures have resulted in avoiding some defaults or mitigating the consequences. For example, the Bureau and the Virginia Department of Housing and Community Development worked closely with a carrier to avoid a Connect America Fund Phase II Auction default by efficiently facilitating a transfer of those obligations to another carrier.⁹ Similarly, after RUS determined that a Community Connect grantee would be unable to meet the terms of its grant, the Bureau issued a waiver to include part of the grant area in the Enhanced A-CAM program to ensure broadband is deployed to those locations.¹⁰

By announcing in this Public Notice that 1) Mercury Indiana will not meet its RDOF obligations in the identified census blocks within the defaulted CBGs in Indiana and Michigan,¹¹ 2) Mercury Kansas is defaulting on the eligible census blocks within the defaulted CBGs covered by all its authorized winning bids in Illinois, Kansas, and Missouri, 3) PVT will not meet its RDOF obligations in the identified census blocks within the defaulted CBGs in New Mexico, 4) Cable One is defaulting on the eligible census blocks within the defaulted CBGs covered by all its authorized winning bids in Idaho, and 5) Fidelity is defaulting on the eligible census blocks within the defaulted CBGs covered by all its authorized winning bids in Missouri, we take the necessary step to formally announce that the relevant census blocks are eligible for funding from other federal and state funding programs subject to the rules of the other programs, furthering our responsibility to coordinate with other agencies to maximize the deployment of high-quality broadband service across the United States.¹² To promote the efficient use of

⁸ Federal Communications Commission, Rural Broadband Accountability Plan, <https://www.fcc.gov/rbap> (last visited Nov. 26, 2024).

⁹ See *Grant of Domestic Section 214 Application for the Acquisition of Connect America Fund Phase II Auction Funding and Related Buildout and Service Obligations of RiverStreet Communications of Virginia, Inc. by EMPOWER Broadband, Inc. and Limited Relief for EMPOWER from Certain CAF Phase II Auction Compliance and Letter of Credit Rules*, WC Docket No. 24-145, Public Notice, DA 24-741 (WCB July 31, 2024).

¹⁰ *Connect America Fund*, WC Docket No. 10-90, Order, DA 24-424 (WCB May 3, 2024).

¹¹ The minimum geographic unit for bidding for RDOF was a CBG containing one more eligible census blocks. *Rural Digital Opportunity Fund Phase I Auction Scheduled for October 29, 2020; Notice and Filing Requirements and Other Procedures for Auction 904*, AU Docket No. 20-34 et al., Public Notice, 35 FCC Rcd 6077, 6146, para. 213 (2020). Accordingly, a default must occur at the CBG level. While bidders were required to bid at the CBG level, they can only use their support to offer service in the eligible census blocks within those CBGs. *Id.*; *Rural Digital Opportunity Fund et al.*, WC Docket No. 19-126 et al., Report and Order, 35 FCC Rcd 686, 690-94, paras. 9-16 (2020) (*RDOF Order*).

¹² Broadband Interagency Coordination Act of 2020, Pub. L. No. 116-260, § 904, 134 Stat. 1182, 3214 (codified at 47 U.S.C. § 1308 *et seq.*) (BICA) (requiring the Federal Communications Commission, the Department of Agriculture, and the National Telecommunications and Information Administration to “enter into an interagency (continued....)

broadband funding, a number of funding programs make areas ineligible for broadband deployment funding where a service provider is already subject to an enforceable commitment to serve.¹³ This announcement, in conjunction with the actions described above, avoids leaving these areas unserved for the duration of the RDOF deployment terms,¹⁴ because providers may now have access to alternative funding to serve these areas.

The carriers remain subject to all eligible telecommunications carrier (ETC) obligations unless and until they follow the relevant procedures to relinquish their designations.¹⁵ Additionally, they cannot discontinue voice service without Commission approval.¹⁶

Mercury Indiana, PVT. In Attachment A, available [here](#), we provide a list of all the RDOF eligible census blocks contained within the CBGs Mercury Indiana will not serve in Indiana and Michigan, and that PVT will not serve in New Mexico pursuant to their RDOF obligations. In addition,

agreement requiring coordination between the covered agencies for the distribution of funds for broadband deployment . . .”). On June 25, 2021, the agencies announced that they had entered into an agreement. Press Release, FCC, FCC, NTIA and USDA Announce Interagency Agreement to Coordinate Broadband Funding Deployment (June 25, 2021), <https://www.fcc.gov/document/fcc-ntia-usda-sign-interagency-pact-broadband-funding-deployment>. In an effort to further facilitate broadband deployment funding coordination, on May 9, 2022, the FCC, USDA, and NTIA entered into an interagency agreement with the Department of Treasury. Press Release, FCC, FCC, NTIA, USDA and Treasury Announce Interagency Agreement to Collaborate on Federal Broadband Funding (May 12, 2022), <https://www.fcc.gov/document/fcc-ntia-usda-treasury-announce-broadband-info-sharing-agreement>.

¹³ See, e.g., Department of Commerce, National Telecommunications and Information Administration, Broadband Equity, Access, and Deployment (BEAD) Program Notice of Funding Opportunity at 36-37 & n.52 (May 13, 2022), <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf> (BEAD Program NOFO) (explaining that any location that is already subject to an enforceable commitment for the deployment of qualifying broadband cannot be treated as unserved or underserved); Department of Commerce, National Telecommunications and Information Administration, Tribal Broadband Connectivity Program Round 2 Notice of Funding Opportunity at 10-11, 28 (July 27, 2023), <https://www.ntia.gov/sites/default/files/2023-07/ntia-tbcp-round2-nofo.pdf> (“A Tribal Government may not certify Tribal Lands covered under an Enforceable Buildout Commitment as defined [in the NOFO] . . . , as Unserved”); Department of Agriculture, Rural Utilities Service, Corrected Notice of Funding Opportunity for the Community Connect Grant Program for Fiscal Year 2023, 88 Fed. Reg. 87750, 87751 (Dec. 19, 2023) (“Areas receiving, or areas that have received final approval for, other federal funding to construct terrestrial facilities providing at least 10/1 Mbps service in the project Proposed Funded Service Area as of the date of this notice, and which have been reported to the agency, are ineligible.”); Department of Agriculture, Rural Utilities Service, Rural eConnectivity (ReConnect) Program Notice of Funding Opportunity, 89 Fed. Reg. 13035, 13036 (Feb. 21, 2024) (defining an enforceable commitment to mean “a legally enforceable obligation by any federal, state, or local agency, utilizing Federal Funds, to provide broadband service with speeds of at least 100 megabits per second (Mbps) downstream and 20 (Mbps) upstream”); Department of Treasury, Guidance for the Coronavirus Capital Projects Fund for States, Territories, and Freely Associated States, at 3-4 (Sept. 2021), <https://home.treasury.gov/system/files/136/Capital-Projects-Fund-Guidance-States-Territories-and-Freely-Associated-States.pdf> (“To the extent Recipients are considering deploying broadband to locations where there are existing enforceable federal or state funding commitments for reliable wireline service at speeds of at least 100 Mbps of download speed and 20 Mbps of upload speed, the Recipient should ensure that the Capital Projects Fund grant funding will not be used for costs that will be reimbursed by the other federal or state funding stream(s). That is, Capital Projects Fund grant funds must be used only for complementary purposes.”).

¹⁴ RDOF recipients authorized in 2021 and 2022 must offer the required service to 100% of their original location total by December 31, 2027 and December 31, 2028, respectively. *RDOF Order*, 35 FCC Rcd at 709, para. 45. If more locations than the original estimated are identified during the support term, recipients will have an additional two years to serve the additional locations subject to limited exceptions. *Id.* at 710, para. 49.

¹⁵ 47 U.S.C. § 214(e)(4).

¹⁶ 47 U.S.C. § 214(a); 47 CFR § 63.71.

we will also update the Broadband Funding Map to remove these census blocks from Mercury Indiana and PVT's service areas.¹⁷ Below, we provide a limited waiver of the Commission's non-compliance rules to adjust support to reflect that these areas will not be served. Mercury Indiana and PVT otherwise remain subject to RDOF non-compliance measures for failure to meet the terms and conditions of support, including support recovery for all unserved locations at the end of the deployment term.¹⁸ We will continue to use the available tools to monitor Mercury Indiana and PVT's compliance with the applicable deployment obligations in their remaining supported service areas.¹⁹

While Mercury Indiana and PVT notified the Commission that they will not serve the identified census blocks, they are not withdrawing from RDOF in these states. The RDOF support program rules do not provide for partial withdrawals from the program. The Commission takes compliance with the terms and conditions of its high-cost programs seriously and imposes non-compliance measures if the requirements are not met.²⁰ Mercury Indiana and PVT remain subject to the program rules, including the applicable non-compliance measures,²¹ for the duration of the support term except as explained below, and remain committed to serve the eligible census blocks within the remaining CBGs in their supported service areas with voice and broadband service meeting program requirements.

On our own motion, we find good cause to waive in part sections 54.320(d) and 54.806(c)(1) of the Commission's rules for the census blocks identified in Attachment A consistent with precedent,²² and instruct USAC to stop paying support for the identified census blocks pursuant to section 54.320(c) of the Commission's rules.²³ Consistent with previous precedent, we also provide a limited waiver of section 54.802(c)(1)(iii) of the Commission's rules to the extent Mercury Indiana and PVT would be required to serve upon reasonable request locations in the defaulted census blocks that are newly built after the Bureau adopts revised location totals for RDOF.²⁴ Generally, the Commission's rules may be waived for

¹⁷ Federal Communications Commission, Broadband Funding Map, <https://fundingmap.fcc.gov/home> (last visited Nov. 26, 2024).

¹⁸ See, e.g., 47 CFR §§ 54.320(c), (d), 54.806(b), (c).

¹⁹ See, e.g., 47 CFR §§ 54.316, 54.320(d)(1).

²⁰ See, e.g., 47 CFR §§ 54.320(c), (d), 54.806(b), (c); *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 15644, 15694-700, paras. 142-54 (2014) (*2014 Connect America Order*) (adopting a framework for support reductions, support recovery, and reporting obligations that are calibrated to the extent of a support recipient's non-compliance with service milestones); *RDOF Order*, 35 FCC Rcd at 710, para. 48 (explaining that compliance with RDOF deployment obligations would be determined at the state level).

²¹ See, e.g., 47 CFR §§ 54.320(c), (d), 54.806(b), (c).

²² *Wireline Competition Bureau Announces Certain RDOF and CAF II Auction Census Block Groups are Eligible for Other Funding Programs*, AU Docket No. 20-34 et al., Public Notice, DA 24-181 (WCB Feb. 28, 2024) (*Feb 2024 Post-Authorization Default Public Notice*).

²³ 47 CFR §§ 54.320(c), (d), 54.806(b), (c)(1). Section 54.320(c) of the Commission's rules states that support recipients that "fail to comply with public interest obligations or any other terms and conditions may be subject to further action, including . . . reductions in support amounts . . ." 47 CFR § 54.320(c). Future monthly support payments will be reduced pro rata based on the number of locations associated with the CBGs that the support recipient is defaulting on and calculated as follows, subject to any applicable non-compliance tiers: ((total monthly authorized support/total authorized locations) x (total authorized locations – defaulted locations)). Subject to support withholding pursuant to any applicable non-compliance tiers, Mercury's new monthly support will be approximately \$25,851 in Indiana and \$91,473 in Michigan. PVT's new monthly support will be approximately \$52 in New Mexico.

²⁴ 47 CFR § 54.802(c)(1)(iii); *Wireline Competition Bureau Announces Lumen Technologies, Inc.'s Default on its RDOF Obligations in Four States and Also Announces Broadband Deployment Alignment Plan Procedures*, AU Docket No. 20-34 et al., Public Notice, DA 24-899, at 5 n.22 (WCB Sept. 9, 2024).

good cause shown.²⁵ Waiver of the Commission's rules is appropriate only if both: (1) special circumstances warrant a deviation from the general rule, and (2) such deviation will serve the public interest.²⁶

Despite our limited waivers, which are narrowly limited to stopping payments of future support for the identified census blocks and eliminating the requirement that Mercury Indiana and PVT serve newly built locations in the defaulted census blocks upon reasonable request, Mercury Indiana and PVT otherwise remain subject to section 54.320(d) and 54.806(c)(1) of the Commission's rules.²⁷ If Mercury Indiana or PVT fails to meet its interim service milestones by not serving the required number of locations based on its original authorized location totals, it will be placed in the associated non-compliance tier.²⁸ If the applicable non-compliance tier requires that we withhold an amount of support that exceeds the amount of support we have stopped paying for the identified census blocks, we will withhold an amount of additional support that equals the difference between: 1) the amount of support required to be withheld pursuant to section 54.320(d)(1), and 2) the amount of support we stopped paying for the identified census blocks.²⁹ If the applicable non-compliance tier requires that we withhold less support than the amount of support we have stopped paying for the identified census blocks pursuant to our limited waiver, we will make no further adjustments to Mercury Indiana's or PVT's monthly disbursement, i.e., we will withhold no support other than the support we stopped paying for the identified census blocks.³⁰ At the end of the deployment period, we will apply section 54.806(c)(1) to recover support for all unserved locations, including the locations covered by the identified census blocks.³¹ Any additional issues related to the support recovery required by section 54.806(c)(1) of the Commission's rules will be addressed in a separate release.³²

Cable One, Fidelity, and Mercury Kansas. We consider Cable One, Fidelity, and Mercury Kansas to have defaulted on their RDOF service milestones in Idaho, Missouri, Kansas, and Illinois

²⁵ 47 CFR § 1.3.

²⁶ See *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1157-59 (D.C. Cir. 1969), *cert. denied*, 93 S.Ct. 461 (1972) (*WAIT Radio*)) (*Northeast Cellular*).

²⁷ 47 CFR §§ 54.320(d), 54.806(c)(1).

²⁸ 47 CFR §§ 54.320(d)(1), 54.806(c).

²⁹ 47 CFR § 54.320(d)(1). As a simplified example, if a carrier receiving \$100 per month in support is required to serve 100 locations and has indicated it will not serve eligible census blocks within CBGs covering 20 of those locations, we will reduce the carrier's ongoing monthly support by a pro rata amount to stop future payments for the defaulted census blocks so that the carrier is now receiving \$80 per month (i.e., the Commission will no longer pay the \$20 per month associated with the identified census blocks) ($(\$100/100) \times (100-20) = \$80$ a month). If the carrier is in non-compliance Tier 3 so that we are required to withhold 25% of support (i.e., \$25; $.25 \times \$100$), we would withhold an extra \$5 a month so that we are not paying the carrier \$25 in total each month (i.e., \$20 for the defaulted census blocks + \$5 additional). If the carrier comes back into compliance so that it is entitled to have its support restored, we would only restore the additional monthly amount of support that we withheld (i.e., \$5 a month) and would not restore the \$20 we have stopped paying for the identified census blocks. 47 CFR § 54.320(d)(1)(iii).

³⁰ Assuming the same simplified example as in the prior footnote, if the carrier is in non-compliance Tier 2 so that we are required to withhold 15% a month (i.e., \$15; $.15 \times \$100$), we would not withhold any additional monthly support since we have already stopped paying the carrier \$20 a month for defaulted census blocks, and \$20 exceeds the \$15 we are required to withhold. 47 CFR § 54.320(d)(1)(ii).

³¹ 47 CFR § 54.806(c)(1).

³² *Id.*

respectively. These carriers will receive no further RDOF auction support payments³³ and are subject to support recovery and non-compliance measures consistent with the Commission's rules.³⁴ We will also remove their RDOF service areas from the Broadband Funding Map.³⁵

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³³ See 47 CFR § 54.804(c)(4) ("Authorization to receive Rural Digital Opportunity Fund support is conditioned upon full and timely performance of all of the requirements set forth in this section, and any additional terms and conditions upon which the support was granted."). See also *Cable One and Fidelity Authorization Public Notice*, 37 FCC Rcd at 7271-80; *Mercury Authorization Public Notice*, 36 FCC Rcd at 8331-38 (providing a non-comprehensive summary of the RDOF requirements). After Cable One, Fidelity, and Mercury Kansas notified WCB of their intent to withdraw from the RDOF support program, WCB instructed USAC to suspend their RDOF support payments. 47 CFR §§ 54.320(c), 54.806(b).

³⁴ 47 CFR §§ 54.804(c)(4), 54.320, 54.806(c). Cable One, Fidelity, and Mercury Kansas' decision to withdraw from the RDOF support program and not pursue further support constitutes notification that they will not meet the final service milestone and that they will not come into compliance after a 12-month grace period or at any point during the support term. If a support recipient does not repay the required support recovery amount within six months of receiving an invoice from USAC, the Bureau will authorize USAC to draw on the support recipient's letter of credit. 47 CFR § 54.804(c)(4)(i). Carriers seeking relief from applicable support recovery measures have the option of submitting a request for waiver. 47 CFR § 1.3.

³⁵ The census blocks covered by Cable One, Fidelity, and Mercury Kansas' authorized winning bids are available on the "Results" tab of the Auction 904 website at <https://www.fcc.gov/auction/904> in the document "Historical Authorized Auction 904 Long-Form Applicants Data."

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
The Rural Digital Opportunity Fund Auction (Auction 904)	)	AU Docket No. 20-34
	)	
Rural Digital Opportunity Fund	)	WC Docket No. 19-126
	)	

ORDER

Adopted: November 27, 2024**Released: November 27, 2024**

By the Chief, Wireline Competition Bureau:

1. In this Order, we grant in part Daviess-Martin County Rural Telephone Corporation (RTC) a limited waiver of the Commission's Rural Digital Opportunity Fund (RDOF) service milestone and non-compliance rules to permit RTC to pay early a portion of the required support recovery for defaulting on eligible census blocks within census block groups (CBGs) in its RDOF-funded service area.¹ Our grant of this limited waiver serves the public interest because we are able to safeguard the public's funds by recovering support early for CBGs RTC will not serve pursuant to its RDOF obligations.

2. At the same time, our limited waiver enables RTC to come into compliance with its RDOF obligations in its remaining CBGs, allowing RTC to continue receiving support, so that RTC can serve consumers with voice and broadband in these CBGs. However, we deny RTC's request for a further reduction in the required support recovery, finding that RTC has not demonstrated good cause for further reducing RTC's support recovery.

I. BACKGROUND

3. RDOF carriers must offer voice and broadband service meeting the relevant performance requirements to a set number of locations by certain interim service milestones.² The number of locations carriers are required to serve is based on the Connect America Cost Model's (CAM) estimate of how many locations are in the eligible census blocks in the carrier's service area, and compliance with service milestones is determined on a state-level basis—i.e., the Bureau will confirm a carrier is serving the required location total across all of its eligible census blocks within a state, rather than on a census-block-by-census-block basis.³ More specifically, RDOF carriers authorized in 2021 must offer voice and

¹ Petition for Waiver of Daviess-Martin County Rural Telephone Corporation, AU Docket No. 20-34 et al. (filed Oct. 28, 2024) (RTC Waiver Petition).

² 47 CFR § 54.802(c); *Rural Digital Opportunity Fund et al.*, WC Docket No. 19-126 et al., Report and Order, 35 FCC Rcd 686, 709-12, paras. 45-55 (2020) (*RDOF Order*).

³ *RDOF Order*, 35 FCC Rcd at 712, para. 54.

broadband service meeting the relevant performance obligations to 40% of the required number of locations by December 31, 2024; 60% of the required number of locations by December 31, 2025; 80% of the required number of locations by December 31, 2026; and 100% of the required number of locations by December 31, 2027.⁴

4. To account for disparities between locations on the ground and those estimated by the CAM and to acknowledge its confidence that the Commission would have access to more accurate location data in the next few years, the Commission directed WCB to seek comment on updated location data and publish revised location counts no later than the end of service milestone year six.⁵ The Commission also adopted a framework for how service milestones would be revised in various circumstances after WCB had published more accurate location counts. Specifically, in areas where there are more locations than locations estimated by the CAM, a RDOF carrier has until the end of the eighth calendar year to offer service to the additional locations, and only CAM location counts will be used to measure compliance with interim service milestones up to 100% of CAM locations by the end of the sixth calendar year.⁶ If there are fewer locations than estimated by the CAM in a service area, the Commission directed support recipients to notify WCB no later than March 1st following the fifth year of deployment.⁷ Upon confirmation by WCB, the support recipient will be required to serve 100% of the new number of locations by the end of the sixth calendar year.⁸

5. The Commission takes compliance with the terms and conditions of RDOF seriously and imposes non-compliance measures if the requirements are not met. If a RDOF carrier fails to meet the interim service milestones, it will be subject to non-compliance measures that scale with the extent of non-compliance, including additional reporting requirements, withholding of future support, and recovery of support already paid.⁹ For the RDOF support recipient's sixth year 100% service milestone, the amount of support recovery scales with the size of the non-compliance gap.¹⁰ Carriers must pay the required support recovery within six months after support recovery is initiated, or the Bureau will direct the Universal Service Administrative Company (USAC or Administrator) to draw on the carrier's letter of credit.¹¹ If a RDOF carrier's new location count is greater than its CAM location count, the RDOF carrier must pay additional support recovery if it does not serve the additional locations by the end of the eighth

⁴ 47 CFR § 54.802(c); *RDOF Order*, 35 FCC Rcd at 709, para. 45.

⁵ 47 CFR § 54.802(c)(1); *RDOF Order*, 35 FCC Rcd at 709, para. 45.

⁶ 47 CFR § 54.802(c)(1)(i); *RDOF Order*, 35 FCC Rcd at 710, para. 49.

⁷ 47 CFR § 54.802(c)(1)(ii); *RDOF Order*, 35 FCC Rcd at 711, para. 51.

⁸ 47 CFR § 54.802(c)(1)(ii); *RDOF Order*, 35 FCC Rcd at 711, para. 51.

⁹ 47 CFR §§ 54.320(d)(1), 54.806(c); *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 15644, 15694-700, paras. 142-54 (2014) (*2014 Connect America Order*) (adopting a framework for support reductions, support recovery, and reporting obligations that are calibrated to the extent of a carrier's non-compliance with service milestones).

¹⁰ 47 CFR § 54.806(c)(1)(i)(A)-(C); *RDOF Order*, 35 FCC Rcd at 714-15, para. 60. Specifically, 1) if the RDOF carrier has deployed to 95% or more of its required locations but less than 100%, USAC will recover an amount of support that is equal to 1.25 times the average amount of support per location the RDOF carrier received in the state over the support term for the unserved locations; 2) if the RDOF carrier has deployed to 90% or more of its required locations but less than 95%, USAC will recover an amount of support that is equal to 1.5 times the average amount of support per location the RDOF carrier received in the state over the support term for the unserved locations, plus 5% of total authorized RDOF support for that state; and 3) if the RDOF carrier has deployed to fewer than 90% of its required locations, USAC will recover an amount of support that is equal to 1.75 times the average amount of support per location the RDOF carrier received in the state over the support term for the unserved locations, plus 10% of total authorized RDOF support for that state. *Id.*

¹¹ 47 CFR § 54.804(c)(4)(i); *RDOF Order*, 35 FCC Rcd at 715, para. 63.

year of support plus the one-year cure period.¹² RDOF carriers are also subject to other non-compliance measures including, but not limited to, the Commission's enforcement procedures and penalties, reductions in support amounts, potential revocation of Eligible Telecommunications Carrier (ETC) designation, and suspension or debarment.¹³

6. In December 2021, RTC was authorized to receive \$3,565,039 in RDOF support over 10 years to serve 1,371 locations in Indiana with voice and broadband meeting Gigabit performance tier and low latency requirements.¹⁴ RTC sent a letter in August 2024 to the Bureau notifying us that it would not serve 12 Indiana CBGs in its RDOF-funded area.¹⁵ The Bureau announced in October 2024 that RTC defaulted on the eligible census blocks within these Indiana CBGs, covering 635 model estimated locations.¹⁶ At the same time, we directed USAC to stop future support payments for the defaulted area and indicated that recovery of support already paid for these areas would occur at the end of the six-year deployment period consistent with the Commission's rules.¹⁷ When RTC notified the Bureau before the six-year deployment period had ended that it would not serve the identified census blocks, we were able to notify other federal agencies and the Indiana Office of Technology that the census blocks were eligible for funding from other federal and state funding programs subject to the rules of those programs, furthering our responsibility to coordinate with other agencies to maximize the deployment of high-quality broadband service to consumers across the United States.¹⁸ To promote the efficient use of

¹² 47 CFR § 54.806(c)(1)(ii); *RDOF Order*, 35 FCC Rcd at 715, para. 61. Specifically, 1) if the RDOF carrier has deployed to 95% or more of its new location count, but less than 100%, USAC will recover an amount of support that is equal to equal to the average amount of support per location received in the state for the RDOF carrier over the support term for the unserved locations; 2) if the RDOF carrier has deployed to 90% or more of its new location count, but less than 95%, USAC will recover an amount of support that is equal to 1.25 times the average amount of support per location received in the state for that RDOF carrier over the support term for the unserved locations; 3) if the RDOF carrier has deployed to 85% or more of its new location count, but less than 90%, USAC will recover an amount of support that is equal to 1.5 times the average amount of support per location received in the state for that RDOF carrier over the support term for the unserved locations, plus 5% of total authorized RDOF support for that state; and 4) if a RDOF carrier has deployed to less than 85% of its new location count, USAC will recover an amount of support that is equal to 1.75 times the average amount of support per location received in the state for that RDOF carrier over the support term for the relevant number of locations, plus 10% of total authorized RDOF support for that state. 47 CFR § 54.806(c)(1)(ii); *RDOF Order*, 35 FCC Rcd at 715, para. 61

¹³ 47 CFR §§ 54.320(c), 54.806(b).

¹⁴ *Rural Digital Opportunity Fund Support Authorized for 2,008 Winning Bids*; AU Docket No. 20-34 et al., Public Notice, 36 FCC Rcd 17198, Attach. A (WCB/OEA 2021) (*RTC Authorization Public Notice*).

¹⁵ Letter from Kirk Lehman, Chief Executive Officer, Daviess-Martin County Rural Telephone Corporation, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 19-126 et al. (filed Aug. 30, 2024) (*RTC Withdrawal Letter*).

¹⁶ *Wireline Competition Bureau Announces Daviess-Martin County Rural Telephone Corporation and Pinpoint Communications, Inc. Defaults on Certain RDOF Census Block Groups in Indiana and Nebraska*, AU Docket No. 20-34 et al., Public Notice, DA 24-1077 (WCB Oct. 15, 2024) (*RTC Post-Authorization Default Public Notice*).

¹⁷ *Id.* at 4-6.

¹⁸ Broadband Interagency Coordination Act of 2020, Pub. L. No. 116-260, § 904, 134 Stat. 1182, 3214 (codified at 47 U.S.C. § 1308 *et seq.*) (BICA) (requiring the Federal Communications Commission, the Department of Agriculture, and the National Telecommunications and Information Administration to “enter into an interagency agreement requiring coordination between the covered agencies for the distribution of funds for broadband deployment . . .”). On June 25, 2021, the agencies announced that they had entered into an agreement. Press Release, FCC, FCC, NTIA and USDA Announce Interagency Agreement to Coordinate Broadband Funding Deployment (June 25, 2021), <https://www.fcc.gov/document/fcc-ntia-usda-sign-interagency-pact-broadband-funding-deployment> (FCC, NTIA and USDA Interagency Agreement Press Release). In an effort to further facilitate broadband deployment funding coordination, on May 9, 2022, the FCC, USDA, and NTIA entered into an interagency agreement with the Department of Treasury. Press Release, FCC, FCC, NTIA, USDA and Treasury (continued....)

broadband funding, a number of funding programs make areas ineligible for broadband deployment funding where a service provider is already subject to an enforceable commitment to serve.¹⁹ Our announcement avoided leaving consumers in these areas unserved for the duration of the RDOF deployment period²⁰ because providers in these areas may now have access to alternative funding to serve these areas.

7. In June 2024, the Bureau granted a limited waiver of the Connect America Fund (CAF) Phase II auction rules to RiverStreet Communications of North Carolina, Inc. (RiverStreet) that allowed RiverStreet, which had defaulted on certain CBGs in North Carolina, to pay early a portion of the required support recovery associated with its defaulted census blocks within the defaulted CBGs rather than waiting until the end of the six-year deployment period.²¹ If RiverStreet pays the portion of the required support recovery within six months of USAC's invoice, the Bureau will remove the defaulted locations from RiverStreet's required location total so RiverStreet can come into compliance with its deployment obligations based on the remaining locations and therefore be able to continue receiving support for its remaining CAF Phase II auction areas.²²

8. In July 2024, the Bureau provided guidance to RDOF and CAF Phase II auction carriers and other stakeholders regarding default processes, "strongly encourag[ing] carriers contemplating defaulting on their deployment obligations under the Commission's competitively bid high-cost programs to reach out to the Bureau, and to the relevant state or territory broadband offices or Tribal governments,

(Continued from previous page)

Announce Interagency Agreement to Collaborate on Federal Broadband Funding (May 12, 2022), <https://www.fcc.gov/document/fcc-ntia-usda-treasury-announce-broadband-info-sharing-agreement>.

¹⁹ See, e.g., Department of Commerce, National Telecommunications and Information Administration, Broadband Equity, Access, and Deployment (BEAD) Program Notice of Funding Opportunity at 36-37 & n.52 (May 13, 2022), <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf> (explaining that any location that is already subject to an enforceable commitment for the deployment of qualifying broadband cannot be treated as unserved or underserved); Department of Commerce, National Telecommunications and Information Administration, Tribal Broadband Connectivity Program Round 2 Notice of Funding Opportunity at 10-11, 28 (July 27, 2023), <https://www.ntia.gov/sites/default/files/2023-07/ntia-tbcp-round2-nofo.pdf> ("A Tribal Government may not certify Tribal Lands covered under an Enforceable Buildout Commitment as defined [in the NOFO] . . . , as Unserved"); Department of Agriculture, Rural Utilities Service, Corrected Notice of Funding Opportunity for the Community Connect Grant Program for Fiscal Year 2023, 88 Fed. Reg. 87750, 87751 (Dec. 19, 2023) ("Areas receiving, or areas that have received final approval for, other federal funding to construct terrestrial facilities providing at least 10/1 Mbps service in the project Proposed Funded Service Area as of the date of this notice, and which have been reported to the agency, are ineligible."); Department of Agriculture, Rural Utilities Service, Rural eConnectivity (ReConnect) Program Notice of Funding Opportunity, 89 Fed. Reg. 13035, 13036 (Feb. 21, 2024) (defining an enforceable commitment to mean "a legally enforceable obligation by any federal, state, or local agency, utilizing Federal Funds, to provide broadband service with speeds of at least 100 megabits per second (Mbps) downstream and 20 (Mbps) upstream"); Department of Treasury, Guidance for the Coronavirus Capital Projects Fund for States, Territories, and Freely Associated States, at 3-4 (Sept. 2021), <https://home.treasury.gov/system/files/136/Capital-Projects-Fund-Guidance-States-Territories-and-Freely-Associated-States.pdf> ("To the extent Recipients are considering deploying broadband to locations where there are existing enforceable federal or state funding commitments for reliable wireline service at speeds of at least 100 Mbps of download speed and 20 Mbps of upload speed, the Recipient should ensure that the Capital Projects Fund grant funding will not be used for costs that will be reimbursed by the other federal or state funding stream(s). That is, Capital Projects Fund grant funds must be used only for complementary purposes.").

²⁰ 47 CFR § 54.802(c); *RDOF Order*, 35 FCC Rcd at 709, para. 45.

²¹ See *Connect America Fund et al.*, WC Docket No. 10-90 et al., Order, DA 24-560 (WCB June 12, 2024) (*RiverStreet CAF II Early Support Recovery Order*).

²² *Id.* at 6-7, para. 14.

about their situation as soon as possible.”²³ Although the Bureau acknowledged “situations may arise where a carrier seeks to default on its deployment obligations,” the Bureau decided against granting “blanket amnesty” in such situations, citing the fact that carriers are “showing significant progress in meeting their service milestones,” the lack of “demonstrated need for widespread relief,” “the flexibility available under the existing default processes and other Commission rules,” and “our strong interest in preserving the integrity of the Commission’s broadband deployment programs”²⁴ The Bureau also explained that “the record notably lacks any support recipients stating that they cannot afford to continue with the program obligations but also cannot afford to meet the support recovery requirements under our existing default procedures.”²⁵ The Bureau provided examples of the Commission’s existing processes and the Bureau’s actions to provide flexibility for RDOF and CAF Phase II auction carriers, including citing the *RiverStreet CAF II Early Support Recovery Order*.²⁶

9. *RTC’s Waiver Petition.* In October 2024, RTC filed a petition seeking a “limited waiver” of the Commission’s “forfeiture and default penalty” rules and requesting to pay the required support recovery early rather than wait until the end of the six-year deployment period and then have the number of locations in the defaulted census blocks removed from RTC’s required location total.²⁷ RTC also requests that the Bureau grant further relief by reducing the support recovery required by section 54.806(c)(1) of the Commission’s rules.²⁸ RTC claims that “unforeseen circumstances beyond RTC’s control have made it unfeasible to deploy broadband to certain locations in CBGs that are located much further away from the Company’s existing network.”²⁹ Specifically, RTC cites a “significant reduction in the anticipated funding from the auction’s start to the actual funding received after its conclusion,” and “unexpected challenges . . . such as labor and supply shortages combined with increased demand [which] have dramatically inflated the project’s budget costs.”³⁰ RTC also claims that if the defaulted locations are not removed from its required location total, it will be unable to meet its 60% and 80% service milestones, but it will have deployed service pursuant to its RDOF obligations to over 80% of the RDOF locations where it has not defaulted by the end of this year.³¹

II. DISCUSSION

10. Generally, the Commission’s rules may be waived for good cause shown.³² Waiver of the Commission’s rules is appropriate only if both: (1) special circumstances warrant a deviation from the general rule, and (2) such deviation will serve the public interest.³³

²³ *Wireline Competition Bureau Provides Guidance For RDOF and CAF Phase II Support Recipients on Procedures for Provider Defaults to Ensure that Broadband Networks are Deployed to All Consumers*, AU Docket No. 20-34 et al., Public Notice, DA 24-646, at 2 (WCB July 3, 2024) (*WCB Default Guidance Public Notice*).

²⁴ *Id.* at 1, 3.

²⁵ *Id.* at 7.

²⁶ *Id.* at 4-7.

²⁷ See generally RTC Waiver Petition.

²⁸ *Id.* at 1 (requesting that the Bureau “waiv[e] the ‘multiplier’ calculation and the ‘extra percentage’ penalty by reducing the ‘multiplier’ from .75 to .5 and reducing the ‘extra percentage’ from 10% to 5%”).

²⁹ *Id.* at 3.

³⁰ *Id.* at 4, 8.

³¹ *Id.* at 6-7, 9.

³² 47 CFR § 1.3.

³³ See *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1157-59 (D.C. Cir. 1969), *cert. denied*, 93 S.Ct. 461 (1972)).

11. We grant a limited waiver to the extent described herein of sections 54.320(d), 54.802(c), 54.804(c)(4)(i), and 54.806(c) of the Commission's rules and the requirement that compliance be determined at the state level,³⁴ but deny RTC's request for further relief. Rather than wait until the end of the deployment period to determine compliance with the final service milestone at a state-level basis and initiate support recovery as contemplated by the rules,³⁵ we direct USAC to initiate the recovery of a portion of the required support now and then recover the remaining required support recovery at the end of the six-year deployment term, as described in more detail below. Pursuant to section 54.320(c) of the Commission's rules, we have already suspended support associated with the census blocks where RTC has defaulted, and we will make no further support payments associated with those census blocks.³⁶ Once RTC has paid the required early support recovery for defaulted census blocks, we will remove the defaulted locations from its required location total for purposes of determining compliance with service milestones moving forward.

12. We find good cause to provide a limited waiver of the Commission's service milestone and support recovery rules to initiate a portion of the required support recovery now and adjust the required location totals to remove locations in the defaulted census blocks. Consistent with precedent,³⁷ we conclude special circumstances exist. The Commission specifically adopted the non-compliance tiers and support recovery rules to encourage carriers to come back into compliance with the service milestones.³⁸ However, the incentives are not applicable to the census blocks where RTC has already defaulted, because RTC has no intention of coming back into compliance and serving these census blocks pursuant to its RDOF obligations.³⁹

13. Consistent with precedent,⁴⁰ we also conclude it serves the public interest to provide RTC with the opportunity to pay a portion of the support recovery early and then be able to demonstrate compliance with its future service milestones for its remaining locations. By permitting RTC to pay a portion of the support recovery early and having its location total adjusted to remove the defaulted locations, RTC will be in compliance for the remainder of the RDOF deployment period to the extent it otherwise meets its deployment obligations in its remaining RDOF census blocks.⁴¹ This means RTC will not be subject to the support withholding that may otherwise be required if RTC were unable to meet

³⁴ 47 CFR §§ 54.320(d), 54.802(c), 54.804(c)(4)(i), 54.806(c), *RDOF Order*, 31 FCC Rcd at 712, para. 54. RTC sought waiver of section 47 CFR § 1.21004, however that rule section is applicable to defaults that occur prior to a carrier being authorized to receive RDOF support. RTC Waiver Petition at 1 n.2. Moreover, while RTC did not request waiver of sections 54.802(c) and 54.804(c)(4)(i) of the Commission's rules or the requirement that the Bureau review compliance on a state-level basis, we waive these rules on our own motion to grant in part the relief requested by RTC. RTC also requests that the Bureau waive "the Commission's rules to . . . allow future RDOF payments to stop" for the early defaulted CBGs, but the Bureau already granted this relief when it announced RTC's early defaults. *RTC Post-Authorization Default Public Notice* at 4-6.

³⁵ 47 CFR § 54.806(c)(1); *RDOF Order*, 35 FCC Rcd at 714-15, paras. 60-61.

³⁶ 47 CFR §§ 54.320(c), 54.806(b); *RTC Post-Authorization Default Public Notice* at 4-5.

³⁷ *RiverStreet CAF II Early Support Recovery Order* at 4-5, para. 8. We conclude in these circumstances that the same reasons for finding good cause for granting a similar waiver for a CAF Phase II auction recipient also apply to RDOF given both programs are subject to similar non-compliance and support recovery rules.

³⁸ *2014 Connect America Order*, 29 FCC Rcd at 15697, para. 148 n.328 ("Our overriding objective is to create a framework that incents full performance.").

³⁹ RTC Withdrawal Letter at 1.

⁴⁰ *RiverStreet CAF II Early Support Recovery Order* at 5, paras. 9-10.

⁴¹ RTC Waiver Petition at 7 (noting that RTC would not be able to meet the 60% and 80% service milestones if the early defaulted locations are not removed from its required location total).

future interim service milestones due to defaulting early in the census blocks.⁴² Instead, RTC will continue to receive RDOF support payments for its remaining census blocks to serve consumers as required. Moreover, RTC's access to other financing needed to serve consumers will not be disrupted due to being out of compliance with RDOF obligations. Recovering support early also has the benefit of furthering our role as stewards of the public's funding and our obligation to implement safeguards to ensure that high-cost funds are being used for their intended purpose.⁴³ By recovering support that has been allocated to areas RTC has no intention of serving pursuant to its RDOF obligations, we reduce the risk that the public's funds will be used improperly.

14. The approach we take here also underscores the importance the Commission places on ensuring that service providers meet their service milestones. Although RTC will pay some of the required support recovery early, it will still be subject to similar support recovery as if it had notified the Commission after the deployment period that it would not serve the required number of locations. The Commission will fully recover support paid for the defaulted locations, and in the future the Commission would recover support for any additional locations that RTC failed to serve. While there may be some benefits to the carrier associated with us stopping support for the early defaulted CBGs early and reducing the location total for purposes of determining compliance with service milestones moving forward, we conclude that any benefits to RTC are incidental and outweighed by the administrative simplicity of being able to determine compliance based on locations that RTC still intends to serve and ensuring that support is being recovered for areas that RTC has already indicated it will not serve.

15. To implement the early support recovery path, we direct USAC to recover support as follows for RTC. Section 54.806(c)(1)(i) of the Commission's rules requires that we initiate support recovery for three different components at the end of the six-year deployment period after an opportunity to cure: 1) "support received"—i.e., the average amount of support per location received for unserved locations over the six-year deployment period, 2) a "multiplier" calculation—i.e., a multiplier times the average amount of support per unserved location received over the six-year deployment period depending on the size of the compliance gap,⁴⁴ and 3) an "extra percentage,"—i.e., either 0%, 5%, or 10% of the RDOF carrier's total RDOF support authorized over the 10-year term for the state depending on the size of the compliance gap.⁴⁵

16. Pursuant to this limited waiver, rather than wait until the end of the six-year deployment period, we direct USAC to initiate recovery upon release of this Order of: 1) "support received"—RDOF support that the carrier has already received for the early defaulted census blocks,⁴⁶ and 2) the "extra percentage"—the applicable extra percentage of total authorize support (i.e., 0%, 5%, or 10%) based on the number of model-estimated locations in the census blocks that the carrier has notified us it will not serve pursuant to its RDOF obligations. Because RTC has defaulted on CBGs covering 635 model-estimated location or approximately 46% of its original 1,371 authorized model-estimated locations, it will be subject to the 10% "extra percentage." At the end of the six-year deployment period and after the

⁴² 47 CFR §§ 54.320(d)(1), 54.806(c).

⁴³ 47 U.S.C. § 254(e) ("A carrier that receives [universal service] support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended.").

⁴⁴ 47 CFR § 54.806(c)(1)(i)(A)-(C); *RDOF Order*, 35 FCC Rcd at 714-15, para. 60. Depending on the size of a carrier's non-compliance gap, section 54.806(c)(1)(i) requires that we recover support that is equal to 1.25, 1.5, or 1.75 times the average amount of support per location received in the state, but because we already recover the "1" portion of the 1.25, 1.5, or 1.75 when we recover "support received," the "multiplier" will be .25, .5, or .75 instead of 1.25, 1.5, or 1.75.

⁴⁵ 47 CFR § 54.806(c)(1)(i)(A)-(C); *RDOF Order*, 35 FCC Rcd at 714-15, para. 60.

⁴⁶ This support recovery will be calculated as (all RDOF disbursements up to when we stopped payments for the early defaulted census blocks/total number of originally authorized locations) x (number of early defaulted locations).

year cure period, we direct USAC to recover: 1) “support received” for any additional unserved locations over the six-year deployment period,⁴⁷ and 2) the amount of support calculated by applying the applicable “multiplier” as required by section 54.806(c)(1)(i) for the number of locations that the support recipient has identified it will not serve pursuant to its RDOF obligations (i.e., .25, .5, or .75) times the average amount of support received over the six-year deployment period.⁴⁸ Because RTC has defaulted on approximately 46% of its original authorized model-estimated locations, it will be subject to the .75 “multiplier.” If at the end of the six-year deployment period the carrier has additional unserved locations, USAC shall recover the applicable percentage (i.e., 0%, 5%, or 10%) of total authorized support based on the total number of defaulted locations (including locations in census blocks that were defaulted early) less any support USAC already recovered early for the “extra percentage.”⁴⁹ In this situation, if RTC timely pays the 10% of total authorized support pursuant to this waiver, USAC should recover no additional “extra percentage” support at the end of the deployment period because RTC will have already paid the 10% extra percentage.

17. We direct USAC to issue an invoice to RTC for the support disbursed for the defaulted locations as soon as practicable. RTC has six months from the date of USAC’s invoice to repay the support for the defaulted locations.⁵⁰ If it does not repay the required support amount within six months, RTC will remain subject to the Commission’s service milestone and non-compliance rules, and support recovery will occur at the end of the deployment period.⁵¹ If RTC fails to pay the required support recovery at the end of the deployment period, RTC will potentially be subject to action by the Enforcement Bureau and under federal law concerning debts owed to the government.⁵²

18. Once RTC has timely paid the required support recovery, we will remove the model-estimated locations associated with the defaulted census blocks from its deployment obligation. The new location total will be used to determine if RTC has met interim service milestones and the 100% of CAM estimated locations milestone. RTC can also reduce the value of its letter of credit to reflect its reduced support amounts moving forward.⁵³ RTC remains subject to the Commission’s rules for its remaining

⁴⁷ This support recovery will be calculated as (all RDOF disbursements received over the six-year deployment period/total number of originally authorized locations) x (number of additional defaulted locations).

⁴⁸ For administrative simplicity and to minimize the true-ups we would have to do at the end of the deployment period as we would otherwise have to project the support that the carrier would receive by the end of the deployment period, we will recover the “multiplier” calculation for locations in the early defaulted census blocks at the end of the deployment period so that we can base the calculation on support actually received. This will be calculated as ((all RDOF disbursements received over the six-year deployment period/total number of originally authorized locations) x (applicable multiplier—i.e., .25, .5, or .75)) x (number of defaulted locations, including both early defaulted locations and any additional defaulted locations).

⁴⁹ For example, if the RDOF carrier had defaulted early on 8% of locations so that USAC recovered early 5% of the RDOF carrier’s support authorized over the 10-year support term for the state, but then the RDOF carrier defaults on additional locations at the end of the six-year deployment period so that it has now defaulted on 15% of its original authorized model-estimated location total, USAC would now recover an additional 5% of the RDOF carrier’s total authorized RDOF support in the state to recover in total 10% of total authorized RDOF support in the state.

⁵⁰ The requirement that RTC pay the support recovery within six months is consistent with the requirement that RDOF carriers pay within six months the section 54.806(c)(1)(i) support recovery that USAC will initiate after the six-year deployment period and one year cure period. 47 CFR § 54.804(c)(4)(i); *RDOF Order*, 35 FCC Rcd at 715, para. 63.

⁵¹ 47 CFR § 54.806(c)(1).

⁵² See, e.g., Debt Collection Act of 1982, Pub. L. No. 97-365, 96 Stat. 1749 (codified at 31 U.S.C. § 3701 *et seq.*); Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321 (codified at 31 U.S.C. §§ 3701-3720E); 47 CFR §§ 54.320(c), 54.806(b).

⁵³ 47 CFR § 54.804(c)(1). Carriers that are out of compliance and that move to the Tier 1 non-compliance tier or come into compliance with their service milestones are entitled to receive withheld or recovered support pursuant to (continued....)

RDOF-funded census blocks, including the requirement that it test and certify compliance with the relevant performance requirements and pay the associated support recovery if it does not comply.⁵⁴

19. If RTC timely pays the required early support recovery, we will not include the locations in the early defaulted census blocks when we publish revised location counts by the end of the six-year deployment period.⁵⁵ This lack of inclusion means that RTC will not be subject to any additional support recovery for the early defaulted census blocks pursuant to section 54.806(c)(1)(ii) of the Commission's rules.⁵⁶ While this decision could benefit a RDOF carrier because there may be more locations in the census blocks than estimated by the cost model that will not be factored into the RDOF carrier's support recovery, there also may be fewer locations in the early defaulted census blocks than estimated and the RDOF carrier will not have an opportunity to reduce its support recovery to reflect that there are fewer locations than estimated in the early defaulted census blocks. Given this dichotomy, we find on balance that the benefits of administrative simplicity of being able to revise location counts based only on the census blocks RTC remains committed to serve, and the fact that the early defaulted census blocks may be eligible for alternative funding programs if they remain unserved or underserved, outweigh any potential harm caused by not factoring the actual number of locations covered by the defaulted census blocks at the time the Bureau publishes revised location counts in RTC's support recovery.

20. We decline to provide the additional relief that RTC requests, including reducing the applicable "multiplier" calculation from .75 to .5 and reducing the applicable "extra percentage" calculation from 10% to 5%.⁵⁷ We conclude that RTC has not demonstrated special circumstances warranting this additional relief. RTC claims that due to competition from other bidders it did not win as much support as it expected to in the auction and that it is now facing "unexpected challenges outside of [its] control, such as labor and supply shortages combined with increased demand"⁵⁸ However, each RDOF bidder was required to conduct due diligence prior to bidding, and was required to certify in its short-form application that it acknowledged it has the "sole responsibility for investigating and evaluating all technical and marketplace factors that may have a bearing on the level of [RDOF] support it submits as a bid, and that if the applicant wins support, it will be able to build and operate facilities in accordance with the [RDOF] obligations and the Commission's rules generally."⁵⁹ RTC was responsible for bidding for sufficient support to meet the RDOF obligations.

21. First, RTC's claims that due to competition from other bidders it did not win as much support as it expected are easily dispensed. RTC had the ability to drop out of the auction if support amounts were driven down by competition to an unsustainable level, or to default prior to authorization if RTC determined it could not meet its obligations in its winning bid areas. Second, while RTC claims that

(Continued from previous page)

section 54.320(d)(1) of the Commission's rules. 47 CFR § 54.320(d)(1). For any support that was withheld or recovered prior to USAC stopping support for early defaulted CBGs, USAC should reduce the support that is restored on a pro rata basis so that an early defaulting carrier does not receive withheld or recovered support that was allocated to CBGs it will not serve pursuant to its RDOF obligations.

⁵⁴ 47 CFR §§ 54.320(d)(2), 54.806(c)(1); *Performance Measures for Connect America High-Cost Universal Service Support Recipients*, WC Docket No. 10-90, Order, 33 FCC Rcd 6509 (WCB/WTB/OET 2018).

⁵⁵ 47 CFR § 54.802(c)(1); *RDOF Order*, 35 FCC Rcd at 709-11, paras. 49-51.

⁵⁶ 47 CFR § 54.806(c)(1)(ii).

⁵⁷ RTC Waiver Petition at 1.

⁵⁸ *Id.* at 4, 8.

⁵⁹ *Rural Digital Opportunity Fund Phase I Auction Scheduled for October 29, 2020; Notice and Filing Requirements and Other Procedures for Auction 904*, AU Docket No. 20-34 et al., Public Notice, 35 FCC Rcd 6077, 6126, para. 133 (2020).

it now faces “unexpected challenges” due to “labor and supply shortages” and “increased demand,”⁶⁰ such conditions are not unique and could apply to all RDOF providers. A number of RDOF providers, that we can reasonably expect have faced similar circumstances, have already made significant progress on their RDOF builds.⁶¹

22. Essentially, we are not convinced that providing further relief would serve the public interest. RTC claims that “[r]equiring RTC to fulfill buildout requirements in [the defaulted] areas or face stiff penalties would lead to an inefficient and wasteful allocation of resources, undermining the FCC’s goal of ensuring federal broadband funds are used in an ‘efficient and cost-effective manner’ and only in areas lacking broadband.”⁶² However, the Bureau has already granted RTC relief so that it was able to default early on the affected CBGs,⁶³ and the relief that we grant today allows RTC to come into compliance and continue to receive support in its remaining areas if it timely pays the early support recovery. RTC does not explain why further relieving the carrier of the required support recovery would prevent “an inefficient and wasteful allocation of resources.”⁶⁴ RTC’s petition lacks any claim that it is unable to pay the required support recovery or that it is unable to meet its obligations in its remaining RDOF census blocks due to the support recovery rules.⁶⁵ Instead, RTC has been able to “accelerate[] its buildout timeframe to deploy broadband to over 80%” of its remaining locations “by the end of this year.”⁶⁶

23. In the *WCB Default Guidance Public Notice* we explained how through the Commission’s existing processes the Bureau can provide some flexibility to defaulting carriers that obviates the need for “broad amnesty from the RDOF . . . support recovery and penalty rules,” and we emphasized “our strong interest in preserving the integrity of the Commission’s broadband programs.”⁶⁷ We conclude our approach today achieves a reasonable balance between these principles. We are providing an option for RTC to come back into compliance after it made its defaulted areas available for eligibility in other funding programs, but we also are subjecting RTC to the same support recovery rules that it knew it would be subject to when it bid for RDOF support, modified, as necessary, to account for the fact that we have stopped paying RTC for the CBGs where it has defaulted early. We conclude that any further relief, particularly absent special circumstances, would shift this balance and undermine auction integrity because RDOF bidders may have bid differently in the auction if they knew that the Bureau would apply a different “multiplier” or “extra percentage” support recovery calculation after the auction had ended.

III. ORDERING CLAUSES

24. Accordingly, IT IS ORDERED, pursuant to sections 1, 4(i), 5(c), and 254 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 155(c), 254, and sections 0.91, 0.291, and 1.3 of the Commission’s rules, 47 CFR §§ 0.91, 0.291, 1.3, that this Order IS ADOPTED.

⁶⁰ RTC Waiver Petition at 4, 8.

⁶¹ *WCB Default Guidance Public Notice* at 1, 3. RDOF service providers have reported serving approximately 25% of 3.5 million authorized RDOF locations as of December 31, 2023. Universal Service Administrative Company, Connect America Fund Broadband Map, <https://data.usac.org/publicreports/caf-map/> (last visited Nov. 26, 2024).

⁶² RTC Waiver Petition at 8.

⁶³ *RTC Post-Authorization Default Public Notice* at 4-6.

⁶⁴ RTC Waiver Petition at 8.

⁶⁵ *WCB Default Guidance Public Notice* at 7. See also *id.* at 6 (explaining “[C]arriers that default can request payment plans for the support recovery amounts and related penalties for defaults.”).

⁶⁶ RTC Waiver Petition at 6, 9.

⁶⁷ *WCB Default Guidance Public Notice* at 1, 4-8.

25. IT IS FURTHER ORDERED that the petition for limited waiver of Daviess-Martin County Rural Telephone Corporation is GRANTED IN PART AND DENIED IN PART to the extent described herein.

26. IT IS FURTHER ORDERED that, pursuant to section 54.806(c)(1)(i) of the Commission's rules, 47 CFR § 54.806(c)(1)(i), and the limited waiver granted by the Bureau, the Administrator will recover high-cost support from Daviess-Martin County Rural Telephone Corporation as described herein.

27. IT IS FURTHER ORDERED that, pursuant to section 1.102(b)(1) of the Commission's rules, 47 CFR § 1.102(b)(1), this Order SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Trent B. Harkrader
Chief
Wireline Competition Bureau

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
HISPANIC CHRISTIAN COMMUNITY	)	MB Docket No. 23-267
NETWORK, INC., aka HCCN	)	NAL/Acct. No. 202341420025
	)	FRNS: 0014120505; 0013410998
	)	
ANTONIO CESAR GUEL	)	NAL/Acct. No. 202341420026
Former President of HCCN	)	FRNS: 0006568448; 0023037682
	)	
and	)	
	)	
JENNIFER JUAREZ, aka Jenifer Juarez,	)	NAL/Acct. No. 202341420027
Licensee of Low Power Television Stations	)	FRN: 0024126237
Applications for Renewal	)	
	)	
KHDE-LD, Denver, CO	)	Facility ID No. 189604
	)	LMS File No. 0000176579
	)	
KJTN-LP, Abilene, TX	)	Facility ID No. 127351
	)	CDBS File No. BRTTL-20160411AAZ and
	)	LMS File No. 0000192978
	)	
KZAB-LP, Abilene, TX	)	Facility ID No. 130088
	)	CDBS File No. BRTTL-20160412ABN and
	)	LMS File No. 0000192977
	)	
KZTE-LD, Fulton, AR	)	Facility ID No. 128037
	)	LMS File No. 0000132447
	)	
KTEQ-LP, Fulton, AR	)	Facility ID No. 130047
	)	LMS File No. 0000132448
	)	
WESL-LP, Jamestown, KY	)	Facility ID No. 128034
	)	LMS File No. 0000142902
	)	
KRPO-LD, Quartzite, AZ	)	Facility ID No. 128964
	)	LMS File No. 0000192826

ORDER

Adopted: November 27, 2024**Released: November 27, 2024**

By the Associate General Counsel:

1. By this Order, we dismiss as unauthorized an appeal filed by Maria C. Guel (Ms. Guel)

and Jennifer Juarez (Ms. Juarez) (collectively Petitioners).¹ Petitioners seek review of a ruling by Administrative Law Judge Jane Hinckley Halprin (the Presiding Judge) that barred attorney Dan J. Alpert (Mr. Alpert) from representing them during the course of their deposition testimony in the discovery phase of this hearing proceeding.²

2. Mr. Alpert has represented Mr. Antonio Cesar Guel, a party in this proceeding, since August 2023.³ Subsequently, Mr. Alpert sought to also represent Ms. Guel and Ms. Juarez in connection with their depositions.⁴ The Presiding Judge declined to permit the representation after “carefully considering the potential for confusion and conflicts of interest among the deponents, the likely impact of such confusion and conflict on the utility of their testimony, the trajectory of this proceeding so far, and the imperative to move this hearing forward equitably and efficiently,” because allowing Mr. Alpert’s proposed simultaneous representation of all three deponents would be “fundamentally at odds” with her obligation to ensure that proceedings are conducted “as will best conduce to the proper dispatch of business and the ends of justice.” The Presiding Judge paused discovery for 45 days to allow the Petitioners to locate other counsel.⁵ The Presiding Judge disagreed with Mr. Alpert’s contention, during the status conference, that the Presiding Judge’s interlocutory ruling could be appealed as of right under section 1.301(a)(4), observing that the Order did not foreclose him from continuing to represent his existing client in the proceeding but only barred him from simultaneously representing additional clients.⁶ The instant appeal followed.

3. Section 1.301(b) of the Commission’s rules provides that with limited exceptions, appeals from interlocutory rulings cannot be filed unless they are “allowed by the presiding officer.”⁷ The Petitioners do not indicate that they sought permission from the Presiding Judge to file this appeal. Instead, they claim, without elaboration, that they are entitled to file the appeal under section 1.301(a)(4)

¹ Interlocutory Appeal as a Matter of Right, MB Docket No. 23-267 (filed Sept. 19, 2024) (Appeal). *See also* Enforcement Bureau’s Opposition to Interlocutory Appeal, MB Docket No. 23-267 (filed Sept. 25, 2024) (Opposition).

² *Summary of Status Conference and Order*, FCC 24M-08, 2024 WL 4185739 (ALJ Sept. 12, 2024) (Order). The Media Bureau designated this case for hearing based on evidence that Mr. Guel, the 100% owner of Hispanic Christian Community Network, Inc. (HCCN), had engaged in a sham transfer of the captioned stations licensed to HCCN to his niece, Ms. Juarez. *Order to Show Cause Why a Cease and Desist Order Should Not be Issued, Order to Show Cause Why an Order of Revocation Should Not be Issued, Hearing Designation Order, Notice of Opportunity for Hearing, and Notice of Apparent Liability for Forfeiture*, DA 23-678 (MB Aug. 10, 2023). The designated hearing issues asked whether Mr. Guel continued to be the real-party-in-interest exercising *de facto* control over the stations after the transfer and whether Mr. Guel and Ms. Juarez made misrepresentations and/or lacked candor regarding the transfer. *Id.* at para. 113. Ms. Juarez indicated that she would not file an appearance and thus waived her right to participate as a party in the hearing. Notice, MB Docket No. 23-267 (filed Sept. 6, 2023). The Presiding Judge thereupon certified the issues specific to Ms. Juarez to the Commission for resolution. *Certification Order*, FCC 23M-13 (ALJ Oct. 10, 2023). Thus, any further action regarding Ms. Juarez is outside the scope of the hearing proceeding.

³ Notice of Appearance, MB Docket No. 23-267 (filed Aug. 30, 2023).

⁴ Order at paras. 9-10.

⁵ *Id.* at para. 13. On October 28, 2024, the Petitioners sent an email message to Mr. Alpert, the Enforcement Bureau, and the Office of Administrative Law Judges indicating that in the event that they are not permitted to use the services of Mr. Alpert, they did not intend to retain new counsel. *Order Lifting Suspension of Discovery*, FCC 24M-09 (ALJ Nov. 4, 2024), at para. 3.

⁶ Order at para. 12.

⁷ 47 CFR § 1.301(b).

of the Commission's rules, which provides that a ruling "removing counsel from [a] hearing" is appealable as a matter of right.⁸

4. We agree with the Presiding Judge and the Bureau that this appeal does not fall within the scope of section 1.301(a)(4), given the plain language of the rule. Mr. Alpert has not been "removed" from the hearing. Mr. Alpert filed a notice of appearance that he represents Mr. Guel, and the Presiding Judge has not barred Mr. Alpert from participating in the hearing in that capacity. Rather, Mr. Alpert has been barred from expanding his representation within the hearing by taking on new clients who may have interests in conflict with his existing client. Because the Order did not "remove" counsel, an interlocutory appeal may be taken only with leave of the Presiding Judge.⁹ Since the Petitioners did not seek such leave, we dismiss the appeal on procedural grounds as unauthorized, without reaching the merits.

5. Accordingly, pursuant to the authority delegated by section 0.251(c) of the Commission's rules, 47 CFR § 0.251(c), IT IS ORDERED that the Appeal IS DISMISSED as unauthorized.

FEDERAL COMMUNICATIONS COMMISSION

/s/ Chin Yoo

Chin Yoo
Associate General Counsel
Chief, Administrative Law Division
Office of General Counsel

⁸ See Appeal at 1. See also 47 CFR § 1.301(a)(4) ("A ruling removing counsel from the hearing is appealable as a matter of right, by counsel on his own behalf or by his client. . . ."); *Amendment of Section 1.24, Rules of Practice and Procedure, Regarding Removal of Counsel from a Hearing Proceeding*, Memorandum Opinion and Order, 59 FCC 2d 1384 (1976) (adopting rule).

⁹ 47 CFR § 1.301(b).



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
45 L STREET NE
WASHINGTON D.C. 20554

News media information 202-418-0500
Internet: <http://www.fcc.gov> (or <ftp.fcc.gov>)
TTY (202) 418-2555

DA No. 24-1202

Report No. SAT-01876

Friday November 29, 2024

Satellite Licensing Division and Satellite Programs and Policy Division Information

Actions Taken

The Commission, by its Space Bureau, took the following actions pursuant to delegated authority. The effective date of these actions is the release date of this Notice, except where an effective date is specified.

SAT-STA-20241018-00233 E S2983/3018 Space Exploration Holdings, LLC

Special Temporary Authority

Grant of Authority

Effective Date: 11/27/2024

On November 27, 2024, the Satellite Programs and Policy Branch granted, with conditions, special temporary authority to Space Exploration Holdings, LLC, for a period of up to 60 days to operate a radiofrequency beacon with up to 22 SpaceX First Generation non-geostationary orbit Starlink satellites on each launch, and up to a maximum of 150 simultaneously operating satellites, in order to track and maintain satellite positional information during satellite orbit-raising and for emergency operations once at authorized operational orbit.

For more information concerning this Notice, contact the Satellite Licensing Division and Satellite Programs and Policy Division at (202) 418-0719.



PUBLIC NOTICE

Federal Communications Commission
45 L Street, NE
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>

DA 24-1203

Released: November 29, 2024

COMMENTS INVITED ON SECTION 214 APPLICATION(S) TO DISCONTINUE DOMESTIC NON-DOMINANT CARRIER TELECOMMUNICATIONS AND/OR INTERCONNECTED VOIP SERVICES

WC Docket No(s). 24-503

Comments Due: December 16, 2024

Unless otherwise specified, the following procedures and dates apply to the application(s) (the Section 214 Discontinuance Application(s)) listed in the Appendix.

The Wireline Competition Bureau (Bureau), upon initial review, has found the Section 214 Discontinuance Application(s) listed herein to be acceptable for filing and subject to the procedures set forth in Section 63.71 of the Commission's rules.¹ The application(s) request authority, under section 214 of the Communications Act of 1934, as amended,² and section 63.71 of the Commission's rules,³ to discontinue, reduce, or impair certain domestic telecommunications service(s) (Affected Service(s)) in specified geographic areas (Service Area(s)) as applicable and as fully described in each application.

In accordance with section 63.71(f) of the Commission's rules, the Section 214 Discontinuance Application(s) listed in the Appendix will be deemed granted automatically on **December 30, 2024**, the 31st day after the release date of this public notice, unless the Commission notifies any applicant(s) that their grant will not be automatically effective.⁴ We note that the date on which an application for Commission authorization is deemed granted may be different from the date on which applicants are authorized to discontinue, reduce, or impair service ("Authorized Date"). Any applicant whose application has been deemed granted may discontinue, reduce or impair their Affected Service(s) in their Service Area(s) on or after the authorized date(s) specified in the Appendix, in accordance with their filed representations. Accordingly, pursuant to section 63.71(f), and the terms outlined in each application, absent further Commission action, each applicant may discontinue, reduce or impair the Affected Service(s) in the Service Area(s) described in their application on or after the authorized discontinuance date(s) listed in the Appendix for that application. For purposes of computation of time when filing a petition for reconsideration, application for review, or petition for judicial review of the Commission's decision(s), the date of "public notice" shall be the later of the auto grant date stated above in this Public

¹ 47 CFR § 63.71.

² 47 U.S.C. § 214.

³ 47 CFR § 63.71.

⁴ See 47 CFR § 63.71(f) (stating, in relevant part, that an application filed by a non-dominant carrier "shall be automatically granted on the 31st day... unless the Commission has notified the applicant that the grant will not be automatically effective.").

Notice, or the release date(s) of any further public notice(s) or order(s) announcing final Commission action, as applicable. Should no petitions for reconsideration, applications for review, or petitions for judicial review be timely filed, the proceeding(s) listed in this Public Notice shall be terminated, and the docket(s) will be closed.

Comments objecting to any of the applications listed in the Appendix must be filed with the Commission on or before **December 16, 2024**.⁵ Comments should refer to the specific WC Docket No. and Comp. Pol. File No. listed in the Appendix for the particular Section 214 Discontinuance Application that the commenter intends to address. Comments should include specific information about the impact of the proposed discontinuance on the commenter, including any inability to acquire reasonable substitute service. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.⁶ Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs>. Filers should follow the instructions provided on the Web site for submitting comments. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket number.

Parties who choose to file paper copies must file an original and one copy of each filing. Such filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. All filings must be addressed to the Secretary, Federal Communications Commission. Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building. Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.⁷ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of

⁵ Comments are normally due 15 days after the Commission releases public notice of the proposed discontinuance. 47 CFR § 63.71(a). For purposes of computation of time, if the comment deadline falls on a weekend or officially recognized Federal legal holiday, however, comments will be due on the next business day. See 47 CFR § 1.4(e) and (j).

⁶ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

⁷ 47 CFR § 1.1200 *et seq.*

electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

For further information, please see the contact(s) for the specific discontinuance proceeding you are interested in as listed in the Appendix. For further information on procedures regarding section 214 please visit <https://www.fcc.gov/encyclopedia/domestic-section-214-discontinuance-service>.

– FCC –

Appendix

- 1) **Applicant(s): Global Crossing Local Services, Inc. and Global Crossing Telemanagement VA, LLC (Global Crossing)**
WC Docket No. 24-503, Comp. Pol. File No. 1959
Link – [https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings.name:\(%2224-503%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2224-503%22)))
Affected Service(s) – VoIP services
Service Area(s) – in all 50 states, the District of Columbia and Puerto Rico
Authorized Date(s) – December 31, 2024
Contact(s) – Kimberly Jackson, (202) 418-7393 (voice), Kimberly.Jackson@fcc.gov, of the Competition Policy Division, Wireline Competition Bureau
Note: On November 6, 2024, Global Crossing filed a supplemental letter to indicate that revised customer notices were mailed to affected customers on November 1, 2024.



PUBLIC NOTICE

Federal Communications Commission
45 L St., N.E.
Washington, D.C. 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>

DA 24-1204
Released: November 29, 2024

NOTICE OF DOMESTIC SECTION 214 AUTHORIZATION GRANTED

WC Docket No. 24-312

The Wireline Competition Bureau (Bureau) grants the application listed in this Public Notice pursuant to the Commission's streamlined procedures for domestic section 214 transfer of control applications, 47 CFR § 63.03. The Bureau determined that a grant of this application serves the public interest.¹ For the purposes of computation of time when filing a petition for reconsideration or application for review, or for judicial review of the Commission's decision, the date of "public notice" shall be the release date of this Public Notice.² Should no petition for reconsideration, application for review, or petition for judicial review be timely filed, the proceeding listed in this Public Notice shall be terminated, and the docket will be closed.

Domestic Section 214 Application Filed for the Transfer of Control of
American Network, Inc. to Viper Networks, Inc.,
WC Docket No. 24-312, Public Notice, DA 24-1112 (WCB 2024).

Effective Grant Date: November 29, 2024

For further information, please contact Myrva Charles at (202) 418-1506 or Gregory Kwan at (202) 418-1191, Competition Policy Division, Wireline Competition Bureau.

-FCC-

¹ *Implementation of Further Streamlining Measures for Domestic Section 214 Authorizations*, Report and Order, 17 FCC Rcd 5517, 5529, para. 22 (2002).

² *Id.*; see 47 CFR § 1.4 (Computation of time).



Federal Communications Commission
Washington, D.C. 20554

December 2, 2024

DA 24-1205

In Reply Refer to:
1800B3-DB

Dan J. Alpert, Esq.
The Law Office of Dan J. Alpert
2120 N. 21st Rd.
(sent by electronic mail)

In re: Centro Cristiano Shalom, Inc.
New LPFM, Meriden, CT
Facility ID No. 782313
Application File No. 0000231430

Petition for Reconsideration

Dear Counsel:

We have before us a Petition for Reconsideration (Petition)¹ filed by Centro Cristiano Shalom, Inc. (Petitioner) seeking reconsideration of the Media Bureau's (Bureau) dismissal of the above captioned application for a construction permit for a new low power FM (LPFM) station at Meriden, Connecticut.² For the reasons set forth below, we affirm the Bureau's dismissal of the Application and deny the Petition.

Background. The original Application, filed during the 2023 LPFM Filing Window,³ identified the applicant as "Shalom Christian Center," a "nonprofit educational institution or organization" that has been in existence since 1998.⁴ On March 25, 2024, the applicant amended the Application to change the

¹ Pleading File No. 0000245399 (filed May 28, 2024). The Petition is unopposed.

² Application File No. 0000231430 (filed Dec. 6, 2023) (Application). The Application, as originally filed, identifies "Shalom Christian Center" as the applicant. *See* Application, Applicant Information Section, Applicant Name, Type, and Contact Information questions. An amendment, filed on March 25, 2024 (March Amendment), changed the name of the applicant to "Centro Shalom, Inc." *See* March Amendment, Applicant Information Section, Applicant Name, Type and Contact Information questions. The instant Petition now seeks to change the applicant name to "Centro Cristiano Shalom, Inc." *See* Petition at 2.

³ *Media Bureau Announces Filing Procedures and Requirements for November 1 – November 8, 2023, Low Power FM Filing Window*, Public Notice, 38 FCC Rcd 6660 (MB 2023) (*Procedures Public Notice*). Based on a request from LPFM advocates, the Bureau subsequently delayed the window until December 6, 2023. *Media Bureau Announces Revised Dates for LPFM New Station Application Filing Window*, Public Notice, 38 FCC Rcd 9589 (MB 2023). The Bureau subsequently extended the close of the window until December 15, 2023. *Media Bureau Announces Extension of LPFM New Station Application Filing Window*, Public Notice, 38 FCC Rcd 11882 (MB 2023).

⁴ *See* Application at Attach., "Shalom Christian Center Legal Certification.pdf".

applicant name to “Centro Shalom, Inc.” and to include a copy of a “Certificate of Incorporation” from the Secretary of the State of Connecticut confirming that “Centro Shalom, Inc.” was incorporated on February 6, 2024, and recognized as a nonprofit corporation.⁵ On April 26, 2024, Bureau staff dismissed the Application, as amended, for failure to demonstrate that “Centro Shalom, Inc.” was incorporated or recognized under Connecticut state law as a valid nonprofit educational organization when it submitted the Application on December 6, 2023.⁶

Petitioner now seeks reinstatement of the Application so it can provide documentation demonstrating that the applicant, now identified as “Centro Cristiano Shalom, Inc.,” was recognized as a nonprofit educational organization under state law at the time the Application was filed.⁷ Specifically, Petitioner submits for consideration: (1) the results of an online search of businesses in the State of Connecticut confirming that “Centro Cristiano Shalom, Inc.” is an active, “Non-Stock [] Religious Organization” and was formed on July 11, 2016;⁸ and (2) a “Certificate of Legal Existence” from the Secretary of the State of Connecticut confirming that “Centro Cristiano Shalom, Inc.” was formed as a “domestic Non-Stock corporation” on July 11, 2016, and is currently in good standing.⁹ Petitioner maintains that the incorrect name of the corporation reflected in the original Application and March Amendment misled the Bureau and led to the improper dismissal of the Application.¹⁰ Petitioner asserts that “Centro Cristiano Shalom, Inc.” was, in fact, in existence at the time the Application was filed, and is therefore entitled to receive a new LPFM construction permit to serve Meridian, Connecticut.¹¹

Discussion. The Commission will consider a petition for reconsideration only when the petitioner shows either a material error in the Commission’s original determination, or raises additional facts not known or existing at the time of the petitioner’s last opportunity to present such matters.¹² Petitioner has not demonstrated any legal error in the Bureau’s dismissal of the Application, nor has it cited any precedent that warrants reinstatement.

An LPFM applicant must meet basic eligibility requirements,¹³ and certify its eligibility to own and operate an LPFM station at the time it files its application.¹⁴ This certification requires that the applicant be a nonprofit educational institution, corporation or entity recognized under state law.¹⁵ Each

⁵ See March Amendment at Attach., “Centro Shalom Inc-Certificate of Incorporation.pdf” (confirming that “[t]he Corporation is non-profit and shall not have or issue shares of stock or make distributions.”).

⁶ See *Broadcast Actions*, Public Notice, Report No. PN-2-240430-01 (MB Apr. 26, 2024) (*Dismissal Public Notice*); Letter from Al Shuldiner, Chief, Audio Division, FCC to Maria Castro, Centro Shalom, Inc., Letter Reference No. 1800B3-RDM (Apr. 26, 2024) (*Letter Decision*).

⁷ Petition at 2.

⁸ Petition at Attach. 3, “Centro Cristiano Shalom, Inc., Active Business Details”.

⁹ *Id.* at Attach. 2, “Secretary of the State of Connecticut, Certificate of Legal Existence”.

¹⁰ *Id.* at 2.

¹¹ *Id.*

¹² See 47 CFR § 1.106(c), (d).

¹³ See 47 CFR § 73.853; *Dismissal Public Notice*.

¹⁴ See Instructions for LPFM Application, Legal Certifications Section, Eligibility Certifications questions. See also LPFM Application, Legal Certifications Section, Eligibility Certifications questions.

¹⁵ See LPFM Application, Legal Certifications section, Eligibility Certifications questions; *Procedures Public Notice*, 38 FCC Rcd at 6665; 47 CFR § 73.503(a) (establishing the current eligibility rule for FM stations: “A

applicant must also submit an explanatory exhibit in connection with its application.¹⁶ An LPFM applicant's status as a valid nonprofit organization at the time it files its application is fundamental to our determination of the applicant's qualifications to hold an LPFM authorization.¹⁷ Applicants who fail to meet these requirements are subject to dismissal.¹⁸

Here, Bureau staff correctly dismissed the Application because it failed to establish that the applicant, identified as Centro Shalom, Inc., was recognized as a nonprofit educational organization under Connecticut state law at the time it filed the Application.¹⁹ Petitioner now argues that the "misstatement of the name of the corporation inadvertently misled the Bureau, and incorrectly led to the improper dismissal of the Centro Application."²⁰

The instructions to the FCC Form 2100, Schedule 318 application (LPFM Application) dictate that an applicant must, on the LPFM Application "enter the exact legal name of the applicant entity. The name of the applicant must be stated exactly."²¹ The initial Application identified the applicant as "Shalom Christian Center,"²² stated that "applicant has been in existence since 1998,"²³ but neglected to include any documentation to support the claim. The March Amendment subsequently identified the applicant as "Centro Shalom, Inc."²⁴ and explained that applicant "seeks to change the full name of the applicant from 'Shalom Christian Center' to 'Center Shalom, Inc.' so as to conform to its non-profit registration with the State of Connecticut and Internal Revenue Service."²⁵ The March Amendment included documentation showing that Centro Shalom, Inc. was incorporated in February 2024.²⁶ Finally, the Petition now identifies the applicant by a third name: Centro Cristiano Shalom, Inc. f/k/a Centro Shalom, Inc. The Petition states that "the correct date the business was formed was July 11, 1996, two years prior to the date indicated previously,"²⁷ but the attached documentation reveals that Centro

noncommercial educational [(NCE)] FM broadcast station will be licensed only to a nonprofit educational organization and upon showing that the station will be used for the advancement of an educational program.").

¹⁶ See LPFM Application, Legal Certifications Section, Eligibility Certifications questions. See also *Procedures Public Notice*, 38 FCC Rcd at 6665 (nonprofit educational organizations "also must submit complete copies of the documents establishing their nonprofit status, such as corporate charters or articles of incorporation.").

¹⁷ *Applications for Review of Decisions Regarding Six Applications for New Low Power FM Stations*, Memorandum Opinion and Order, 28 FCC Rcd 13390, 13395-96, para. 14 (2013).

¹⁸ See *Procedures Public Notice*, 38 FCC Rcd at 6665.

¹⁹ See *Dismissal Public Notice*; *Letter Decision*.

²⁰ Petition at 2.

²¹ See Instructions to LPFM Application at 3, Applicant Information (explaining that "if the applicant is a corporation, the applicant should list the exact legal name.").

²² Application at Applicant Information, Applicant Name, Type, and Contact Information.

²³ Application at Attach., "Shalom Christian Center Legal Certification.pdf".

²⁴ March Amendment at Applicant Information, Applicant Name, Type, and Contact Information.

²⁵ *Id.* at Attach., "Centro Shalom Inc Amendment Cover Sheet 3-24-2024.pdf".

²⁶ *Id.* at Attach., "Centro Shalom Inc-Certificate of Incorporation.pdf".

²⁷ Petition at 2.

Cristiano Shalom, Inc. was incorporated on July 11, 2016.²⁸

Petitioner argues because it is “clear” that “Centro Cristiano Shalom, Inc.” was in existence at the time the Application was filed, it is entitled to receive a new LPFM construction permit.²⁹ The evidence in the record, however, does not support this assertion. Petitioner has failed to establish a connection between Centro Cristiano Shalom, Inc. and the original applicant, identified as Shalom Christian Center. There is no evidence to indicate that Centro Cristiano Shalom, Inc., an entity formed in 2016, is the original applicant.

Accordingly, we affirm the Bureau’s dismissal of the Application and deny the Petition.

Conclusion. For the reasons set forth above, **IT IS ORDERED** that the Petition for Reconsideration filed by Centro Cristiano Shalom, Inc. on May 28, 2024 (Pleading File No. 0000245399), IS DENIED.

Sincerely,

Albert Shuldiner
Chief, Audio Division
Media Bureau

cc (via electronic mail):

Dan J. Alpert, Esq.
The Law Office of Dan J. Alpert
Counsel for Centro Cristiano Shalom, Inc.

²⁸ *Id.* at Attach. 2, “Secretary of the State of Connecticut, Certificate of Legal Existence”; Attach. 3, “Centro Cristiano Shalom, Inc., Active Business Details” (each listing a formation date of 7/11/2016).

²⁹ *Id.* at 2.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>
TTY: 1-888-835-5322

DA 24-1207

Released: December 2, 2024

WIRELINE COMPETITION BUREAU REMINDS RURAL DIGITAL OPPORTUNITY FUND SUPPORT RECIPIENTS OF MILESTONE NOTIFICATION REQUIREMENT

AU Docket No. 20-34
WC Docket No. 10-90
WC Docket No. 19-126

By this Public Notice, the Wireline Competition Bureau (Bureau) provides guidance to Rural Digital Opportunity Fund (RDOF) support recipients regarding the obligation of any recipient to notify the Bureau in accordance with section 54.806(c)(2) if it believes it cannot meet the third-year service milestone, which requires building out to at least 40% of each support recipient's RDOF locations.¹ Any support recipient that will not meet its 40% buildout requirement by the end of its third year of support must notify the Wireline Competition Bureau within 10 business days of the third-year service milestone deadline and provide information explaining this expected deficiency.²

For RDOF carriers authorized in 2021, that date is Wednesday, January 15, 2025, and for RDOF carriers authorized in 2022, that date is Thursday, January 15, 2026.³ We direct any RDOF support recipient that is obligated to notify the Bureau under section 54.806(c)(2) to do so by filing a notification through the Commission's Electronic Comment Filing System (ECFS) in the RDOF docket, WC Docket 19-126. An RDOF support recipient that does not meet its third-year service milestone shall be subject to quarterly reporting and have its support withheld if warranted in accordance with the Commission's rules.⁴

Unique to the RDOF, if a support recipient has not made such a notification by March 1, 2025 or 2026 (based on the date of authorization) *and* has deployed to fewer than 20 percent of the required number of locations by the end of 2024 or 2025 (based on the date of authorization), the recipient will

¹ See 47 CFR § 54.806(c)(2); *see also* 47 CFR § 54.802(c)(1) ("All recipients of Rural Digital Opportunity Fund support must complete deployment to 40 percent of the required number of locations as determined by the Connect America Cost Model by the end of the third year . . .").

² See 47 CFR § 54.806(c)(2).

³ *Rural Digital Opportunity Fund Support Authorized for 1,764 Winning Bids; Etheric Communications Petition for Waiver Denied*, AU Docket No. 20-34 et al., Public Notice, 38 FCC Rcd 101, 101-2 (WCB/OEA 2023); in the *13th Ready to Authorize Public Notice*, the Bureau found good cause to grant a limited waiver of section 54.802(c)(1) of the Commission's rules to require the applicants with winning bids announced as ready to authorize in that Public Notice to meet the same service milestones as all Auction 904 (RDOF) support recipients that were authorized in 2022. *Rural Digital Opportunity Fund Support for 1,764 Winning Bids Ready to Be Authorized; Bid Defaults Announced*, AU Docket No. 20-34 et al., Public Notice, 37 FCC Rcd 14699, 14699-700 (WCB/OEA 2022).

⁴ See 47 CFR §§ 54.320(d)(1), 54.320(c), 54.806(b),(c).

immediately be in default and subject to support recovery.⁵ The Tier 4 status six-month grace period as set forth in section 54.320(d)(iv) will not be applicable.⁶

Finally, RDOF support recipients that have defaulted early on portions of their RDOF authorized areas but are still receiving RDOF support elsewhere must continue to comply with the notification requirement in section 54.806(c)(2) referenced in this public notice. However, any carrier that has defaulted on all its authorized winning bids in a state and thus is no longer receiving RDOF support in that state does not need to make any further notifications of failure to meet RDOF service milestone deadlines in defaulted states.

- FCC -

⁵ With March 1, 2025 and 2026 both falling on non-business days, the deadlines are March 3, 2025 and March 2, 2026 respectively.

⁶ See 47 CFR § 54.320(d)(iv); *Rural Digital Opportunity Fund et al.*, WC Docket No. 19-126 et al., Report and Order, 35 FCC Rcd 686, 716, para. 64 (2020) (*RDOF Order*) (noting "... it is unlikely that a recipient that substantially misses its third-year milestone would be able to come into compliance in the following year. We therefore direct any support recipient that believes it cannot meet its year three milestone to notify the Bureau and provide information explaining this expected deficiency. If a support recipient has not made such notification by March 1 following the third-year service milestone and has deployed by the end of the third-year milestone to fewer than 20% of its required locations in that state, we will find the recipient to be in default, rather than withholding support and providing an additional six months to come into compliance.").



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202-418-0500
Internet: <https://www.fcc.gov>
ASL: 1-844-432-2275

DA 24-1208
December 2, 2024

CHAIRWOMAN ROSENWORCEL APPOINTS NATIVE NATIONS COMMUNICATIONS TASK FORCE MEMBERS

Chairwoman Jessica Rosenworcel is appointing twenty-one (21) Tribal members and five (5) Federal Communications Commission (FCC) members to the FCC's renewed Native Nations Communications Task Force (Task Force or NNCTF). The Task Force is comprised of elected and appointed leaders, or their designees, from a broad cross section of Native Nations, as well as senior staff and decision-makers from across the Commission. Chairwoman Rosenworcel names Bambi Kraus, Chief of the Commission's Office of Native Affairs and Policy, as Task Force Co-Chair. A Tribal Co-Chair will be elected by the Tribal members of the Task Force. The Task Force will help the Commission fulfill its commitment to increase access to broadband and other communications infrastructure deployment and services on Tribal lands.

BACKGROUND

The FCC released a Public Notice ("NNCTF Public Notice") announcing the renewal of the task force, and to seek applications for membership to serve on the renewed Task Force for the upcoming term.¹ Members will serve for three years, starting from the date of the first NNCTF meeting to take place next year.

MISSION

The Task Force's mission is to provide guidance, expertise, and recommendations to specific requests from the Commission on a range of telecommunications issues that directly or indirectly affect Tribal governments and their people. This will enhance the Commission's ability to carry out its statutory responsibilities to ensure the availability of communications by wire and radio and encourage broadband deployment to all Americans.

MEMBERS OF THE NATIVE NATIONS COMMUNICATIONS TASK FORCE

Tribal Task Force members are:

Tiffany Circle, Confederated Tribes of the Colville Reservation Washington

Sam Cohen, Santa Ynez Band of Chumash Mission Indians of the Santa Ynez Reservation

Fred Corey, Mi'kmaq Nation

Guthrie Ducheneaux, Cheyenne River Sioux Tribe

¹ *FCC Extends Current Native Nations Communications Task Force and Seeks Nominations for Tribal Government Representatives to Serve on Renewed Task Force Beginning in 2024*, Public Notice, 38 FCC Rcd 9581, DA 23-982 (2023) ("NNCTF Public Notice"). Incumbent Task Force members were also invited to recommit to serving the Task Force. *Id.* In a subsequent Public Notice, the Commission extended the deadline for nominations and letters to December 29, 2023. *FCC Extends Deadline to Submit Nominations and Recommitment Letters for Membership on the Native Nations Communications Task Force*, Public Notice, DA 23-1124, 38 FCC Rcd 11086 (2023).

Lee Fine, Tunica-Biloxi Tribe of Louisiana
Melissa Francis, Passamaquoddy Tribe at Pleasant Point
Anthony Giacobbe, Seneca Nation
Sharon Hildebrand, Tanana Chiefs Conference
Donald Long Knife, Fort Belknap Indian Community
Marissa Mercurieff, Aleut Community of St. Paul (ASCPI)
Will Micklin, Ewiiapaayp Band of Kumeyaay Indians
Allyson Mitchell, St. Regis Mohawk Tribe
Jason Neilitz, Sokaogon Chippewa Community
Robert Pollard, Blue Lake Rancheria
Kevin Shendo, Pueblo of Jemez
Josh Snow, Chickasaw Nation
Paula Starr, Cherokee Nation
Teresa Taylor, Lummi Nation
Sherry Treppa, Habematolel Pomo of Upper Lake Tribe
Jonathan Walters, Samish Indian Nation
Jason Williams, Chugachmiut

Federal Communications Commission members are:

- Allison Baker, Associate Bureau Chief, Wireline Competition Bureau
- David Furth, Deputy Bureau Chief, Public Safety and Homeland Security Bureau
- Bambi Kraus, Chief, Office of Native Affairs and Policy, Consumer and Governmental Affairs Bureau, and FCC NNCTF Co-Chair
- Janet Moran, Associate Division Chief, Competition and Infrastructure Policy Division, Wireless Telecommunications Bureau
- Lisa Scanlan, Deputy Division Chief, Audio Division, Media Bureau

EXEMPTION FROM THE FEDERAL ADVISORY COMMITTEE ACT

Pursuant to the “intergovernmental communication” exemption of UMRA,² the Task Force is not subject to, and is not required to follow, the procedures set forth in the Federal Advisory Committee Act (FACA), 5 U.S.C. App 2 (1988).³

² See 2 U.S.C. § 1534 (b).

³ See 47 C.F.R. § 0.701 (a).

ACCESSIBLE FORMATS

To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice) or (202) 418-0432 (TTY).

FURTHER INFORMATION

For further information, please contact the Office of Native Affairs and Policy at Native@fcc.gov.

– FCC –

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Revising Spectrum Sharing Rules for Non-	)	IB Docket No. 21-456
Geostationary Orbit, Fixed-Satellite Service	)	
Systems	)	

SECOND REPORT AND ORDER AND ORDER ON RECONSIDERATION

Adopted: November 5, 2024

Released: November 15, 2024

By the Commission:

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I. INTRODUCTION

1. In this Second Report and Order, we continue to refine the Commission's rules governing spectrum sharing among a new generation of broadband satellite constellations to promote market entry, regulatory certainty, and spectrum efficiency through good-faith coordination. Specifically, we clarify certain details of the degraded throughput methodology that, in the absence of a coordination agreement, must be used in compatibility analyses by non-geostationary satellite orbit, fixed-satellite service (NGSO FSS) system licensees authorized through later processing rounds to show they can operate compatibly with, and protect, NGSO FSS systems authorized through earlier processing rounds. We adopt a 3% time-weighted average throughput degradation as a long-term interference protection criterion, a 0.4% absolute increase in link unavailability as a short-term interference protection criterion, and decline to adopt additional protection metrics or to adopt an aggregate limit on interference from later-round NGSO FSS systems into earlier-round NGSO FSS systems. In an accompanying Order on Reconsideration, we deny a petition for reconsideration of the Report and Order in this proceeding.¹ These actions continue the Commission's efforts to promote development and competition in broadband NGSO satellite services.²

II. BACKGROUND

2. This proceeding advances the Commission's commitment to updating and refining its rules governing NGSO FSS systems,³ at a time when these systems are being deployed at unprecedented scale.⁴ NGSO FSS satellites traveling in low- and medium-Earth orbit provide broadband services to industry, enterprise, and residential customers with lower latency and wider coverage than previously available by satellite.⁵

3. *Processing Round Procedure Overview.* Applications for NGSO FSS system licenses and petitions for declaratory ruling seeking U.S. market access for non-U.S.-licensed NGSO FSS systems are considered in groups based on filing date, under a processing round procedure.⁶ Pursuant to the Commission's rules, a license application for "NGSO-like"⁷ satellite operation, including operation of an

¹ Petition of WorldVu Satellites Limited (OneWeb) for Partial Reconsideration (filed July 20, 2023) (OneWeb Petition); *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 3699 (2023) (*Report and Order or Further Notice*). WorldVu Satellites Limited is referred to as OneWeb throughout this Second Report and Order and Order on Reconsideration.

² See generally Executive Order No. 14036, Promoting Competition in the American Economy, 86 Fed. Reg. 36987, 36991 (July 9, 2021) ("The heads of all agencies shall consider using their authorities to further the policies set forth in section 1 of this order, with particular attention to: (i) the influence of their respective regulations, particularly any licensing regulations, on concentration and competition in the industries under their jurisdiction").

³ See generally *Report and Order; Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems, Revision of Section 25.261 of the Commission's Rules to Increase Certainty in Spectrum Sharing Obligations Among Non-Geostationary Orbit Fixed-Satellite Service Systems*, Order and Notice of Proposed Rulemaking, 36 FCC Rcd 17871 (2021) (NPRM); see also *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order, 32 FCC Rcd 7809 (2017) (NGSO FSS Report and Order), *pets. for recon. pending*.

⁴ *Report and Order*, 38 FCC Rcd at 3699-70, para. 2.

⁵ See, e.g., *Communications Marketplace Report*, 37 FCC Rcd 15514, 15517-18, para. 6 (2022) (approximately 98% of all satellite launches in 2021 were deployed into low-Earth orbit to provide internet connectivity).

⁶ See generally 47 CFR § 25.157.

⁷ The term "NGSO-like satellite operation" is defined as: (1) operation of any NGSO satellite system; and (2) operation of a geostationary satellite orbit, mobile-satellite service satellite to communicate with earth stations with non-directional antennas. 47 CFR § 25.157(a).

NGSO FSS system, that satisfies the acceptability for filing requirements⁸ is reviewed to determine whether it is a “competing application” or a “lead application.”⁹ A competing application is one filed in response to a public notice initiating a processing round.¹⁰ Any other application is a lead application.¹¹ The public notice for a lead application initiates a processing round and establishes a cut-off date for competing NGSO-like satellite system applications.¹² After the close of the processing round, the Commission grants all the applications for which the Commission finds that the applicant is legally, technically, and otherwise qualified, that the proposed facilities and operations comply with all applicable rules, regulations, and policies, and that grant of the application will serve the public interest, convenience and necessity.¹³

4. *NGSO FSS System Spectrum Sharing Overview.* The Commission has adopted rules for spectrum sharing among NGSO FSS systems.¹⁴ NGSO FSS space station license applications granted with a condition to abide by these sharing rules are exempt from frequency band segmentation procedures that otherwise apply to applications for NGSO-like satellite operation.¹⁵ Instead, NGSO FSS operators must coordinate with one another in good faith the use of commonly authorized frequencies.¹⁶ If two or more NGSO FSS satellite systems fail to complete coordination, a default spectrum-splitting procedure using a $\Delta T/T$ of 6% threshold applies, pursuant to section 25.261(c) of the Commission’s rules.¹⁷ In the *NGSO FSS Report and Order*, the Commission stated that it would “initially limit” sharing under the

⁸ 47 CFR § 25.112.

⁹ 47 CFR §§ 25.156(d)(1), 25.157(c). A non-U.S.-licensed NGSO-like satellite system seeking to serve the United States can be considered contemporaneously with other U.S. NGSO-like satellite systems pursuant to this procedure and considered before later-filed applications of other U.S. satellite system operators if the non-U.S.-licensed satellite system: (1) is in orbit and operating; (2) has a license from another administration; or (3) has been submitted for coordination to the International Telecommunication Union. 47 CFR § 25.137(c). This procedure does not apply to applications for authority to operate certain replacement space stations. 47 CFR § 25.157(b)(1).

¹⁰ 47 CFR § 25.157(c).

¹¹ *Id.*

¹² 47 CFR § 25.157(c)(2).

¹³ 47 CFR § 25.156(a).

¹⁴ 47 CFR § 25.261. These sharing rules apply to NGSO FSS operation with earth stations with directional antennas anywhere in the world under a Commission license, or in the United States under a grant of U.S. market access. 47 CFR § 25.261(a).

¹⁵ 47 CFR § 25.157(b)(2), (e), (f), (g).

¹⁶ 47 CFR § 25.261(b).

¹⁷ 47 CFR § 25.261(c). Under the default spectrum-splitting procedure, whenever the percentage increase in system noise temperature of an earth station receiver, or a space station receiver for a satellite with on-board processing, of either system, $\Delta T/T$, exceeds 6% due to interference from emissions originating in the other system in a commonly authorized frequency band, such frequency band will be divided among the affected satellite networks (*i.e.*, individual links) in accordance with the following: (1) Each of n (number of) satellite networks involved must select $1/n$ of the assigned spectrum available in each of these frequency bands; (2) the affected station(s) of the respective satellite systems may operate in only the selected ($1/n$) spectrum associated with its satellite system while the $\Delta T/T$ of 6% threshold is exceeded; and (3) all affected station(s) may resume operations throughout the assigned frequency bands once the $\Delta T/T$ of 6% threshold is no longer exceeded. *Id.* The spectrum selection order for each satellite network is determined by the date that the first space station in each satellite system is launched and capable of operating in the frequency band under consideration. 47 CFR § 25.261(c)(1); *see also The Establishment of Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ku-Band*, Report and Order, 17 FCC Rcd 7841, 7857, para. 53 & n.77 (2002) (“A[n NGSO FSS] system is deemed operational when at least one of its satellites reaches its intended orbit and initiates transmission and reception of radio signals.”).

$\Delta T/T$ of 6% threshold to qualified applicants in a processing round.¹⁸ The Commission explained that treatment of applicants after a processing round would be on a case-by-case basis and would consider both the need to protect existing expectations and investments and the benefits of additional entry, as well as any comments filed by incumbent operators and reasoning presented by the new applicant.¹⁹

5. *NPRM.* The *NPRM* in this proceeding sought comment on potential rule changes to clarify the relative obligations between NGSO FSS systems approved in different processing rounds.²⁰ Specifically, the Commission proposed to limit the existing NGSO FSS spectrum-splitting procedure in section 25.261(c) to those systems approved in the same processing round, and to require systems approved in a later processing round to coordinate with, or demonstrate they will protect, earlier-round systems.²¹ The Commission invited comment on how to quantify inter-round protection and whether it should sunset after a period of time.²² The Commission also proposed to require all NGSO FSS grantees,²³ regardless of their processing round status, to coordinate with each other in good faith, and sought comment on specific information sharing obligations that could facilitate operator-to-operator coordination.²⁴

6. *Report and Order.* In response to the record developed through the *NPRM*, the *Report and Order* adopted rule changes designed to promote market entry, regulatory certainty, and spectrum efficiency of NGSO FSS systems.²⁵ The Commission, for the first time, limited the default spectrum-splitting procedure in section 25.261(c) to NGSO FSS systems approved in the same processing round and required NGSO FSS systems approved in a later processing round to coordinate with, or demonstrate they will protect, earlier-round systems, subject to a sunset provision.²⁶ The Commission also required all NGSO FSS grantees to coordinate with each other in good faith.²⁷ Regarding the technical demonstrations of compatibility of later-round NGSO FSS systems with earlier-round systems, the Commission concluded that an interference analysis based on a degraded throughput methodology offered the most technically promising path for NGSO FSS inter-round sharing and required later-round systems to use such a methodology.²⁸ In adopting a sunset provision for the inter-round protection requirement, the Commission concluded that protection of earlier-round NGSO FSS systems must ensure a stable environment for continued service and investment but should not hinder later-round systems indefinitely.²⁹ The Commission decided that NGSO FSS systems will be entitled to protection from systems approved in a subsequent processing round until ten years after the first authorization or market access grant in that subsequent processing round.³⁰ After that date, all systems in both processing rounds

¹⁸ *NGSO FSS Report and Order*, 32 FCC Rcd at 7829, para. 61.

¹⁹ *Id.*

²⁰ *NPRM*, 36 FCC Rcd at 17875-80, paras. 12-26.

²¹ *Id.* at 17876, para. 16.

²² *Id.* at 17877-78, paras. 20-21, 17879, para. 25.

²³ In this Second Report and Order and Order on Reconsideration, the term “grantee” refers to U.S.-licensed satellite operators granted Commission space station licenses and non-U.S. licensed satellite operators granted U.S. market access.

²⁴ *Id.* at 17876, para. 16, 17878-79, para. 23.

²⁵ *Report and Order*, 38 FCC Rcd at 3702-14, paras. 9-31.

²⁶ *Id.* at 3703, para. 11, 3704-05, para. 14, 3712-13, para. 29.

²⁷ *Id.* at 3708, para. 21.

²⁸ *Id.* at 3706-07, para. 17.

²⁹ *Id.* at 3712-13, para. 29.

³⁰ *Id.* at 3713-14, para. 30.

will be treated on an equal basis with respect to spectrum sharing in the absence of a coordination agreement, and the default spectrum-splitting procedure in section 25.261(c) will also apply between systems in the two rounds.³¹ In sum, prior to commencing operations, an NGSO FSS licensee or market access recipient must either certify it has completed a coordination agreement with any operational NGSO FSS system licensed or granted U.S. market access in an earlier processing round, or submit a showing for Commission approval that it will not cause harmful interference to any such system with which coordination has not been completed using a degraded throughput methodology.³²

7. *Further Notice.* In conjunction with the decision in the *Report and Order* to adopt an inter-round protection requirement described above, the Commission adopted the *Further Notice* to finalize the details of the degraded throughput methodology.³³ The Commission invited specific comment on the appropriate values and assumptions to be used in this requirement, as well as on whether we should adopt a rule limiting aggregate interference from later-round NGSO FSS systems into earlier-round systems.³⁴ Ten comments, eight reply comments, and several *ex parte* presentations were filed in response to the *Further Notice*.³⁵

8. *Petition.* On July 20, 2023, OneWeb filed a Petition for Partial Reconsideration of the Report and Order concerning the sunset period adopted with the new inter-round protection requirement.³⁶ Kuiper opposed the OneWeb Petition, SpaceX commented on it, and OneWeb replied to Kuiper's opposition.³⁷

III. DISCUSSION

A. Second Report and Order

9. In this Second Report and Order, after review of the record, we clarify certain details of the degraded throughput methodology that, in the absence of a coordination agreement, must be used in compatibility analyses by NGSO FSS system grantees, authorized through later processing rounds, to show they can operate compatibly with, and protect, NGSO FSS systems, authorized through earlier processing rounds.³⁸ Specifically, we adopt a 3% time-weighted average throughput degradation as a

³¹ See *id.*

³² *Id.* at 3723, Appendix A (revisions to 47 CFR § 25.261).

³³ *Further Notice*, 38 FCC Rcd at 3717-19, paras. 38-43.

³⁴ *Id.* at 3717-18, para. 38.

³⁵ See Appendix C.

³⁶ See OneWeb Petition at 1-2. The OneWeb Petition was placed on public notice. *Petition for Reconsideration of Action in Proceeding*, Public Notice, Report No. 3200 (rel. Aug. 22, 2023); *Petition for Reconsideration of Action in Rulemaking Proceeding*, 88 FR 58540 (Aug. 28, 2023).

³⁷ See Response of Space Exploration Holdings, LLC to Petition for Partial Reconsideration of WorldVu Satellites Limited, IB Docket No. 21-456 (filed Sept. 12, 2023) (SpaceX Response to Petition); Opposition of Kuiper Systems LLC to Petition of WorldVu Satellites Limited for Partial Reconsideration, IB Docket No. 21-456 (filed Sept. 12, 2023) (Kuiper Opposition to Petition); Reply of WorldVu Satellites Limited, IB Docket No. 21-456 (filed Sept. 22, 2023) (OneWeb Reply to Opposition).

³⁸ TechFreedom argues generally that the Commission should have issued a notice of inquiry, rather than a further notice of proposed rulemaking, in this proceeding and that it should seek additional stakeholder input before adopting any rule changes, noting similar issues are currently being studied in the International Telecommunication Union Radiocommunication Sector. See generally TechFreedom Comments. TechFreedom did not submit reply comments in response to the actual record developed in the comments on the *Further Notice*, nor make any further filings on the record, in response to later technical studies or otherwise. Other commenters encourage the Commission to proceed with rule amendments. See, e.g., Letter from Michal John Carlson, Senior Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456, at 1 (Kuiper July 24, 2024 *ex parte*) (urging the Commission to “move forward and settle the open questions regarding its spectrum-
(continued....)

long-term interference protection criterion and a 0.4% absolute increase in link unavailability as a short-term interference protection criterion.³⁹ We decline to adopt additional protection metrics or to adopt an aggregate limit on interference from later-round NGSO FSS systems into earlier-round NGSO FSS systems.⁴⁰ Our decisions in this Second Report and Order rely on our predictive judgment in the highly complex and dynamic area of spectrum sharing among a new generation of innovative NGSO FSS systems. Our decisions strive to balance our competing goals of providing regulatory certainty for, and adequate protection of, earlier round systems vis-a-via later entrants while encouraging new entry and coordination among NGSO FSS operators.⁴¹

1. Long-Term Interference Metric

10. *Further Notice.* In the *Further Notice*, the Commission outlined its expected steps in a degraded throughput analysis and sought comment on the proposed process.⁴² Specifically, noting that

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sharing framework for [NGSO FSS] systems” raised in the *Further Notice*); Letter from Michael John Carlson, Senior Corporate Counsel, Kuiper Systems LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 5 (filed Oct. 18, 2024) (Kuiper October 18, 2024 *ex parte*); Letter from Jayson L. Cohen, Director, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 1 (filed Oct. 22, 2024) (SpaceX Oct. 22, 2024 *ex parte*). The degraded throughput methodology was already discussed in comments on the Notice of Proposed Rulemaking in this proceeding, that the *Further Notice* proposed to “finalize” the details of this methodology and also sought comment on other related issues, including protection of earlier-round systems from short-term interference. *Further Notice*, 38 FCC Rcd at 3717-19, paras. 38-43. In light of the robust record in response to the *Further Notice*, including the further technical studies that have been submitted, we see no reason to initiate a new consultation period before adopting any rule changes in response to the current record. *See also infra* para. 38. We further address the particular record developed on the issues raised in the *Further Notice* when coming to decisions on the proposals and comments on those issues.

³⁹ The long-term protection criterion compares throughput under time-varying propagation conditions to throughput under time varying propagation conditions with interference. The calculation of spectral efficiency is focused on satellite systems utilizing adaptive coding and modulation (ACM) by calculating the throughput degradation as a function of C/N, which varies depending on the propagation and interference impacts on the satellite link over the long term. The short-term protection criterion compares link availability under time-varying propagation conditions to link availability under time varying propagation conditions with interference.

⁴⁰ In the revisions to 47 CFR § 25.261 in Appendix A, we also repeat text from section 25.261(d) and (e) adopted in the *Report and Order* for ease of incorporation.

⁴¹ Our decisions in this Second Report and Order are also consistent with the Commission’s policy regarding interference realities. *See Principles for Promoting Efficient Use of Spectrum and Opportunities for New Services, Promoting Efficient Use of Spectrum through Improved Receiver Interference Immunity Performance*, Policy Statement, 38 FCC Rcd 3682, 3683-84, para. 5 (2023) (*Commission Policy Statement*) (“Services should plan for the spectrum environment in which they intend to operate, the service they intend to provide, and the characteristics of spectrally and spatially proximate operations. Planning should be ongoing and account for changes in spectrum operating environments.”). At the same time, our decisions adopted here, including the evaluation of degraded throughput and acceptable levels of interference, are based on the technical record developed in this proceeding regarding modern NGSO FSS systems and should not be construed to be setting a precedent for other services.

⁴² *Further Notice*, 38 FCC Rcd at 3718, para. 39. The Commission expected that the degraded throughput analysis should consist of three steps. The first step is to establish a baseline of performance. To do this, an operator models the earlier-round NGSO system’s performance without any additional interference by computing the earlier-round NGSO system’s probabilistic C/N level using its published system parameters and a rain-attenuation model. This provides the baseline in terms of: (1) the earlier-round system’s time-weighted average throughput (derived by computing the spectral efficiency from the C/N results), and (2) the earlier-round system’s link unavailability time percentage (i.e., the percentage of time when the earlier-round system’s expected C/N will fall below its minimum usable level). The second step is to repeat the analysis above, adding in the effect of the later-round system’s interference into the earlier-round system. This produces a second measurement of time-weighted average throughput and link unavailability time-percentage. The third step is to compare these two sets of figures to measure

(continued....)

3% had been suggested as an appropriate value for several aspects of the degraded throughput analysis, including a long-term interference limit based on reduction in time-weighted average throughput, the Commission invited comment on the appropriate values for such a limit, including technical justification.⁴³

11. *Comments.* Four out of the five commenters proposing a specific threshold value for degraded throughput support using the 3% value noted in the Further Notice.⁴⁴ Kuiper, for example, observes that a 3% throughput-degradation threshold has been adopted internationally to protect V-band GSO networks from NGSO FSS systems and argues that it provides a conservative measure of protection for incumbent systems due, in part, to conservatism in the methodology a new entrant must use to estimate interference.⁴⁵ Viasat agrees that use of the 3% threshold should adequately safeguard systems from adverse performance degradation experienced over an extended period of time.⁴⁶ Telesat, while initially arguing that “[t]he long-term criterion is sufficiently stable and there is a sufficient record, including through recent ITU studies, to support adopting a 3% degradation limit,”⁴⁷ more recently concludes that specific degraded throughput criteria should be left to coordination discussions among satellite operators to determine.⁴⁸ Telesat now believes that the record is sufficiently complete to allow the Commission to adopt rules, endorsing the 3% degraded throughput value for the long-term protection criterion proposed by SpaceX.⁴⁹ Intelsat initially indicated that further study would be required before concluding upon a degraded throughput value, but now supports the 3% value as well.⁵⁰ TechFreedom

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the effect of any additional interference. If the resulting performance impact exceeds the permissible limits, then the later-round system must adjust its operations to mitigate interference to a permissible level. *Id.*

⁴³ *Id.* at 3718-19, para. 40.

⁴⁴ Kuiper Comments at 5-9; Viasat Comments at 3; Letter from Jayson L. Cohen, Director, Satellite Policy, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, IB Docket 21-456, at 2, S-6 to S-9 (filed July 25, 2024) (SpaceX Spectrum Sharing Study); Letter from Suzanne Malloy, Vice President, O3b Limited, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456, Attachment at 1 (filed Aug. 22, 2024) (O3b Aug. 22, 2024 *ex parte*). Only OneWeb proposes an alternative value.

⁴⁵ Kuiper July 24, 2024 *ex parte* at 3-4 (“For example, a new entrant must complete its analysis before commencing commercial operations but must assume full deployment of their constellation under worst-case conditions—though full deployment is years away, if it occurs at all. Further, the 3% throughput-degradation threshold caps the interference permissible at any location, not the expected average of interference across all locations. This means that worst-case locations drive the discussion of mitigation measures and appropriate system parameters, making actual interference far less than 3% in the vast majority of circumstances.”).

⁴⁶ Viasat Comments at 3.

⁴⁷ Telesat Comments at 3.

⁴⁸ See Letter from Elisabeth Neasmith, Senior Director, Telesat, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456, at 3 (Telesat July 5 *ex parte*) (arguing that not only is there no single degraded throughput (or increase in unavailability) value that works for all coordinations, but even within a single coordination there is no one single value that is appropriate in all scenarios when considering uplinks and downlinks from user terminals and gateways).

⁴⁹ Letter from Elisabeth Neasmith, Senior Director, Telesat, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456, at 2 (Telesat Oct. 22, 2024 *ex parte*).

⁵⁰ See Intelsat Comments at 4, n.6 (noting Intelsat is not necessarily opposed to using a 3% value for long-term spectral efficiency degradation, but suggesting the value should be further assessed); ITIF Comments at 3 (“A three percent threshold is a reasonable starting place for this analysis since it is already used in other satellite contexts.”); Mangata Reply at 3 (stating the 3% for degraded throughput threshold “warrants serious considerations” but noting Mangata has not yet come to a conclusion whether it is the correct figure). See also Intelsat Oct. 18, 2024 *ex parte*, Attachment B at 2.

argues it is premature to adopt protection criteria.⁵¹ Public Knowledge and New America Open Technology Institute also support adopting a 3% degraded throughput threshold.⁵²

12. SpaceX, which initially commented that a 3% degraded throughput value required further study,⁵³ subsequently submitted its own spectrum sharing study evaluating the 3% limit.⁵⁴ Using publicly available information and reference standard antenna patterns, SpaceX performed 123 dynamic (Monte Carlo) simulations of interference from various 2020 processing-round NGSO systems into various 2016 processing-round NGSO systems.⁵⁵ In 112 of the 123 studied cases, degradation was below 3.12%, which SpaceX argues empirically supports the Commission adopting a 3.0% degradation of average spectral efficiency as a single-entry long-term interference criterion for compatibility determinations.⁵⁶

13. Only OneWeb proposes a long-term interference metric other than 3%, arguing that a 3% time-weighted average degraded throughput limit will substantially harm NGSO FSS operators and disincentivize coordination.⁵⁷ OneWeb asserts that an aggregate interference and rain fade criterion of no more than 10% degradation in average throughput is appropriate for an NGSO FSS system, that apportionment of this allowed percentage of interference to other NGSO systems should be no more than 2.5 to 3.85%, and that when accounting for the existence of multiple co-frequency NGSO systems, the single-entry average degraded throughput should be less than 1% for each individual NGSO system.⁵⁸ OneWeb further claims that if a 3% limit were adopted per system and six NGSO FSS systems were operating co-frequency, then a 15% degradation in average throughput would occur from the 5 interfering systems to the victim system.⁵⁹ No other commenter supports OneWeb's proposal; SpaceX,⁶⁰ Kuiper,⁶¹

⁵¹ TechFreedom Comments at 7. TechFreedom made these comments prior to the submission of technical studies assessing long-term and short-term interference protection criteria by Telesat and SpaceX.

⁵² See Letter from John Bergmayer, Public Knowledge, and Michael Calabrese and Jessica Dine, Wireless Future Project, New America's Open Technology Institute, to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 24-186, 20-443, IB Docket No. 21-456, ET Docket Nos. 24-40, 18-295, 20-443 (filed Oct. 31, 2024), citing Public Interest Organizations Comments at 10.

⁵³ See SpaceX Reply at 10.

⁵⁴ SpaceX Spectrum Sharing Study at S-6-S-9.

⁵⁵ *Id.* at 1-2, S-1.

⁵⁶ *Id.* at S-7 ("Long-term interference in SpaceX's large study falls into two discernible buckets: (1) degradation below 3.12%, and (2) degradation between 4.325% and 16.6%. Only eleven cases, outliers in the study, fall into the second bucket between 4.325% and 16.6%. They are all uplink cases. Given the variety of systems and the number of cases in the SpaceX study, these results suggest that interference to most links generally should fall into the first bucket with approximately 3% or lower degradation of average spectral efficiency, indicating empirically that 3% is a good backstop value. Taking a closer look at the outlier cases also supports using 3% as a backstop, as that backstop creates incentives for efficient spectrum sharing through good-faith coordination.").

⁵⁷ OneWeb Comments at 12-13, Tech. Annex 1; see also OneWeb Reply at 7-9; Letter from Kimberly M. Baum, Vice President, WorldVu Satellites Limited, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 7-8, 11-15 (filed Oct. 3, 2024) (OneWeb Oct. 3, 2024 *ex parte*).

⁵⁸ OneWeb Comments at 11-13.

⁵⁹ *Id.*

⁶⁰ SpaceX Reply at 11 ("[OneWeb's] back-of-the-envelope calculations for its values rely on a series of incorrect assumptions. First, OneWeb's calculations rely on a patently incorrect treatment of atmospheric attenuation by using a static rain-fade value. Second, OneWeb presumes that half of the interference that earlier-round NGSO systems tolerate will be from GSO operations. Third, OneWeb arbitrarily assumes that 'three to five' NGSO systems share a frequency band when calculating its single-entry value proposals.").

⁶¹ Kuiper Reply at 7 ("OneWeb bases this recommendation on a note in Recommendation ITU-R S.2131[.] One obvious problem with OneWeb's conclusion is that the ITU recommendation did not recommend, nor purport to even consider, an interference threshold (or an aggregate interference threshold). "); *id.* at 8 ("OneWeb attacks the (continued....)

and Telesat⁶² raise numerous technical concerns with it; and commenters suggest alternative explanations for the results of OneWeb's analysis.⁶³

14. OneWeb also argues that SpaceX's study purporting to affirm the 3% metric relies on flawed assumptions that undermine its conclusions.⁶⁴ Specifically, OneWeb contends that the study fails to accurately model system-specific details that could impact whether a previous-round system may experience harmful interference.⁶⁵ OneWeb's analysis incorporating its revised assumptions argues that the 3% metric results in substantially higher levels of interference than projected by both SpaceX and Kuiper, which could exceed 5% when taking into account a small deployment of Kuiper customer terminals without adding any contribution from the Viasat system.⁶⁶ Thus, OneWeb concludes that SpaceX's study fails to adequately predict the interference levels prior-round NGSO systems would receive. OneWeb further highlighted its support for a 1% or less average degraded throughput as the long-term criterion that should be adopted.⁶⁷

15. *Decision.* We adopt a 3% time-weighted average degraded throughput threshold as the long-term interference metric that must be complied with in any inter-round compatibility showing submitted by a later-round NGSO FSS grantee. The 3% time-weighted average degraded throughput is calculated on a per link basis. We conclude that adopting this value best furthers our goals of providing regulatory certainty for, and adequate protection of, earlier-round NGSO FSS systems while allowing for new entry and coordination among NGSO FSS operators. First, this value has been developed and adopted internationally as sufficient for the protection of GSO satellite networks using adaptive coding and modulation techniques, which are also used by NGSO FSS systems.⁶⁸ Second, the 3% throughput-degradation threshold limits the interference allowed at any location, not the expected average of interference across all locations. Since the worst-case locations will likely drive the discussion of appropriate system parameters and any mitigation measures, actual interference should be less than 3% in many circumstances.⁶⁹ Third, our technical review of the SpaceX study on the record indicates that the study reliably supports the conclusion that a 3% threshold is achievable by later-round systems, and therefore encourages competitive new entry, by demonstrating that the simulated degradation was near or below 3% in 112 of the 123 studied cases of later-round systems protecting earlier-round systems.

16. We disagree with OneWeb that a 3% degraded throughput threshold would disincentivize coordination, for three reasons. First, not all links considered in the SpaceX study meet this degraded throughput threshold. Additional links or different assumed parameters might also not meet the

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3% throughput degradation interference threshold by arguing that if 5 new entrants each caused 3% interference then the cumulative interference to an incumbent would be 15%. However, it provides no study to demonstrate such cumulative interference[.]").

⁶² See Telesat Reply, Tech. Annex.

⁶³ Kuiper Reply at 8 ("These contortions make plain OneWeb's goal: to come up with some argument—any argument—to counter the 3% single-entry interference threshold[.]"); see also SpaceX Spectrum Sharing Study at S-10.

⁶⁴ OneWeb Oct. 3, 2024 *ex parte* at 13-14.

⁶⁵ *Id.* (listing victim power levels, tracking strategy, antenna patterns, power control method, interference from multiple interferers, or a carrier-to-noise threshold as determining factors on modeling for interference).

⁶⁶ *Id.* at Annex C, Eutelsat Group's Analysis, Replicating SpaceX Analysis Using Corrected Assumptions.

⁶⁷ *Id.* at 11.

⁶⁸ See ITU Radio Regulations No. 22.5L.

⁶⁹ See, e.g., Kuiper July 24, 2024 *ex parte* at 4. To the extent OneWeb contends that the SpaceX study fails to accurately model OneWeb's system-specific details, see OneWeb Oct. 3, 2024 *ex parte* at 13-14, we note that individualized parameters will be considered in individual compatibility analyses. See *infra* para. 30.

threshold, and therefore the 3% degraded throughput threshold would incentivize coordination or require mitigation.⁷⁰ Second, this protection requirement is unilateral, and later-round systems will have an incentive to coordinate to receive some accommodation, or protection from interference, from earlier-round systems. And third, the 10-year sunset period ensures that earlier-round systems and later-round systems will be treated on an equal basis after the sunset, and any compatibility analyses will no longer permit the later-round system to operate in cases where it would exceed the default spectrum-splitting mechanism in section 25.261(c).⁷¹

17. In contrast, a criterion of 1% or lower has not been demonstrated to allow for competitive new entry by any study. We also find the technical basis for this criterion to be flawed. We agree with Telesat that OneWeb is incorrect in claiming that Note 3 of Recommendation ITU-R S. 2131-1 provides a 10% limit on time-weighted average degraded throughput for an FSS link employing adaptive coding and modulation (ACM).⁷² In addition, the single-entry interference criterion proposed by OneWeb is based on an isolated scenario that does not represent the broad variation of throughput degradation that can occur due to rain fade.⁷³ Further, the single-entry throughput degradation values suggested by OneWeb are based on arbitrary assumptions.⁷⁴ And the idea conveyed by OneWeb that the allowable degradation from one interference source should simply be computed by considering the degradation allowance from all interference sources and then dividing by the number of interference sources is simply incorrect, because it does not take into account the manner in which ACM is implemented in modern satellite links.⁷⁵

18. On the other hand, declining to adopt any specific long-term interference protection criterion could invite unnecessary and lengthy debates among later-round operators submitting compatibility analyses and earlier-round operators subject to those analyses with whom a coordination agreement has not yet been reached. Instead, we conclude that establishing a specific long-term interference protection metric, as technically supported on the record, will provide a clear benchmark for new entrants, around which parties may tailor any alternative long-term protections mutually agreed in coordination.⁷⁶

⁷⁰ Indeed, OneWeb itself notes that the use of “system-specific details” in a compatibility analysis, rather than certain assumed parameters as in the SpaceX study, could show a greater impact on the incumbent system and therefore require coordination or mitigation in cases where a more generalized analysis would show compliance with the 3% metric. *See* OneWeb Oct. 3, 2024 *ex parte* at 13.

⁷¹ 47 CFR § 25.261(c). We address below the claim that the interference metrics we adopt here provide less protection than the level at which operators in the same processing round must protect each other. *See infra* para. 37; OneWeb Oct. 3, 2024 *ex parte*, OneWeb Apr. 3, 2024 *ex parte*, Attachment B at 5.

⁷² *See* OneWeb Comments, Tech. Annex at 3; *see* Telesat Reply, Tech. Annex at 1.

⁷³ Telesat Reply, Tech. Annex.

⁷⁴ *Id.*

⁷⁵ Telesat Reply, Tech. Annex (“Recommendation ITU-R S.2131-1, however, does not address a specific limit on the allowable time-weighted average degraded throughput (i.e., long term) for an FSS link employing ACM. Rather, the 10% reduction mentioned in Note 3 of that Recommendation addresses the reduction in throughput corresponding to a one dB reduction in C/N, during a one-second interval. (That is, the reduction in C/N of one dB forces a MODCOD change only after one second and during that one second the link would suffer from a reduction in throughput of about 10%, none of which has to do with long term degradation). This was a key assumption used when developing the equations contained in Recommendation ITU-R S.2131-1. The above-described misinterpretation alone negates OneWeb’s conclusions.”).

⁷⁶ We address the issue of aggregate interference in Section III.A.4.c. *infra*.

2. Short-Term Interference Metric

a. Relative vs. Absolute Increase in Unavailability

19. *Further Notice.* In addition to seeking comment on defining a long-term interference metric in the degraded throughput analysis, the *Further Notice* sought comment on setting a short-term interference metric expressed as a change in the earlier-round system's link unavailability time percentage.⁷⁷ The Commission invited comment on the appropriate value for this limit, including technical justification.⁷⁸

20. *Comments.* On the issue of defining a short-term interference metric, commenters differed on whether to use a relative change in link unavailability, an absolute change in link unavailability, or both.⁷⁹ Ultimately, commenters on this issue support the use of an absolute metric; no commenter opposes use of an absolute metric or only supports use of a relative metric.⁸⁰ SpaceX, for example, explains that because next-generation satellite systems are designed to be resilient to signal degradation, these systems frequently maintain a high degree of link availability—typically in excess of 99%—despite varying environmental effects and interference from other NGSO systems.⁸¹ This equates to a typical baseline unavailability of less than 1%, but with such levels of unavailability as the baseline, SpaceX states that very small changes in link performance can trigger “wild swings” in a relative unavailability metric, even if the absolute level of link availability remains close to its baseline value.⁸² O3b and Intelsat each propose a formula to determine an absolute allowed increase in unavailability that changes with the baseline availability, reflecting concerns that a single value for increase in unavailability may not adequately protect high availability links.⁸³ OneWeb supports an absolute increase in

⁷⁷ *Further Notice*, 38 FCC Rcd at 3718, para. 39. *See id.* at para. 40 (seeking comment on means to protect earlier-round systems from “potentially high levels of short term interference”).

⁷⁸ *Id.* at 3718-19, para. 40.

⁷⁹ A relative change in link unavailability considers the baseline availability, while an absolute change in unavailability does not – for example, a 0.1% absolute change in link unavailability for a link with a baseline availability of 99.5% is equivalent to a relative change in unavailability of 20%.

⁸⁰ *See, e.g.*, SpaceX Comments at 4 (“[T]he absolute change in link availability provides a more accurate and reasonable metric for assessing inter-system interference between NGSO systems because it avoids two notable flaws of a relative unavailability metric. First, the absolute availability metric reframes short-term performance in terms of the time when highly efficient NGSO links are available, rather than the infrequent instances when such a link is unavailable. This framing is more representative of actual harm to NGSO system links that are resilient to interference. Second, the absolute availability metric expresses the actual numerical reduction in time when a system can maintain a link, rather than calculating relative percentage changes from an NGSO system’s small unavailability baseline number.”); SpaceX Comments at 4-5; SpaceX Reply at 3-5; Telesat Comments at 6-8; O3b Comments at 7; Intelsat Comments at 4; OneWeb Reply at 9-10; Kuiper July 24, 2024 *ex parte* at 7.

⁸¹ SpaceX Comments at 2.

⁸² SpaceX Comments at 2-3. Similarly, Intelsat states it “would be impractical due to the nature of NGSO operations” to use a relative unavailability metric that “could appear quite high while not significantly affecting the actual link availability.” Intelsat Comments at 4. In the same vein, O3b states that “a comparatively large relative increase in unavailability may have only a negligible effect” on link performance, while an absolute metric “will provide more flexibility for new NGSO entry while still allowing operating NGSO systems to maintain acceptable service availability.” O3b Comments at 7.

⁸³ O3b Aug. 22, 2024 *ex parte* at 2. SpaceX opposes O3b’s formula as arbitrary and “designed solely and specifically to overprotect its 2016 processing round system.” Letter from Jayson L. Cohen, Director, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 1 (filed Sept. 30, 2024) (SpaceX Sept. 30, 2024 *ex parte*). SpaceX also notes that “O3b’s submission makes no mention of its downlink operations whatsoever” and therefore O3b presents “no basis at all for its formula to apply to any links from space to Earth.” *Id.* at 4. Telesat states that it “shares some of the concerns expressed by SpaceX” on O3b’s formula and argues that “the granularity of the O3b proposal risks dragging the Commission into details that are (continued....)

unavailability and supports O3b's proposal for a variable absolute increase in unavailability based on the service requirements of the link to cover a wider range of use cases.⁸⁴

21. *Decision.* We agree with the general consensus among commenters on this issue. We conclude that the use of an absolute increase in link unavailability as the short-term interference metric provides a more reliable measure of short-term interference that is not as susceptible to significant fluctuations as a relative increase metric would be. We therefore adopt an absolute increase in link unavailability as the sole short-term interference metric required in an inter-round compatibility showing submitted by a later-round grantee. As discussed in greater detail below, we decline to adopt proposals for a formulaic approach for a variable absolute increase in unavailability in establishing a short-term interference metric.

b. Value

22. *Further Notice.* The *Further Notice* also invited specific comment on the appropriate value for the short-term interference metric, with accompanying technical justification.⁸⁵

23. *Comments.* Commenters are divided on the appropriate value for the short-term protection criterion. OneWeb asserts that if the Commission adopts an absolute change in link unavailability as the short-term metric, the single-entry limit should be "substantially lower than" 0.01% to account for uses which may necessitate higher levels of availability, such as links designed to meet a 99.99% unavailability requirement.⁸⁶ Viasat claims that a 0.05% tolerable packet loss rate from all sources "is the minimum necessary requirement" and states that a smaller value, such as 0.01%, would provide a margin to allow for other sources of short-term packet loss.⁸⁷ Intelsat initially argued that further study would be required before determining protection criteria values,⁸⁸ although now supports an absolute metric based on a sliding-scale formula, similar to O3b's, for the short-term protection criterion.⁸⁹ Similarly, Telesat had also initially argued that no single short-term metric is appropriate for all links in all coordinations based on its own study,⁹⁰ but now agrees that the SpaceX proposal strikes the right balance in protecting incumbent NGSO systems while supporting the entry of new NGSO systems and supports the 0.4% metric.⁹¹

24. SpaceX argues that its study of several 2016 processing-round and 2020 processing-round systems using 123 dynamic (Monte Carlo) simulations establishes an "empirical zone of reasonableness" for the values of the absolute change in link availability.⁹² The values in the SpaceX

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more appropriately addressed in coordination." Telesat Oct. 2, 2024 *ex parte*. See also Letter from W. Ray Rutngamlug, Associate General Counsel, Intelsat US LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456, Attachment B at 4 (filed Oct. 24, 2024) (Intelsat Oct. 24, 2024 *ex parte*) (proposing a modified version of O3b's formula, asserting that a sliding-scale approach will consider the availability requirements for different FSS links).

⁸⁴ OneWeb Oct. 3, 2024 *ex parte* at 9.

⁸⁵ *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

⁸⁶ OneWeb Reply at 9-10.

⁸⁷ Viasat Comments at 4. Kuiper retorts that OneWeb, O3b, and Viasat propose an "exceedingly low absolute threshold merely to protect incumbents" but that "absent in these proposals is any accounting for whether such a low threshold could actually allow new entry into the satellite arena." Kuiper July 24, 2024 *ex parte* at 9.

⁸⁸ Intelsat Reply at 4.

⁸⁹ Intelsat Oct. 24, 2024 *ex parte*, Attachment B at 2-4.

⁹⁰ Telesat July 5, 2024 *ex parte* at 3, Annex.

⁹¹ Telesat Oct. 22, 2024 *ex parte*.

⁹² SpaceX Spectrum Sharing Study at S-6.

study range from 0% to 0.382% at a carrier-to-noise (C/N) threshold of 0 dB, and SpaceX states that the upper end of this range is appropriate for both uplink and downlink.⁹³ SpaceX therefore contends that its study provides empirical support for short-term interference up to approximately 0.4% absolute change in link availability at a C/N threshold of 0 dB.⁹⁴ SpaceX further argues that its conservative use of a C/N threshold of 0 dB to assess changes in link availability further supports allowing short-term interference up to 0.4% absolute change.⁹⁵ SpaceX suggests that setting such a value will incentivize a later-round system to try to limit inline events to an earlier-round system toward achieving this level of short-term interference or if it cannot, to coordinate with the earlier-round system to more efficiently use the shared spectrum.⁹⁶ Telesat supports the proposed SpaceX approach, noting that it is the only approach that encourages coordination amongst operators by establishing a backstop value to protect incumbent operators while also supporting good faith coordination and promoting competition.⁹⁷

25. Kuiper supports the proposed SpaceX 0.4% absolute increase in unavailability metric as well. Kuiper initially proposed the Commission adopt a 0.1% absolute increase in link unavailability as a threshold for short-term interference, which Kuiper argued would offer sufficient room for new entrants to bring their systems into operation, even in drier climates, while being highly protective to incumbents.⁹⁸ Kuiper now urges the Commission to adopt an absolute threshold in the range of 0.1% to 0.4% for short-term protection as proposed by Kuiper and SpaceX, respectively, arguing that this would incentivize both new entrants and incumbents to negotiate in good faith while minimizing impacts on vulnerable links and operations in both systems.⁹⁹ Kuiper also explains that arguments claiming that a short-term threshold in this range would discourage coordination between incumbents and new entrants ignore the realities of coordination, which occurs when both parties are incentivized to negotiate a more mutually beneficial outcome than an alternative compatibility showing scenario.¹⁰⁰ Kuiper notes that even with interference thresholds tilted in favor of new entrants, rather than with a more balanced approach as proposed by Kuiper and SpaceX, new entrants would retain these incentives and continue to coordinate with incumbents.¹⁰¹ Regarding incumbents, Kuiper argues that while incumbents have incentives to minimize potential impacts of new entrants, an overly protective short-term threshold, like the O3b proposed formula, would incentivize incumbents to make unreasonable coordination demands and leverage those protections against new competition.¹⁰²

26. O3b proposes the Commission use a formula, rather than a fixed percentage value, to determine the allowed increase in unavailability of an earlier-round system link. O3b proposes that the permitted increase in unavailability = $-0.12 * \text{baseline availability} + 12.02$.¹⁰³ O3b argues that its formula

⁹³ *Id.*

⁹⁴ *Id.* See also Kuiper July 24, 2024 *ex parte* at 9 (stating “SpaceX’s justification for a higher [0.4%] threshold has merit”).

⁹⁵ *Id.*

⁹⁶ *Id.*; see also *id.* (“The zone of reasonableness found empirically, allowing up to 0.4% absolute change in link availability, also validates the principle that a well-designed, efficient earlier-round NGSO system should be able to withstand and adapt to short-term interference disruptions caused by inline events — even if simulated values for the absolute change are up to 0.4% at a C/N threshold of 0 dB.”).

⁹⁷ Telesat Oct. 22, 2024 *ex parte* at 2.

⁹⁸ Kuiper July 24, 2024 *ex parte* at 7-9.

⁹⁹ See *id.* at 8-9; see also Kuiper Oct. 18, 2024 *ex parte* at 2-3.

¹⁰⁰ Kuiper Oct. 18, 2024 *ex parte* at 3.

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ O3b Aug. 22, 2024 *ex parte* at 2.

appropriately adjusts protection levels to service requirements and reflects a broad range of technical characteristics and protection requirements.¹⁰⁴ OneWeb agrees and argues the SpaceX proposal would eliminate later round systems' incentive to coordinate, unacceptably undermine established operators' service quality, render it impossible for operators to guarantee a defined quality of service to their customers, and subvert the purpose of the processing round framework.¹⁰⁵ OneWeb further asserts that a 0.4% absolute increase is "overly-relaxed" and risks undermining U.S. credibility as a stable investment environment and deterring international coordination with U.S. systems.¹⁰⁶ Intelsat supports O3b's proposed formula approach and proposes the Commission adopt a slightly modified version of the formula, increasing the minimum unavailability degradation value.¹⁰⁷ Intelsat proposes that the permitted increase in unavailability = $-0.12 * \text{baseline availability} + 12.05$, modifying the minimum unavailability degradation factor from 12.02 to 12.05 which Intelsat argues allows for flexibility regarding the percent of link unavailability for high availability links.¹⁰⁸ OneWeb also supports adopting O3b's proposed formula, should the Commission decline to issue a further notice and comment.¹⁰⁹ SpaceX and Kuiper oppose this approach, arguing that O3b's formula is overly protective of earlier-round systems and would incentivize those incumbents to leverage strict limitations on later-round systems, thus discouraging market entry and innovation and leading to inefficient spectrum sharing.¹¹⁰ Telesat also raises concerns, flagging that the O3b formula has not been previously considered by the Commission or "related forums such as the ITU" and involves granular details that are better addressed in coordination between parties than by the Commission.¹¹¹

27. In the alternative, O3b and OneWeb suggest the Commission seek further comment on an appropriate short-term interference criterion and each of the corresponding proposals through a second further notice of proposed rulemaking.¹¹² O3b argues that the SpaceX and Kuiper proposals are both untimely and warrant additional inquiry.¹¹³ SpaceX and Kuiper argue that the record is complete with

¹⁰⁴ *Id.* at 2-5.

¹⁰⁵ Letter from Kimberly M. Baum, Vice President, WorldVu Satellites Limited, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456, at 2 (filed Oct. 15, 2024) (OneWeb Oct. 15, 2024 *ex parte*) (arguing "established systems would be better off after the sunset than before it" because "O3b calculates that for a variety of its links, the maximum allowed level of interference without triggering spectrum sharing under Section 25.261[(c)] corresponds to an absolute reduction in availability to O3b of 0.01% to 0.04%[.]").

¹⁰⁶ Letter from Kimberly M. Baum, Vice President, WorldVu Satellites Limited, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 1 (filed Oct. 31, 2024) (OneWeb Oct. 31, 2024 *ex parte*).

¹⁰⁷ Intelsat Oct. 18, 2024 *ex parte*, Attachment B at 4.

¹⁰⁸ *Id.*

¹⁰⁹ OneWeb Oct. 3, 2024 *ex parte* at 7-11; OneWeb Oct. 23, 2024 *ex parte*, Attachment B at 3.

¹¹⁰ *See, e.g.*, Letter from Jayson L. Cohen, Director, Space Exploration Technologies Corp., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 2-3 (filed Oct. 24, 2024) (SpaceX Oct. 24, 2024 *ex parte*); Kuiper Oct. 18, 2024 *ex parte* at 3.

¹¹¹ Telesat Oct. 2, 2024 *ex parte* at 1.

¹¹² Letter from Suzanne Malloy, Vice President, O3b Limited, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 1 (filed Oct. 9, 2024) (O3b Oct. 9, 2024 *ex parte*); OneWeb Oct. 15, 2024 *ex parte*, Attachment at 4; OneWeb Oct. 23, 2024 *ex parte*, Attachment B at 3; Letter from Suzanne Malloy, Vice President, O3b Limited, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 2 (filed Oct. 29, 2024) (O3b Oct. 29, 2024 *ex parte*) (asking the Commission to seek comment on all four short-term interference metric proposals (O3b, Intelsat, SpaceX, and Kuiper) to develop a full record). *See also* Letter from Garrett Hill, Chief Executive Officer, X2nSat, Inc., to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 (filed Nov. 5, 2024), at 1 (X2nSat *ex parte*); Letter from Alison Minea, Vice President, Regulatory Affairs, Hughes Network Systems, LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 (filed Nov. 1, 2024), at 2 (Hughes *ex parte*).

¹¹³ *See* O3b Oct. 9, 2024 *ex parte*, at 1.

detailed analyses, and demonstrates that parties have moved toward a consensus on values and methodology, and encourage the Commission to move forward with a final order.¹¹⁴ Telesat agrees, finding that the record is sufficiently complete to allow the Commission to finalize the rules for spectrum sharing and arguing that further delay will not lead to better rules, but rather, foster lingering uncertainty as to the framework in which NGSO operators coordinate their activities.¹¹⁵ Telesat additionally notes that the record demonstrates that there may never be a perfect formula that optimally addresses all possible NGSO system interactions which all parties agree upon, given the nature of the complex analyses and systems involved in developing specific metrics, and thus the Commission is justified in moving forward with a final order.¹¹⁶

28. *Decision.* After review of the record, we adopt a 0.4% absolute increase in link unavailability at a C/N threshold of 0 dB as the short-term interference metric to be used in inter-round compatibility analyses. For the reasons discussed below, we conclude that this 0.4% value, more so than the 0.1% value, 0.01% or less values, or the formulas proposed by O3b or Intelsat on the record, most closely aligns with the Commission's goals of providing regulatory certainty for and ensuring adequate protection of earlier-round incumbents while offering the best opportunities for later-round new entrants and competition and encouraging coordination.

29. First, we find that this criterion will adequately protect earlier-round NGSO FSS systems. Like the long-term interference metric adopted above, this short-term interference metric will limit the increase in link unavailability at any analyzed location. Since the worst-case locations will likely drive operators' determinations of appropriate system parameters and any mitigation measures, the actual increase in unavailability will be less than 0.4% in many circumstances.¹¹⁷ In addition, our use of a C/N threshold of 0 dB to assess changes in link availability is at the upper end of the -3 dB to 0 dB range for C/N thresholds supported on the record for compatibility analyses, and renders the 0.4% value more conservative.¹¹⁸ Because the C/N threshold is intended to reflect the minimum carrier received signal, relative to noise, necessary to maintain a link, real values for the C/N threshold may be closer to -2 dB or -3 dB.¹¹⁹ At these lower C/N thresholds, the absolute change in link availability is typically lower than at the 0 dB threshold.¹²⁰ Thus, using a 0 dB C/N threshold may overestimate the interference from a later-round system to an earlier-round system's link whose actual C/N threshold is lower. We further conclude this value will be sufficiently protective of earlier-round systems because of the decisions below to use simplifying assumptions in the analysis—such as modeling 50% or 100% deployment of an incumbent system even if it has not yet deployed in those numbers, or using an assumed satellite selection strategy when the actual satellite selection strategy is not provided by the incumbent—that may also tend to overestimate the actual interference caused to an incumbent system by the later round system.¹²¹ These simplifying assumptions in the analysis itself tend to offer incumbents more protection. Therefore, we

¹¹⁴ See Kuiper Oct. 18, 2024 *ex parte* at 5 (stating that “[w]ith a record of over 150 filings compiled over four years, there is little risk of a rush to judgment.”); see also SpaceX Oct. 22, 2024 *ex parte* (asking the Commission to reject O3b's “11th-Hour efforts” and “complicated last-second proposal for a protection formula that would gut four years of Commission-led efforts to arrive at fair, sensible spectrum sharing rules.”).

¹¹⁵ Telesat Oct. 22, 2024 *ex parte* at 1-2.

¹¹⁶ *Id.* at 2.

¹¹⁷ See SpaceX Oct. 23, 2024 *ex parte* at 2 (“[U]nder this typical coordination process, all other interfered-with links everywhere will be protected to a much greater degree than the proposed 0.4% backstop value because the interferer system will have to employ operating parameters that protect the most vulnerable links.”).

¹¹⁸ See discussion of C/N objectives in Section III.A.4.b. *infra*.

¹¹⁹ SpaceX Spectrum Sharing Study at S-6.

¹²⁰ *Id.*

¹²¹ See Sections III.A.5., III.A.7., III.A.9 *infra*.

consider the totality of the analysis when deciding upon the likely real-world interference caused by a later-round system satisfying the 0.4% absolute increase in link unavailability metric at a C/N threshold of 0 dB.

30. Second, we conclude that adopting a 0.4% absolute increase in unavailability metric will simultaneously support competitive new entry because it will accommodate several modeled second-round systems, both uplinks and downlinks, per the 123 dynamic (Monte Carlo) simulations in the SpaceX study, which we note are a better representation of the dynamic nature of NGSO systems than a static analysis would reflect.¹²² Further, we have reviewed the SpaceX study and find that the data, assumptions, and methodology employed are reasonable for purposes of adopting a 0.4% short-term interference metric to be used in inter-round compatibility analyses.¹²³ To be sure, O3b argues that the study is too limited in the operating metrics considered and is accordingly not reflective of real-world parameters.¹²⁴ Such individualized parameters will be considered in individual compatibility analyses.¹²⁵ In the event that other system combinations, or the use of different assumed parameters, result in exceedances of this short-term limit, this will require mitigation measures to be applied by the later-round operator or coordination with earlier round operators.¹²⁶

31. Third, we conclude that adopting this short-term protection value will support competitive new entry while continuing to encourage good-faith coordination among both incumbents and new entrants, which offers the best avenue for efficient spectrum sharing among NGSO FSS systems. Unlike the requirement for later-round systems to protect earlier-round systems under the inter-round protection requirement prior to the sunset period, incumbents have no corresponding requirement to protect new entrants during this period, and therefore an overly conservative protection requirement for the benefit of incumbents may discourage incumbents from negotiating more lenient limits for new entrants. On the other hand, permitting new entrants to operate with an overly lenient limit may discourage them from negotiating with incumbents for more restrictive protections for the benefit of incumbents. The short-term interference metric we adopt here strikes the right balance to encourage coordination among earlier and later-round systems. We disagree with assertions that the 0.4% absolute increase will risk investment in U.S. systems by discouraging international systems from coordinating

¹²² SpaceX Spectrum Sharing Study at S-6.

¹²³ Kuiper, which proposes a different 0.1% limit, nonetheless uses the SpaceX study as partial justification for its chosen interference limit and acknowledges that “SpaceX’s justification for a higher [0.4%] threshold has merit.” Kuiper July 24, 2024 *ex parte* at 9.

¹²⁴ See, e.g., O3b Aug. 22, 2024 *ex parte* at 3, Attachment at 4 (arguing that O3b’s analysis by comparison, considering the full range of antenna types and power levels as included in O3b’s previous applications filed with the Commission, reflects significant variations from SpaceX’s calculations); O3b Sept. 5, 2024 *ex parte*, Attachment at 4 (stating the SpaceX Study “considers for most systems only a single antenna size for GW and UT, along with a single power level for each – the maximum power requested” and that “SpaceX ignores the fact that O3b uses a broad range of antenna sizes and power levels, with a corresponding range of uplink baseline availability levels”); OneWeb Oct. 3, 2024 *ex parte* at 9.

¹²⁵ Thus, we reject O3B’s assertion that “later round system could attempt to rely on SpaceX’s interference calculations in lieu of making an actual compatibility showing reflecting real-world data.” O3b Sept. 5, 2024 *ex parte*, Attachment at 7. Rather, in response to individual compatibility showings, first-round operators can challenge the assumptions and data used in such showings. See SpaceX Sept. 30, 2024 *ex parte* at 7-8 (“[N]othing in SpaceX’s proposal prevents an earlier round system from opposing a compatibility study by using the type of analysis that O3b’s submission suggests. In particular, under SpaceX’s proposal, the Commission should expect oppositions that assume the earlier round system operates at power levels lower than its maximum levels while the later round system operates at its maximum power levels.”).

¹²⁶ Thus, a 0.4% absolute increase in unavailability metric will not remove the incentive of later round systems to coordinate with earlier round systems. See, e.g., O3b Aug. 22, 2024 *ex parte* at 6-8. See also *infra* para. 32 (discussing incentives of later round systems to coordinate).

with U.S. systems.¹²⁷ While it is unclear which specific circumstances are in reference, we remind both incumbents and new operators that coordination with the ITU is separate from coordination within the U.S. and is required of all international systems under the ITU Radio Regulations.¹²⁸ The Commission's rules require both parties to engage in good faith coordination. Providing an avenue for meaningful competition by both incumbents and new entrants will encourage both sides to agree upon any more specific, mutual protection measures during coordination.

32. We are not persuaded by alternative proposals. We disagree with the proposed 0.01% or lower threshold advocated by Viasat.¹²⁹ Unlike the 0.4% absolute increase in unavailability metric, which the SpaceX Monte Carlo study in the record indicates is achievable for several modeled second-round systems, there is no evidence in the record from proponents of a 0.01% or lower threshold showing that it is achievable and provides for competitive new entry. And while a 0.1% limit would accommodate most second-round system links analyzed in the SpaceX study, a 0.4% limit will provide greater opportunities for new entry while still providing adequate protection of incumbent systems due to the conservative assumptions incorporated into the standard and the calculation of increase in unavailability and at the same time providing incentives for good faith coordination. Stricter limits for particular links can, of course, be agreed in coordination. The SpaceX study indicates 0.4% to be the upper limit in the studied cases in both uplink and downlink, and accommodates user terminals and gateway earth stations.¹³⁰ Indeed, we note that Kuiper's initial study, which proposes the 0.1% limit, uses the SpaceX study as partial justification for its chosen interference limit and nonetheless acknowledges that "SpaceX's justification for a higher [0.4%] threshold has merit."¹³¹ Further, Kuiper has since advocated for the Commission to adopt a threshold within the 0.1% and 0.4% range as proposed by Kuiper and SpaceX, respectively, noting that these proposals represent a reasonable range that balances competing interests and incentives.¹³²

33. We also do not agree with O3b and Intelsat that their proposals to create a variable, sliding-scale metric for absolute increase in unavailability would better serve the Commission's goals than the adoption of a 0.4% absolute increase in link unavailability metric at a C/N threshold of 0 dB. As an initial matter, both the O3b and Intelsat formulae appear to be based on the protection of only a narrow

¹²⁷ See OneWeb Oct. 31, 2024 *ex parte* at 1 (arguing that a 0.4% metric risks "risks undermining U.S. credibility" and "raises concerns the international systems may similarly seek to avoid coordination with U.S. systems, leading to a less efficient spectrum sharing environment.").

¹²⁸ See, e.g., *Space Norway AS, Petition for a Declaratory Ruling Granting Access to the U.S. Market for the Arctic Satellite Broadband Mission*, Order and Declaratory Ruling, 32 FCC Rcd 9649 at para. 6, n. 22, 24 (Nov. 3, 2017) (granting Space Norway system conditioned upon international coordination as a requirement of the grant, and stating, "Compliance with ITU coordination procedures is a requirement of the ITU Radio Regulations, which hold the force of treaty to which the United States is a party. Such compliance is a typical condition of both U.S. space station licenses and grants of U.S. market access." 47 CFR § 25.111(b) and ITU Radio Regulations, No. 9.12 (requiring coordination of certain NGSO Systems), No. 9.52 (requiring both parties in coordination to "make every possible mutual effort to overcome [coordination] difficulties, in a manner acceptable to the parties concerned"), No. 11.42 (requiring the immediate cessation of harmful interference actually caused to a recorded assignment with which coordination is required but has not been effected)."). See also *Space Exploration Holdings, LLC*, Memorandum Opinion, Order and Authorization, 33 FCC Rcd. 3391 at para. 8 (2018) (stating that "[o]utside the United States...the coexistence between SpaceX's operations and operations of a system that received a grant for access to the U.S. market are governed only by the ITU Radio Regulations as well as the regulations of the country where the earth station is located and are not subject to section 25.261.").

¹²⁹ Viasat Comments, Technical Annex at A-2.

¹³⁰ See SpaceX Spectrum Sharing Study at S-4, S-6.

¹³¹ Kuiper July 24, 2024 *ex parte* at 9 ("[P]er SpaceX's recent study, short-term interference would be under that [0.1%] threshold in 114 out of 123 interference scenarios between new entrants and incumbents.").

¹³² Kuiper Oct. 18, 2024 *ex parte* at 3.

set of systems.¹³³ In addition, we disagree with O3b's claim that the proposed formula would not impose additional complications on operators compared to an established absolute threshold value. Incorporating a variable, sliding-scale short-term interference metric would be more burdensome for later round systems to implement considering that detailed information of the incumbent system, including the receiver characteristics, would be required in order to calculate the baseline availability required by the sliding-scale formula. Absent cooperation from the operator of the incumbent system, it would be difficult to obtain this information, particularly for new entrants. We do not find the alleged benefits of this approach as compared to a non-variable metric outweigh these burdens. Given the conservative assumptions in the analysis itself, we are also concerned that O3b and Intelsat's more stringent formulae may unnecessarily restrict competitive new entry. O3b and Intelsat's principal objection to the use of a single 0.4% absolute value is that it would create a more noticeable impact on customers served by higher availability links than on those served by lower availability links.¹³⁴ However, it is precisely a concern about the overprotection of high availability links that has driven the general consensus on the record towards using an absolute metric of increase in unavailability, rather than a relative metric.

34. Moreover, O3b's assumed baseline availability rates of the incumbent system may be higher on paper than in reality, to the extent O3b excludes from the baseline the effects of other existing sources of interference, such as interference from GSO networks, other NGSO systems, and intra-system noise.¹³⁵ Accordingly, the relative impact on high availability links may be overstated. In addition, while O3b argues that a 0.4% absolute increase in unavailability metric would "make it impossible for operators to guarantee a defined quality of service to their customers" because of the additive effect of short-term interference from multiple later-round systems, the potential for aggregate interference is not limited to the use of this value and would exist under O3b's formula as well.¹³⁶ Further, just as we expect the real-world impact of a later-round system complying with the 0.4% increase in unavailability limit to be less than 0.4% in many cases, given the conservative assumptions in the analysis noted above, we similarly expect that any cumulative, real-world effects of two or more later-round systems will likely be less than a simple multiplication of the 0.4% limit by the number of later-round interferers that O3b assumes because it fails to account for mitigation techniques or other spectrum-sharing measures that may be applied by the NGSO FSS systems and reduce their overall aggregate impact.¹³⁷

35. While O3b also argues that a 0.4% increase in unavailability limit would "eliminate later round systems' incentive to coordinate" because all links in the SpaceX study can be accommodated under this short-term limit,¹³⁸ other links or parameters not included in the SpaceX study, some of which

¹³³ See O3b Aug. 22, 2024 *ex parte* at 3-4; Intelsat Oct. 24, 2024 *ex parte*, Attachment B at 4.

¹³⁴ O3b Aug. 22, 2024 *ex parte* at 7 ("[Allowing] a single later round system to increase unavailability by 0.4% would add roughly 35 outage hours per year across the board. For a link with a baseline availability of 99.9%, that would mean a jump in yearly outage from less than 9 hours to 44 hours, multiplying the total outage duration by almost five, while a link with a baseline availability of 99.0% would see its yearly outage increase from 88 hours to 123 hours, multiplying the total outage duration by 1.4."); see also OneWeb Oct. 3, 2024 *ex parte* at 10 (arguing the Commission "should ensure that the [short-term] limit adequately protects links that require higher availabilities, such as gateways and enterprise use cases"); X2nSat *ex parte* at 1; Hughes *ex parte* at 2.

¹³⁵ See Section III.A.4. *infra*.

¹³⁶ O3b Aug. 22, 2024 *ex parte* at 7-8; see also OneWeb Oct. 3, 2024 *ex parte* at 9-10. We consider the adoption of aggregate interference limits in Section III.A.4.c *infra*.

¹³⁷ O3b Aug. 22, 2024 *ex parte* at 8; see also, e.g., comments on aggregate interference summarized in para. 52, *infra*; SpaceX Sept. 30, 2024 *ex parte* at 9 (arguing the Commission should "ignore O3b's claim that SpaceX's proposal will lead to a cumulative short-term interference effect that O3b has not demonstrated or provided empirical evidence would actually take place").

¹³⁸ See also OneWeb Oct. 3, 2024 *ex parte* at 7-8.

O3b points out,¹³⁹ might exceed the 0.4% short-term limit.¹⁴⁰ In any event, O3b itself notes that not all links in the SpaceX study meet the 3% degraded throughput long-term limit we adopt above. Cases where a later-round system cannot meet either the short-term or long-term limit will encourage the later-round operator to complete coordination with the incumbent operator. Later-round operators will also be incentivized to coordinate in order to potentially *receive* some protection, or accommodation, from earlier-round operators. Further, the 10-year sunset period we adopted in the *Report and Order* ensures that earlier-round systems and later-round systems will be treated on an equal basis after the sunset period, and any compatibility analyses will no longer permit the later-round system to operate in cases where it would exceed the default spectrum-splitting mechanism in section 25.261(c).¹⁴¹ Accordingly, later-round system operators will have several incentives to complete coordination with earlier-round operators. Moreover, section 25.261(b) of the Commission's rules requires NGSO FSS licensees and market access recipients to coordinate in good faith the use of commonly authorized frequencies regardless of their processing round status.¹⁴²

36. To the extent an incumbent wishes to ensure the highest availability for particular use cases, such as when offering its services to government or enterprise customers, it may discuss such particular uses during coordination with new entrants and new entrants will have several incentives to complete the coordination.¹⁴³ The Commission has expressly recognized that the physical realities of interference in spectrum-based services should guide both system design and reasonable expectations of operation.¹⁴⁴ The likelihood of harmful interference should be assessed under a range of operating conditions. Further, the Commission has encouraged operators, and specifically NGSO FSS operators,¹⁴⁵ to design systems for a shared and dynamic operating environment and plan to manage potential interference in such dynamic environments.¹⁴⁶ Operators providing important communications with 99.5% or greater service availability require systems equipped with redundancy to compensate for potential short-term impacts caused by inline events. The Commission has detailed best practices for satellite operator emergency planning and preparedness with specific recommendations to determine system resiliency and redundancy.¹⁴⁷ To the extent operators have concerns about protecting particular types of links operating in the non-federal FSS, such as those they may be offering to government or enterprise customers, such concerns are best addressed in coordination agreements rather than in a non-federal spectrum sharing framework.

¹³⁹ See also *id.* at 9.

¹⁴⁰ See O3b Aug. 22, 2024 *ex parte* at 3, 6.

¹⁴¹ We further note that international coordination procedures offer an additional incentive for later-filed NGSO FSS systems to complete coordination with incumbent systems. See, e.g., ITU Radio Regulations No. 9.12.

¹⁴² 47 CFR § 25.261(b).

¹⁴³ See *supra* para. 32; see also OneWeb Oct. 3, 2024 *ex parte* at 8-9.

¹⁴⁴ *Commission Policy Statement* at paras. 5, 17; see, e.g., Kuiper Oct. 18 *ex parte* at 5 (asserting that interference is an “ever-present reality for the satellite industry using commonly shared spectrum and one that every operator must address.”).

¹⁴⁵ See *Report and Order* at para. 31 (“The nature of NGSO FSS systems, which must be designed to endure changing environment effects, also renders them more capable of sharing spectrum than other system designs.”).

¹⁴⁶ *Commission Policy Statement* at paras. 18, 27-28 (“It is not the policy of the Commission to always provide interference protection to the worst (i.e., least selective) performing receivers, particularly when it is technically feasible and practical, over an appropriate amount of time, for receivers to perform their required functions with significantly more interference immunity. Indeed, the ITU and EU RED also emphasize that receivers should, as far as practical, be based on the most recent technological advances.”) (citations omitted).

¹⁴⁷ See Emergency Planning for Satellite Carriers, FCC, <https://www.fcc.gov/reports-research/guides/emergency-planning-satellite-carriers>.

37. In addition, we do not agree with O3b that a 0.4% value “subvert[s] the purpose of the processing round framework” because it is higher than the spectrum-splitting trigger, which O3b calculates for its system would be between 0.01% and 0.04% absolute increase in unavailability.¹⁴⁸ Although it is possible for a very small number of links of the earlier-round systems in which the $\Delta T/T$ of 6% (I/N of -12.2 dB) (the trigger for coordination among systems in the same processing round) may be exceeded, such exceedance would be limited in terms of the number of links affected and the length of time. We are not convinced that such short-term impact would be significant on the earlier round systems.¹⁴⁹ The short-term protection criteria we adopt here is a unilateral protection of earlier-round systems by later-round systems and does not require any reduction in spectrum usage or other operational changes by the earlier-round system. In contrast, exceeding the more sensitive trigger for spectrum-splitting in section 25.261(c) for systems approved in the same processing round creates a mutual obligation for both systems to split their commonly authorized frequencies for the duration of the potential interference event. Nevertheless, for links of an earlier-round system in which the $\Delta T/T$ is 6% or greater, later-round systems are required to coordinate with the earlier-round systems of these links prior to commencing operation.

38. We are further not persuaded by calls to seek comment on the short-term interference metric through a second further notice of proposed rulemaking.¹⁵⁰ The *Further Notice* sought comment on setting a short-term interference metric.¹⁵¹ In response to the *Further Notice*, interested parties have had ample opportunity to comment on all proposals, as illustrated by their record submissions.¹⁵² Adopting a specific limit for increase in unavailability, rather than adopting no limit or deferring the issue to a later time as some commenters advocate, will result in a more complete set of required interference metrics applicable to an inter-round compatibility analysis and therefore will provide greater regulatory certainty to earlier-round operators and later-round operators. Conversely, not adopting any specific acceptable short-term interference threshold or deferring the issue to a later time would deprive new entrants of the certainty that they can provide some level of service without the agreement of an earlier-round operator. The SpaceX study indicates 0.4% to be the upper limit in the studied cases in both uplink and downlink, and accommodates user terminals and gateway earth stations.¹⁵³ Stricter limits for particular links can, of course, be agreed in coordination.

39. Therefore, we conclude an absolute increase in unavailability value of 0.4% at a C/N threshold of 0 dB will appropriately balance the Commission’s goals of providing regulatory certainty for, and adequate protection of, incumbent systems while at the same time ensuring competitive new entry and encouraging coordination among NGSO FSS operators.

¹⁴⁸ See O3b Oct. 11, 2024 *ex parte* at 3.

¹⁴⁹ See, e.g., Kuiper Oct. 18, 2024 *ex parte* at 5 (“Further, as SpaceX points out, every operator should expect to address the short-term interference caused by in-line events, and a well-designed system is robust to a variety of sources of reasonable interference.”) (citing SpaceX Sept. 30, 2024 *ex parte* at 5 (“But an earlier round system like O3b’s or SpaceX’s Gen 1 system should be able to absorb a much higher short-term impact to its operations caused by inline events with a later round system.”)).

¹⁵⁰ See, e.g., O3b Oct. 18, 2024 *ex parte* at 1.

¹⁵¹ *Further Notice*, 38 FCC Rcd at 3718, para. 39. See *id.* at para. 40 (seeking comment on means to protect earlier-round systems from “potentially high levels of short term interference”).

¹⁵² See, e.g., O3b Oct. 18, 2024 *ex parte*; OneWeb Oct. 23, 2024 *ex parte*, Attach. B; SES Oct. 21, 2024 *ex parte* at 2; SpaceX Sept. 30, 2024 *ex parte*; Amazon Oct. 18, 2024 *ex parte*; Intelsat Oct. 18, 2024 *ex parte*, Attachment B; Telesat Oct. 22, 2024 *ex parte*.

¹⁵³ See SpaceX Spectrum Sharing Study at S-4, S-6.

3. Minimum Link Availability

40. *Further Notice and Comments.* In conjunction with the Commission's consideration of long-term and short-term interference criteria,¹⁵⁴ SpaceX, on the basis of its study of several 2016 processing-round and 2020 processing-round systems, proposes that the Commission adopt a 99.0% link availability without the interferer at a C/N threshold of 0 dB as a minimum benchmark for an earlier-round system to show it merits the backstop levels of short-term and long-term interference protection from a later-round system that the Commission is considering.¹⁵⁵ SpaceX states this minimum benchmark indicates a well-designed, efficient earlier-round NGSO system with a robust signal-to-noise ratio and that all first-round links studied by SpaceX achieved this minimum benchmark, except one link at 98.7%.¹⁵⁶ Requiring a minimum 99.0% link availability, SpaceX argues, would prevent an incumbent whose publicly-available information shows its link achieves a 99.9% link availability at a C/N threshold of 0 dB, for example, from claiming that it can actually achieve only a 90% link availability at that threshold. Such a claim would tend to exaggerate the extent to which the earlier round system is susceptible to interference from every second-round system.¹⁵⁷ SpaceX also contends that a rule requiring a first-round system to show a 99.0% link availability without the interferer at a C/N threshold of 0 dB incentivizes efficient spectrum sharing through coordination, since "a first-round system that cannot achieve this minimum benchmark level of performance on a given link — indicating its inefficient use of spectrum — would have to coordinate with the second-round system to determine a more efficient spectrum sharing arrangement."¹⁵⁸ O3b, in proposing its increase in unavailability threshold formula, supports protection of links with baseline availabilities as low as 97%,¹⁵⁹ and argues the SpaceX proposal would unfairly provide no protection for links with lower baseline availability levels that meet the needs of customers with a higher interference tolerance.¹⁶⁰

41. *Decision.* We agree with SpaceX that an inefficient incumbent system design should not unreasonably hamper future entry. Further, we have reviewed the SpaceX study¹⁶¹ and find that the data, assumptions, and methodology employed are reasonable and note that, although O3b has commented that the study could be expanded upon using different system parameters, no commenter objects to the data, assumptions, or methodology SpaceX used. While O3b's formula shows protection of links with baseline availabilities as low as 97%, its formula inherently recognizes that lower performing links should receive less protection and does not specifically justify or technically support requiring protection of links below 99.0% availability. Rather, we concur with SpaceX that a 99.0% link availability without the interferer at a C/N threshold of 0 dB is a reasonable minimum benchmark to guard against the risk of low-performing incumbent links. We therefore will require this benchmark as a minimum value to be incorporated into an inter-round compatibility showing to demonstrate compliance with the long-term and short-term interference metrics adopted above.

¹⁵⁴ See *Further Notice*, 38 FCC Rcd at 3718-19, paras. 39-40. For example, the Commission inquired as to what the "appropriate baseline to consider for the earlier-round system" should be and how the analysis should "appropriately" protect the specific characteristics of an NGSO system's operations. *Id.* at 3718, para. 40.

¹⁵⁵ SpaceX Spectrum Sharing Study at S-9.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ *Id.* at S-10.

¹⁵⁹ O3b Aug. 22, 2024 *ex parte* at 5.

¹⁶⁰ O3b Oct. 17, 2024 *ex parte* at 2.

¹⁶¹ SpaceX Spectrum Sharing Study at S-9 to S-10.

4. Additional Interference Metrics

a. Loss of Synchronization

42. *Further Notice.* The *Further Notice* also asked whether additional means are needed to protect earlier-round systems against loss of synchronization due to potentially high levels of short-term interference.¹⁶²

43. *Comments.* Most commenters on this issue oppose including additional criteria to protect against loss of synchronization.¹⁶³ Telesat argues that doing so is unnecessary because in modern satellite systems the concept of link unavailability also protects against the loss of synchronization as long as an appropriate C/N objective is chosen.¹⁶⁴ Kuiper states that including such a protection criteria would undermine incentives for a resilient design of modems and receivers and result in a less efficient spectrum sharing framework.¹⁶⁵ Kuiper additionally maintains that any issues an incumbent may have regarding synchronization loss is best addressed in good-faith coordination with new entrants.¹⁶⁶ Commenters also note that information on the particular modems used by incumbents, which is required to determine a protection criteria necessary to prevent loss of synchronization for a particular system, is not typically disclosed in domestic or international filings.¹⁶⁷ Kuiper suggests the appropriate way to address particularized interference concerns of a given incumbent is not through systematic changes to the methodology but instead through operator-to-operator coordination.¹⁶⁸

44. Two commenters support requiring later-round operators to specifically protect against an incumbent's loss of synchronization, arguing that consideration of loss of synchronization does not render analyses overly complex,¹⁶⁹ and that when information has been shared pursuant to good-faith coordination, the consideration of these additional metrics is straightforward and can ensure protection of a variety of NGSO system designs and service characteristics.¹⁷⁰ OneWeb also argues the Commission should account for short-term degraded throughput events where an operator may experience high levels of degradation causing a modem to lose synchronization or suffer other critical errors.¹⁷¹ OneWeb argues

¹⁶² *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

¹⁶³ Telesat Comments at 9; Kuiper Comments at 12; SpaceX Comments at 14; Mangata Reply at 7.

¹⁶⁴ Telesat Comments at 9-10; Telesat July 5, 2024 *ex parte* at 2.

¹⁶⁵ Kuiper Comments at 14; *see also id.* (“Designing a system that cannot handle link loss or loss of synchronization is no different from designing a system that is otherwise unduly susceptible to interference (for example, through the use of low-quality receivers that are overly susceptible to interference). Accounting for such inefficient designs incentivizes their further deployment and shifts the cost of such decisions from the incumbent decisionmaker to new entrants.”); SpaceX Comments at 14 (“Efficient satellite systems should be capable of rapidly establishing synchronization at a modem following in-line interference events, and having more than one reference value would penalize those systems investing in advanced capabilities that enhance the consumer experience.”).

¹⁶⁶ *See* Kuiper July 24, 2024 *ex parte* at 10 (arguing that including a loss of synchronization metric would effectively create a new protection criterion that would only serve to protect poorly designed systems); *see also* Kuiper Oct. 18, 2024 *ex parte* at 6 (noting that OneWeb admits that additional protection criteria are “best addressed in the context of coordination”) (citing OneWeb Oct. 3, 2024 *ex parte* at 10).

¹⁶⁷ Kuiper Comments at 14; Mangata Reply at 7.

¹⁶⁸ Kuiper Comments at 14-15, n.30.

¹⁶⁹ OneWeb Reply at 11.

¹⁷⁰ *See* O3b Comments at 8; O3b Reply at 10-11; OneWeb Reply at 11.

¹⁷¹ OneWeb Reply at 11; *see also* OneWeb Comments at 16. Kuiper specifically opposes OneWeb's proposal to add an additional metric for short-term degraded throughput. Kuiper Reply at 6 (“Any degraded throughput metric will average interference highs and lows that an NGSO system experiences over a given time period. NGSO operators already typically simulate interference into other NGSO systems at one-second time steps over a significant time period, thereby averaging results over hundreds of thousands or millions of interference events. Therefore,

(continued....)

that loss of synchronization should be a required metric in any compatibility showing to ensure that operators have a complete picture of the interference environment if operators cannot achieve a coordination agreement.¹⁷²

45. *Decision.* We decline to mandate new entrants protect incumbent systems against loss of synchronization, or incorporate a short-term degraded throughput metric, beyond the protections afforded by the long-term and short-term interference protection criteria we adopt above. We agree with commenters who argue that doing so would risk incentivizing inefficient system designs, including the choices of modems and receivers that are not capable of quickly re-establishing synchronization in a shared spectrum environment. We also agree with Telesat that doing so is unnecessary because a limit on the increase in link unavailability also protects against the loss of synchronization.¹⁷³ In addition, requiring new entrants to meet such protection criteria that are defined solely by incumbents, to address particular interference sensitivities of incumbent systems, outside of protections mutually agreed in coordination, would create uncertainty for new entrants and could unduly restrain new entry and competition.

b. Carrier-to-Noise Objectives

46. *Further Notice.* The *Further Notice* sought specific comment on whether an earlier-round operator should be able to specify two C/N objectives – one relative to the C/N level below which the victim modem would lose signal lock with the satellite and another relative to the C/N level below which the victim link would become unavailable because it is not able to offer the minimum wanted throughput.¹⁷⁴

47. *Comments.* Several commenters on this issue support the Commission adopting a single minimum C/N objective relative to link unavailability, rather than include multiple C/N objectives such as one below which the victim modem would lose lock. SpaceX proposes the Commission adopt a reference C/N threshold between -3 dB and 0 dB, because this range accounts for both real modem performance and the modulation and coding rates of broadband satellite waveforms within a reasonable margin.¹⁷⁵ O3b suggests the Commission specify 0 dB as the standard C/N level to account for the threshold performance that efficient modems should be capable of achieving.¹⁷⁶ Noting that the commonly used adaptive coding and modulation (ACM) standard DVB-S2X can demodulate signals with C/N levels as low as -3 dB, Intelsat recommends the required minimum C/N value should align with ACM standards and should accurately reflect the earlier NGSO system's requirements.¹⁷⁷

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OneWeb's proposal, merely reducing the overall time period that interference is assessed to craft a separate metric, should only slightly vary the results, with no discernible spectrum sharing aim. To the extent that an NGSO system cannot accommodate these minor changes in long-term interference over different time horizons, this is a system inefficiency to address individually, not a spectrum sharing issue to foist on other NGSO operators.”).

¹⁷² OneWeb Oct. 23, 2024 *ex parte*, Attachment B at 5 (noting that “metrics like loss of synchronization, short-term degraded throughput, and fast changes in interference can all have significant impacts on the interference environment”).

¹⁷³ Telesat Comments at 9-10.

¹⁷⁴ *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

¹⁷⁵ SpaceX Comments at 13-14; SpaceX Reply at 19.

¹⁷⁶ O3b Comments at 7.

¹⁷⁷ Intelsat Comments at 9. Intelsat observes that all known NGSO systems implement ACM techniques, which allow dynamic changes to account for link degradations from rain fade, interference, or other impairments while maximizing throughput. *Id.* Intelsat also notes that the minimum C/N required can vary significantly depending on the ACM technology implemented in an NGSO system, as well as between forward and return links. *Id.*

48. Several commenters also oppose allowing an incumbent to specify an additional C/N level below which its modem would lose lock, because doing so could invite gamesmanship,¹⁷⁸ or otherwise require information on all of the potential modems and receivers used by the incumbent system, details of which are not typically available through publicly available filings.¹⁷⁹ Kuiper argues that accounting for this factor in interference analyses could undermine incentives for a resilient design of modems and receivers, whereas rejecting proposals to account for link loss will require operators that choose designs ill-suited for a shared-spectrum environment to “internalize the costs of their decisions.”¹⁸⁰

49. O3b, however, argues the Commission should allow an earlier-round operator to justify a system-specific alternative minimum C/N threshold by identifying, subject to reasonable explanation and support, the required C/N level needed to maintain link usability.¹⁸¹ O3b argues these C/N values would typically be incorporated into coordination discussions, so later-round systems should be aware of the earlier-authorized operators’ protection requirements.¹⁸²

50. *Decision.* We agree with the general consensus on the record that reference C/N threshold values of between -3 dB and 0 dB are appropriate to account for the performance of efficient, modern modems and receivers. We will adopt a C/N value of 0 dB that must be used in a compatibility showing with an earlier-round system as proposed by O3b and within the ranges supported by SpaceX and Intelsat as it reflects a reasonable, upper-limit for modern NGSO systems. We also conclude that allowing an incumbent to specify an additional C/N level below which the victim modem would lose lock, if it is more sensitive than this range, could reward inefficient system designs at the expense of more competitive new entry. We therefore decline O3b’s proposal to require later-round grantees to demonstrate they will meet any alternative incumbent-specified C/N level needed to maintain lock. Nonetheless, operators in coordination will be free to discuss and agree upon the use of other C/N levels when concluding a coordination agreement that leaves both parties better off than would operating under any submitted compatibility showing.

c. Aggregate Interference

51. *Further Notice.* The *Further Notice* also noted concerns about aggregate interference from multiple NGSO systems.¹⁸³ The Commission invited comment on whether to set a limit on permissible aggregate interference from later-round systems into earlier-round systems.¹⁸⁴ The Commission also asked whether we should expect that there will be a maximum number of NGSO FSS systems that can be accommodated in a given frequency band and if so, how that should affect any inter-round protection criteria and the opening of additional processing rounds.¹⁸⁵ Finally, the Commission inquired as to how the degraded throughput methodology should accommodate multiple NGSO systems that span multiple processing rounds.¹⁸⁶

¹⁷⁸ SpaceX Comments at 19; Intelsat Comments at 9.

¹⁷⁹ Kuiper Comments at 14; Mangata Reply at 7. Telesat also supports use of a single minimum C/N objective. Telesat Reply at 5.

¹⁸⁰ Kuiper Comments at 14.

¹⁸¹ O3b Comments at 7; O3b Reply at 9.

¹⁸² O3b Reply at 9.

¹⁸³ *Further Notice*, 38 FCC Rcd at 3719, para. 41.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

52. *Comments.* Most commenters on the issue of aggregate interference limits oppose them as unworkable and unnecessary.¹⁸⁷ Commenters argue that setting aggregate interference limits is unnecessary for several reasons. As an initial matter, Mangata argues that the primary concern with respect to interference between NGSO systems is the occurrence of inline interference events, and the probability of an inline event involving multiple NGSO systems, with all the varying constellation designs and the resulting look angles, is very low.¹⁸⁸ As such, Mangata contends that per-system limits established in this proceeding will be sufficient to mitigate any such concerns.¹⁸⁹ Second, commenters argue that both advances in technology and the use of increasingly higher-frequency bands should make it possible for more operators to coexist within a band than is otherwise possible today.¹⁹⁰ Third, commenters argue that required coordination or spectrum-splitting among later-round operators should further reduce the expected aggregate interference.¹⁹¹

53. Commenters also argue there is no demonstrated need on the record to adopt aggregate interference threshold for now.¹⁹² Kuiper notes that, given the long deployment timelines of NGSO FSS systems, such aggregate interference would not manifest for years—giving the Commission ample time to address this issue should it actually arise.¹⁹³ Some commenters therefore recommend the Commission defer consideration of aggregate interference levels for protecting earlier round systems until there is more real-world data that can be evaluated to determine the effect of aggregate interference on individual system operations.¹⁹⁴

54. Commenters further state that numerous implementation questions remain unsettled which would also make it difficult to enforce aggregate interference criteria,¹⁹⁵ and this uncertainty raises the question of whether and how the Commission would administer an aggregate framework for NGSO sharing when the number of potential systems is perpetually in flux.¹⁹⁶ Indeed, commenters state there is currently no known basis for any later-round applicant even to measure aggregate interference that might result from the combined operations of multiple systems.¹⁹⁷

55. Commenters also dispute that establishing aggregate interference limits is a prerequisite to establishing per-system limits, and further dispute that per-system limits should be derived by simply dividing the aggregate limit among the number of later-round systems, because doing so assumes that

¹⁸⁷ Kuiper Comments at 19-21; Intelsat Comments at 12-13; Telesat Comments at 11; SpaceX Reply at 7-8; Mangata Reply at 8-9; *see also generally* Kepler Comments at 2 (arguing that prior to establishing an acceptable aggregate interference threshold, further studies should be carried to mitigate the potential of any future risks).

¹⁸⁸ Mangata Reply at 8.

¹⁸⁹ *Id.*

¹⁹⁰ SpaceX Reply at 7; *see also* Intelsat Comments at 12, n.28 (arguing there is “a theoretical limit on the number of NGSO systems that can share a band given that orbital resources are not infinite” but that “[t]his limit is contingent on standards and technology (both of which evolve over time) and, most importantly, information sharing between NGSO operators”); Intelsat Reply at 6 (“Adopting a[n aggregate interference] cap now presumes there will be no further technological development to enhance spectrum sharing.”).

¹⁹¹ Kuiper Comments at 18; Intelsat Reply at 16; Kuiper July 24, 2024 *ex parte* at 11.

¹⁹² Intelsat Reply at 6; *see also* Telesat Comments at 11; Telesat Reply at 9; Kuiper Comments at 18-19.

¹⁹³ Kuiper Comments at 16-17; Kuiper July 24, 2024 *ex parte* at 11.

¹⁹⁴ Telesat Comments at 11; Telesat Reply at 9; Intelsat Reply at 6; Kuiper Comments at 18-19.

¹⁹⁵ *See, e.g.,* Kuiper Comments at 20-21 and n.44; Kuiper Reply at 11.

¹⁹⁶ SpaceX Reply at 8; Intelsat Reply at 6.

¹⁹⁷ Telesat Reply at 9; Kuiper Comments at 20-21.

each system contributes equally to aggregate interference.¹⁹⁸ They argue such an assumption “defies reality” and “would significantly overstate actual interference”¹⁹⁹ because “cumulative interference could only result where multiple satellites communicate with earth stations at the same location, with the same frequency, and at the same time.”²⁰⁰ Commenters further note that some authorized systems may not deploy.²⁰¹

56. Commenters also raise concerns with adopting an aggregate interference limit in the context of the Commission’s licensing regime for NGSO FSS systems. SpaceX argues the Commission cannot adopt an aggregate interference cap under its current processing round framework because the number of NGSO systems that will deploy in a given processing round and spectrum band is uncertain and highly variable.²⁰² Kuiper contends that, given the Commission has adopted a framework designed to promote coordination and efficient coexistence, it would be irrational to adopt an aggregate limit on the assumption that parties neither coordinate nor take measures to efficiently share spectrum.²⁰³ Kuiper also suggests that the same arguments raised in favor of an aggregate cap on interference could be made to cap the number of applicants in a single processing round, where more applicants in a processing round can mean reduced spectrum access for any given licensee required to share spectrum on equal terms with contemporaneously licensed systems.²⁰⁴ Intelsat warns that adopting an aggregate interference cap would be an end-run around the purposes of the sunset framework the Commission just adopted, which are to promote competition and to encourage NGSO operators to innovate and use spectrum more efficiently.²⁰⁵

57. Importantly, SpaceX warns that “an aggregate cap on interference would involve arbitrary line-drawing that risks stifling new NGSO system entry,”²⁰⁶ and numerous other commenters make similar statements.²⁰⁷ Instead, these commenters argue that NGSO systems can account for the total interference environment within their private negotiations, and that the Commission has determined in other contexts that operators themselves could account for aggregate interference concerns as a part of good-faith coordination.²⁰⁸

¹⁹⁸ Telesat Reply at 8-9.

¹⁹⁹ *Id.*

²⁰⁰ Kuiper Comments at 17-18.

²⁰¹ Intelsat Reply at 6; Kuiper Comments at 16 (stating “later-licensed NGSO systems may never deploy in the numbers and manner necessary to cause an unmanageable level of aggregate interference”).

²⁰² SpaceX Reply at 7.

²⁰³ Kuiper Comments at 18.

²⁰⁴ *Id.* at 20.

²⁰⁵ Intelsat Comments at 12-13.

²⁰⁶ SpaceX Reply at 7.

²⁰⁷ See, e.g., Mangata Reply at (“An aggregate limit among all NGSO systems is both unnecessary and serves only to limit the total actual or theoretical competitors in the market, which is contrary to the Commission’s goals of promoting robust competition.”); Telesat Reply at 8 (arguing that “imposing an aggregate limit at this time, when information is limited, coupled with an arbitrary form of allocation, as suggested by its proponents, could place unnecessary restrictions on later-round applicants”); Intelsat Reply at 6 (“Adopting a cap now for a currently hypothetical problem would only stymie innovation and competition.”); Kuiper Comments at 19 (“[T]he prospect of unmanageable aggregate interference caused by later-licensed NGSO FSS systems is both remote and hypothetical. At the same time, the effect of an aggregate limit on competition and innovation from new systems would be immediate and profound.”); see also Kuiper Reply at 10-11; Kepler Comments at 2.

²⁰⁸ See, e.g., Kuiper Comments at 18 (citing *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, paras. 293-95 (2016); *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands*, Report and Order, 29 FCC Rcd 4610, para. 92 (2014); and *Amendment of Part* (continued....))

58. A minority of commenters do express support for the adoption of aggregate interference limits. OneWeb argues the establishment of aggregate limits on interference into NGSO FSS systems is a prerequisite to establishing per-system limits,²⁰⁹ and that failing to adopt aggregate limits could result in more systems being authorized than can reasonably be accommodated.²¹⁰ OneWeb suggests the Commission could accept operators in an initial processing round “up to” the established aggregate limit and, once those systems deploy, or fail to do so, the Commission could determine the number of additional systems that can be supported in later processing rounds.²¹¹ Considering degradation due to rain fade and other sources of interference, OneWeb argues that an aggregate limit of 2.5% to 3.85% time-weighted average degraded throughput should be given to all NGSO FSS systems.²¹²

59. Viasat suggests the Commission develop aggregate interference limits by defining the total amount of interference that any individual NGSO system should be expected to tolerate, then allocating this amount between different NGSO FSS systems and processing rounds, while ensuring adequate opportunities for additional market entry.²¹³ Viasat argues an acceptable aggregate interference limit, including all interference sources (NGSO, GSO, and terrestrial), would be less than 0.05%.²¹⁴ ViaSat notes that aggregate interference limits on NGSO FSS systems have been adopted to protect GSO networks, though there remains no mechanism for allocating the overall interference budget between different NGSO operators.²¹⁵

60. ITIF suggests the Commission could apply an aggregate limit to later-round systems, which would be divided equally among the later-round systems that actually deploy.²¹⁶ TechFreedom also argues the Commission should consider how many NGSO systems a given frequency band support, but states it is premature to do so based on the current record.²¹⁷

61. *Decision.* We decline to adopt limits on aggregate interference into an NGSO FSS system. First, there has been no demonstration of a need for such limits at this time. No second-round system is required to deploy its full constellation until 2029 at the earliest.²¹⁸ Indeed, some proposed

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101 of the Commission’s Rules to Modify Antenna Requirements for the 10.7–11.7 GHz Band et al., Report and Order, 22 FCC Rcd 17153, paras. 48-49 (2007)); Kuiper Reply at 10; SpaceX Reply at 7; *see also* Intelsat Comments at 12; Intelsat Reply at 6 (arguing aggregate “[i]nterference risks can be minimized through good-faith coordination and information sharing among NGSO operators, as well as through the default band-splitting requirement.”).

²⁰⁹ *See* OneWeb Comments at 9.

²¹⁰ *Id.* at 10.

²¹¹ OneWeb Reply at 4-5.

²¹² *Id.* at 8, n.28.

²¹³ Viasat Comments at 6. Viasat states that it is “not advocating an *ex ante* cap on the number of NGSO systems that can be authorized in a particular spectrum band” and that “[t]o the contrary, any aggregate limit should be designed and implemented to try to avoid creating any *de facto* cap of this nature.” *Id.* at n.9.

²¹⁴ *Id.* at 4.

²¹⁵ *Id.*; *see also* OneWeb Comments at 10-11.

²¹⁶ ITIF Comments at 4. Kuiper characterizes this proposal as “replacing an aggregate limit with a variable single-entry limit that would be reduced as each later-round system became operational.” Kuiper Reply at 11.

²¹⁷ *See* TechFreedom Comments at 2-3, 6.

²¹⁸ Kuiper and SpaceX have been granted NGSO FSS system licenses in the second Ku-/Ka-band processing round. *Kuiper Systems, LLC Application for Authority to Deploy and Operate a Ka-band Non-Geostationary Satellite Orbit System*, Order and Authorization, 35 FCC Rcd 8324 (2020); *Space Exploration Holdings, LLC Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, 37 FCC Rcd 14882 (2022).

systems may never deploy their authorized number of satellites, or deploy any satellites at all. Even if we felt it appropriate to adopt aggregate interference limits from later-round systems at this time, we agree with Kuiper, among others, that unresolved questions remain as to the derivation of any aggregate limits.²¹⁹ We also disagree with OneWeb that a simplistic, worst-case assumption of multiplying the single-entry limit by six operational NGSO FSS systems reflects a realistic assessment of the interference environment because it fails to account for mitigation techniques or other spectrum-sharing measures that may be applied by the NGSO FSS systems and reduce their overall aggregate impact.²²⁰ Nor do we agree with OneWeb that the Commission should adopt aggregate interference limits to prevent “more operators being granted authorizations to operate in a given band than can reasonably be accommodated.”²²¹ Our experience has shown that not all authorized systems deploy their fully planned constellations, if they deploy at all. The recent generation of NGSO FSS systems has shown to be iterative in nature, with companies filing for systems in the first and second processing rounds, and using techniques like adaptive coding and modulation to adapt to changing spectrum environments. Blocking new entry while we wait and see which NGSO FSS systems will deploy, out of a fear of future aggregate interference that may never arise, would artificially and unreasonably inhibit competition to the benefit of some incumbents but contrary to the public interest. Should a demonstrated need arise in the future, we may revisit the question of aggregate limits. And, of course, operators are free to discuss and agree upon ways to account for any aggregate interference effects during their good-faith coordination discussions.

5. Other Sources of Interference in Baseline

62. *Further Notice.* The *Further Notice* invited specific comment on how to determine the appropriate baseline for the earlier-round system, and whether it should include existing sources of interference, such as interference from GSO networks or intra-system interference.²²² The Commission also inquired whether a degraded throughput methodology should compare an incumbent’s baseline level of performance given only natural degradation to that same incumbent’s expected performance given only a single new entrant’s operations, or whether the comparison should include the operations of multiple new entrants.²²³

a. GSO Interference

63. *Comments.* Most commenters on this issue oppose including GSO interference in the baseline calculation. Commenters argue that including additional degradations in the baseline from interference due to GSO networks could overly complicate the analysis because there is no standardized model for such interference²²⁴ and no clear way to impute such interference across all systems given the different approaches NGSO systems employ to address GSO interference.²²⁵ Commenters also note that the Commission has set aside certain portions of the Ka-band in which GSO networks must protect

²¹⁹ See, e.g., Kuiper Comments at 20.

²²⁰ See OneWeb Comments at 3.

²²¹ OneWeb Comments at 10.

²²² *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

²²³ *Id.*

²²⁴ Telesat Comments at 9-10; Kuiper Comments at 9, n.18; Mangata Reply at 9.

²²⁵ Kuiper Comments at 9 n.18; Mangata Reply at 9; see also SpaceX Reply at 17 (arguing that the potential for interference will also largely vary by frequency band and operating location, where a select number of GSO satellites with CONUS coverage may be irrelevant due to link geometries and frequency diversity). Both Telesat and Kuiper point to ITU models such as Recommendation ITU-R P.618 to establish the baseline calculation. See Telesat Comments at 9; Kuiper Comments at 11-14.

NGSO systems,²²⁶ and argue that “[e]xisting NGSO operators should not be penalized for being subject to interference from secondary GSO networks.”²²⁷

64. Intelsat, however, supports including GSO interference in the baseline calculation. Intelsat argues that failing to account for all noise sources that contribute to the overall noise an NGSO system experiences will ultimately lead to the overprotection of earlier-round systems and, as a result, artificially reduce competition among NGSO satellite services.²²⁸ Intelsat argues the specific level of existing noise to be accounted for in each frequency range should be as accurate as possible and based on services deployed in that frequency range,²²⁹ which will vary depending both on the Commission’s rules that apply in the bands and on the intensity with which the bands are used.²³⁰ While conceding that GSO noise still needs to be modeled and developed to ensure that it is accurately represented,²³¹ Intelsat argues there are likely baseline metrics that can be used in all or most scenarios to simulate GSO interference for which NGSO operators must account.²³² Intelsat suggests the Commission need not define the metric for inter-system interference from existing GSO systems because the party conducting the analysis can determine whether to include this element and provide any necessary justification for that choice.²³³

65. *Decision.* We decline to incorporate GSO interference into the baseline. We acknowledge that omitting existing sources of interference in the baseline, such as GSO interference, will tend to underestimate the interference experienced by an incumbent. However, we disagree with Intelsat that parties should be able to create and use their own metric for GSO interference affecting the incumbent’s baseline in order to ease their burden of demonstrating compliance with the required interference limits. We are concerned that Intelsat’s proposal, in the absence of an agreed model or clear way to impute such interference across all NGSO FSS systems, and the need to carefully consider GSO deployments and regulatory frameworks in different frequency bands, would create unnecessary disputes that would be time-consuming for Commission staff to assess and strain the Commission’s limited resources. Accordingly, we conclude that any alleged benefit of incorporating GSO interference into the baseline does not outweigh the burdens on parties and Commission staff in determining the appropriate way to incorporate such interference at this time. Parties are free to explore such interference effects during the detailed information sharing and discussions that accompany good-faith coordination among NGSO FSS operators, and which, we find, ultimately lead to the most efficient use of spectrum by the concerned operators.

b. Intra-System Interference

66. *Comments.* Most commenters on this issue also oppose including intra-system interference in the baseline. These commenters state that satellite operators do not routinely disclose how they mitigate intra-system interference because such mitigation techniques have little to no impact on the operations of other constellations, may be competitively sensitive, and change with user needs.²³⁴ Kuiper argues that requiring consideration of intra-system interference would either leave new entrants to guess

²²⁶ See 47 CFR § 2.106, NG165.

²²⁷ O3b Comments at 11; see also O3b Reply at 6, n.21; SpaceX Reply at 17.

²²⁸ Intelsat Comments at 5-6; Intelsat Reply at 9. SpaceX argues later-round systems may incorporate reference values for GSO interference that “warrant further discussion and development in the record.” SpaceX Reply at 18.

²²⁹ Intelsat Comments at 6.

²³⁰ *Id.* at 5.

²³¹ *Id.* at 6.

²³² Intelsat Reply at 10.

²³³ Intelsat Comments at 6.

²³⁴ Kuiper Comments at 12-13; see also SpaceX Reply at 17; Mangata Reply at 9.

how each incumbent addresses intra-system interference, inviting inaccuracy and dispute, or necessitate an unnecessary and potentially intrusive mandate to share such information.²³⁵ Kuiper suggests that an administrable degraded throughput methodology is likely to omit several existing noise sources, such as intra-system interference and interference from other NGSO FSS operators, given the practical difficulties of faithfully incorporating such factors into the analysis.²³⁶

67. Intelsat, however, again argues that the earlier-round system's performance baseline should consider all realistic sources of noise degradation, including intra-system degradations.²³⁷ Intelsat contends that intra-system interference and non-time-varying sources could be standardized to a single value, and notes that ITU Resolution 770 uses 1 dB of margin to account for these cases.²³⁸ Intelsat asserts that intra-system noise is a critical factor that should be included in compatibility analyses and argues there is no technical reason not to account for intra-system noise as a realistic assumption that would improve sharing among NGSOs.²³⁹

68. *Decision.* We decline to incorporate intra-system interference into the baseline. Given that information on intra-system interference changes with user needs, we are concerned that incorporating such interference into the baseline would create additional disputes between parties, and burdens on the Commission's limited staff resources in resolving those disputes, in the absence of a clear way to incorporate such interference into the baseline. Further, the record is not sufficiently developed to determine whether the 1 dB margin used to account for intra-system interference and non-time-varying sources with respect to interference into GSO networks in V-band under ITU Resolution 770 would be appropriate to systems in other frequency bands. Accordingly, we conclude that any alleged benefit of incorporating intra-system interference into the baseline does not outweigh the burdens on parties and Commission staff in determining the appropriate way to incorporate such interference at this time. Parties in coordination are free to explore such interference effects during their detailed information sharing and discussions.

c. Interference from Other NGSO FSS Systems

69. *Comments.* The only specific comments on this issue supported comparing an incumbent's baseline against its expected performance given the operations of a single (rather than multiple) new entrant.²⁴⁰ In particular, Kuiper argues that, while accounting for the noise environment an incumbent faces because of other incumbent NGSO FSS operators may make the analysis more accurate, the burden of increased complexity outweighs any benefit of this accuracy.²⁴¹ Rather, Kuiper argues the Commission should follow the path taken by satellite operators in coordination – to model only the incumbent and new entrant's systems.²⁴² Kuiper states that instead of ignoring interference from other

²³⁵ Kuiper Comments at 12-13.

²³⁶ Kuiper Reply at 5.

²³⁷ Intelsat Comments at 3. SpaceX argues later-round systems may incorporate reference values for intra-system interference that “warrant further discussion and development in the record.” SpaceX Reply at 18.

²³⁸ Intelsat Comments at 6.

²³⁹ See Intelsat Oct. 24, 2024 *ex parte*, Attachment at 5 (noting that in WP4A of the ITU failing to account for intra-system noise leads to significant overprotection in the long term and that ITU Res. 770 and Rec. ITU-R S.1323 both account for intra-system noise).

²⁴⁰ Kuiper Comments at 13; Telesat Comments at 9.

²⁴¹ Kuiper Comments at 13 (“Modeling three, four, or more constellations with varying orbits, geometries, and power levels will dramatically complicate the analysis. Indeed, it may be impossible to accurately model additional constellations given the wide-ranging coordination and mitigation techniques that each pair of constellations may employ.”).

²⁴² *Id.*

NGSO FSS systems, the Commission can account for it when establishing an interference threshold and recognize that excluding this interference makes any threshold that it adopts more conservative and protective than it appears.²⁴³

70. *Decision.* We decline to require compatibility analyses to include effects of multiple NGSO FSS systems in the baseline interference of the incumbent system because doing so could create uncertainty and disputes, with accompanying strain on the Commission's limited staff resources to assess those disputes, as to which additional NGSO FSS systems should be considered in a given analysis and how their effects should be incorporated in the analysis. Accordingly, we conclude that any alleged benefit of incorporating interference from multiple NGSO FSS systems into the baseline does not outweigh the burdens on parties and Commission staff in determining the appropriate way to incorporate such interference at this time. Although including this interference is not common in operator's own coordination discussions, parties in coordination are free to explore such interference effects during their detailed information sharing and discussions.

6. Rain Attenuation

71. *Further Notice.* The Commission also asked how rain fade conditions in different locations should be incorporated into the degraded throughput analysis, how many locations should be evaluated, and whether any locations should include sites outside the United States.²⁴⁴

72. *Comments.* Most commenters on this issue support using three geographically diverse locations within the United States for application of a rain attenuation standard, one for each of low, medium and high rain rates.²⁴⁵ These commenters assert that using three data points will provide sufficient scope for an interference assessment, while at the same time not demanding an analysis that could become unwieldy with an excessive number of data points.²⁴⁶ SpaceX contends that these locations should reflect the actual deployments of earlier-round systems and, where possible, rely on locations that operators jointly establish in good-faith coordination.²⁴⁷

73. Intelsat argues that four to five sites located within the United States in representative geographic areas with different rain rates "should suffice."²⁴⁸ O3b proposes that the Commission require parties to employ at least four different latitudes between 10 degrees and 70 degrees North Latitude as test points in the analysis and consider a range of rain conditions at each latitude.²⁴⁹

74. Additionally, several commenters recommend that the Commission require operators to use a common rain-attenuation model that references attenuation characteristics from the latest versions of Recommendations ITU-R P.618 and P.676.²⁵⁰

²⁴³ *Id.*

²⁴⁴ *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

²⁴⁵ SpaceX Comments at 12; Kuiper Comments at 10; Telesat Comments at 10. Kuiper specifically argues that the chosen sites should vary by latitude to account for the fact that the link geometries of NGSO FSS systems vary by latitude, influencing the incumbent's link performance. Kuiper Comments at 10. No commenter argues that locations outside the United States should be required.

²⁴⁶ Telesat Comments at 10; *see also* Kuiper Comments at 10; SpaceX Reply at 18.

²⁴⁷ SpaceX Reply at 18. SpaceX states, for example, that O3b requests that NGSO systems assess interference at an array of latitudes and rain conditions, yet many of those latitudes exceed the service coverage that its operational first-round system can provide. *Id.*

²⁴⁸ Intelsat Comments at 10.

²⁴⁹ O3b Comments at 6.

²⁵⁰ *See* Intelsat Comments at 10; Telesat Comments at 9; Kuiper Comments at 10; SpaceX Reply at 19.

75. SpaceX also argues that the Commission should standardize the rain fade conditions that represent the low, medium, and high rain attenuation conditions for NGSO system deployments, and proposes to define low rain areas as having ≤ 30 mm/hr, moderate rain areas as having 40–50 mm/hr, and high rain areas as having ≥ 80 mm/hr.²⁵¹ O3b similarly suggests rain rates for 0.01% of an average year that vary between dry (20-30 millimeters/hour) to wet (up to 80 millimeters/hour).²⁵²

76. Finally, Intelsat argues that, to account for other link losses, the Commission should either calculate the non-precipitation impairment values using the methodology specified in Recommendation ITU-R P.618 or use a standardized approach to these additional degradations.²⁵³

77. *Decision.* We decline to mandate specific rain fade assumptions to be used in an inter-round compatibility analysis. Rather, we will assess rain fade assumptions on a case-by-case basis as to whether they are reliable and representative. While we conclude based upon review of the record that inter-round compatibility analyses with three geographically diverse locations at various latitudes within the United States may be sufficient in many cases for application of a rain attenuation standard (one for each of low, medium and high rain rates), we will assess rain fade assumptions, including the number of locations, on a case-by-case basis to determine whether they are reliable and representative.

78. We agree with the majority of commenters on this issue that three locations would typically provide sufficient scope for the analysis without overburdening it because three locations will allow for the selection of sites with each of low, medium, and high rain rates. But regardless of the number of locations assumed (whether three or more or less than three), the operator submitting an inter-round compatibility analysis must demonstrate that the number of locations assumed is reliable and representative given the assumed operations of the earlier-round system. For example, if an earlier-round system operated only in a geographically limited area, such as at high latitudes, then a later-round operator might reasonably use location and rain fade assumptions that reflect the actual service area of the earlier-round system even if less than three locations. Similarly, to ensure the most accurate modeling, these locations can reflect the actual coverage of earlier-round systems and, where possible, rely on locations that operators jointly establish in good-faith coordination discussions.

79. We will also assess the rain attenuation model used in an inter-round compatibility analysis on a case-by-case basis as to whether it is reliable and representative. As an illustrative example, a party preparing an inter-round protection showing may model rain attenuation as per the current versions of ITU-R Recommendations P.618-14 and P.676-13, as recommended by commenters, and specify the rain fade conditions that represent the low, medium, and high rain attenuation conditions for NGSO system deployments, with rain rates for 0.01% of an average year in low rain areas as ≤ 30 mm/hr, in moderate rain areas as 40–50 mm/hr, and in high rain areas as ≥ 80 mm/hr. We will assess such rain fade assumptions on a case-by-case basis as to whether they are reliable and representative. Finally, as an illustrative example, a party might use Recommendation ITU-R P.618 to account for other link losses and will assess its appropriateness on a case-by-case basis, considering how these other link losses are treated in coordination and similar contexts and their particular applicability to the cases studied.

²⁵¹ SpaceX Reply at 19.

²⁵² O3b Comments at 6.

²⁵³ Intelsat Comments at 10. Intelsat states it does not have a view on which option is more appropriate but notes that the first option will require a more complex compatibility demonstration, while the difficulty of the second option lies in defining an appropriate standard degradation value, noting the degradation will vary by frequency bands. *Id.* at 10-11.

7. Standardized Parameters

80. *Further Notice.* The *Further Notice* inquired as to whether we should use standardized antenna patterns and noise temperatures for the computation of $C/(I+N)$ in a degraded throughput method.²⁵⁴

81. *Comments.* Commenters supporting standardized parameters argue that the Commission should allow later-round applicants to use certain default system parameters for earlier-round applicants that reflect a baseline of accepted system performance, below which the earlier-round applicant should not be entitled to protection.²⁵⁵

82. SpaceX argues that establishing default parameter values will ensure that compatibility showings uniformly implement the best practices of efficient NGSO systems when the parties and the Commission lack access to operational information.²⁵⁶ SpaceX also argues that default parameter values will give notice to operators that any sharing framework will not accommodate filings or system designs that are based on inefficiencies intended to block competition.²⁵⁷

83. Intelsat also argues the Commission should also adopt or clarify the nominal or standard earth station parameters that should be used where the information is not provided in the operator's authorization and not already provided for in the Commission's rules.²⁵⁸

84. Commenters propose specific operational assumptions the Commission could standardize, including: assuming earth stations from the victim and the interfering systems are collocated for both uplink and downlink cases;²⁵⁹ considering satellite beams of the selected satellites as pointing toward the earth station location in both uplink and downlink cases;²⁶⁰ for uplink cases, considering only one interferer location at each time step;²⁶¹ and implementing one-second time step durations in the

²⁵⁴ *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

²⁵⁵ Intelsat Comments at 8-11; SpaceX Reply at 20-21; Telesat Reply at 7; SpaceX Comments at 15-16; *see also* ITIF Comments at 2-3 (“The degraded throughput methodology comes with the inherent risk of low-performing receivers experiencing degradation that receivers in better-designed systems would not. This dynamic could perversely incentivize satellite spectrum users not to invest in the resilience of their receivers because they can reduce costs and block future competitors by making their throughput unreasonably degradable. ... The Commission should, therefore, adopt standardized antenna patterns that will receive Commission protection in order not to let unreasonably low-performing receivers be a basis for claiming high degraded throughput.”); *see also generally* Viasat Comments at 5 (“Although the Commission should not dictate overall system design decisions to NGSO operators, it also should not reward operators for making inefficient design decisions. The Commission can achieve both objectives by establishing baseline antenna off-axis gain and/or power limits, and antenna receive protection criteria, beyond which NGSO operators will not be entitled to cause interference to other NGSOs, or claim interference protection, as the Commission has done in the GSO context to facilitate coexistence.”).

²⁵⁶ SpaceX Comments at 16.

²⁵⁷ *Id.*

²⁵⁸ Intelsat Comments at 8 (stating, for example, that most NGSO systems specify ITU Radio Regulations Appendix 8 for their earth station user receive antenna pattern and that earth station noise temperatures are often standardized (but band-specific), but that other parameters, such as uplink effective isotropic radiated power do not lend themselves to be standardized and will vary depending on NGSO orbit and for other reasons). Conversely, Intelsat notes that some information, such as satellite transmit EIRP density and satellite gain-to-noise-temperature ratio, are unlikely to be easily standardized. *Id.*

²⁵⁹ Intelsat Comments at 9; SpaceX Reply at 21.

²⁶⁰ *Id.*

²⁶¹ *Id.*

analysis.²⁶²

85. Intelsat further proposes that, absent information on an incumbent's tracking strategy, later-round grantees should default to using random selection as the tracking strategy to determine the available satellites that meet other operational parameters such as minimum elevation angle, GSO exclusion angle, and Nco (the maximum number of beams which can be illuminated simultaneously in the polarization considered).²⁶³

86. SpaceX recommends reference parameters for downlinks and uplinks that operators should use when operational information is missing or incomplete.²⁶⁴ As standardized downlink parameters, SpaceX proposes an earth station receive noise temperature of 200K and satellite antenna patterns contained in Recommendation ITU-R S.1528.²⁶⁵ As standardized uplink parameters, SpaceX proposes a satellite receive noise temperature of 500K, earth station antenna diameters of 2.4m (gateway) and 1.0m (user terminal), and earth station antenna patterns contained in the ITU Radio Regulations Appendix 8, Annex 3.²⁶⁶

87. Intelsat also suggests the Commission should standardize the method and waveform used for the conversion from C/N values to spectral efficiency, and suggests using the method defined in Section 2.3 of the Annex of Recommendation ITU-R S.2131-1, which considers a DVB-S2X waveform and is widely used in the satellite industry.²⁶⁷

88. OneWeb, however, opposes making use of standardized parameters, arguing that the parameters for NGSO FSS systems vary widely and default NGSO system or earth station parameters are unlikely to effectively protect incumbent operators.²⁶⁸ In particular, OneWeb disagrees with considering only collocated earth stations.²⁶⁹ OneWeb asserts that this is an oversimplification and that aggregate interference of multiple stations within the same interfering system also needs to be addressed.²⁷⁰ Additionally, OneWeb opposes a standardized practice of considering only one interferer location at each time step, claiming that the interference potential could be underestimated if multiple earth stations are

²⁶² Intelsat Comments at 11; SpaceX Reply at 21.

²⁶³ Intelsat Comments at 8.

²⁶⁴ SpaceX Reply at 20-21.

²⁶⁵ SpaceX states that although the S.1528 antenna patterns, for example, S.1528 LN = -20 dB, are effectively the only reference standard antenna patterns available to model NGSO satellite transmissions, these patterns are dated, overly conservative, and tend to overestimate interference. SpaceX Reply at 21. SpaceX suggests the Commission consider seeking comment on and adoption of updated standard satellite antenna pattern(s) that are developed either through this proceeding or at the ITU. *Id.*; see also Kuiper Comments at 9, n.18 (arguing that antenna patterns are critical in assessing interference to and from NGSO FSS systems—and yet the use of overly conservative reference antenna patterns (even standardized patterns) may cause drastic overestimates of potential interference).

²⁶⁶ SpaceX states that the antenna patterns included in ITU Appendix 8, Annex 3, may be overly conservative due to their assumed sidelobe profiles and may overestimate interference caused by earth station sidelobe emissions. SpaceX Reply at 21. SpaceX recommends the Commission consider seeking comments on and adoption of updated standard earth station antenna pattern(s) either through this proceeding or at the ITU. *Id.*; see also Kuiper Comments at 9, n.18.

²⁶⁷ Intelsat Comments at 9-10; see also generally Kepler Comments at 2 (arguing the Commission “should require that operators continue to rely on existing published standards such as ITU-R S.2131.5”).

²⁶⁸ OneWeb Reply at 3.

²⁶⁹ *Id.* at 8.

²⁷⁰ *Id.*

not accounted for and that earth station deployment models can be addressed in detailed coordination.²⁷¹

89. *Decision.* We decline to mandate specific parameters and assumptions to be used in an inter-round compatibility analysis. Rather, we will assess these parameters and assumptions on a case-by-case basis as to whether they are reliable and representative. To facilitate the work of new entrants in preparing the showings and Commission staff and incumbents in reviewing them, we list below illustrative examples of parameters and assumptions that operators might consider using in any necessary compatibility showings:

- 1) assume earth stations from the victim and the interfering systems are collocated for both uplink and downlink cases;²⁷²
- 2) consider satellite beams of the selected satellites as pointing toward the earth station location in both uplink and downlink cases;²⁷³
- 3) for uplink cases, consider only one interferer location at each time step;²⁷⁴
- 4) implement one-second time step durations in the analysis;²⁷⁵
- 5) use of the method and waveform for the conversion from C/N values to spectral efficiency method defined in Section 2.3 of the Annex of Recommendation ITU-R S.2131-1;²⁷⁶
- 6) assume earth station antenna diameters of 2.4m (gateway) and 1.0m (user terminal);²⁷⁷
- 7) use the earth station antenna patterns contained in the ITU Radio Regulations Appendix 8, Annex 3;²⁷⁸
- 8) assume an earth station receive noise temperature of 200K;²⁷⁹
- 9) use the satellite antenna patterns contained in Recommendation ITU-R S.1528;²⁸⁰
- 10) assume a satellite receive noise temperature of 500K;²⁸¹ and
- 11) assume random selection as the tracking strategy to determine the available satellites that meet other operational parameters such as minimum elevation angle, GSO exclusion angle, and Nco.²⁸²

²⁷¹ *Id.*

²⁷² Intelsat Comments at 9; SpaceX Reply at 21.

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ Intelsat Comments at 11; SpaceX Reply at 21.

²⁷⁶ Intelsat Comments at 9-10.

²⁷⁷ SpaceX Reply at 21.

²⁷⁸ *Id.* While we decline to seek comment on updates to these antenna patterns at this time as suggested by SpaceX, we note that these patterns could be updated through ITU processes. We may seek comment on updates, including any updates adopted through ITU processes, or alternative patterns at a later date.

²⁷⁹ *Id.*

²⁸⁰ *Id.* While we decline to seek comment on updates to these antenna patterns at this time as suggested by SpaceX, we note that these patterns could be updated through ITU processes. We may seek comment on updates, including any updates adopted through ITU processes, or alternative patterns at a later date.

²⁸¹ *Id.*

²⁸² Intelsat Comments at 8.

90. We conclude that providing these illustrative examples of parameters and methodological approaches could make the preparation and review of compatibility analyses less burdensome and could avert unnecessary disputes among operators. We emphasize, however, that we will assess these parameters and assumptions on a case-by-case basis as to whether they are reliable and representative, including by considering any alternative publicly available information or information that the incumbent provides during operator-to-operator coordination and any justifications raised by the parties. For example, we will assess on a case-by-case basis whether it is appropriate for parties to assume that earth stations are collocated and to consider only one interferer location at each time step, including as it may be necessary due to the absence of detailed earth station deployment models and satellite receiving beams layout.²⁸³ We believe that a case-by-case approach, in combination with the list of illustrative example parameters above taken from the record, will provide parties appropriate flexibility in tailoring their analyses while facilitating the preparation of these analyses by new entrants.

8. Use of Information Gained through Coordination

91. *Further Notice.* The *Further Notice* sought comment on what other technical data is needed to appropriately evaluate degraded throughput effects, and how the Commission can ensure that any degraded throughput analysis appropriately protects the specific characteristics of an NGSO system's operations, including what role Schedule S information should play in the analysis.²⁸⁴

92. *Comments.* Commenters agree that as part of the good faith coordination among NGSO FSS operators required by the Commission, operators share technical and operational information about their systems,²⁸⁵ which is a better reflection of their actual or planned operations than can be drawn solely from information in the public record.²⁸⁶ Commenters therefore support the Commission allowing later-round operators to use operational information gained during coordination to enhance the accuracy of their compatibility showings with an earlier-round system, and to submit such showings to the Commission on a confidential basis, allowing the earlier-round operator to review the showing to ensure the information exchanged in good-faith coordination is properly represented and analyzed while preventing competing operators from viewing potentially commercially sensitive operational data.²⁸⁷

93. Commenters disagree, however, on whether later-round operators should be required to use more realistic operational information gained during coordination in their compatibility showings whenever possible,²⁸⁸ or whether later-round operators should have the choice of using either public or private data on the earlier-round system.²⁸⁹ Both sides raise the prospect of gamesmanship – if there is a requirement to use private data, the earlier-round operator could selectively provide system details that

²⁸³ See OneWeb Reply at 8.

²⁸⁴ *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

²⁸⁵ See, e.g., SpaceX Comments at 7 (“As an industry practice, NGSO operators already share actual operational parameters with each other during good-faith coordination because publicly accessible information often does not reflect true operations.”).

²⁸⁶ See, e.g., O3b Comments at 5-6 (“Analyzing the interference potential using service-specific operating data is far superior to relying on data from public sources such as the Schedule S or network filings made with the International Telecommunication Union (“ITU”). Schedule S information, for example, typically represents a system’s broad operating envelope but does not reflect the range of links that can be provided or supply significant information regarding uplink transmissions. As a result, a compatibility study using only public data will not enable an accurate assessment of the real-world effect of the later-round system’s entry on existing services.”); see also Intelsat Comments at 7.

²⁸⁷ See SpaceX Comments at 7-8; OneWeb Reply at 4; O3b Comments at 6; O3b Reply at 6; Telesat Reply at 7; Kuiper Reply at 13; Intelsat Oct. 24, 2024 *ex parte*, Attachment at 2.

²⁸⁸ SpaceX Comments at 6-7; O3b Comments at 5-6; Telesat Reply at 6.

²⁸⁹ Kuiper Comments at 11; Mangata Reply at 2.

make it appear more sensitive to interference while omitting details that could facilitate sharing,²⁹⁰ while if there is the option, but no requirement, a later-round could choose any combination of public or private information to ease its compatibility showing, even public information that, commenters agree, may not reflect actual operations.²⁹¹ Kuiper argues that, if later-round systems are given the option of using public or private information, the earlier-round operator will still have the opportunity to review the showing and comment on the appropriateness of the parameters used.²⁹² SpaceX also notes that later-round operators may need to disclose confidential parameters in any compatibility studies before the Commission to show compliance with backstop interference values, supporting the disclosure of parameters as needed to maximize efficient spectrum sharing.²⁹³

94. *Decision.* We agree with commenters that the use of operational information shared during coordination should enhance the accuracy of compatibility showings, and will allow later-round operators to base their analyses on such information to the extent it is available and permitted by the incumbent operator to be reflected in a compatibility analysis submitted to the Commission. Analyses based on operational information shared during coordination may be submitted on a confidential basis when satisfying the requirements of the Commission's confidentiality rules (assuming the incumbent operator has permitted this information to be reflected in a compatibility analysis).²⁹⁴ However, we agree with Kuiper that later-round operators should have the flexibility to use publicly available parameters of the earlier-round system, even if alternative parameters are provided in coordination, and to justify that decision when submitting a compatibility analysis. We will assess the use of publicly available information in these instances on a case-by-case basis to determine if the analysis is adequately representative of the earlier-round system, considering as well any arguments that the later-round operator has selectively used publicly available information to its advantage to ease its protection showing. In addition, because the incumbent's privately shared operational data may be used in a compatibility analysis submitted to the Commission only if it consents to such use, we do not believe that allowing use of such data will disincentivize information sharing during coordination, especially where the incumbent's consent may be contingent upon sharing the information on a confidential basis.

9. Incorporation of Deployment Milestones into Compatibility Analyses

95. *Comments.* Several commenters note that when the operator of a later-round NGSO FSS system is preparing a compatibility showing for an earlier-round system, the earlier-round system may not yet be fully deployed and, indeed, may never fully deploy or deploy at all.²⁹⁵ Commenters argue that later-round operators should be given the flexibility to provide compatibility analyses based either on the number of satellites at the 50% or 100% deployment milestones of the earlier-round system, whichever has yet to be achieved,²⁹⁶ or on the "number of satellites actually deployed" and operating.²⁹⁷

²⁹⁰ Kuiper Reply at 14.

²⁹¹ SpaceX Comments at 6-7; *see also* SpaceX Comments at 8-9 ("The public filings of an NGSO system often assume an envelope of potential operating parameters, which is important and entirely proper to promote flexibility and innovation. In practice, however, an NGSO system will use specific operational parameters that fall within that envelope. If allowed, an NGSO operator may improperly leverage this distinction between envelope and actual operational parameters to assert that the most advantageous values from its public filings must be used for analyzing compatibility even if these values deviate from its own operational parameters. These inaccurate input assumptions reduce the fidelity of interference showings, thereby reducing efficient spectrum sharing and thereby harming consumers and competition.").

²⁹² Kuiper Reply at 14.

²⁹³ SpaceX Spectrum Sharing Study at S-5.

²⁹⁴ 47 CFR § 0.459.

²⁹⁵ *See, e.g.*, Kuiper Comments at 16.

²⁹⁶ SpaceX Comments at 9-10. For example, SpaceX suggests that when an earlier-round NGSO system has not yet satisfied its first deployment milestone, a later-round NGSO system should only be required to demonstrate

(continued....)

Commenters suggest that later-round operators should not be held to the parameters of such showings before the actual deployment of the earlier-round system,²⁹⁸ and that later-round operators should be able to update their showings to account for later deployments, if not accounted for in the initial analysis.²⁹⁹

96. SpaceX, for example, argues that accounting for milestone requirements in compatibility analyses would better reflect the operational realities of NGSO systems and better calibrate the need for regulatory certainty with opportunities for new entry.³⁰⁰ SpaceX also argues that accounting for deployment milestones in compatibility showings better accommodates the interference risk to earlier-round systems as they grow and change, given that NGSO operators frequently file modifications as they build out systems that differ from those initially authorized.³⁰¹ SpaceX further asserts that by emphasizing the deployment milestone requirements, the Commission can encourage earlier-round systems to share higher-fidelity information about their near-term deployment plans for new satellite launches to ensure protection for those satellites.³⁰²

97. *Decision.* We agree that later-round NGSO FSS operators should not be restrained by a requirement to protect not yet deployed earlier-round systems. At the same time, we are cautious about permitting compatibility analyses considering solely the number of deployed satellites at a given time, which may need to be updated with each subsequent launch of an earlier-round system and consume unnecessary resources for the earlier-round operator, and Commission staff to review. Therefore, we will permit compatibility analyses to consider only the deployment configuration of the earlier-round system at the six-year, 50% milestone if this milestone has not yet been met.³⁰³ If the 50% deployment milestone has been met, compatibility analyses must consider the fully deployed system. In the event the earlier-round system misses a milestone and its authorization is automatically reduced to the number of satellites deployed on the date of the missed milestone, compatibility analyses need only consider the number of actually deployed satellites.

10. Mitigation Techniques

98. *Further Notice.* The *Further Notice* also asked what mitigation techniques would be appropriate for a later-round system to implement in the event that any protection criteria were not otherwise satisfied in a compatibility showing.³⁰⁴

99. *Comments.* Commenters on this issue agree that the Commission should not limit the mitigation techniques available to a new entrant where its constellation would otherwise exceed the

(Continued from previous page) _____

compatibility with the sub-constellation that conforms with that first milestone. If the earlier-round system eventually meets its first milestone and the parties still have not completed coordination, SpaceX suggests the later-round NGSO system should provide an updated showing for the fully authorized earlier-round system, consistent with that system's second deployment milestone. *Id.*

²⁹⁷ Intelsat Reply at 4-5.

²⁹⁸ Mangata Reply at 6-7.

²⁹⁹ SpaceX Comments at 9-10; Mangata Reply at 6-7.

³⁰⁰ SpaceX Comments at 10.

³⁰¹ *Id.* at 11-12.

³⁰² *Id.* at 11.

³⁰³ Therefore, for example, while a later-round licensee would have to demonstrate how it would protect an earlier-round system at 50% deployment even if the earlier-round system had yet to launch any satellites, in practice, the later-round licensee would not have to implement such protection unless and until the earlier-round system began deploying, and then only to the extent of the actual deployment of the earlier-round system.

³⁰⁴ See *Further Notice*, 38 FCC Rcd at 3718-19, para. 40.

interference thresholds,³⁰⁵ though some commenters specifically note that, once an operator commits to using certain mitigation techniques, it should be held to that commitment through licensing conditions.³⁰⁶

100. *Decision.* We concur that elaborating a list of appropriate mitigation techniques could unnecessarily restrict operator flexibility and spectral efficiency, and therefore will not limit the potential mitigation techniques that can be employed. Further, we agree that, when mitigation techniques are used as a basis for demonstrating compatibility with an earlier-round system, the later-round system will be required to employ those mitigation techniques to the extent necessary to protect the earlier-round system's actual operations.³⁰⁷

11. Timing of Acceptance of Compatibility Showings

101. *Comments.* Some commenters argue that the Commission should refuse to accept a compatibility showing from a later-round operator until the operator makes a "valid prior coordination attempt" with the earlier-round operator,³⁰⁸ or until "after coordination has failed."³⁰⁹ Mangata notes that the Commission's rules already require good faith coordination among all NGSO FSS grantees and argues the Commission "need not exclude valid degraded throughput analyses to enforce coordination since engaging in such coordination efforts is already required."³¹⁰

102. *Decision.* We decline to adopt any limit on when a later-round NGSO FSS grantee may submit an inter-round compatibility analysis based on the state of its coordination with an earlier-round operator. Later-round grantees are under an obligation to coordinate in good faith with other NGSO FSS operators, before and after submission of any compatibility showings.³¹¹ We do not believe it would be productive to codify, and potentially adjudicate, a requirement that later-round operators coordinate "enough" before we will review a demonstration that their operations will be compatible with an earlier-round operator. Rather, to the extent earlier-round operators may be concerned that its operational data will not be used in the compatibility showing, they may affirmatively reach out to provide such information and, a later-round grantee may not refuse such an offer consistent with its obligation to coordinate in good faith.

12. Post-Sunset Sharing Regime

103. *Further Notice.* When adopting a sunset period to accompany the new inter-round protection requirement in the *Report and Order*, the Commission determined that, after sunset, new entrants will be subject to co-equal spectrum sharing with incumbents.³¹² In the absence of a coordination

³⁰⁵ Kuiper Comments at 15; O3b Comments at 11; O3b Reply at 12-13; OneWeb Reply at 11-12; Mangata Reply at 7-8. Commenters list numerous potential mitigation techniques. *See, e.g.*, Kuiper Comments at 15 (listing mitigation techniques to include "increasing its angular avoidance with the incumbent, changing its satellite selection algorithm, increasing geographical separation with the incumbent's earth stations, reducing its uplink or downlink power levels, decreasing its duty cycle, changing the polarization of its beams, or reducing or eliminating the use of co-channel frequencies during in-line events").

³⁰⁶ O3b Comments at 12; OneWeb Reply at 11-12.

³⁰⁷ This requirement is incorporated in the requirement we adopt in section 25.261(d)(4) that a later-round NGSO FSS system will be required to conform its operations to its compatibility showing submitted for the protection of an earlier-round system only to the extent necessary to protect the actual number of deployed and operating space stations of the earlier-round system.

³⁰⁸ O3b Comments at 4-5.

³⁰⁹ OneWeb Reply at 2.

³¹⁰ Mangata Reply at 6.

³¹¹ *See* 47 CFR § 25.261(b).

³¹² *Report and Order*, 38 FCC Rcd at 3714, para. 31.

agreement, this is accomplished through spectrum-splitting when the $\Delta T/T$ of 6% threshold is exceeded.³¹³ Nonetheless, the *Further Notice* sought additional comment on what criteria should be applied among NGSO systems after the sunset period.³¹⁴

104. *Comments.* Most commenters on this issue support the Commission's initial decision in the *Report and Order* to apply the default spectrum-splitting procedure between earlier and later-round systems after sunset occurs.³¹⁵ They argue that placing parties on an equal footing under the Commission's default spectrum-splitting rules represents the simplest and most reasonable approach to sunset, that alternatives to spectrum splitting do not have a similar ability to incentivize both sides to reach a coordination agreement,³¹⁷ and that not applying the spectrum-splitting rules equally after sunset would perpetuate a stratified spectrum-sharing regime that gives incumbents a permanent advantage over later-round grantees.³¹⁸

105. SpaceX, which supports applying the Commission's default spectrum-splitting procedure after the sunset date, nonetheless argues that the Commission should ensure that systems with deployment milestones after the sunset date do not avoid good-faith coordination simply because their deployment commitments extend into the post-sunset regime.³¹⁹ While SpaceX supports applying the Commission's default spectrum-splitting procedure after the sunset date, it proposes a revision to the procedure to reward the more efficient system with the first choice in a spectrum split, and to apply this backstop both to systems within the same processing round and to different-round systems after sunset.³²⁰

106. Telesat asks the Commission to defer consideration of any revisions of the current regime until a later date, when the Commission has gained more experience in understanding how NGSO systems can coexist.³²¹

107. ViaSat, SpaceX, and OneWeb reiterate earlier arguments that the Commission should revise the default spectrum-splitting mechanism as it applies to systems authorized in the same processing round, but do not argue that a different sharing regime should apply between earlier and later-round systems following sunset.³²² OneWeb also argues the Commission should lengthen the sunset period for later-round operators until they have deployed their full systems, and only after consider applying the same metrics between prior-round operators and later-round operators.³²³

108. *Decision.* We reaffirm the decision in the *Report and Order* to place earlier and later-round operators on an equal footing after the sunset date by applying the default, spectrum-splitting mechanism to both sets of operators at that time. Doing so ensures that earlier-round advantages do not continue indefinitely, and simplifies the regulatory framework when systems authorized through multiple

³¹³ *Id.*; 47 CFR § 25.261(d).

³¹⁴ *Further Notice*, 38 FCC Rcd at 3719, para. 42.

³¹⁵ Kuiper Comments at 21-22; Kuiper Reply at 15-17; Intelsat Comments at 13-15; Intelsat Reply at 7-8; O3b Comments at 12-13; O3b Reply at 13-14; SpaceX Reply at 22; Kuiper July 18, 2024 *ex parte* at 15.

³¹⁶ Kuiper Reply at 15.

³¹⁷ O3b Comments at 13.

³¹⁸ Intelsat Comments at 13.

³¹⁹ SpaceX Reply at 22.

³²⁰ *Id.* at 22-23.

³²¹ Telesat Comments at 11-12; Telesat Reply at 6.

³²² See Viasat Comments at 7-8; Viasat Reply at 6; SpaceX Comments at 17; SpaceX Reply at 22-23; OneWeb Reply at 13; OneWeb Oct. 3, 2024 *ex parte* at 17.

³²³ See OneWeb Comments at 17; OneWeb Oct. 3, 2024 *ex parte* at 16-17.

processing rounds may be operating. However, we decline to adopt proposed changes to the default, spectrum-splitting mechanism itself, as applied to systems within a processing round,³²⁴ because such changes are beyond the scope of this proceeding. Further, we note that no commenter advocates different treatment of later-round operators post-sunset than among earlier-round operators. Indeed, the equality of treatment of later-round operators after the sunset date is a key component of the sunset provision.³²⁵ And while the proposal to lengthen the sunset period for certain operators is also beyond the scope of the *Further Notice*'s inquiry, the Commission retains the authority to enforce its good-faith coordination requirement in cases where a later-round operator with deployment milestones after the sunset date is alleged to be avoiding good-faith coordination.³²⁶ We expect any such cases to be rare, however, because operators receive benefits of reaching stable coordination agreements not only in operation but in securing the necessary funding for constellation deployments.

13. Digital Equity and Inclusion

109. The Commission, as part of its continuing effort to advance digital equity for all,³²⁷ including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invited comment on any equity-related considerations³²⁸ and benefits (if any) that may be associated with the proposals and issues discussed in the *Further Notice*.³²⁹

110. The Commission did not receive specific comment on this topic. Nonetheless, we find that the rule changes in this Second Report and Order will continue to encourage a more stable and competitive environment for the development of NGSF FSS systems well suited to reaching underserved areas with new broadband capacity, and therefore that this rulemaking will enhance digital equity and inclusion.

B. Order on Reconsideration

111. *Petition*. OneWeb petitions for reconsideration of the sunset period³³⁰ adopted with the inter-round protection requirement in the *Report and Order*.³³¹ OneWeb specifically requests that the Commission partially reconsider the sunset period for first round operators because it believes that the

³²⁴ See SpaceX Reply at 22-23 (requesting that more efficient systems have the first choice in a spectrum split, and to apply this backstop to systems within the same processing round).

³²⁵ *Report and Order*, 38 FCC Rcd at 3713-14, para 30.

³²⁶ See 47 CFR § 25.261(b).

³²⁷ Section 1 of the Communications Act of 1934 as amended provides that the FCC “regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex.” 47 U.S.C. § 151.

³²⁸ The term “equity” is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. See Exec. Order No. 13985, 86 Fed. Reg. 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (January 20, 2021).

³²⁹ *NPRM*, 36 FCC Rcd at 17880, para. 27.

³³⁰ See 47 CFR § 25.261(e).

³³¹ OneWeb Petition; see also OneWeb Oct. 3, 2024 *ex parte* at 4-6.

Commission failed to consider the evidence in the record and applied an unjustifiable sunset period to them.³³² In support of its petition, OneWeb makes three principal arguments.

112. First, OneWeb argues that the Commission effectively reduced the sunset period for first-round operators “by 30%” compared to operators in later processing rounds because the 10-year sunset period began on the date of the first authorization in a subsequent processing round, which occurred in 2020, leading to a sunset period ending in 2030, whereas the *Report and Order* that established the sunset date was not adopted and released until 2023.³³³ OneWeb states this creates an “effectively seven-year sunset period for interference protections” for first-round operators.³³⁴ OneWeb argues that such treatment undermines the benefit first-round operators should receive for their pioneering efforts and that, given the time required to implement technical changes in constellation designs and operations, the sunset period impairs first-round operators’ ability to develop appropriate mechanisms to co-exist with later-arriving operators, potentially subjecting first-round operators to harmful interference.³³⁵ OneWeb further contends that, although the Commission stated in 2017 that it would consider NGSO FSS applications filed after the first processing round on a “case-by-case” basis, OneWeb had no prior reasonable expectation that all later-round operators would be entitled to operate on a co-equal basis with first-round systems eventually.³³⁶ OneWeb claims that the Commission’s decision here is contrary to past precedent, where it denied Kuiper’s waiver request to be treated on an equal basis with systems that filed applications within a previous processing round.³³⁷ OneWeb also argues that the Commission failed to consider relevant information in the record and failed to provide a sufficient explanation for its decision.³³⁸

113. Second, OneWeb argues that the consideration of several questions in the *Further Notice* on the technical rules surrounding interference protections that affect the sunset period “further cuts into the already shorter sunset period for First Round operators.”³³⁹ OneWeb states these questions include: what protection levels should be imposed during and after the sunset period;³⁴⁰ whether there is a maximum number of NGSO systems that can be accommodated in a given frequency band;³⁴¹ how the number of NGSO systems accommodated should affect inter-round protection criteria and the opening of

³³² OneWeb Petition at 10; OneWeb July 18, 2024 *ex parte*, Attachment B at 2; OneWeb Oct. 3, 2024 *ex parte* at 4-6; OneWeb Oct. 23, 2024 *ex parte*, Attachment B at 6.

³³³ OneWeb Petition at 7-9 (“The Commission’s justification for the application of its sunset period ignores that the Order erases three years out of the Commission’s ten-year sunset period for First Round NGSO FSS grantees by ‘backdating’ the sunset period’s start to 2020”); *see also Report and Order*, 38 FCC Rcd at 3712, para 29.

³³⁴ OneWeb Petition at 3; OneWeb Oct. 23, 2024 *ex parte*, Attachment B at 6.

³³⁵ Petition at 6; OneWeb Oct. 3, 2024 *ex parte* at 4.

³³⁶ *See id.* at 8.

³³⁷ *See id.* at 8, nn.28-29 (citing *Kuiper Systems, LLC*, Order and Authorization, 35 FCC Rcd 8324, 8337-38, para. 42 (2020)).

³³⁸ *Id.* at 5.

³³⁹ *Id.* at 9.

³⁴⁰ OneWeb asked the Commission to include this question in the *Further Notice*. *Id.* at 4 (“OneWeb requested that the Commission seek further comment in the FNPRM on how coordination would be conducted among systems post-sunset in the combined first-second processing round.”).

³⁴¹ OneWeb argues that, should the Commission determine that a maximum number of NGSO systems can be accommodated in a given frequency band, the sunset period may be superfluous. *Id.* at 9-10.

different rounds; and what “co-equal” means when established operators are to operate a co-equal basis with newer entrants.³⁴²

114. Finally, OneWeb notes that several second-round applications from the 2020 processing round remain pending. If granted, the operators would have up to nine years to deploy their full constellations under the Commission’s milestone rules. Therefore, OneWeb argues, the sunset of the inter-round protection requirement in 2030 will mean that “first-round operators would be protected from interference for little or no time after second-round grantees are fully deployed,”³⁴³ “effectively placing the later-arriving operators in the first processing round in the context of interference protections”³⁴⁴ and “remov[ing] any meaningful incentive for second-round operators to coordinate with First Round operators.”³⁴⁵ OneWeb now requests that the Commission specifically establish the sunset for first-round protections at ten years from adoption of the *Report and Order* consistent with the notice for subsequent rounds, or at ten years from final adoption of the spectrum sharing framework metrics under this Further Notice.³⁴⁶

115. *Comments.* Kuiper opposed the OneWeb Petition.³⁴⁷ Kuiper contends that it fails to identify any material error in the *Report and Order* warranting reconsideration, and otherwise relies on arguments that the Commission has fully considered and rejected or that OneWeb could have but did not present earlier in this proceeding.³⁴⁸

116. Kuiper argues the Commission specifically addressed the question of whether the sunset should apply to first-round operators and concluded that, as applied, it gave “incumbent NGSO FSS grantees sufficient time to evaluate and adapt to the eventual, equal sharing environment” and that not applying the sunset in this way “would substantially frustrate the purpose of sunset by locking in incumbent protections that are not assured under the current, case-by-case regime.”³⁴⁹ Kuiper also states that OneWeb has offered no evidence—either now or before the *Report and Order* was adopted—that a seven-year period would afford insufficient time to prepare for co-equal spectrum sharing with second-round systems, or evidence that the thirteen years OneWeb will have had between its market access grant in 2017 and the end of the sunset period in 2030 would be insufficient.³⁵⁰

117. Kuiper states that OneWeb appears to misread the Commission’s reason for discussing the full deployment milestone, stating that at no point does the Commission suggest that it is choosing that milestone as a means to protect incumbents—instead, the Commission chose it in recognition that once a new entrant has fully deployed its constellation, it should generally have the right to co-equal

³⁴² *Id.* at 9. OneWeb argues that the Commission’s resolution of questions regarding the meaning of “co-equal” operations between first and second round operators, the levels of interference protection during and after the sunset period, and other issues raised in the *Further Notice* affect how operators will redesign their systems, which in turn affects the time necessary for first-round operators to accommodate new entrants. *Id.* at 10.

³⁴³ *Id.* at 4.

³⁴⁴ *Id.* at 5.

³⁴⁵ *Id.* at 6.

³⁴⁶ OneWeb Oct. 3, 2024 *ex parte* at 4-6.

³⁴⁷ Kuiper Opposition; Kuiper July 24, 2024 *ex parte* at 16-17.

³⁴⁸ See Kuiper Opposition at 2; Kuiper Oct. 18, 2024 *ex parte* at 5, 7; Kuiper Oct. 30, 2023 *ex parte* (contending that OneWeb untimely raised for the first time the argument that Commission’s decision to ask further questions regarding the post-sunset regime prejudiced first-round operators by creating uncertainty).

³⁴⁹ Kuiper Opposition at 4.

³⁵⁰ *Id.* at 5-6; Kuiper July 24, 2024 *ex parte* at 16.

treatment.³⁵¹ And Kuiper notes that, as the Commission explained in direct response to OneWeb’s argument, the fact that the full deployment milestone for some (or even many) later-round operators will not occur until after the 2030 sunset is irrelevant because “the speed of deployment of the later-round systems would not affect the overall time that the incumbents will be protected by systems approved in the later processing round.”³⁵²

118. Kuiper further states that the *Report and Order* did not premise the adoption of the sunset period on providing inter-round protections after second-round systems have fully deployed and are providing service, instead reasoning that first-round operators would need some “period of time” after an application had been granted in a new processing round to plan for co-equal sharing, and that the ten-year period, which would run from the grant of the first license in the next processing round, “appropriately balance[d] the need for stability for incumbent operations and the possibility for new entrants to compete on an equal footing once they have built out their systems.”³⁵³

119. Kuiper also argues that OneWeb incorrectly assumes that second-round operators will delay offering any service until they are fully deployed, but that even if later-licensed systems did delay offering service in this manner, such delay would have no impact on the time given to OneWeb to operate with special protections.³⁵⁴

120. Kuiper further asserts that OneWeb’s claim that the decision removes “any meaningful incentive for second-round operators to coordinate” ignores the Commission’s thorough treatment of such incentives and record evidence that a sunset is likely to enhance the incentives for all parties to coordinate.³⁵⁵ And Kuiper argues that OneWeb’s argument that it has invested “billions of dollars” and “made significant financial investments in their next generation satellites based on the Commission’s framework existing prior to the adoption of a sunset period” ignores the billions of dollars that second-round operators have invested in their own systems.³⁵⁶

121. Kuiper finally argues that none of the questions in the *Further Notice* implicate the length or application of the sunset period to first-round operators, and notes that OneWeb itself explicitly told the Commission that the “proposed sunset schedule” — that is, a 2030 sunset for second-round operators — “affords the Commission time to further consider these issues.”³⁵⁷

122. OneWeb replied to Kuiper’s opposition, arguing that the opposition fails to counter the issues raised in its petition and reiterating arguments in the petition.³⁵⁸ OneWeb maintains that neither the *Report and Order* nor Kuiper have addressed the disparate treatment of first-round operators who have insufficient time to prepare for co-equal spectrum sharing.³⁵⁹ OneWeb contends that Kuiper ignores that

³⁵¹ Kuiper Opposition at 7.

³⁵² *Id.* (citing *Report and Order*, 38 FCC Rcd at 3713, para. 34, n.97).

³⁵³ *Id.*

³⁵⁴ *Id.* at 8; *see also* Kuiper July 24, 2024 *ex parte* at 17 (noting that processing delays only harm second-round applicants with pending applications by delaying market entry while earlier-round systems enjoy extended period without any interference).

³⁵⁵ Kuiper Opposition at 8.

³⁵⁶ *Id.*

³⁵⁷ *Id.* at 9.

³⁵⁸ OneWeb Reply to Kuiper Opposition.

³⁵⁹ *Id.* at 1-2.

the outcome of the *Further Notice* further diminishes first-round operators' time to prepare for the "fully defined regulatory framework" given that they will have to comply with the new rules.³⁶⁰

123. SpaceX also responded to the OneWeb Petition, arguing that the ten-year sunset period adopted by the Commission "strikes the appropriate balance" between incumbents and new entrants but stating that careful consideration should be given when incorporating deployment milestones for later-round systems to minimize any advantages for operators that refuse to coordinate.³⁶¹

124. *Decision.* We dismiss in part and, on alternative and independent grounds, deny the OneWeb Petition in full on the merits. Under section 1.429(l)(3) of the Commission rules, the Commission may dismiss a petition for reconsideration that presents arguments previously considered and rejected.³⁶² OneWeb previously raised the issue that the 10-year sunset period would effectively eliminate advantages of first-round operators because of the timing of second-round grants, since first-round operators would be protected from interference for little or no time after some second-round grantees are fully deployed.³⁶³ The Commission fully considered and rejected this argument in the *Report and Order* in this proceeding, finding that while the sunset may occur before some later-round systems have reached the full deployment milestone at nine years, contrary to OneWeb's argument, this would not "effectively eliminate" advantages for first-round operators, since the speed of deployment of the later-round systems would not affect the overall time that the incumbents will be protected by systems approved in the later processing round.³⁶⁴ Accordingly, we dismiss this part of the OneWeb Petition pursuant to section 1.429(l)(3).

125. On alternative and independent grounds, we deny the OneWeb Petition on the merits. The *Report and Order* for the first time adopted an inter-round protection requirement to replace the Commission's explicit policy of case-by-case licensing of NGSO FSS systems after the cutoff date in an initial processing round.³⁶⁵ In doing so, the Commission considered numerous sunset proposals on the record, ranging from 6 years after the application cut-off date in a processing round to 15 years commencing from release of the *Report and Order* for the current Ku-/Ka-band processing rounds and 15 years from the first authorization or market access grant in a subsequent processing round for future processing rounds.³⁶⁶

126. First, the *Report and Order* ensured all NGSO FSS operators authorized through a processing round the same 10-year period of time, following the first authorization in a subsequent processing round, during which they are protected by systems approved in that subsequent processing round under the newly adopted inter-round protection requirement.³⁶⁷ The 10-year period, tied to the first authorization in a later round, balances the Commission's goals to afford later-round systems equal spectrum sharing opportunities under the spectrum-splitting procedure once their full service constellations are operational, while providing earlier-round systems time to adjust to the constellations ultimately deployed by later-round grantees, with simplicity and regulatory clarity.³⁶⁸ While it is true that

³⁶⁰ *Id.* at 7-8.

³⁶¹ SpaceX Response to OneWeb Petition at 2. SpaceX also argues the Commission should take additional action to revisit its spectrum-splitting procedure so that, where NGSO FSS systems are unable to reach a coordination agreement, the more spectrally efficient system gets first choice of spectrum. *Id.* at 2-3.

³⁶² See 47 CFR § 1.429(l)(3).

³⁶³ See Letter from Kimberly M. Baum, Vice President, Spectrum Engineering & Strategy, OneWeb to Marlene H. Dortch, Secretary, FCC, IB Docket No. 21-456 at 2 (filed Apr. 14, 2023).

³⁶⁴ See *Report and Order*, 38 FCC Rcd at 3713, n.97.

³⁶⁵ *Id.* at 3712-14, paras. 29-31.

³⁶⁶ *Id.* at 3712, para. 28.

³⁶⁷ *Id.* at 3713-14, para. 30.

first-round operators effectively had notice of seven years of protection from all second-round grantees under the new inter-round protection requirement, applying a 10-year sunset provision from the date of the release of the *Report and Order* would result in an effective 13-year sunset period for the first system authorized in the second processing round, contrary to the Commission's rationales for adopting the 10-year inter-round protection period and its goal of promoting new entry.

127. Indeed, the basis for the adoption of a 10-year period was not because it was the minimum necessary period for earlier-round systems to adjust to new entrants.³⁶⁹ Rather, the Commission concentrated on the deployment timelines of *later*-round systems and reasoned that sunset period should “relieve earlier-round grantees of the uncertainty of near-term, equal sharing with new entrants” while giving later-round systems an equal opportunity to operate with their full service constellations, which may be completed at the nine-year final deployment milestone.³⁷⁰ For OneWeb’s first-round system approved in 2017, and for other first-round systems, we continue to find that a sunset date in 2030 (ten years after the first grant in the subsequent processing round, which occurred in 2020) relieves them of the uncertainty of near-term, equal sharing with new entrants intended by the sunset period. The *Report and Order* further noted the iterative development of NGSO FSS systems and the fact that many earlier-round grantees, like OneWeb,³⁷¹ have proposed updated, second-generation systems filed in a later processing round that will benefit from the sunset period applied to second-round systems.³⁷² As Kuiper notes, OneWeb provided no specific evidence to support its assertion that the sunset period as adopted is in fact insufficient.

128. The *Report and Order* also determined that sunset will not upset existing expectations of interference protection because, under Commission policy in effect prior to the *Report and Order*, later-round applicants were considered on a case-by-case basis as to whether they will be entitled to share spectrum on an equal basis with earlier-round systems – as such there was never a guarantee that earlier-round grantees would be entitled to protection from later-round systems.³⁷³ OneWeb’s citation to a grant condition in which a later-round licensee was required to protect NGSO FSS systems authorized through an earlier processing round does not create a reasonable expectation that OneWeb would be protected indefinitely from all later-round applicants.³⁷⁴ The *Report and Order* acknowledged the Commission’s then-existing policy of case-by-case licensing of NGSO FSS systems filed after a processing round, including licensing conditions,³⁷⁵ and based on the record in the proceeding decided to adopt a generally applicable inter-round protection requirement with an accompanying sunset provision.³⁷⁶ While OneWeb argues the Commission “provided no notice that all such later-round operators would be entitled to co-equal operations,”³⁷⁷ the policy of case-by-case licensing meant that any future applicant – or all future applicants – could be afforded co-equal status with earlier-round systems. The sunset period also does not effectively create an open-ended processing round because the sunset guarantees a period of time of unequal protection for earlier-round systems, during which earlier-round

(Continued from previous page)

³⁶⁸ *Id.*

³⁶⁹ *See, e.g., id.* at 3713, para. 30.

³⁷⁰ *See id.* at 3713, para. 30.

³⁷¹ *See* ICFS File Nos. SAT-LOI-20160428-00041, SAT-MPL-20200526-00062 and SAT-APL-20210112-00007.

³⁷² *See Report and Order*, 38 FCC Rcd at 3714, para. 31.

³⁷³ *Id.*

³⁷⁴ OneWeb Petition at 8 (citing *Kuiper Systems, LLC, Application for Authority to Deploy and Operate a Ka-band Non-Geostationary Satellite Orbit System*, Order and Authorization, 35 FCC Rcd 8324, 8344, para. 59 (2020)).

³⁷⁵ *See Report and Order*, 38 FCC Rcd at 3704, para. 13, n.35.

³⁷⁶ *Id.* at 3712, para. 29.

³⁷⁷ OneWeb Petition at 8.

systems are not required to protect later-round systems, while an open-ended processing round would immediately treat all NGSO FSS systems on an equal basis.

129. Second, the *Report and Order* tied the 10-year sunset date to the date of the first authorization in a later processing round. In doing so, the Commission acknowledged that “the sunset may occur before some later-round systems have reached the full deployment milestone at nine years” but reasoned, contrary to OneWeb’s argument, this would not “effectively eliminate” advantages for first-round operators, since the speed of deployment of the later-round systems would not affect the overall time that the incumbents will be protected by systems approved in the later processing round.³⁷⁸ Similarly, we do not share OneWeb’s concern that some “second-round operators’ fully-deployed systems would never have to protect First Round operators, effectively placing the later-arriving operators in the first processing round,” “contrary to the Commission’s acknowledgement that First Round operators should have some benefits, and remov[ing] any meaningful incentive for second-round operators to coordinate with First Round operators.”³⁷⁹ The basis for the 10-year sunset period was not to lock in coordination advantages for earlier-round systems. Rather, the Commission determined that fully deployed later-round systems *should* be able to operate on an equal basis with earlier-round systems; not that they must protect earlier-round systems for a specific period of time after full deployment.³⁸⁰ Further, the benefit to earlier-round operators is that they are entitled to a 10-year period after the initial grant in a later processing round in which later-round systems must protect the earlier-round system while accepting any interference caused by the earlier-round system, unless a coordination agreement has been reached. And as explained in the *Report and Order*, we do not expect the sunset period to introduce significant coordination delays because the period is long enough that a later-round grantee would not wish to operate for years without an agreement with earlier-round grantees.³⁸¹

130. Finally, we disagree that the exploration of issues in the *Further Notice*, some of which OneWeb itself requested, justifies changing the sunset provision. Specifically, OneWeb argues that having as open issues “what protection levels should be imposed during and after the sunset period” and “what ‘co-equal’ means when established operators are to operate a co-equal basis with newer entrants” shortens the time period for it to prepare for new entrants at the end of the sunset period.³⁸² In the Second Report and Order above, we reaffirm the decision in the *Report and Order* to apply the default, spectrum-splitting mechanism between earlier and later-round systems after sunset. Therefore, there is no change in the post-sunset regime from what was adopted in the *Report and Order*. In addition, the Second Report and Order declines to adopt any cap on the number of NGSO FSS systems that can operate in a given frequency band, negating OneWeb’s concern that doing so may render the sunset period superfluous. Similarly, the Second Report and Order does not place any restrictions on “the opening of different processing rounds,” nor limit “the number of NGSO systems accommodated.”³⁸³ The changes the Commission has adopted in the Second Report and Order to the inter-round protection requirement also do not “shorten” the sunset period for first-round systems because, while they will apply immediately

³⁷⁸ *Report and Order*, 38 FCC Rcd. at 3713-14, para. 30, n.97.

³⁷⁹ OneWeb Petition at 5-6.

³⁸⁰ See *Report and Order*, 38 FCC Rcd at 3713, para. 30 (“We believe that the protection afforded to an earlier-round system by a later-round system should work in concert with our deployment milestones for NGSO systems to relieve earlier-round grantees of the uncertainty of near-term, equal sharing with new entrants while also giving later-round systems an equal opportunity after they have demonstrated their commitment to provide service and completed their final deployment milestone.”); *id.* at 3713-14, para. 30 (“We believe this period appropriately balances the need for stability for incumbent operations and the possibility for new entrants to compete on an equal footing once they have built out their systems.”).

³⁸¹ *Id.* at 3714, para. 31.

³⁸² OneWeb Petition at 9-10.

³⁸³ See *id.* at 9.

upon the effective date of the rule changes, they will not apply between first and second-round systems after the sunset period.

IV. PROCEDURAL MATTERS

131. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),³⁸⁴ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”³⁸⁵ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this Second Report and Order on small entities. The FRFA is set forth in Appendix B.

132. *Paperwork Reduction Act.* The Second Report and Order contains modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under Section 3507(d) of the PRA. OMB, other Federal agencies, and the general public are invited to comment on the modified information collection requirements contained in this document.

133. In this document, we have assessed the effects of requiring later-round NGSO FSS grantees to submit compatibility showings with respect to earlier-round grantees with whom coordination has not yet been reached. We find that doing so will serve the public interest and is unlikely to directly affect businesses with fewer than 25 employees.

134. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Second Report and Order and Order on Reconsideration to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. § 801(a)(1)(A).

V. ORDERING CLAUSES

135. IT IS ORDERED, pursuant to Sections 4(i), 7(a), 10, 303, 308(b), and 316 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 157(a), 160, 303, 308(b), 316, that this Second Report and Order and Order on Reconsideration IS ADOPTED, the policies, rules, and requirements discussed herein ARE ADOPTED, and Part 25 of the Commission’s rules IS AMENDED as set forth in Appendix A.

136. IT IS FURTHER ORDERED that, pursuant to sections 1, 4(i), 4(j), and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 405, and section 1.429(b) and 1.429(l)(3) of the Commission’s rules, 47 CFR § 1.429(b), (l)(3), that the petition for reconsideration filed by WorldVu Satellites Limited in IB Docket No. 21-456, is DISMISSED IN PART and, on alternative and independent grounds, DENIED.

137. IT IS FURTHER ORDERED that this Second Report and Order and Order on Reconsideration SHALL BE effective 30 days after publication in the Federal Register, except that section 25.261(d), which may contain new or modified information collection requirements, will not become effective until the Office of Management and Budget completes review of any information collection requirements that the Space Bureau determines is required under the Paperwork Reduction Act. The Commission directs the Space Bureau to announce the effective date of section 25.261(d) by subsequent Public Notice.

138. IT IS FURTHER ORDERED that the Commission’s Office of Secretary SHALL SEND

³⁸⁴ 5 U.S.C. §§ 601–612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

³⁸⁵ 5 U.S.C. § 605(b).

a copy of this Second Report and Order and Order on Reconsideration, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

139. IT IS FURTHER ORDERED that the Commission's Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Second Report and Order and Order on Reconsideration in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Final Rules

The Federal Communications Commission amends title 47 of the Code of Federal Regulations, part 25, as follows:

PART 25 – SATELLITE COMMUNICATIONS

1. The authority citation for part 25 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302, 303, 307, 309, 310, 319, 332, 605, and 721, unless otherwise noted.

2. Amend § 25.261 by revising paragraphs (d) and (e) to read as follows:

§ 25.261 Sharing among NGSO FSS space stations.

* * * * *

(d) *Protection of earlier-round systems.* Prior to commencing operations, an NGSO FSS licensee or market access recipient must either certify that it has completed a coordination agreement with any operational NGSO FSS system licensed or granted U.S. market access in an earlier processing round, or submit for Commission approval a compatibility showing which demonstrates by use of a degraded throughput methodology that it will not cause harmful interference to any such system with which coordination has not been completed. If an earlier-round system becomes operational after a later-round system has commenced operations, the later-round licensee or market access recipient must submit a certification of coordination or a compatibility showing with respect to the earlier-round system no later than 60 days after the earlier-round system commences operations as notified pursuant to § 25.121(b) or otherwise.

(1) Compatibility showings must contain the following elements:

(A) A demonstration that the later-round system will cause no more than 3% time-weighted average degraded throughput of the link to the earlier-round system, for links with a baseline link availability of 99.0% or higher at a C/N threshold of 0 dB;

(B) A demonstration that the later-round system will cause no more than 0.4% absolute change in link availability to the earlier-round system using a C/N threshold value of 0 dB, for links with a baseline link availability of 99.0% link availability or higher; and

(C) With respect to an earlier-round system that has not yet satisfied its 50% deployment milestone pursuant to section 25.164(b)(1) of this part, the compatibility showing may consider only 50% deployment of the earlier-round system; if the 50% deployment milestone has been satisfied, the showing must consider 100% deployment of the authorized system.

(2) Compatibility showings will be placed on public notice pursuant to § 25.151(a)(13).

(3) While a compatibility showing remains pending before the Commission, the submitting NGSO FSS licensee or market access recipient may commence operations on an unprotected, non-interference basis with respect to the operations of the system that is the subject of the showing.

(4) A later-round NGSO FSS system will be required to conform its operations to its compatibility showing submitted for the protection of an earlier-round system to the extent necessary to protect the actual number of deployed and operating space stations of the earlier-round system.

(e) *Sunsetting.* Ten years after the first authorization or grant of market access in a processing round, the systems approved in that processing round will no longer be required to protect earlier-rounds systems under paragraph (d) of this section, and instead will be required to share spectrum with earlier-round systems under paragraph (c) of this section.

APPENDIX B

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, Further Notice of Proposed Rulemaking (*Further Notice*) released in April 2023.² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *Further Notice*, including comment on the IRFA. No comments were filed addressing the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Second Report and Order

2. The Second Report and Order continues to facilitate the deployment of non-geostationary satellite orbit, fixed-satellite service (NGSO FSS) systems capable of providing broadband and other services on a global basis, by refining the Commission's rules governing spectrum sharing among a new generation of broadband satellite constellations to promote market entry, regulatory certainty, and spectrum efficiency through good-faith coordination. The Commission amends its rules governing the treatment of NGSO FSS systems filed in different processing rounds clarifying certain details of the degraded throughput methodology that, in the absence of a coordination agreement, must be used in compatibility analyses by NGSO FSS system licensees authorized through later processing rounds to show they can operate compatibly with, and protect, NGSO FSS systems authorized through earlier processing rounds.

3. Specifically, the Second Report and Order clarifies details regarding the implementation of a degraded throughput methodology by adopting a 3% throughput degradation as a long-term interference protection criterion, a 0.4% absolute increase in link unavailability as a short-term interference protection criterion, and declining to adopt additional protection metrics or to adopt an aggregate limit on interference from later-round NGSO FSS systems into earlier-round NGSO FSS systems. It also affirms that the default, spectrum-splitting mechanism will be applied among NGSO systems in different processing rounds after the sunset period. The actions the Commission takes in this proceeding further its efforts to promote development, and competition among broadband NGSO FSS system proponents, including the market entry of new competitors.⁴

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

4. There were no comments filed that specifically addressed the proposed rules and policies presented in the IRFA.

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 3699, 3729-32, Appendix C (2023) (*Report and Order*).

³ 5 U.S.C. § 604.

⁴ See generally Executive Order No. 14036, Promoting Competition in the American Economy, 86 FR 36987 (July 9, 2021) ("The heads of all agencies shall consider using their authorities to further the policies set forth in section 1 of this order, with particular attention to: (i) the influence of their respective regulations, particularly any licensing regulations, on concentration and competition in the industries under their jurisdiction; and..."). Executive Order at 86 FR 36991.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

5. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.⁵ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

6. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.⁶ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁷ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁸ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁹

7. *Satellite Telecommunications.* This industry comprises firms “primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”¹⁰ Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$44 million or less in annual receipts as small.¹¹ U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year.¹² Of this number, 242 firms had revenue of less than \$25 million.¹³ Consequently, using the SBA’s small business size standard most satellite telecommunications service providers can be considered small entities. The Commission notes however, that the SBA’s revenue small business size standard is applicable to a broad scope of satellite telecommunications providers included in the U.S. Census Bureau’s Satellite Telecommunications

⁵ 5 U.S.C. § 604(a)(3).

⁶ *Id.* § 604(a)(4).

⁷ *Id.* § 601(6).

⁸ *Id.* § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁹ 15 U.S.C. § 632.

¹⁰ See U.S. Census Bureau, *2017 NAICS Definition, “517410 Satellite Telecommunications,”* <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

¹¹ See 13 CFR § 121.201, NAICS Code 517410.

¹² See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410, <https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

¹³ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

industry definition. Additionally, the Commission neither requests nor collects annual revenue information from satellite telecommunications providers, and is therefore unable to more accurately estimate the number of satellite telecommunications providers that would be classified as a small business under the SBA size standard. For purposes of this proceeding it is likely that there are very few entities meeting the SBA's definition of small satellite telecommunications providers that are small satellite system operators involved in designing, manufacturing, and launching a satellite due to the generally a high fixed cost of these activities.¹⁴

8. *All Other Telecommunications.* This industry comprises firms “primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.”¹⁵ This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.¹⁶ Providers of Internet services (e.g. dial-up ISPs) or Voice over Internet Protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry.¹⁷ The SBA small business size standard for this industry classifies firms with annual receipts of \$40 million or less as small.¹⁸ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.¹⁹ Of those firms, 1,039 had revenue of less than \$25 million.²⁰ Based on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

9. The Second Report and Order amends rules that are applicable to space station operators requesting a license or grant of U.S. market access from the Commission. Specifically, the Second Report and Order adopts changes to the spectrum sharing requirements among NGSO FSS satellite systems approved in different processing rounds, and specifies details of the technical demonstration that space station licensees and market access grantees that were authorized through a later processing round must submit to show that they will not cause harmful interference to space station licensees and market access grantees that were authorized through an earlier processing round, prior to the sunset period, if the later-round grantees have not certified that they have reached a coordination agreement with the earlier-round grantees. The technical demonstration of compatibility between the later-round system and the earlier-round system is based on a degraded throughput methodology and assessing absolute increase in link unavailability.

¹⁴ See *Communications Marketplace Report*, GN Docket No. 22-203, 2022 WL 18110553 at 138, para. 206. (2022) (2022 *Communications Marketplace Report*).

¹⁵ See U.S. Census Bureau, *2017 NAICS Definition*, “517919 All Other Telecommunications,” <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

¹⁹ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, <https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePrevious=false>. At this time, the 2022 Economic Census data is not available.

²⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

10. The adopted metrics, values, and assumptions to finalize degraded throughput methodology will impact information later-round NGSO FSS system operators are required to report in compatibility analysis submissions. However, because of the costs involved in developing and deploying an NGSO FSS satellite constellation, the Commission anticipates that few NGSO FSS operators affected by this rulemaking would qualify under the SBA definition of “small entity,” and therefore small entities are not likely to have to hire professionals, or incur any compliance costs as a result of the Second Report and Order.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

11. The RFA requires an agency to provide, “a description of the steps the agency has taken to minimize the significant economic impact on small entities...including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.”²¹

12. The Second Report and Order defines specific metrics for long-term interference and short-term interference that must be used in compatibility analyses demonstrating that a later-round NGSO FSS system will adequately protect an earlier-round system. Agreeing with the general consensus of commenters, the Second Report and Order adopts a 3% degraded throughput threshold as the long-term interference metric for inter-round compatibility analyses and a 0.4% absolute increase in link unavailability as the short-term interference metric based on the technical record developed in this proceeding. The Commission concludes that establishing a specific long-term interference protection metric consistent with the technical evidence in the record provides the benefit of a clear standard for new entrants, and a benchmark that parties can use to negotiate any alternative long-term protections mutually agreed to in coordination.

13. The Commission specifically considered, and declined, adopting additional protection metrics for loss of synchronization, multiple carrier-to-noise (C/N) objectives, or aggregate interference limits in part because of the additional complexities and costs that complying with such additional metrics could entail. Similarly, the Commission considered, and rejected, incorporating interference from additional sources in the baseline calculation, such as from GSO networks, other NGSO FSS systems, and intra-system noise, in part to simplify the analysis required of new entrants in the absence of a coordination agreement. Moreover, to lower burdens on later-round operators, the Commission provides illustrative examples of parameters that may be used when preparing compatibility analyses and which will be considered on a case-by-case basis as to whether they are reliable and representative. The Commission also considered and reaffirmed its decision from the *Report and Order* to apply the default, spectrum-splitting mechanism to earlier and later-round operators after the sunset date to place them on equal footing, noting that facilitating equal treatment of later-round operators after the sunset date was a key component of the sunset provision.²² Additionally, by reaffirming this decision the Commission ensures that earlier-round advantages do not continue indefinitely, and simplifies the regulatory framework when systems authorized through multiple processing rounds may be operating.

G. Report to Congress

14. The Commission will send a copy of the *Second Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.²³ In addition, the Commission will send a copy of the Second Report and Order, including this FRFA, to the Chief Counsel

²¹ 5 U.S.C. § 604(a)(6).

²² *Report and Order*, 38 FCC Rcd at 3713-14, para. 30.

²³ 5 U.S.C. § 801(a)(1)(A).

for Advocacy of the SBA. A copy of the Second Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.²⁴

²⁴ *Id.* § 604(b).

APPENDIX C**List of Commenters****Comments on the *Further Notice* in IB Docket No. 21-456**

Information Technology and Innovation Foundation (ITIF)
Intelsat License LLC (Intelsat)
Kepler Communications Inc. (Kepler)
Kuiper Systems LLC (Kuiper)
O3b Limited (O3b)
Space Exploration Holdings, LLC (SpaceX)
TechFreedom
Telesat Canada (Telesat)
Viasat, Inc. (Viasat)
WorldVu Satellites Limited (OneWeb)

Reply Comments on the *Further Notice* in IB Docket No. 21-456

Intelsat
Kuiper
Mangata
O3b
OneWeb
SpaceX
Telesat
ViaSat

Comments on the Petition for Reconsideration in IB Docket No. 21-456

Kuiper
SpaceX

Reply Comments on the Petition for Reconsideration in IB Docket No. 21-456

OneWeb

Ex Parte Filings in IB Docket No. 21-456 after Release of the *Further Notice*

Kuiper June 20, 2023 *ex parte*
Kuiper Oct. 30, 2023 *ex parte*
OneWeb Apr. 3, 2024 *ex parte*
OneWeb Apr. 15, 2024 *ex parte*
OneWeb and Eutelsat S.A. May 6, 2024 *ex parte*
Kuiper May 7, 2024 *ex parte*
Kuiper May 10, 2024 *ex parte*
Kuiper May 10, 2024 *ex parte*
SpaceX May 24, 2024 *ex parte*
Telesat July 5, 2024 *ex parte*
Telesat July 11, 2024 *ex parte*
OneWeb July 18, 2024 *ex parte*
SpaceX July 21, 2024 *ex parte*
Kuiper July 24, 2024 *ex parte*

SpaceX July 25, 2024 *ex parte*
Kuiper August 1, 2024 *ex parte*
SpaceX August 1, 2024 *ex parte*
Kuiper August 5, 2024 *ex parte*
Kuiper August 12, 2024 *ex parte*
SpaceX August 14, 2024 *ex parte*
O3b August 22, 2024 *ex parte*
SpaceX August 26, 2024 *ex parte*
SpaceX August 29, 2024 *ex parte*
O3b August 30, 2024 *ex parte*
O3b September 5, 2024 *ex parte*
SpaceX September 30, 2024 *ex parte*
Telesat October 2, 2024 *ex parte*
O3b October 2, 2024 *ex parte*
O3b October 3, 2024 *ex parte*
OneWeb October 3, 2024 *ex parte*
O3b October 7, 2024 *ex parte*
O3b October 9, 2024 *ex parte*
O3b October 11, 2024 *ex parte*
OneWeb October 15, 2024 *ex parte*
O3b October 17, 2024 *ex parte*
O3b October 18, 2024 *ex parte*
Intelsat October 18, 2024 *ex parte*
Kuiper October 18, 2024 *ex parte*
O3b October 21, 2024 *ex parte*
Telesat October 22, 2024 *ex parte*
OneWeb October 31, 2024 *ex parte*
Open Technology at New America, Public Knowledge November 1, 2024 *ex parte*
Hughes Network Systems November 4, 2024 *ex parte*
X2nSat, Inc. November 5, 2024 *ex parte*
OneWeb November 7, 2024 *ex parte*

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Jurisdictional Separations and Referral to the	)	CC Docket No. 80-286
Federal-State Joint Board	)	
	)	

REPORT AND ORDER

Adopted: November 13, 2024**Released: November 13, 2024**

By the Commission:

I. INTRODUCTION

1. In this Report and Order, the Commission extends, for up to an additional six years, the freeze of the jurisdictional separations category relationships and cost allocation factors (together, separations rules) for rate-of-return incumbent local exchange carriers (LECs). In light of sweeping technological and regulatory changes in the marketplace and the resulting ongoing transition from traditional telephone service to broadband-based voice services, the separations rules play a substantially diminished role in allocating costs between the interstate and intrastate jurisdictions. This extension of the separations rules freeze will enable the Commission to continue to work with the Federal-State Joint Board on Jurisdictional Separations (Joint Board)¹ to determine the future of these rules, which were last revised more than 35 years ago in a vastly different telecommunications marketplace.² We decline, however, to provide carriers an opportunity to change their current category relationships.³

2. Given the technological and regulatory changes that have occurred over the past three and a half decades and the compliance burdens that the separations rules impose on the limited and declining number of small rural carriers still subject to them,⁴ we also refer to the Joint Board for their consideration the question of whether comprehensive reform is needed at this time or if the Commission should allow these rules to become obsolete over time. Because repeated freeze extensions of the separations rules have yet to produce substantive changes to these rules and consume limited government and industry resources, we also refer to the Joint Board the issue of whether a permanent freeze is

¹ The Commission established the Joint Board in 1980. *See Amendment of Part 67 of the Commission's Rules*, CC Docket No. 80-286, Notice of Proposed Rulemaking and Order Establishing a Joint Board, 78 FCC 2d 837 (1980).

² *See MTS and WATS Market Structure, Amendments of Part 67 (New Part 36) of the Commission's Rules and Establishment of a Federal-State Joint Board*, CC Docket Nos. 78-72, 80-286, 86-297, Report and Order, 2 FCC Rcd 2639, para. 1 (1987) (adopting separations rule revisions that were codified as a new Part 36 of our rules, effective January 1, 1988).

³ *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Further Notice of Proposed Rulemaking and Order, FCC 24-71, para. 14 (2024) (*2024 Further Notice* or *2024 Separations Joint Board Referral Renewal Order*).

⁴ *See 2024 Further Notice* at paras. 9-10 (explaining the declining number of carriers subject to the separations rules).

warranted and, if so, whether carriers still using separations should be given the chance to unfreeze their category relationships every few years.

II. BACKGROUND

3. *Jurisdictional Separations Process.* Rate-of-return incumbent LECs use their networks and other resources to provide both interstate and intrastate telecommunications and other services. To prevent the recovery of the same costs from both the interstate and intrastate jurisdictions, the separations rules require that rate-of-return incumbent LECs divide their costs and revenues between the respective jurisdictions.⁵ These jurisdictional separations rules were designed to ensure that rate-of-return incumbent LECs apportion the costs of their regulated services between the interstate or intrastate jurisdictions in a manner that reflects the relative use of their networks to provide interstate or intrastate telecommunications services.⁶

4. Jurisdictional separations is the third step in a four-step cost-based regulatory rate-making process.⁷ First, a rate-of-return carrier records its costs and revenues in various accounts using the Uniform System of Accounts prescribed by the Commission's Part 32 rules.⁸ Second, the carrier divides the costs in these accounts between regulated and nonregulated activities in accordance with the Commission's Part 64 rules, a step that helps ensure that the costs of nonregulated activities will not be recovered through regulated interstate rates.⁹ Third, the carrier separates the regulated costs and revenues between the interstate and intrastate jurisdictions using the Commission's Part 36 jurisdictional separations rules.¹⁰ Finally, the carrier apportions the interstate regulated costs among the interexchange services and the rate elements that form the basis for its cost-based interstate rates. Carriers subject to rate-of-return regulation perform this apportionment in accordance with the Commission's Part 69 rules.¹¹

5. To comply with the Commission's cost-based ratemaking rules, rate-of-return incumbent LECs must perform annual cost studies that include jurisdictional separations. The cost studies directly assign or allocate the regulated costs and revenues to various Part 36 categories.¹² Amounts in categories that are used exclusively for either interstate or intrastate communications are directly assigned to the appropriate jurisdiction.¹³ Costs that fall in categories that support both interstate and intrastate services are divided between the jurisdictions using allocation factors developed in accordance with Part 36 that reflect relative use or a fixed percentage.¹⁴

⁵ See 47 CFR pt. 36.

⁶ See *id.* § 36.1(c) (positing that “[t]he fundamental basis on which separations are made is the use of telecommunications plant in [interstate and intrastate] operations”).

⁷ See *2001 Separations Freeze Order*, 16 FCC Rcd at 11384, para. 3.

⁸ 47 CFR pt. 32.

⁹ The Part 64 cost allocation rules are codified in 47 CFR §§ 64.901-904.

¹⁰ 47 CFR pt. 36.

¹¹ *Id.* pt. 69.

¹² See, e.g., 47 CFR § 36.1-36.3. In some instances, the incumbent LEC further disaggregates costs and revenues among subcategories. See, e.g., 47 CFR § 36.126. For convenience, this *Report and Order* uses “categories” to refer to both categories and subcategories.

¹³ For example, the cost of private line service that is wholly intrastate is directly assigned to the intrastate jurisdiction. See 47 CFR § 36.154(a), (b).

¹⁴ For instance, a fixed allocation is applied under our rules to subscriber or common lines that are jointly used for local exchange service and exchange access for intrastate and interstate interexchange services, in which 25 percent of these “loop” costs are allocated to the interstate jurisdiction and 75 percent of the costs to the intrastate jurisdiction. See *id.* § 36.154(c). Otherwise, costs for telecommunications plant that is used jointly for state and
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6. In addition to being used for developing cost-based rates, separations is also used as part of the process to determine universal service support. The administrator of the federal universal service support program, the Universal Service Administrative Company, uses separations categorization results for calculating high-cost loop support for certain legacy support carriers.¹⁵ In addition, some states use separations results to determine the amount of intrastate universal service support and to calculate regulatory fees, and some states perform intrastate rate-of-return ratemaking using the assigned or allocated intrastate costs.¹⁶

7. *Attempts at Separations Reform and Separations Freezes.* In 1997, recognizing that “changes in the law, technology, and market structure of the telecommunications industry” necessitated a thorough reevaluation of the jurisdictional separations process, the Commission initiated a proceeding to comprehensively reform the separations rules.¹⁷ At the same time, pursuant to section 410(c) of the Communications Act of 1934, as amended (the Communications Act),¹⁸ the Commission referred the matter of jurisdictional separations reform to the Joint Board for a recommended decision.¹⁹

8. In 2000, the Joint Board—comprised of both State and Federal members—issued a recommendation that the Commission freeze the Part 36 category relationships and jurisdictional allocation factors pending resolution of comprehensive reform.²⁰ In 2001, the Commission adopted an order concluding that a freeze would stabilize the separations process pending reform by minimizing any impact of cost shifts on separations results due to circumstances—such as the growth of Internet usage, new technologies, and local competition—not contemplated by the rules.²¹ The Commission also determined that a freeze would simplify the separations process by eliminating the need for many separations cost studies until separations reform was implemented.²² Accordingly, the Commission froze all carriers’ Part 36 jurisdictional allocation factors at the percentages the carriers were using at that time, and allowed rate-of-return carriers to voluntarily freeze their category relationships, enabling each carrier to determine whether such a freeze would be beneficial “based on its own circumstances and investment plans.”²³ Thus, at a minimum, rate-of-return carriers’ jurisdictional allocation factors are frozen at the December 31, 2000 level, which allows these carriers to avoid the considerable burdens associated with

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interstate operations like tandem switching systems generally are allocated, or apportioned, based on minutes of use or a similar measure. *See id.* §§ 36.2(b)(3), 36.124.

¹⁵ *See* 47 CFR § 54.1305.

¹⁶ *See Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order and Waiver, 33 FCC Rcd 12743, 12750, para. 18 (2018) (*2018 Separations Freeze Extension Order*).

¹⁷ *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Notice of Proposed Rulemaking, 12 FCC Rcd 22120, 22122, para. 2 (1997) (*1997 Separations Reform NPRM and Referral*).

¹⁸ 47 U.S.C. § 410(c). Section 410(c) requires the Commission to “refer any proceeding regarding the jurisdictional separation of common carrier property and expenses between interstate and intrastate operations, which it initiates pursuant to a notice of proposed rulemaking” to a Joint Board. *Id.* Section 410(c) further specifies that after such a referral, the Joint Board “shall prepare a recommended decision for prompt review and action by the Commission.” *Id.*

¹⁹ *1997 Separations Reform NPRM and Referral*, 12 FCC Rcd at 22124, para. 5.

²⁰ *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Recommended Decision, 15 FCC Rcd 13160 (Fed.-State Jt. Bd. 2000) (*Joint Board Recommended Decision*).

²¹ *2001 Separations Freeze Order*, 16 FCC Rcd at 11389, para. 12.

²² *Id.* at 11390, paras. 13-14.

²³ *Id.* at 11393, paras. 18, 21 (citing *Joint Board Recommended Decision*, 15 FCC Rcd at 13172, para. 20). The Commission required price cap carriers to freeze their category relationships. *Id.*

conducting the traffic studies otherwise needed to comply with the rules for allocating investments and expenses between the intrastate and interstate jurisdictions.²⁴

9. The Commission specified that the 2001 freeze would last five years or until the Commission completed comprehensive separations reform, whichever came first.²⁵ The Commission also concluded that, prior to the expiration of the five-year period, the Commission would, in consultation with the Joint Board, determine whether the freeze period should be extended, explaining that “the determination of whether the freeze should be extended at the end of the five-year period shall be based upon whether, and to what extent, comprehensive reform of separations has been undertaken by that time.”²⁶ Since 2001, the Commission has extended the separations freeze eight times, for periods ranging from one year to six years, with the most recent extension expiring on December 31, 2024.²⁷

10. In 2009, the Commission made another referral to the Joint Board, asking it to consider comprehensive jurisdictional separations reform as well as “an interim adjustment of the current jurisdictional separations freeze.”²⁸ In 2018, the Commission referred to the Joint Board two specific interim issues for consideration pending comprehensive reform. These issues included exploring the possibility of amending separations rules to acknowledge that certain carriers are no longer bound by them, as well as updating existing recordkeeping requirements to align with the current applicability of separations rules.²⁹ To date, the Joint Board has yet to submit a recommended decision on any interim adjustments or comprehensive separations reform.

11. *2024 Further Notice of Proposed Rulemaking and Order.* On July 1, 2024, the Commission released a *Further Notice of Proposed Rulemaking and Order*, inviting comment on its

²⁴ See *2001 Separations Freeze Order*, 16 FCC Rcd at 11388-89 (“Under a freeze, . . . carriers will calculate 1) the relationships between categories of investment and expenses within Part 32 accounts and 2) the jurisdictional allocation factors, as of a specific point in time, and then lock or ‘freeze’ those category relationships and allocation factors in place for a set period of time. The carriers will use the ‘frozen’ category relationships and allocation factors for their calculations of separations results and therefore will not be required to conduct separations studies for the duration of the freeze.”).

²⁵ *2001 Separations Freeze Order*, 16 FCC Rcd at 11387-88, 11397, paras. 9, 29.

²⁶ *Id.* at 11397, para. 29.

²⁷ See *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Order and Further Notice of Proposed Rulemaking, 21 FCC Rcd 5516, 5517, 5523, paras. 1, 16 (2006) (*2006 Separations Freeze Extension Order and Further Notice*) (extending the initial separations freeze for three years, through June 30, 2009); *2009 Separations Freeze Extension Order and Second Referral*, CC Docket No. 80-286, Report and Order, 24 FCC Rcd 6162, 6162, para. 1 (2009) (*2009 Separations Freeze Extension Order and Second Referral*) (extending the separations freeze for one year through June 30, 2010); *Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order, 25 FCC Rcd 6046, para. 1 (2010) (*2010 Separations Freeze Extension Order*) (extending the separations freeze for one year through June 30, 2011); *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order, 26 FCC Rcd 7133, para. 1 (2011) (*2011 Separations Freeze Extension Order*) (extending the separations freeze for one year through June 30, 2012); *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order, 27 FCC Rcd 5593, para. 1 (2012) (*2012 Separations Freeze Extension Order*) (extending the separations freeze for two years through June 30, 2014); *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order, 29 FCC Rcd 6470, para. 1 (2014) (*2014 Separations Freeze Extension Order*) (extending the separations freeze for three years through June 30, 2017); *Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order, 32 FCC Rcd 4219, para. 1 (2017) (*2017 Separations Freeze Extension Order*) (extending the separations freeze for 18 months through December 30, 2018); *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12744, para. 4.

²⁸ *2009 Separations Freeze Extension Order and Second Referral*, 24 FCC Rcd at 6167, para. 15.

²⁹ *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12758, paras. 42-43.

proposal to extend the separations freeze for another six years, given “the limited options available to the Commission under the current circumstances.”³⁰ The Commission expressed its desire to continue working with the Joint Board and sought comment on its proposed finding that the benefits of an extension far outweigh the potential harm carriers could face if the freeze was not extended, permitting “the long-fallow and outdated separations rules to take effect on January 1, 2025.”³¹

12. In the *2024 Separations Joint Board Referral Renewal Order* that accompanied the *2024 Further Notice*, the Commission renewed the prior referrals to the Joint Board, including both the 1997 and 2009 comprehensive reform referrals and the 2018 interim reform measures referral.³² The Commission explained that it renewed these referrals in light of the need to achieve reform of the separations rules, given their declining applicability as a result of substantial telecommunications market and federal-state regulatory framework changes since these referrals were first made.³³

13. Four of the five parties that filed comments or reply comments in this proceeding unconditionally support a six-year or longer freeze extension,³⁴ and the other commenter stated it would support “a two-year extension or any longer extension endorsed by the majority of the members of the Separations Joint Board.”³⁵ The four State members, which make up a majority of the Joint Board, made such an endorsement, supporting the proposed six-year freeze in an *ex parte* filing.³⁶ The State members explained that “all three FCC Commissioners on the Joint Board, including the Chair [Commissioner Starks], voted to propose a six year extension,” and the State members “agree with the federal members of the board that a six-year extension is appropriate.”³⁷

III. DISCUSSION

14. We extend the freeze on Part 36 category relationships and jurisdictional allocation factors up through December 31, 2030, if necessary. We find this extension will best serve the public interest. The record unanimously demonstrates that an extension of the separations freeze beyond its scheduled December 31, 2024 expiration date will provide stability to carriers and further the Commission’s ability to work with the Joint Board to consider how best to address the antiquated

³⁰ *2024 Further Notice* at para. 13.

³¹ *Id.* at paras. 12, 19.

³² *2024 Separations Joint Board Referral Renewal Order* at 19- 20 (The Commission explained: “Consistent with Commission precedent, the Commission is not seeking an additional referral to, or expecting an additional recommended decision from, the Joint Board to extend the separations rules freeze. At the same time, we find it appropriate to renew the Commission’s prior reform referrals to the Joint Board in the accompanying Order. In previously extending the freeze, the Commission has found such extensions to fall within the scope of the Joint Board’s recommended decision granting the first freeze.”) (citing *2001 Separations Freeze Order*, 16 FCC Rcd at 11383, 11397, paras. 2, 29).

³³ *2024 Separations Joint Board Referral Renewal Order* at para. 20.

³⁴ Aldrich Advisors Comments at 1-2 (agreeing with the Commission proposal for a six-year extension); NECA Comments at 1; NTCA Comments at 1; WTA Comments at 1.

³⁵ NARUC Reply at 2, 11.

³⁶ Letter from Joint Board State Members, Steven M. DeFrank, Chairman, Pennsylvania PUC, Karen Charles, Commissioner, Massachusetts Dept. of Telecom. and Cable, Maida J. Coleman, Commissioner, Missouri PSC, and Mary Pat Regan, Commissioner, Kentucky PSC, to Jessica Rosenworcel, Chairwoman, FCC, et. al., CC Docket 80-286 (October 11, 2024) (State Joint Board Members’ *Ex Parte* Letter).

³⁷ State Joint Board Members’ *Ex Parte* Letter at 1-2 (agreeing an “extension of the freeze is required for, at a minimum, the reasons articulated by the Commission” (citing *2024 Further Notice* at para. 12)).

separations rules in today's telecommunications landscape.³⁸ In determining the extension timeframe, we find that the record supports an extension of up to six additional years unless, after receipt of a Joint Board recommended decision on its referrals, the Commission adopts an order acting on the recommended decision sooner than December 31, 2030.

15. To fully address the future course of the separations rules, we also refer to the Joint Board three additional issues for their consideration in conjunction with the other pending referral issues. First, we ask the threshold question of whether comprehensive reform is even necessary any longer given current market conditions and the fact that the need for separations rules is naturally diminishing while the burden of complying with any new set of rules, were they to be reformed, would be substantial. Second, we refer to the Joint Board the question of whether a permanent freeze is warranted at this time. If so, we finally ask whether carriers still using separations should be given an opportunity, offered periodically, to unfreeze their category relationships.

A. Further Extending the Separations Freeze

16. We find that, based on the record and the fast approaching expiration of the current freeze extension on December 31, 2024, it is imperative to extend the freeze before it expires.³⁹ All commenters agree that a continuation of the freeze is necessary, and the majority unconditionally support at least a six year extension.⁴⁰

17. *Process Considerations.* Section 410(c) of the Communications Act contemplates a Joint Board recommendation on the pending comprehensive reform referral before the Commission moves forward on comprehensive separations reform.⁴¹ All parties that submitted filings in the record, including the Joint Board's new State members, generally agree with the Commission's assessment that recent changes to the composition of the Joint Board,⁴² the complex nature of the work required to develop

³⁸ See, e.g., State Joint Board Members' *Ex Parte* Letter at 1-2; Aldrich Advisors Comments at 2 (explaining "an extension of the current freeze is in the public interest").

³⁹ Consistent with precedent, the Commission has determined that freeze extensions—which essentially maintain the status quo—are within the scope of the original referral to the Joint Board for a recommended decision in 2001 and has extended the freeze several times without making an additional referral. See, e.g., *2024 Further Notice* at para. 19; *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12758-59, paras. 44-45; *2006 Separations Freeze Extension Order*, 21 FCC Rcd at 5523-25, paras. 18-20). Instead, the Commission has typically consulted with and received letters supporting freeze extensions from State members of the Joint Board prior to acting. See, e.g., Letter from Sarah Hofmann, State Chair, Federal State Joint Board on Separations, et. al., to Marlene H. Dortch, Secretary, FCC, CC Docket No. 80-286, at 1 (filed Dec. 7, 2018) (recommending a six-year extension of the separations freeze). The Commission's actions here are consistent with NARUC's and the State members' position. See NARUC Reply at 11 (advocating for "meaningful consultation with the Joint Board" under the "deliberative privilege" provided for in section 410(c)); State Joint Board Members' *Ex Parte* Letter at 2 (agreeing that historically "with all the freeze extensions, either the full board or a majority of the Joint Board filed a recommend[ed] decision/recommendation, or as in the case of the last freeze extension, the majority of the board agreed via deliberations to support . . . the freeze extension").

⁴⁰ See State Joint Board Members' *Ex Parte* Letter at 1-2; Aldrich Advisors Comments at 1-2; NECA Comments at 1; NTCA Comments at 1; WTA Comments at 1; NARUC Reply at 2, 11.

⁴¹ See 47 U.S.C. § 410(c) (requiring the Commission to refer jurisdictional separations reform to the Joint Board and requiring the Joint Board to "prepare a recommended decision for prompt review and action by the Commission").

⁴² This Joint Board has recently seated several new members who are just beginning their opportunity to delve into the complicated issues inherent in determining the future of the separations rules. See *Federal-State Joint Board on Universal Service, Federal-State Joint Board on Jurisdictional Separations, et al.*, CC Docket Nos. 96-45, 80-286, et al., Order, FCC 24-15 (2024) (naming Commissioner Geoffrey Starks as the federal chair of the Federal-State Joint Board on Jurisdictional Separations and Commissioners Nathan Simington and Anna Gomez as new members); *Federal-State Joint Board on Universal Service, Federal-State Joint Board on Jurisdictional Separations, et al.*, CC Docket Nos. 96-45, 80-286, et al., Order, FCC 24-53 (2024) (naming Commissioners Mary
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comprehensive recommendations for separations reform, and the fact that the current freeze expires at the end of this calendar year have combined to leave limited and insufficient time within which the Joint Board could develop and advance recommended decisions and the Commission could act on such recommendations.⁴³ Extending the freeze will provide the Commission and the Joint Board the additional time necessary to engage in the work to achieve our goals, and commenters unanimously agree on the importance of extending the freeze.⁴⁴

18. *Benefits Outweigh the Costs.* We continue to find, based on the record here, that an extension of the freeze provides numerous benefits to carriers and is essential to avoid imposing significant costs and burdens on carriers that otherwise would be subject to the rules.⁴⁵ Commenters point out that extending the freeze would provide “a measure of consistency and reliability of revenues.”⁴⁶ Additionally, according to commenters, the Commission’s regulatory initiatives “have changed the way that rural consumers obtain voice and data services, as they increasingly transition to wholly interstate broadband only services in place of traditional regulated voice services,” which makes reinstating the old separations cost studies for these carriers difficult to justify.⁴⁷ Further, commenters indicate that the allocation between interstate and intrastate services naturally balances out as carriers switch to broadband only services, and thus the cost of continuing the use of frozen category relationships and allocation factors for those carriers is not significant.⁴⁸ In short, maintaining the current separations regime provides stability to carriers.

19. In contrast, the costs to carriers of complying with Part 36 rules if the freeze is allowed to expire are significant. The Commission has consistently found that letting the freeze expire would impose considerable burdens on carriers, particularly smaller rural carriers, and create undue instability.⁴⁹ In extending the most recent freeze in 2018, the Commission explained that lifting the freeze and reinstating the separations rules after an absence of more than two decades, would make it extremely difficult, if not impossible, for most carriers to perform all of the studies needed to remain in full compliance.⁵⁰ Parties in this proceeding confirm that is still the case.⁵¹ Commenters confirm that application of the rules would require substantial training and investment by rural incumbent LECs, and

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Pat Regan, Karen Charles, Maida J. Coleman and Steven M. DeFrank as new State members); *see also* Letter from James Bradford Ramsay, General Counsel, NARUC, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, CC Docket No. 80-286 (Mar. 15, 2024) (nominating Commissioners Karen Charles, Mary Pat Regan, and Maida J. Coleman to serve as members of the Separations Joint Board); Letter from James Bradford Ramsay, General Counsel, NARUC, to the Honorable Jessica Rosenworcel, Chairwoman, FCC, CC Docket No. 80-286 (Apr. 9, 2024) (nominating Commissioner Steven M. DeFrank to serve as a member of the Separations Joint Board).

⁴³ *See, e.g.*, NECA Comments at 1-2; WTA Comments at 2 (both citing *2024 Further Notice* at paras. 11 & 12); State Joint Board Members’ *Ex Parte* Letter at 1 (citing *2024 Further Notice* at para. 12).

⁴⁴ State Joint Board Members’ *Ex Parte* Letter at 1; Aldrich Advisors Comments at 2; NECA Comments at 2-5; NTCA Comments at 2-4; WTA Comments at 2; NARUC Reply at 2, 11.

⁴⁵ *See, e.g.*, WTA Comments at 2; NECA Comments at 4.

⁴⁶ Aldrich Advisors Comments at 2.

⁴⁷ NECA Comments at 3-4.

⁴⁸ NTCA Comments at 2-3; NECA Comments at 4 (estimating that “over 50% of the access lines of its pool members are now CBOL [Consumer Broadband-Only Loop service]” and “expect[ing] this percentage will continue to grow”).

⁴⁹ *See, e.g.*, *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12750-51, paras. 21-23.

⁵⁰ *See, e.g., id.* at 12750-51, para. 21.

⁵¹ *See, e.g.*, WTA Comments at 2 (“[T]here are very few people remaining on the staffs of the Commission, the Joint Board, WTA members and other RoR carriers, and telecommunications consulting firms who have remained familiar with the pre-2001 separations process.”); *see also* Aldrich Advisors Comments at 2; NECA Comments at 4.

could cause significant disruptions to regulated rates, cost recovery, and other operating conditions when applying the outdated separations rules to today's operations.⁵² Indeed, we agree with NECA that "[r]emoval of the current freeze would necessitate . . . resources that would better be utilized to deploy advanced networks and provide service to consumers."⁵³ Thus, we continue to find that extension of the freeze is in the public interest.

20. *Length of the Freeze Extension.* We find that our proposed extension of up to six years is most appropriate under the circumstances and supported by the record.⁵⁴ In fact, certain commenters would support an even longer extension.⁵⁵ When the Commission extended the freeze for six years in 2018, it concluded that this time period best balances the competing considerations of a longer or shorter extension period.⁵⁶ Commenters support an extension that is sufficient to "allow the Commission, the Federal-State Joint Board on Separations, and industry stakeholders time to determine the most effective way to address future separations issues."⁵⁷ The Commission has previously explained that a six-year extension enables the Joint Board to focus on solving the complex issues versus the Commission's experience in granting a series of short-term separations extensions in the past.⁵⁸ We find that this is particularly true today. Indeed, as several new members of the Joint Board are beginning to engage with the question of how to effectively address separations issues in line with a modern public communications network, all Federal and State members of the Joint Board agree that six years is the appropriate timeframe for an extension.⁵⁹

21. The only commenter, NARUC, that proposed a shorter than six-year extension did so with the caveat that it would also support "any longer extension endorsed by the majority members" of the Joint Board.⁶⁰ The State members of the Joint Board, which constitute the majority of the Joint Board, have endorsed a six-year extension, thus satisfying NARUC's caveat, and making support in the record to a six-year freeze extension unanimous.⁶¹

⁵² Aldrich Advisors Comments at 2; NECA Comments at 4; NTCA Comments at 3; *see also 2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12751, para 22. The Commission also concluded that requiring carriers to reinstate their separations systems "would be unduly burdensome when there is a significant likelihood that there would be no lasting benefit to doing so." *2017 Separations Freeze Extension Order*, 32 FCC Rcd at 4224, para. 11.

⁵³ NECA Comments at 4.

⁵⁴ *See 2024 Further Notice* at paras. 15-16; State Joint Board Members' *Ex Parte* Letter at 2; NARUC Reply at 11; Aldrich Advisors Comments at 1-2; NECA Comments at 1; WTA Comments at 3; NTCA Comments at 1.

⁵⁵ *See e.g.*, NECA Comments at 1, 5 (supporting a freeze for "at least six years" and even an "unlimited" extension until comprehensive reform is achieved because the "repeated short-term extensions consume valuable and limited government and industry resources"); WTA Comments at 3 (advocating for a "six-year or greater extension" to "give the Commission, state commissions and the RLEC industry time to determine what, if any, revised separations rules will be necessary and sufficient to meet the regulatory needs of the Internet Protocol or other network that evolves into the future public communications network"); NTCA Comments at 1 (encouraging the Commission "to adopt a freeze of at least six years, if not longer").

⁵⁶ *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12752, para 25.

⁵⁷ *See, e.g.*, Aldrich Advisors Comments at 2.

⁵⁸ *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12752, para 25.

⁵⁹ *See* Joint Board State Members' *Ex Parte* Letter at 1-2 (citing Commission's proposal for a six-year extension "to allow the Joint Board to consider next steps in addressing separations reform"); *2024 Further Notice* at para. 12.

⁶⁰ *See* NARUC Reply at 2, 11.

⁶¹ *See* State Joint Board Members' *Ex Parte* Letter at 2. As the State members note, "all three FCC Commissioners [that are also members of] the Joint Board, including the Chair, voted to propose a six year extension." *Id.*

B. Declining to Allow a One-Time Category Relationships Unfreeze

22. We decline to grant carriers another one-time option to unfreeze category relationships.⁶² Relatedly, we also decline to grant carriers an option to freeze category relationships. We find that there is insufficient basis in the record to support a need to modify the separations freeze by providing carriers with either of these additional options.⁶³ In 2018, the Commission granted rate-of-return carriers with frozen category relationships a one-time opportunity to unfreeze them going forward.⁶⁴ Only three carriers took advantage of that opportunity then⁶⁵ and the limited record here suggests a similar result would occur were we to adopt that same option now.⁶⁶

23. We are not persuaded, based on the record, that there is a need to provide an unfreeze option at this time, particularly in light of other opportunities the Commission has provided over the past several years that enabled rate-of-return carriers to opt out of the separations process partially or altogether.⁶⁷ For example, since 2018, 348 rate-of return carriers have accepted the Commission's offers to receive model-based Alternative Connect America Cost Model (A-CAM) or fixed high cost universal service support and transition certain business data services from rate-of-return to incentive regulation.⁶⁸ More generally, as a result of the Commission's intercarrier compensation and universal service reforms,

⁶² Unfreezing category relationships would allow carriers to allocate regulated investments and expenses among the part 36 separations categories/sub-categories based on fresh cost studies. *See Joint Board Recommended Decision*, 15 FCC Rcd at 13170-71, paras. 16-17.

⁶³ Only two commenters proposed possible modifications to the freeze. *See, e.g.*, Aldrich Advisors Comments at 3 (requesting an "opportunity for affected carriers to unfreeze category relationships, determine the correct relationships based on current data, and then re-freeze these relationships for the remainder of the new separations freeze period (i.e., 12/31/2030)"); WTA Comments at 4 (requesting the ability to unfreeze category relationships with options to either refreeze-or not refreeze them); *see also* State Joint Board Members' *Ex Parte* Letter at 2 ("State members take no position on whether the one-time category unfreeze proposals should be implemented.").

⁶⁴ *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12755-56, paras. 34-35.

⁶⁵ *2024 Further Notice* at para. 14 (citations omitted).

⁶⁶ *See* Aldrich Advisors Comments at 4 (admitting that "it is likely that a relatively small number of carriers will take this new opportunity" again).

⁶⁷ *But see* Aldrich Advisors Comments at 4 ("[I]t will be vital to give carriers the option to unfreeze separations category relationships such as occurred in 2018. Only in this way can the Commission ensure affected carriers are able to address problems and inaccuracies caused by category relationships based on decades old data and provide these carriers and their customers with the tools necessary to continue the important work made possible by the separations rules—namely, universal service."). To the extent rate-of-return carriers believe they have a need to address problems or inaccuracies caused by frozen category relationships based on old data, they may seek a waiver of the category relationships freeze rules, as carriers have in the past. *See* 47 CFR § 1.3 (providing for suspension, amendment, or waiver of Commission rules, in whole or in part, for good cause shown); *see, e.g., Petition by Eastex Telephone Cooperative, Inc. Pursuant to 47 C.F.R. Sections 36.3, 36.123-126, 36.152-157, and 36.372-382 for Commission Approval to Unfreeze Part 36 Category Relationships*, CC Docket No. 80-286, Order, 27 FCC Rcd 6357 (WCB 2012).

⁶⁸ *Wireline Competition Bureau Announces Additional 120 Rate-of-Return Carrier Study Areas Electing Incentive Regulation for Their Business Data Services*, WC Docket No. 17-144, Public Notice, DA 24-667 (July 11, 2024) (*July 11, 2024 Public Notice*) (announcing 120 rate-of-return study areas elected incentive regulation for their business data services (BDS) in 2024, bringing the total number of study areas that have elected BDS incentive regulation in 2019, 2020, and 2024 to 348); *see also Regulation of Business Data Services for Rate-of-Return Local Exchange Carriers et al.*, WC Docket No. 17-144 et al., Report and Order, Second Further Notice of Proposed Rulemaking, and Further Notice of Proposed Rulemaking, 33 FCC Rcd 10403, 10404, 10422, paras. 1, 45 (2018).

many carriers are no longer subject to cost-based regulation or the separations rules for any of their services.⁶⁹

24. As for adopting a new freeze option, either alone or coupled with an unfreeze option, we would also require a more developed record before determining whether to permit carriers that did not freeze their category relationships in 2001 to freeze them or permit carriers that elected to freeze category relationships in 2001 to unfreeze and then refreeze them.⁷⁰ In 2001, “[f]ewer than 100 rate-of-return incumbent carriers elected to freeze their category relationships.”⁷¹ In 2018, the Commission declined to allow companies to unfreeze and then refreeze their category relationships, explaining that, based on the record at that time, this option risked the possibility of gamesmanship.⁷² Although one commenter suggests procedures that possibly could prevent gamesmanship or double-recovery,⁷³ the record lacks sufficient information to accurately assess the benefits and drawbacks of adopting these options today.

25. In any event, our referral below to the Joint Board includes the question of whether periodic opportunities to unfreeze category relationships are necessary in conjunction with our referral regarding a potential permanent freeze. The Joint Board’s recommendation on this issue will provide valuable input to taking future action that give carriers opportunities to recalibrate their category relationships.

C. Joint Board Referrals

26. Both the Commission and commenters have acknowledged that comprehensive reform is an arduous undertaking that would involve revising complex ratemaking rules and numerous Universal Service Fund (USF) programs that rely on the current separations framework.⁷⁴ This task is further complicated by the fact that, after more than two decades since the Commission made the original referral of comprehensive reform to the Joint Board, regulatory agencies and the industry have substantially reduced personnel and resources with the expertise to conduct and evaluate full-scale cost studies.⁷⁵ In the meantime, regulatory changes and consumer demand have transformed the telecommunications industry from one that was largely reliant on cost-based ratemaking to one where only a small and declining fraction of small rural carriers are still required to use separations to set their rates and calculate USF support.⁷⁶

⁶⁹ See, e.g., *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17678, para. 39 (2011), *aff’d sub nom. In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014). For example, as part of intercarrier compensation reforms, the Commission capped all interstate switched access rates at 2011 levels subject to specified reductions over time, thereby eliminating the need for separations cost studies and separations rules to determine these rates for rate-of-return carriers. *Id.*

⁷⁰ See Aldrich Advisors Comments at 3; WTA Comments at 4, 6.

⁷¹ *Jurisdictional Separations Reform and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Further Notice of Proposed Rulemaking, 29 FCC Rcd 3340, 3344-45, para. 15 (2014).

⁷² *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12755-56, para. 35.

⁷³ WTA Comments at 5 (“The use of the most recent completed and filed set of data will improve the accuracy of the recalculated category relationships, make it easy for federal and state regulators to check the accuracy or data and calculations, and provide regulators with assurance that it was not possible for any electing [rural] LECs to time expenditures to create more favorable category relationships.”).

⁷⁴ See, e.g., *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12752, para. 26; NTCA Comments at 4.

⁷⁵ See, e.g., *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12751, para. 22; NECA Comments at 4.

⁷⁶ A small subset of rate-of-return carriers are the only remaining carriers required to comply with these rules. As a result of the Commission’s intercarrier compensation rate reforms, offers of fixed model-based A-CAM support programs, and the ongoing technological transition from traditional voice services to broadband, the number of rate-of-return carriers subject to the separations rules have been ever decreasing. *2024 Further Notice* at paras. 9-10. Based on internal staff analysis, there are currently, out of approximately 1,107 rate-of-return carriers, only about

(continued....)

27. To save carriers, particularly small carriers, from the burden of having to conduct all of the cost studies needed for full compliance with the separations rules, the separations freeze has been extended eight times over the past 23 years.⁷⁷ However, these small carriers may face the same, if not a heavier, burden of complying with any potentially revised cost allocation methodology if the Joint Board were to develop a recommended decision on comprehensive reform and the Commission were to adopt it.⁷⁸ We agree with concerns in the record by present and past commenters that compliance with comprehensive reform would “necessitate the hiring or retraining of staff—assuming commercial expertise can even be found to do so—and revising of internal procedures in ways that could overwhelm [the small carriers’] operations.”⁷⁹ Thus, there is evidence in the record indicating that the expediency of comprehensively reforming the separations rules may have lost its urgency or value over the past 23 years.⁸⁰

28. Some commenters suggest that the Joint Board should assess whether “the separations framework . . . is better viewed as transitioning itself organically toward an eventual sunset, rather than something in need of fundamental reform and revision.”⁸¹ NTCA believes that technological transitions, consumer demand and regulatory reforms have “moot[ed] the need for sweeping separations reform by enacting changes of their own accord.”⁸² We agree that the current separations rules may have the effect of promoting and encouraging the transition from traditional voice-only telephone lines to standalone broadband or VoIP services.⁸³ In fact, we also acknowledge that revamped, comprehensive reform of separations rules may actually encourage carriers to cling to the old technology.⁸⁴

(Continued from previous page)

247 carriers that receive cost-based USF support and make the full use of separations to set end-user common line, BDS, and CBOL service rates, as well as to determine the level of USF support.

⁷⁷ See *supra* para. 9; *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12750-51, para. 21.

⁷⁸ See NTCA Comments at 4 (observing that “comprehensive separations reform would hit hardest those small businesses that are already stretched thin by regulatory compliance and have found themselves unable to migrate to other support and cost recovery frameworks”); see also WTA Comments, CC Docket No. 80-286, at 8 (rec. May 24, 2017) (“[I]t does not appear that the benefits of a substantial Part 36 overhaul at this time outweigh the costs that would be incurred by the FCC, state commissions, RLECs and others to develop, analyze and implement revised separations rules and studies.”).

⁷⁹ NTCA Comments at 4; *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12750-51, paras. 21-22 (agreeing with Concerned Rural LECs, NECA, and WTA that redeveloping traffic factor studies last performed in 2001 to jurisdictionally separate costs assigned to voice-related services is “an arcane science” and would require substantial training and expense, hitting smaller rural carriers with limited resources the hardest).

⁸⁰ WTA Comments at 2-3 (citing other Commission reforms that reduce the need to rely on costs for ratemaking and universal service, and thus the need for separations studies, including grants of forbearance from Part 36 separations rules to price cap carriers, adoption of rate caps and transition to bill-and-keep for certain switched access services of rate-of-return carriers, and the ability of rate-of-return carriers to elect incentive regulation for BDS”). But see NARUC Reply at 4-5 (“The current rules simply do not reflect the increased use of intrastate networks for ‘mixed’ traffic that the FCC treats as interstate, particularly the bandwidth on shared facilities utilized by Broadband Internet Access Service or internet access service.”).

⁸¹ See NTCA Comments at 4. Other commenters also question “the relevance and need for jurisdictional separations processes and rules.” WTA Comments at 3; see Aldrich Comments at 2 (questioning “the unknown nature of the future necessity of cost separations rules”). NECA asserts that “[i]n this environment [of naturally transitioning to broadband only services], it makes little sense to reinstate traditional separations rules.” NECA Comments at 4.

⁸² NTCA Comments at 2.

⁸³ See *id.* at 2-3 (“Current separations rules may assign 75 percent of the costs of a voice-only telephone line or a voice-data line to the intrastate jurisdiction but, once a customer ceases to procure a traditional voice line and opts instead for standalone broadband (*i.e.*, a CBOL connection), 100 percent of the costs of that line are assigned to the interstate jurisdiction under current rules. Similarly, as consumers increasingly elect VoIP services as replacements for traditional telephone lines, this has the effect of shifting costs to the interstate jurisdiction.”); see also NECA

(continued....)

29. *Clarifying the Scope of the Prior Comprehensive Reform Referral.* Although the scope of the 1997 referral is quite broad—asking the Joint Board to explore questions ranging from specific comprehensive reform proposals to questions on “whether separations rules are still needed during the transition from a regulated to a competitive marketplace”⁸⁵—we find it appropriate to specifically reiterate a prior referral question and ask the Joint Board to consider, in particular, whether it should still pursue comprehensive reform especially given the diminishing relevance of the separations rules.⁸⁶ Accordingly, we ask the Joint Board for a recommended decision on whether comprehensive reform is still in the public interest when the industry is naturally transitioning away from legacy technologies⁸⁷ and cost-based ratemaking, and the burdens of compliance with any revised separations rules would be significant for the limited number of small carriers still subject to the separations rules.⁸⁸

30. *Referral of Considering a Permanent Freeze Extension.* Given the record emphasis by commenters advocating for a longer than six-year freeze or even a freeze of unlimited duration, we refer to the Joint Board the question of whether a permanent freeze of the separations rules is appropriate at this time. As we have explained, over the past 23 years, the Commission has gone through eight full rulemaking cycles to continually extend the freeze; this current proceeding is its ninth such rulemaking.⁸⁹ The Commission has never permitted the freeze to expire because allowing it to lapse would reinstate overnight obsolete rules, and would impose undue instability, disruption, and administrative burdens on affected carriers.⁹⁰ We agree with commenters that these “repeated short-term extensions consume valuable and limited government and industry resources.”⁹¹ Accordingly, we find that exploring the possibility of a permanent freeze is warranted.

31. This referral to the Joint Board to consider a permanent freeze is particularly relevant in light of our referral to the Joint Board on whether the separation rules still need to be reformed. If the Joint Board decides that comprehensive reform of the separations rules is no longer necessary, and the separations rules should be allowed to become obsolete through technological transitions and regulatory reforms, then a permanent freeze appears to be prudent. Accordingly, we ask the Joint Board for a

(Continued from previous page)

Comments at 4 (“NECA estimates that over 50% of the access lines of its pool members are now CBOL and it expects this percentage will continue to grow. In this environment, it makes little sense to reinstate traditional separations studies.”).

⁸⁴ See NTCA Comments at 3 (“In fact, substantial revisions to the existing separations framework would risk only undermining or even disrupting, rather than furthering, this marketplace-driven transition [to Internet Protocol-enabled services] while yielding little long-term substantive value.”).

⁸⁵ *1997 Separations Reform NPRM and Referral*, 12 FCC Rcd at 22,131, para. 20. In its July 2024 Order, the Commission renewed the 1997 referral in its entirety to the Joint Board. See *2024 Order* at para. 20.

⁸⁶ See NTCA Comments at 4 (asking the Commission to “direct the Joint Board upon referral during this extension to assess whether the technological transitions, consumer-driven shifts, and other factors described herein warrant viewing the current separations regime as a steadily declining part of a transitional framework in an evolving marketplace rather than as a regulatory construct in need of comprehensive reform and reimposition pursuant to an arbitrary deadline”).

⁸⁷ See, e.g., NECA Comments at 4 (“NECA estimates that over 50% of the access lines of [NECA’s] pool members are now [Consumer Broadband-Only Lines] and it expects this percentage will continue to grow.”).

⁸⁸ See *supra* note 76.

⁸⁹ See *2024 Further Notice* at para. 19.

⁹⁰ See, e.g., *2018 Separations Freeze Extension Order*, 33 FCC Rcd at 12750-51, paras. 21-22; *2017 Separations Freeze Extension Order*, 32 FCC Rcd at 4223, para. 11; *2014 Separations Freeze Extension Order*, 29 FCC Rcd at 6474-75, para. 12; *2011 Separations Freeze Extension Order*, 26 FCC Rcd at 7137-38, paras. 13-14.

⁹¹ See, e.g., NECA Comments at 4-5.

recommended decision on whether it would be in the public interest to adopt a permanent freeze of the separations rules while it considers the future course of the separations rules and framework.

32. In addition, if the Joint Board recommends a permanent separations freeze, we ask the Joint Board to assess whether the Commission should allow carriers to unfreeze their category relationships, and if so, consider related questions—such as whether this should be a one-time opportunity or an option that is extended every few years, and whether or not these carriers should be permitted to refreeze their category relationships. We recognize that if the Joint Board recommends, and the Commission adopts, a permanent separations freeze, some carriers may have a greater need to adjust their category relationships to provide more accurate data for categorizing their investments, and we look forward to the Joint Board’s input.⁹²

IV. PROCEDURAL MATTERS

33. *Paperwork Reduction Act.* This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198.

34. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

35. *Final Regulatory Flexibility Certification (FRFC).* The Regulatory Flexibility Act of 1980 (RFA) requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”⁹³ The two statutorily-mandated criteria to be applied in determining the need for RFA analysis are (1) whether the adopted rules would have a significant economic effect, and (2) if so, whether the economic effect would directly affect a substantial number of small entities.⁹⁴ In this FRFC, the Commission has determined that extending the separations rules freeze will not have a significant economic impact on a substantial number of small entities.

36. The purpose of the current extension of the freeze is to allow the Commission and the Joint Board additional time to consider the future course of the separations rules and process in light of changes in the law, technology, and market structure of the telecommunications industry without creating the undue instability and administrative burdens that would occur were the Commission to eliminate the freeze.⁹⁵ Implementation of the freeze extension will ease the administrative burden of regulatory compliance for LECs, including small incumbent LECs. The freeze has eliminated the need for all incumbent LECs, including incumbent LECs with 1,500 employees or fewer, to complete certain annual studies formerly required by the Commission’s rules. The effect of the freeze extension is to reduce a regulatory compliance burden for small incumbent LECs, by abating the aforementioned separations studies and providing these carriers with greater regulatory certainty.

⁹² See WTA Comments at 1 (asking for a one-time option for rate-of-return carriers to unfreeze and recalculate category relationships “to improve the accuracy of their cost allocations while controlling their regulatory compliance costs”).

⁹³ 5 U.S.C. § 605(b).

⁹⁴ 5 U.S.C. § 603, *et seq.*, see also *Mid-Tex Electric Cooperative, Inc., v. FERC*, 773 F.2d 327, 342-43 (D.C. Cir. 1985) (*Mid-Tex Electric*).

⁹⁵ See *supra* paras. 18-19.

37. Accordingly, based on our application of the two statutorily mandated criteria to the new extension of the freeze adopted in this Order, which essentially maintains the status quo, we certify that the rules and/or policy changes adopted in this Order will not have a significant economic impact on a substantial number of small entities.

38. The Commission will send a copy of this document, including a copy of this Final Regulatory Flexibility Certification, in a report to Congress pursuant to the Congressional Review Act.⁹⁶ In addition, this document and final certification will be sent to the Chief Counsel for Advocacy of the SBA, and will be published in the Federal Register.⁹⁷

39. *Contact Person.* For further information regarding this proceeding, please contact Marv Sacks, Pricing Policy Division, Wireline Competition Bureau, 45 L Street NE, Washington, D.C. 20554, (202) 418-2017, or marvin.sacks@fcc.gov.

40. *Effective Date.* We find good cause to make the extension of the separations freeze effective immediately upon publication of a summary of this Report and Order in the Federal Register.⁹⁸ The current freeze is scheduled to expire on December 31, 2024, and making the freeze extension effective immediately upon publication is necessary to ensure that the separations freeze remains in place without interruption. Further, as the rules we adopt in this Report and Order maintain the current status quo for all affected parties, we find that ensuring the separations freeze remains uninterrupted outweighs any benefit that might accrue from an effective date later than the date of publication in the Federal Register.⁹⁹

V. ORDERING CLAUSES

41. Accordingly, IT IS ORDERED that, pursuant to the authority contained in sections 1, 4(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, and 410 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, 410, and Part 36 of the Commission's rules, 47 CFR Part 36, this Report and Order IS ADOPTED.

42. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 4(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, and 410 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, 410, and Part 36 of the Commission's rules, 47 CFR Part 36, IS AMENDED as set forth in Appendix A.

43. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 4(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, and 410 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, 410, the amendments to 47 CFR Part 36 set forth in Appendix A shall be effective on the date of publication of a summary of this Report and Order in the Federal Register.

44. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, including the Final Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

⁹⁶ See 5 U.S.C. § 801(a)(1)(A).

⁹⁷ See *id.* § 605(b).

⁹⁸ 5 U.S.C. § 553(d)(3).

⁹⁹ See *Omnipoint Corp. v. FCC*, 78 F.3d 620, 630 (D.C. Cir. 1996).

45. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

**APPENDIX A
FINAL RULES**

For the reasons set forth above, the Federal Communications Commission amends part 36 of Title 47 of the Code of Federal Regulations, 47 CFR part 36, as follows:

PART 36—JURISDICTIONAL SEPARATIONS PROCEDURES; STANDARD PROCEDURES FOR SEPARATING TELECOMMUNICATIONS PROPERTY COSTS, REVENUES, EXPENSES, TAXES AND RESERVES FOR TELECOMMUNICATIONS COMPANIES

1. The authority citation for part 36 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 152, 154(i) and (j), 201, 205, 220, 221(c), 254, 303(r), 403, 410, and 1302 unless otherwise noted.

2. In 47 CFR part 36 remove the date “December 31, 2024” in the following places wherever it appears and add, in its place, the date “December 31, 2030”:

- a. Section 36.3(a), (b), (c), (d) introductory text, and (e);
- b. Section 36.123(a)(5) and (6);
- c. Section 36.124(c) and (d);
- d. Section 36.125(h) and (i);
- e. Section 36.126(b)(5)-(6), (c)(4), (e)(4), and (f)(2);
- f. Section 36.141(c);
- g. Section 36.142(c);
- h. Section 36.152(d);
- i. Section 36.154(g);
- j. Section 36.155(b);
- k. Section 36.156(c);
- l. Section 36.157(b);
- m. Section 36.191(d);
- n. Section 36.212(c);
- o. Section 36.214(a);
- p. Section 36.372;
- q. Section 36.374(b) and (d);
- r. Section 36.375(b)(4) and (5);

- s. Section 36.377(a) introductory text, (a)(1)(ix), (a)(2)(vii), (a)(3)(vii), (a)(4)(vii); (a)(5)(vii), and (a)(6)(vii);
- t. Section 36.378(b)(1);
- u. Section 36.379(b)(1) and (2);
- v. Section 36.380(d) and (e);
- w. Section 36.381(c) and (d); and
- x. Section 36.382(a).

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Review of Submarine Cable Landing License	)	OI Docket No. 24-523
Rules and Procedures to Assess Evolving National	)	
Security, Law Enforcement, Foreign Policy, and	)	
Trade Policy Risks	)	
	)	
Amendment of the Schedule of Application Fees	)	
Set Forth in Sections 1.1102 through 1.1109 of the	)	MD Docket No. 24-524
Commission's Rules	)	

NOTICE OF PROPOSED RULEMAKING

Adopted: November 21, 2024

Released: November 22, 2024

By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements.

Comment Date: 30 days after date of publication in the Federal Register

Reply Comment Date: 60 days after date of publication in the Federal Register

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APPENDIX A—Proposed Rules

APPENDIX B—Technical Appendix

APPENDIX C—Initial Regulatory Flexibility Act Analysis

APPENDIX D—Three-Year Periodic Reporting Prioritization Schedule

I. INTRODUCTION

1. In this Notice of Proposed Rulemaking (*Notice*), we undertake the first major comprehensive review of our submarine cable rules since 2001.¹ Over the last two decades, technology, consumer expectations, international submarine cable traffic patterns, and investment in and construction

¹ *Review of Commission Consideration of Applications under the Cable Landing License Act*, IB Docket No. 00-106, Notice of Proposed Rulemaking, 15 FCC Rcd 20789 (2000) (*2000 Cable NPRM*); *Review of Commission Consideration of Applications under the Cable Landing License Act*, IB Docket No. 00-106, FCC 01-332, Report and Order, 16 FCC Rcd 22167 (2001) (*2001 Cable Report and Order*); Cable Landing License Act of 1921, Pub. L. No. 8, 67th Cong., ch. 12, §1, 42 Stat. 8 (1921) (codified as amended at 47 U.S.C. §§ 34-39) (Cable Landing License Act); Exec. Order No. 10530, 19 Fed. Reg. 2709, § 5(a) (May 12, 1954), *reprinted as amended in* 3 U.S.C. § 301 (Executive Order 10530); 47 CFR §§ 1.767, 1.768, 43.82.

of submarine cable infrastructure have greatly changed.² Notably, national security and law enforcement threat environments have evolved significantly.³ By this proceeding, we seek comment on how best to improve and streamline the submarine cable rules to facilitate efficient deployment of submarine cables while at the same time ensuring the security, resilience, and protection of this critical infrastructure. Specifically, in this *Notice*, we take a number of actions to:

- ***Codify the Commission’s legal jurisdiction and other legal requirements in the Commission’s rules to provide regulatory certainty to submarine cable owners and operators.*** We propose or seek comment on codifying in the Commission’s rules: (1) when a submarine cable license is required under the Cable Landing License Act; (2) an appropriate definition of a submarine cable system; (3) the existing public interest standard; (4) the character qualification requirements; and (5) a process to withhold or revoke a cable landing license.
- ***Improve the Commission’s oversight of submarine cable landing licensees and information regarding a submarine cable system and its licensees during the 25-year license term.*** We propose to adopt a three-year periodic reporting requirement for cable landing licenses. In the alternative, we seek comment on shortening the current 25-year submarine cable license term or adopting a shorter license term in combination with periodic reporting.
- ***Update application requirements for national security purposes and ensure the Commission has targeted and granular information regarding the ownership, control, and use of a submarine cable system.*** We seek comment on modernizing our existing application rules to better identify and capture information on those entities that own and control the submarine cable system and connect with terrestrial networks in the United States. We propose to adopt a presumption that any entity whose application for international section 214 authority that was previously denied or whose domestic or international section 214 authority was previously revoked in view of national security and law enforcement concerns, and its current and future affiliates and subsidiaries, shall not be qualified to become a new submarine cable landing licensee. Further, we propose to adopt this presumption with respect to any entity and its current and future affiliates and subsidiaries whose application is or was previously denied or whose authorization or license is or was previously revoked and/or terminated on national security or law enforcement grounds. We seek comment on whether to lower the current 10% ownership reporting threshold to five percent (5%) and propose to require submarine cable applicants to (1) provide detailed information concerning the submarine cable infrastructure and (2) include in their applications information about the services they currently offer or plan to offer.

² See, e.g., Paul Brodsky, Senior Research Manager, Telegeography, *Building Tomorrow’s Internet: An Update on New Cable Investment* (May 8, 2024), <https://blog.telegeography.com/building-tomorrows-internet-an-update-on-new-cable-investment> (new submarine cable investment “has averaged \$2 billion per year over the past eight years” and “[w]ith demand continuing to rise at an exponential rate, the value of new cables entering service from 2024-2026 is forecasted to reach over \$10 billion”); Center for Space Policy and Strategy, *Global Communications Infrastructure: Undersea and Beyond* at 2 (2022), https://csp.s.aerospace.org/sites/default/files/2022-02/Gordon-Jones_UnderseaCables_20220201.pdf (“Demand for undersea cable infrastructure capacity is fueled by an exponential growth in web traffic, consumer expectations for increasing data speeds, and steady enterprise cloud adoption trends.”).

³ See e.g., Staff Report of Senate Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, 116th Cong., *Threats to U.S. Networks: Oversight of Chinese Government-Owned Carriers* at 16 (June 9, 2020), <https://www.hsgac.senate.gov/subcommittees/investigations/library/files/threats-to-us-networks-oversight-of-chinese-government-owned-carriers/> (“During the past two decades, Chinese state-owned telecommunications carriers have established operations across the world, including in the United States . . . [and indicating] how the Chinese government may use its state-owned telecommunications carriers to further China’s national interests”).

Additionally, we seek comment on whether certain information should be presumptively subject to confidential treatment.

- ***Adopt new compliance certifications to protect against national security, law enforcement, and other risks.*** We propose that all submarine cable applicants certify: (1) whether or not they are in compliance with the Cable Landing License Act, the Communications Act of 1934, as amended (Communications Act),⁴ the Commission’s rules, and other laws; (2) that they have created, updated, and implemented cybersecurity risk management plans; and (3) as a condition of the potential grant of their application, that the submarine cable system will not use covered equipment or services identified on the Commission’s “Covered List” that the Commission maintains pursuant to the Secure and Trusted Communications Networks Act of 2019.⁵ We also propose that all submarine cable landing licensees certify as to whether or not they use, for the relevant submarine cable system, equipment or services identified on the “Covered List” within sixty (60) days of the effective date of any rule adopted in this proceeding, following approval by the Office of Management and Budget (OMB). Additionally, we propose to amend our rules by adding a new routine condition and a certification requirement in the proposed periodic reports prohibiting licensees from using, for the relevant submarine cable system, equipment or services identified on the “Covered List.” We also seek comment on whether to require a certification by all applicants/licensees that they have the ability to promptly and effectively interrupt, in whole or in part, traffic to and from the United States on the submarine cable system.
- ***Protect submarine cable infrastructure, including activities in coordination with our federal partners.*** We solicit recommendations for any additional steps the Commission can take to protect this critical infrastructure, including activities in coordination with other federal agencies.
- ***Update submarine cable rules and certain targeted requirements to protect submarine cable systems from national security and law enforcement risks.*** We seek comment on (1) whether to require basic information about an applicant’s lessors of submarine cable landing stations and/or data centers housing hardware; (2) ways the Commission can address vulnerabilities associated with logical access⁶ to submarine cable systems; (3) challenges posed by submarine cable landing licensees’ use of remote service vendors and their services and steps the Commission could take to mitigate those challenges. We propose, among other things, to require (1) applicants/licensees, with or without reportable foreign ownership, to report whether or not they use and/or will use foreign-owned Managed Network Service Providers (MNSPs) and (2) any applicant/licensee that

⁴ Communications Act of 1934, as amended; *see* Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (codified at 47 U.S.C. § 151 *et seq.*).

⁵ Secure and Trusted Communications Networks Act of 2019, Pub. L. No. 116-124, 133 Stat. 158 (2020) (codified as amended at 47 U.S.C. §§ 1601-1609) (Secure Networks and Trusted Communication Act); *see* 47 CFR §§ 1.50002, 1.50003350.

⁶ For purposes of this proceeding, “logical access” generally means access to the logical layer of the submarine cable system, which is the layer responsible for the management of data transmission, data routing, monitoring, and control of the submarine cable system. *See* Soham Agarwal, *Analysing the Layers of Submarine Communication Cables: Legal and Policy Measures Relevant to India* (July 17, 2023), https://maritimeindia.org/analysing-the-layers-of-submarine-communication-cables-legal-and-policy-measures-relevant-to-india/#_ftnref8. Entities that manage the logical layer may access the logical layer remotely in order to monitor and control different components of the submarine cable system, such as the submarine line terminal equipment or power feed equipment. *See infra* section III.B.7.; *see also* Doug Brake, *Submarine Cables: Critical Infrastructure for Global Communications*, Information Technology & Innovation Foundation, at 6 (April 2019), <https://www2.itif.org/2019-submarine-cables.pdf> (“The management systems of submarine networks provide centralized, software-based control over the physical components of the networks, creating unique risks.”) (footnote omitted).

indicates it uses and/or will use a foreign-owned MNSP will answer the Standard Questions and those applications would be routinely referred to the relevant Executive Branch agencies. Also, we propose to require all applicants to provide a list of the anticipated addresses or physical locations for the Network Operations Centers (NOC) on a presumptively confidential basis in their applications and periodic reports.

- ***Streamline procedures to expedite the FCC’s submarine cable review processes.*** We seek comment on, for example, (1) ways to modify our streamlining procedures to expedite submarine cable processing while ensuring national security and law enforcement concerns are addressed and (2) actions or measures the Commission can take to expedite the review and licensing process.
- ***Improve the quality of the circuit capacity data and facilitate the sharing of such information with other federal agencies.*** We seek comment on modifying the circuit capacity reporting rules to improve the usefulness and reliability of the annual circuit capacity report data while protecting confidential information. Also, we seek comment on adopting a rule allowing the sharing of confidential circuit capacity data with relevant federal agencies.

II. BACKGROUND

2. *Legal Authority.* The Commission’s authority to grant, withhold, revoke, or condition submarine cable landing licenses derives from the Cable Landing License Act⁷ and Executive Order 10530.⁸ Section 34 of the Cable Landing License Act states that “[n]o person shall land or operate in the United States any submarine cable directly or indirectly connecting the United States with any foreign country, or connecting one portion of the United States with any other portion thereof, unless a written license to land or operate such cable has been issued by the President of the United States.”⁹ Section 35 of the Cable Landing License Act provides that:

The President may withhold or revoke such license when he shall be satisfied after due notice and hearing that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, or will promote the security of the United States, or may grant such license upon such terms as shall be necessary to assure just and reasonable rates and service in the operation and use of cables so licensed.¹⁰

3. On May 12, 1954, Executive Order 10530 delegated the President’s authority under the Cable Landing License Act to the Commission.¹¹ The Executive Order states that “[n]o such license shall be granted or revoked by the Commission except after obtaining approval of the Secretary of State and

⁷ See Cable Landing License Act, *supra* note 1; 47 U.S.C. §§ 34-39.

⁸ Executive Order 10530, § 5(a).

⁹ 47 U.S.C. § 34. Section 34 states further that “[t]he conditions of sections 34 to 39 of this title shall not apply to cables, all of which, including both terminals, lie wholly within the continental United States.” *Id.*

¹⁰ 47 U.S.C. § 35. The Communications Act amended section 35 to include the following sentence: “Nothing herein contained shall be construed to limit the power and jurisdiction of the Federal Communications Commission with respect to the transmission of messages.” Communications Act, ch. 652, 48 Stat. 1064, 1102, Title VII, § 702(c) (formerly Title VI, § 602(c)) (codified as amended at 47 U.S.C. § 35).

¹¹ Executive Order 10530, § 5(a).

such advice from any executive department or establishment of the Government as the Commission may deem necessary.”¹²

4. Notably, the Commission regulates both U.S.-international submarine cable systems as well as domestic submarine cable systems, unless all of the cable, including both terminals, lies wholly within the continental United States.¹³ Pursuant to the Cable Landing License Act and Executive Order 10530, the Commission also authorizes modifications, assignments, transfers of control, and renewals or extensions of cable landing licenses.¹⁴

5. *Submarine Cable Licensing.* The Commission began its last comprehensive review of its submarine cable rules on June 22, 2000.¹⁵ The primary focus of that proceeding was not on national security concerns but on incentivizing competition, such as by adopting streamlining procedures to, among other things, “provide incentives for the development of facilities-based competition and capacity expansion to meet increasing demands.”¹⁶ As a result of that proceeding, in the *2001 Cable Report and Order*, the Commission adopted rules to achieve three key objectives: (1) institute an expedited licensing process to speed the deployment of cable capacity to the market; (2) ensure careful Commission review of certain applications to guard against anti-competitive behavior; and (3) adopt a pro-competitive model that could be used around the world.¹⁷ The rules were designed to streamline the application process and reduce regulatory burdens.¹⁸

6. Section 1.767 of the Commission’s rules sets forth the framework for the Commission’s consideration of applications for cable landing licenses.¹⁹ It specifies among other things: (1) the information required to be in an application for a new license or the assignment or transfer of control of an existing license; (2) the entities that, at a minimum, must be part of an application for a cable landing license; (3) the procedures for processing applications, including eligibility for streamlined processing; (4) routine conditions that are imposed on the grant of each a cable landing license; and (5) reporting requirements that, as a general rule, apply to licensees affiliated with a carrier with market power in a country at the foreign end of the cable.²⁰ In addition, section 1.768 of the Commission’s rules specifies notification and approval requirements for licensees that are, or propose to become, affiliated with a

¹² *Id.* Since 1954, the Commission has exercised authority pursuant to the Cable Landing License Act and Executive Order 10530. See *Commission Announces Department of State’s Revised Procedures for its Consideration of Submarine Cable Landing License Applications*, IB Docket No. 16-155, Public Notice, 37 FCC Rcd 5183 (2022) (setting forth revised procedures for State Department review of cable landing licenses pursuant to Executive Order 10530 in light of the issuance of Executive Order 13913); Exec. Order No. 13913, 85 Fed. Reg. 19643, 19643 (Apr. 8, 2020) (Executive Order 13913); see e.g., *Tel-Optik Limited, Application for a License to Land and Operate in the United States a Submarine Cable Extending Between the United States and the United Kingdom*, Memorandum Opinion and Order, File Nos. I-SCL-84-002, I-S-C-L-84-003, 100 F.C.C.2d 1033, 1034, para. 21 (1985) (explaining that the President issued cable landing licenses until 1954, when the President delegated that authority to the Commission by executive order).

¹³ See 47 U.S.C. § 34; see *supra* para. 2.

¹⁴ See generally 47 CFR § 1.767.

¹⁵ *2000 Cable NPRM*, 15 FCC Rcd at 20790, para. 1.

¹⁶ *Id.* at 20790, para. 2.

¹⁷ *2001 Cable Report and Order*, 16 FCC Rcd at 22168-69, para. 3 (citing *2000 Cable NPRM*, 15 FCC Rcd at 20790, para. 3).

¹⁸ *Id.*

¹⁹ 47 CFR § 1.767.

²⁰ See generally 47 CFR § 1.767.

foreign carrier authorized to operate in a destination market, including an entity that owns or controls a cable landing station in that market.²¹

7. *Coordination with Executive Branch Agencies.* As part of the Commission’s review of an application for a submarine cable landing license, the Commission considers several factors and examines the totality of the circumstances in each particular application. As the Commission explained in its 1997 *Foreign Participation Order*, Executive Order 10530 “requires us to obtain the approval of the State Department, and, as appropriate, to seek advice from other Executive Branch agencies, before granting any such license.”²² The Commission affirmed that it would consider national security, law enforcement, foreign policy, and trade policy concerns in its public interest review of certain applications, including applications for cable landing licenses.²³ Accordingly, the Commission has sought the expertise of the relevant Executive Branch agencies²⁴ in identifying and evaluating issues of concern that may arise from an applicant’s or licensee’s foreign ownership.²⁵ In 2020, the Commission, in its *Executive Branch Review Report and Order*, formalized the process for the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (Committee) to complete its review consistent with Executive Order 13913 of April 4, 2020.²⁶ In that Report and Order, the Commission adopted rules to improve the timeliness and transparency of the process by which the Commission coordinates with the relevant Executive Branch agencies for assessment of any national security, law enforcement, foreign policy, or trade policy issues regarding certain applications filed with the Commission, including applications for submarine cable licenses or to assign, transfer control, or

²¹ 47 CFR § 1.768.

²² *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market; Market Entry and Regulation of Foreign-Affiliated Entities*, IB Docket Nos. 97-142 and 95-22, Report and Order and Order on Reconsideration, 12 FCC Rcd 23891, 23932, para. 87 (1997) (*Foreign Participation Order*) (citing Executive Order 10530, reprinted as amended in 3 U.S.C. § 301 app. at 459-60 (1994) and Submarine Cable Landing License Act, 47 U.S.C. §§ 34-39), *recon. denied*, *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market*, IB Docket 97-142, Order on Reconsideration, 15 FCC Rcd 18158 (2000) (*Reconsideration Order*).

²³ *Foreign Participation Order*, 12 FCC Rcd at 23919–20, paras. 61-63; *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, IB Docket No. 16-155, Report and Order, 35 FCC Rcd 10927, 10928-29, para. 3 (2020) (*Executive Branch Review Report and Order*); *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, IB Docket No. 16-155, Erratum, 35 FCC Rcd 13164 (2020) (*Order Erratum*) (replacing Appendix B of the *Executive Branch Process Reform Order*).

²⁴ See *infra* note 26.

²⁵ *Foreign Participation Order*, 12 FCC Rcd at 23919–20, 23921-22, paras. 62–63; *id.* at 23921-22, 66 (“We emphasize that the Commission will make an independent decision on applications to be considered and will evaluate concerns raised by the Executive Branch agencies in light of all the issues raised (and comments in response) in the context of a particular application.”); *Executive Branch Review Report and Report and Order*, 35 FCC Rcd at 10928-29, para. 3.

²⁶ See generally *Executive Branch Review Report and Order*, 35 FCC Rcd at 10929-30, 10935, paras. 5-6, 18-21; Executive Order 13913, § 1 (stating that “[t]he security, integrity, and availability of United States telecommunications networks are vital to United States national security and law enforcement interests”); *id.* § 3 (stating that “[t]he function of the Committee shall be . . . to review applications and licenses for risks to national security and law enforcement interests posed by such applications or licenses. . . .”); *id.* at 19643-44 (establishing the “Committee,” composed of the Secretary of Defense (DOD), the Secretary of Homeland Security (DHS), and the Attorney General of the Department of Justice (DOJ), who serves as the Chair, and the head of any other executive department or agency, or any Assistant to the President, as the President determines appropriate (Members), and also providing for Advisors, including the Secretary of State, the Secretary of Commerce, and the United States Trade Representative (USTR)); see also FCC, *Requirements for Applications and Petitions Subject to Executive Branch Review* (Oct. 1, 2024), <https://www.fcc.gov/international-affairs/requirements-applications-and-petitions-subject-executive-branch-review>.

modify such licenses.²⁷ The Commission stated that the rules would improve the ability of the Executive Branch agencies to expeditiously and efficiently review the applications and make the review process more transparent.²⁸

8. The Commission's rules allow for either streamlined or non-streamlined processing of applications for cable landing licenses or modification, assignment, or transfer of control of such licenses.²⁹ Where the applicant can demonstrate eligibility for streamlining under the Commission's rules, the rules contemplate that the Commission can take action within 45 days of release of the public notice announcing the application was acceptable for filing and eligible for streamlining.³⁰ If an applicant has reportable foreign ownership, the application process usually is not streamlined, and the Office of International Affairs (OIA) refers the application to the Executive Branch agencies, including the Committee agencies, for review at the time it places the application on "Accepted for Filing" public notice.³¹ As part of the rules and procedures adopted in the *Executive Branch Review Report and Order*, applicants with reportable foreign ownership are required to submit answers to a set of standardized national security and law enforcement questions to the Committee at the time the applicant files its application with the Commission to enable the Committee to begin its review of an application in a timely manner.³² The Committee has 120 days for initial review³³ plus an additional 90 days for secondary assessment if the Committee determines that the risk to national security or law enforcement interests cannot be mitigated with standard mitigation measures.³⁴ The Committee may recommend the Commission grant the application contingent on mitigation measures, recommend the Commission deny the application due to the risk to national security or law enforcement interests of the United States, or indicate that the Committee has no recommendation and no objection to the grant of the application.³⁵ The Commission ultimately makes its public interest assessment in light of the information in the record,

²⁷ *Executive Branch Review Report and Order*, 35 FCC Rcd at 10928, para. 1; *see id.* at 10934-35, paras. 17-21. In the *Executive Branch Review Report and Order*, the Commission also adopted rules (1) requiring applicants, whose applications are referred to the Executive Branch agencies, to provide responses to a set of standardized national security and law enforcement questions directly to the Executive Branch at the same time the applicant file its application with the Commission; (2) requiring all applicants, including those that do not have foreign ownership, to provide certain certifications to facilitate faster reviews, make mitigation unnecessary for a number of applications reviewed by the Committee, strengthen compliance, and assist the Commission in its ongoing regulatory obligations; and (3) establishing time frames set forth in Executive Order 13913, a 120-day initial review period followed by a discretionary 90-day secondary assessment. *Id.* at 10935, paras. 18-21.

²⁸ *Id.* at 10928, para. 2.

²⁹ 47 CFR § 1.767(i).

³⁰ 47 CFR § 1.767(i), (k).

³¹ 47 CFR § 1.40002(a).

³² *Executive Branch Review Report and Order*, 35 FCC Rcd at 10935, para. 18; *see generally* 47 CFR § 1.40003 (listing the categories of information an applicant, petitioner, and/or other filer subject to referral must provide to the executive branch agencies); *see 2021 Standard Questions Order*, 36 FCC Rcd at 14883-14966, Attachs. A-G.

³³ 47 CFR § 1.40004(b). Under Executive Order 13913, the 120 days begins when the Committee "determines that the applicant's responses to any questions and information requests from the Committee are complete." Executive Order 13913, § 5(b)(iii); *Executive Branch Review Report and Order*, 35 FCC Rcd at 10958, para. 82.

³⁴ 47 CFR § 1.40004(b)-(c); Executive Order 13913, § 5(b)(i)(C) ("During the initial review, the Committee may determine . . . that a secondary assessment of an application is warranted because risk to national security or law enforcement interests cannot be mitigated by standard mitigation measures.").

³⁵ 47 CFR § 1.40004(b)(1)-(3), (c)(2)(i)-(iii); Executive Order 13913, § 9(a).

including any information provided by the applicant, authorization holder, or licensee in response to any filings by the Executive Branch agencies.³⁶

9. Under the Cable Landing License Act and Executive Order 10530, the Commission must coordinate with the State Department on all submarine cable applications and obtain approval of any proposed grant of an application or revocation of a cable landing license.³⁷ The Executive Order states that “no such license shall be granted or revoked by the Commission except after obtaining approval of the Secretary of State”³⁸ The Commission and the State Department have existing procedures by which the State Department approves the Commission’s grant of a cable landing license application or revocation of a cable landing license, as required by Executive Order 10530.³⁹ For applications or licenses that are not reviewed by the Committee,⁴⁰ the State Department approves any grant or revocation action by the Commission, provided that the Commission notifies the State Department in writing of the application⁴¹ or license and that the State Department does not object within 30 days after such notification.⁴² For applications or licenses that are reviewed by the Committee, the State Department will begin a 10-day review period after the Commission notifies the State Department of the Committee’s final recommendation and the Commission’s proposed licensing decision, including any proposed license conditions.⁴³

³⁶ 47 CFR § 1.40001(b) (“The Commission will evaluate concerns raised by the executive branch and will make an independent decision concerning the pending matter.”); *see Foreign Participation Order*, 12 FCC Rcd at 23921, para. 66 (“We emphasize that the Commission will make an independent decision on applications to be considered and will evaluate concerns raised by the Executive Branch agencies in light of all the issues raised (and comments in response) in the context of a particular application.”).

³⁷ 47 U.S.C. § 35; Executive Order 10530, § 5(a).

³⁸ Executive Order 10530, § 5(a).

³⁹ *Id.*

⁴⁰ Executive Order 13913, § 6(a) (“The Committee may review existing licenses to identify any additional or new risks to national security or law enforcement interests of the United States.”); *id.* at § 2(a) (defining “license” as “any license, certificate of public interest, or other authorization issued or granted by the Federal Communications Commission (FCC) after referral of an application by the FCC to the Committee established by subsection 3(a) of this order or, if referred before the date of this order, to the group of executive departments and agencies involved in the review process that was previously in place”).

⁴¹ As discussed below, these procedures would not apply to the Commission’s denial of a cable landing license application, given Executive Order 10530 does not require the Department of State’s approval of a denial action and expressly states that “no such license shall be *granted or revoked* by the Commission except after obtaining approval of the Secretary of State” Executive Order 10530, § 5(a) (emphasis added); *see infra* section III.A.1.e.

⁴² *See Commission Announces Department of State’s Revised Procedures for Its Consideration of Submarine Cable Landing License Applications*, IB Docket No. 16-155, Public Notice, 37 FCC Rcd 5183 (IB 2022) (*Revised State Department Procedures Public Notice*); *id.*, Attach., Letter from Jose W. Fernandez, Under Secretary for Economic Growth, Energy, and the Environment, United States Department of State, to Jessica Rosenworcel, Chairwoman, Federal Communications Commission (Feb. 23, 2022) (2022 State Department Letter) (stating that, in light of the issuance of Executive Order 13913, the State Department “has reviewed the procedures it applies to the Secretary of State’s consideration and approval, if appropriate, of submarine cable landing license applications filed with the Federal Communications Commission Following our review, the Department has decided to revise the approval process through which the Secretary of State approves the FCC’s grant or revocation of submarine cable license applications provided certain notification requirements were satisfied”); *id.*, Attach., Letter from Alan Larson, Under Secretary of State for Economic, Business, and Agricultural Affairs, United States Department of State, to Michael Powell, Chairman, Federal Communications Commission at 1 (Dec. 3, 2001) (2001 State Department Letter).

⁴³ *Revised State Department Procedures Public Notice*, 37 FCC Rcd at 5183-84; *id.* at 5185, 2022 State Department Letter.

10. *Circuit Capacity Rules Requirements.* A related set of rules requires submarine cable landing licensees to “file annual international circuit capacity reports as required by § 43.82” of the Commission’s rules.⁴⁴ First, licensees of a submarine cable between the United States and any foreign point must report the capacity of the submarine cable as of December 31 of the reporting period (i.e., available capacity) and two years from the reporting period (i.e., planned capacity).⁴⁵ Second, submarine cable landing licensees and common carriers must report their capacity on submarine cables between the United States and any foreign point as of December 31 of the reporting period.⁴⁶ The Commission has found that “these data are essential for our national security and public safety responsibilities in regulating communications, an important linchpin of the Commission’s statutory authority. . . . [given] submarine cables are critical infrastructure and the circuit capacity data are important for the Commission’s contributions to the national security and defense of the United States.”⁴⁷ As the Commission has explained, “[w]e use the data, for example, to have a complete understanding of the ownership and use of submarine cable capacity and to assist in the protection, restoration, and resiliency of the infrastructure during national security or public safety emergencies, such as hurricanes. [Department of Homeland Security (DHS)] also finds this information to be critical to its national and homeland security functions.”⁴⁸

11. *Current Licensed Submarine Cables and Circuit Capacity Data.* There are 84 submarine cable systems licensed by the Commission that are currently either operating or planning to enter service at a future date.⁴⁹ According to the Commission’s records, 63 of the 84 cables are U.S.-international

⁴⁴ 47 CFR §§ 1.767(g)(13), 43.82. The circuit capacity reporting rules are set forth in section 43.82 of the rules. 47 CFR § 43.82.

⁴⁵ 47 CFR § 43.82(a)(1); *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission’s Rules*, IB Docket No. 04-112, Second Report and Order, 28 FCC Rcd 575, 608, para. 108 (2013) (*2013 Part 43 Second Report and Order*).

⁴⁶ 47 CFR § 43.2(a)(2).

⁴⁷ *Section 43.62 Reporting Requirements for U.S. Providers of International Services; 2016 Biennial Review of Telecommunications Regulations*, Report and Order, 32 FCC Rcd 8115, at 8128-29, para. 28 (2017) (*2017 Section 43.62 Report and Order*) (footnotes omitted).

⁴⁸ *Id.* at 8129, para. 28 (citing Letter from Emily Early, Director (Acting), DHS NPPD Strategy, Policy, and Plans, Office of Cyber and Infrastructure Analysis, National Protection and Program Directorate, DHS, to Marlene Dortch, Secretary, FCC (Sept. 21, 2017) (DHS Sept. 21, 2017 *Ex Parte* Letter)).

⁴⁹ This total is based on the Commission’s records as of November 13, 2024. FCC, *MyIBFS*, <https://licensing.fcc.gov/myibfs/welcome.do>; see FCC, *Submarine Cable Landing Licenses*, <https://www.fcc.gov/research-reports/guides/submarine-cable-landing-licenses> (last visited Nov. 6, 2024). There are a total of 95 licensed submarine cables in the Commission’s International Communications Filing System (ICFS). Eleven (11) of those submarine cable landing licenses were licensed by the Commission in the 1980s and 1990s, and there is no Commission record in ICFS that the licensees commenced and/or ceased operations on the respective cable. See *Gst International, Inc.; Application for a License to Land and Operate a Submarine Fiber Optic Cable Extending Between the United States And Mexico, Guatemala, Costa Rica, And Panama*, File Nos. SCL-96-006, SCL-LIC-19961121-00589, Cable Landing License, 12 FCC Rcd 5911 (1997) (granting an application to land and operate the Hawaii-Americas-1 System); *Project Oxygen (USA) LLC; Application for a license to land and operate in the United States a private fiber optic submarine cable system extending between the United States and various overseas points*, File No. SCL-LIC-19981014-00020, Cable Landing License, 14 FCC Rcd 3924 (1999) (granting an application to land and operate the OXYGEN Network); *Transgulf Communications, Ltd., Inc.; Application for Authority for Amendment of a Cable Landing License and nunc pro tunc pro forma Transfer of Control of a Cable Landing License*, File No. SCL-MOD-20000201-00006, Modification of Cable Landing License and Transfer of Control, 15 FCC Rcd 17158 (2000) (modifying the cable landing license for the TGCL system); File No. SCL-MOD-20020415-00044, Actions Taken Under Cable Landing License Act, 17 FCC Rcd 12916, 12921 (IB 2002) (modifying the cable landing licenses for the Asia Direct Cable, File No. SCL-95-013; Atlantic Express I Cable, File (continued....))

submarine cables and the remaining 21 cables are domestic submarine cables (cables that do not connect the United States with foreign points).⁵⁰ Based on the Commission’s circuit capacity data, licensees of the U.S.-international cables operating as of December 2022 reported 5.3 million gigabits per second (Gbps) of available capacity for 2022 and 6.8 million Gbps of planned capacity for 2024.⁵¹

12. Importantly, three of the 84 licensed submarine cable systems land in a “foreign adversary” country,⁵² as defined in the Department of Commerce’s rule.⁵³ Specifically, the New Cross-Pacific (NCP) system and the Trans-Pacific Express (TPE) Cable Network land in the People’s Republic of China mainland, among other foreign locations, and the Asia America Gateway system lands in Hong Kong, among other foreign locations.⁵⁴ Based on applications filed with the Commission, there are nine

No. SCL-95-005; Atlantic Express II Cable, File No. SCL-95-006; Bahamas Express Cable, File No. SCL-95-004; Guam-Hawaii Cable, File No. SCL-94-003; Hawaii Express Cable, File No. SCL-95-010; and Orient Express Cable, File No. SCL-95-011); File No. SCL-MOD-20020725-00089, *Actions Taken Under Cable Landing License Act*, 17 FCC Rcd 22962, 22963 (IB 2002) (modifying the cable landing license for the Pacific Telecom Cable).

⁵⁰ See *supra* para. 2; see *FCC Releases Circuit Capacity Data for U.S.-International Submarine Cables as of December 31, 2022*, Public Notice, 38 FCC Rcd 10910, Tbls. 3, 4 (OIA 2023) (*2022 Circuit Capacity Data Public Report*); File No. SCL-LIC-20221208-00037, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00442, 38 FCC Rcd 10948 (OIA 2023) (*JUNO Grant Public Notice*) (granting cable landing license for the purpose of landing and operating the JUNO cable system); File No. SCL-LIC-20230921-00026, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00467, DA 24-580 (OIA 2024) (*CSN-1 Grant Public Notice*) (granting cable landing license for the purpose of landing and operating the Carnival Submarine Networks-1 cable system (CSN-1)).

⁵¹ *2022 Circuit Capacity Data Public Report*, 38 FCC Rcd at Tbls. 3, 4.

⁵² 15 CFR § 791.4 (stating that “[t]he Secretary has determined that the following foreign governments or foreign non-government persons have engaged in a long-term pattern or serious instances of conduct significantly adverse to the national security of the United States or security and safety of United States persons and, therefore, constitute foreign adversaries solely for the purposes of the Executive Order, this rule, and any subsequent rule”: (1) The People’s Republic of China, including the Hong Kong Special Administrative Region (China); (2) Republic of Cuba (Cuba); (3) Islamic Republic of Iran (Iran); (4) Democratic People’s Republic of Korea (North Korea); (5) Russian Federation (Russia); and (6) Venezuelan politician Nicolás Maduro (Maduro Regime)); see Executive Order 13873 of May 15, 2019, *Securing the Information and Communications Technology and Services Supply Chain*, 84 Fed. Reg. 22689 (May 15, 2019) (Executive Order 13873); Department of Commerce, *Redesignation of Regulations for Securing the Information and Communications Technology and Services Supply Chain*, 89 Fed. Reg. 58263 (July 18, 2024).

⁵³ 15 CFR § 791.2 (“*Foreign adversary* means any foreign government or foreign non-government person determined by the Secretary to have engaged in a long-term pattern or serious instances of conduct significantly adverse to the national security of the United States or security and safety of United States persons.”) (emphasis in original); see Executive Order 13873, § 3.

⁵⁴ File No. SCL-LIC-20151104-00029, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00193, 32 FCC Rcd 348 (IB 2017) (*2017 NCP Grant Public Notice*); File No. SCL-LIC-20070222-00002, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00052, 23 FCC Rcd 227 (IB 2008) (*2008 TPE Grant Public Notice*); File No. SCL-MOD-20080321-00003, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00069, 23 FCC Rcd 11016 (IB 2008) (*2008 TPE Modification Grant Public Notice*); File No. SCL-MOD-20080714-00012, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00086, 24 FCC Rcd 7051 (IB 2009) (*2009 TPE Modification Grant Public Notice*); File No. SCL-LIC-20070824-00015, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00068, 23 FCC Rcd 10386 (IB 2008).

cable landing licensees that reported that they were directly or indirectly owned by the Chinese government or other entities incorporated in China.⁵⁵

13. *Recent Commission Consideration of Submarine Cable Applications involving Foreign Adversaries.* As discussed above, the Commission refers submarine cable applications to the Committee to assist the Commission in its public interest review of national security, law enforcement, foreign policy, and trade policy concerns.⁵⁶ Since 2017, there have been two recent submarine cable landing license applications filed in part by entities with ties to foreign adversary countries and with the proposed cable landings in foreign adversary countries: (1) the Pacific Light Cable Network cable system (PLCN cable system) application that proposed to land in Hong Kong, Taiwan, and the Philippines,⁵⁷ and (2) the ARCOS-1 modification application to add a new landing station in Cuba.⁵⁸ The Executive Branch agencies recommended that the Commission partially deny the PLCN cable system application and deny

⁵⁵ According to the Commission's records, the following cable landing licensees have direct or indirect interest holders that include the Chinese government or an entity with a place of organization in China: (1) Atlantic Telecommunication Operating Company Limited (ATOC), a joint cable landing licensee of the Americas-1 Cable System; (2) China Mobile International Limited (China Mobile Limited), a joint cable landing licensee of the FASTER Cable System and the NCP system; (3) China Telecom Global Limited (China Telecom Global), a joint cable landing licensee of the FASTER Cable System; (4) China Telecommunications Corporation (China Telecom), a joint cable landing licensee of the TPE Cable Network and the NCP system; (5) China United Network Communications Group Company Limited (China Unicom), a joint cable landing licensee of the TPE Cable Network and the NCP system; (6) Reach Global Networks Limited (RGNL), a joint licensee of the Japan-U.S. Cable Network; (7) HKT Global (Singapore) Pte. Ltd (HKT Global), a joint licensee of the JUPITER system (8) PPC 1 Limited, a joint licensee of the PPC-1 system; and (9) PPC 1 (US) Inc., a joint licensee of the PPC-1 system. *See* File No. SCL-LIC-20190326-00009, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00274, 35 FCC Rcd 7146, 7148 (IB 2020) (2020 *Americas-1 Grant Public Notice*); File No. SCL-LIC-20150626-00015, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00183, 31 FCC Rcd 5437 (IB 2016) (2016 *FASTER Grant Public Notice*); 2017 *NCP Grant Public Notice*; Reach Global Networks Limited, Notification Pursuant to Section 1.767(g)(7) of the Commission's Rules of a Pro Forma Transfer of Control, File No. SCL-T/C-20111208-00031 (filed Dec. 8, 2011); Reach Global Networks Limited, Notification Pursuant to Section 1.767(g)(7) of the Commission's Rules of a Pro Forma Transfer of Control, File No. SCL-T/C-20111208-00032 (filed Dec. 8, 2011); File No. SCL-LIC-20180517-00012, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00271, 35 FCC Rcd 674 (IB 2020); File No. SCL-T/C-20181119-00036, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00265, 35 FCC Rcd 2903 (IB 2020).

⁵⁶ *See Executive Branch Review Report and Order*, 35 FCC Rcd at 10935-36, para. 24.

⁵⁷ Application of GU Holdings, Inc., Edge Cable Holdings USA, LLC, and Pacific Light Data Communication Co. Ltd. for a Cable Landing License, File No. SCL-LIC-20170421-00012 (filed Apr. 4, 2017) (2017 PLCN Application).

⁵⁸ Application of ARCOS-1 USA, Inc. and A.SurNet, Inc. for a Modification to Cable Landing License, SCL-MOD-20210928-00039 (filed Sept. 28, 2021) (ARCOS-1 Application); Revised Application of ARCOS-1 USA, Inc. and A.SurNet, Inc. for a Modification to Cable Landing License, SCL-MOD-20210928-00039 (filed Oct. 21, 2021) (Revised ARCOS-1 Application).

the ARCOS-1 cable system application based on national security and law enforcement grounds.⁵⁹ Both applications were ultimately withdrawn by the applicants.⁶⁰ We describe each application below.⁶¹

14. First, on April 4, 2017, GU Holdings Inc. (GU Holdings), Edge Cable Holdings USA, LLC (Edge USA), and Pacific Light Data Communication Co. Ltd. (PLDC) filed an application for a submarine cable license extending between the continental United States and Hong Kong, Taiwan, and the Philippines for the PLCN cable system.⁶² The submarine cable system was novel because it would have allowed for the highest capacity subsea cable connection between the United States and Asia and would have been the first direct connection between the United States and Hong Kong.⁶³ On June 17, 2020, the Executive Branch agencies recommended to the Commission that it should partially deny the license application with respect to PLCN's connection to Hong Kong and with respect to PLCN's foreign owners, Hong Kong based PLDC and China-based ultimate parent entity Dr. Peng Telecom & Media

⁵⁹ Executive Branch Recommendation for a Partial Denial and Partial Grant of the Application for a Submarine Cable Landing License for the Pacific Light Cable Network, File Nos. SCL-LIC-20170421-00012, SCL-AMD-20171227-00025 (filed June 17, 2020) (*Executive Branch Recommendation for a Partial Denial and Partial Grant*); Recommendation of the Committee for the Assessment of Foreign Participation in the U.S. Telecommunications Services Sector to Deny the Application, File No. SCL-MOD-20210928-00039 (filed Nov. 29, 2022).

⁶⁰ Notice of Withdrawal of Application for Cable Landing License filed by GU Holdings Inc., Edge Cable Holdings USA, LLC, and Pacific Light Data Communication Co. Ltd., File Nos. SCL-LIC-20170421-00012, SCL-AMD-20171227-00025 (Aug. 27, 2020) (PLCN Notice of Withdrawal); Letter from Ulises R. Pin and Stephany Fan, Counsel to ARCOS-1 USA, Inc. and A.SurNet, Inc., Morgan, Lewis & Bockius LLP, to Marlene H. Dortch, Secretary, FCC (Dec. 15, 2022) (on file in File No. SCL-MOD-20210928-00039) (ARCOS-1 Notice of Withdrawal).

⁶¹ In addition, four cable landing license applications were withdrawn prior to the completion of Executive Branch review. See Notice of Withdrawal of Cable Landing License Application filed by RTI Solutions, Inc., RTI HK-G Pte. Ltd., RTI Connectivity Pte. Ltd., and GU Holdings Inc., File No. SCL-LIC-20191122-00037 (filed Nov. 6, 2020) (withdrawing an application for a license to construct, land, and operate the Hong Kong-Guam (HK-G) submarine cable system connecting the United States and Hong Kong); Notice of Withdrawal of Cable Landing License Application filed by Edge Cable Holdings USA, LLC, China Mobile International Limited, and Amazon Data Services, Inc., File No. SCL-LIC-20181125-00037 (filed Sept. 10, 2020) (withdrawing an application for a license to construct, land, and operate the Bay to Bay Express submarine cable system connecting the United States, Singapore, Hong Kong, and Malaysia); Notice of Withdrawal of Cable Landing License Application and Associated Request for Special Temporary Authority filed by Edge Cable Holdings USA, LLC, China Telecommunications Corporation, China Telecom Global Limited, China United Network Communications Group Company Limited, RTI Express Pte. Ltd., Tata Communications (Bermuda) Limited, and Telstra Corporation Limited, File Nos. SCL-LIC-20180711-00018, SCL-STA-20201217-00049 (filed Mar. 9, 2021) (withdrawing an application for a license to construct, land, and operate the Hong Kong-Americas (HKA) submarine cable system connecting Chung Hom Kok, Hong Kong SAR; Toucheng, Taiwan; Manchester, California; and Hermosa Beach, California and a request for special temporary authority); Notice of Withdrawal of Cable Landing License Application and Associated Request for Extension of Special Temporary Authority filed by Edge Cable Holdings USA, LLC and AMCS LLC, File Nos. SCL-LIC-20200910-00044, SCL-AMD-20210809-00032, SCL-STA-20210310-00017 (filed Apr. 19, 2022) (withdrawing an application for a license to construct, land, and operate the CAP-1 submarine cable system connecting Grover Beach, California, and Pagudpud, Philippines); see also File No. SCL-LIC-20200910-00044, *Non-Streamlined Submarine Cable Landing License Applications*, Public Notice, Report No. SCL-00284NS (IB Sept. 30, 2020) (noting, "[t]he CAP-1 system reflects a reconfiguration of the Applicant's proposed Bay to Bay Express (BtoBE) cable system, the application for which was withdrawn on September 10, 2020").

⁶² See 2017 PLCN Application, *supra* note 57.

⁶³ See *id.* at 4, 28; see also File No. SCL-LIC-20170421-00012, *Streamlined Submarine Cable Landing License Applications Accepted for Filing*, Report No. SCL-00204S (IB Nov. 1, 2017); Letter from Debbie Wheeler, National Security Division, U.S. Department of Justice to Marlene H. Dortch, Secretary, FCC (Nov. 1, 2017) (on file in File No. SCL-LIC-20170421-00012). On November 1, 2017, DOJ, with the concurrence of DOD and DHS, requested that the Commission defer action on the application.

Group Co., Ltd.⁶⁴ On August 27, 2020, the applicants withdrew the cable landing license application and filed a new application for the PLCN cable that did not include PLDC as an applicant or Hong Kong as a proposed landing point.⁶⁵ Ultimately, the Commission granted the cable landing license for PLCN as to the two U.S. applicants and the connections to the Philippines and Taiwan; the grant is expressly conditioned on each licensee abiding by the commitments and undertakings contained in their respective National Security Agreements with the Committee.⁶⁶

15. Second, on September 28, 2021, ARCOS-1 USA, Inc. and A.SurNet, Inc. filed an application to modify the cable landing license for the ARCOS-1 cable system to include a new landing point in Cuba.⁶⁷ On November 29, 2022, the Committee filed a recommendation requesting that the Commission deny the modification application due to national security and law enforcement risks.⁶⁸ The Committee stated that “[i]f the application is granted as proposed, U.S. persons’ internet traffic, data, and communications transiting the proposed ARCOS-1 cable expansion (Segment 26) to Cuba are very likely to be compromised,” given the “Cuban government maintains tight control of the Cuban telecommunications networks through [Empresa de Telecomunicaciones de Cuba S.A. (ETECSA)].”⁶⁹ The Committee added that, “[b]y landing a subsea cable in Cuban territory, the Government of Cuba would be well positioned to collect all U.S. persons’ communications and sensitive data traversing

⁶⁴ Executive Branch Recommendation for a Partial Denial and Partial Grant at 1-2; *see* Press Release, Department of Justice, Team Telecom Recommends that the FCC Deny Pacific Light Cable Network System’s Hong Kong Undersea Cable Connection to the United States (June 17, 2020), <https://www.justice.gov/opa/pr/team-telecom-recommends-fcc-deny-pacific-light-cable-network-system-s-hong-kong-undersea>. This application was later withdrawn by the applicants. *See supra* note 60; PLCN Notice of Withdrawal. The applicants filed a new application for the PLCN cable system that did not include PLDC as an applicant or Hong Kong as a proposed landing point. Application of GU Holdings Inc. and Edge Cable Holdings Inc. for a Cable Landing License, File No. SCL-LIC-20200827-00038 (filed Aug. 27, 2020) (2020 PLCN Application).

⁶⁵ *See supra* note 60; PLCN Notice of Withdrawal.

⁶⁶ *Id.*; GU Holdings, Inc. and Google LLC, National Security Agreement with U.S. Department of Justice, U.S. Department of Homeland Security, and U.S. Department of Defense (Dec. 14, 2021) (on file in File No. SCL-LIC-20200827-00038) (GU Holdings NSA); Edge Cable Holdings USA, LLC and Meta Platforms, Inc., National Security Agreement with U.S. Department of Justice, U.S. Department of Homeland Security, and U.S. Department of Defense (Dec. 14, 2021) (on file in File No. SCL-LIC-20200827-00038) (Edge Cable Holdings NSA).

⁶⁷ ARCOS-1 Application at 1-2; File No. SCL-MOD-20210928-00039, *Non-Streamlined Submarine Cable Landing License Applications Accepted for Filing*, Report No. SCL-00346NS (IB Nov. 26, 2021). On October 21, 2021, the applicants filed a revised modification application. Letter from Andrew D. Lipman and Ulises R. Pin, Counsel to ARCOS-1 USA, Inc and A.SurNet, Inc., Morgan, Lewis & Bockius LLP, to Marlene H. Dortch, Secretary, FCC at 1 (Oct. 21, 2021) (on file in File No. SCL-MOD-20210928-00039); Revised ARCOS-1 Application.

⁶⁸ *See generally* Recommendation of the Committee for the Assessment of Foreign Participation in the U.S. Telecommunications Services Sector to Deny the Application, File No. SCL-MOD-20210928-00039 (filed Nov. 29, 2022) (Committee Recommendation to Deny ARCOS-1 Modification Application); *see also* Press Release, Department of Justice, Team Telecom Recommends the FCC Deny Application to Directly Connect the United States to Cuba Through Subsea Cable (Nov. 30, 2022), <https://www.justice.gov/opa/pr/team-telecom-recommends-fcc-deny-application-directly-connect-united-states-cuba-through>.

⁶⁹ Committee Recommendation to Deny ARCOS-1 Modification Application at 14 ; *id.* at 1-2 (explaining that ETECSA is “Cuba’s state-owned telecommunications monopoly”).

Segment 26 [of] the cable.”⁷⁰ Ultimately, by letter dated December 15, 2022, the applicants withdrew the modification application,⁷¹ and the Commission dismissed the application at the applicants’ request.⁷²

16. *Recent Commission Actions to Address National Security and Law Enforcement Concerns.* Over the past several years, the Commission has undertaken various national security and law enforcement actions with regard to communications infrastructure and systems, including submarine cable systems.⁷³ These actions are necessitated by evolving risks in the national security landscape in the United States since the early 2000s. At that time, the national security focus was on international terrorism, including the risk of use of weapons of mass destruction against the United States and its allies.⁷⁴ Also at that time, a number of entities ultimately majority-owned and controlled by the Chinese government—including China Telecom (Americas) Corporation (CTA),⁷⁵ China Unicom (Americas) Operations Limited (CUA),⁷⁶ Pacific Networks Corp. (Pacific Networks),⁷⁷ and ComNet (USA) LLC (ComNet)⁷⁸—entered the U.S. telecommunications market by obtaining authority to provide telecommunications services between the United States and foreign points under section 214 of the

⁷⁰ *Id.* at 25.

⁷¹ See ARCOS-1 Notice of Withdrawal at 1 (requesting the withdrawal of the modification application filed by applicants without prejudice).

⁷² See File No. SCL-MOD-20210928-00039, *Non-Streamlined Submarine Cable Landing License Applications*, Report No. SCL-00400NS, Public Notice, (IB Dec. 22, 2022).

⁷³ See e.g., *Mandatory Electronic Filing for International Telecommunications Services and Other International Filings*, Report and Order, 20 FCC Rcd 9292 (2005); *Reform of Rules and Policies on Foreign Carrier Entry Into the U.S. Telecommunications Market*, Report and Order, 29 FCC Rcd 4256 (2014); *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Outage Data*, GN Docket No. 15-206, Report and Order, 31 FCC Rcd 7947 (2016); *Improving Outage Reporting for Submarine Cables and Enhanced Submarine Cable Outage Data*, GN Docket No. 15-206, Order on Reconsideration, 34 FCC Rcd 13054 (2019); *2017 Section 43.62 Report and Order*.

⁷⁴ In December 2000, the White House issued the National Security Strategy, which advocated for the United States to “build principled, constructive, clear-eyed relations with our former adversaries Russia and China.” The White House, *A National Security Strategy for a Global Age* (Dec. 2000), <https://history.defense.gov/Portals/70/Documents/nss/nss2000.pdf>.

⁷⁵ *China Telecom (Americas) Corporation*, GN Docket No. 20-109, File Nos. ITC-214-20010613-00346, ITC-214-20020716-00371, ITC-T/C-20070725-00285, Order on Revocation and Termination, 36 FCC Rcd 15966, 15971, para. 6 & n.19 (2021) (*China Telecom Americas Order on Revocation and Termination*), *aff’d*, *China Telecom (Amr.) Corp. v. FCC*, 57 F.4th 256 (D.C. Cir. 2022); *China Telecom (Americas) Corporation*, GN Docket No. 20-109, File Nos. ITC-214-20010613-00346, ITC-214-20020716-00371, ITC-T/C-20070725-00285, Order to Show Cause, 35 FCC Rcd 3713, 3714-15, paras. 3-4 (IB, WCB, EB 2020).

⁷⁶ *China Unicom (Americas) Operations Limited*, GN Docket No. 20-110, File Nos. ITC-214-20020728-00361, ITC-214-20020724-00427, Order on Revocation, 37 FCC Rcd 1480, 1484, para. 6 & n.17 (2022) (*China Unicom Americas Order on Revocation*), *appeal pending sub nom China Unicom (Americas) Operations Limited v. FCC*, No. 22-70029 (9th Cir.).

⁷⁷ *Pacific Networks Corp. and ComNet (USA) LLC*, GN Docket No. 20-111, File Nos. ITC-214-20090105-00006 and ITC-214-20090424-00199, Order on Revocation and Termination, 37 FCC Rcd 4220, 4225, para. 6 & n.19 (2022) (*Pacific Networks and ComNet Order on Revocation and Termination*) (“A detailed procedural history of Pacific Networks’ and ComNet’s authorizations can be found in the *Order to Show Cause*.”), *aff’d*, *Pacific Networks Corp. v. FCC*, 77 F.4th 1160 (D.C. Cir. 2023); *Pacific Networks Corp. and ComNet (USA) LLC*, GN Docket No. 20-111, File Nos. ITC-214-20090105-00006, ITC-214-20090424-00199, Order to Show Cause, 35 FCC Rcd 3733, 3734, para. 2 (IB, WCB, EB 2020) (*Pacific Networks/ComNet Order to Show Cause*); *id.* at 3740-43, Appx. A, paras. 1-7.

⁷⁸ *Pacific Networks and ComNet Order on Revocation and Termination*, 37 FCC Rcd at 4225, para. 6 & n.19, *aff’d*, *Pacific Networks Corp. v. FCC*, 77 F.4th 1160; *Pacific Networks/ComNet Order to Show Cause*, 35 FCC Rcd at 3734, para. 2; *id.* at 3740-43, Appx. A, paras. 1-7.

Communications Act.⁷⁹ Over the past decade, a number of additional entities ultimately majority-owned and controlled by the Chinese government—including China Telecom,⁸⁰ China Telecom Global,⁸¹ China Mobile Limited,⁸² and China Unicom⁸³—became licensees on FCC licenses to land and operate submarine cables connecting the United States to China and other foreign locations.

17. During the past five years, the Commission opened proceedings that addressed national security and law enforcement risks concerning telecommunications service offered pursuant to section 214 of the Communications Act. Importantly, the Commission denied an application for international section 214 authority⁸⁴ and revoked, on national security grounds, the international and domestic section 214 authority of certain entities that are majority-owned and controlled by the Chinese government.⁸⁵ The Commission's actions were based on a record that included recommendations and comments from interested Executive Branch agencies regarding evolving national security and law enforcement concerns.⁸⁶ In the *China Mobile USA Order*, *China Telecom Americas Order on Revocation and Termination*, *China Unicom Americas Order on Revocation*, and *Pacific Networks and ComNet Order on Revocation and Termination*, the Commission found that these entities are subject to exploitation,

⁷⁹ In 1999, the Commission granted all telecommunications carriers blanket authority under section 214 of the Communications Act to provide domestic interstate services and to construct or operate any domestic transmission line. *Implementation of Section 402(b)(2)(A) of the Telecommunications Act of 1996*; *Petition for Forbearance of the Independent Telephone & Telecommunications Alliance*, Report and Order and Second Memorandum Opinion and Order, 14 FCC Rcd 11364, 11365-66, para. 2 (1999).

⁸⁰ China Telecom is a joint cable landing licensee of the Trans-Pacific Express (TPE) Cable Network, which connects the United States, China, Japan, South Korea, and Taiwan. *2008 TPE Grant Public Notice*; *2008 TPE Modification Grant Public Notice*; *2009 TPE Modification Grant Public Notice*. The TPE Cable Network commenced service on September 30, 2008. See Letter from Nancy J. Victory, Wiley Rein LLP, to Marlene H. Dortch, Secretary, FCC (Oct. 17, 2008) (on file in File No. SCL-LIC-20070222-00002). China Telecom is also a joint cable landing licensee of the New Cross-Pacific (NCP) system, which connects the United States, China, Japan, South Korea, and Taiwan. *2017 NCP Grant Public Notice*. The NCP system commenced service on February 22, 2018. Letter from Kent Bressie, Counsel to Microsoft Infrastructure Group, LLC, to Marlene H. Dortch, Secretary, FCC (July 31, 2018) (on file in File No. SCL-LIC-20151104-00029); File No. SCL-LIC-20151104-00029, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00222, 33 FCC Rcd 8211 (IB 2018).

⁸¹ China Telecom Global is a joint cable landing licensee of the FASTER Cable System, which connects the United States, Japan, and Taiwan. *2016 FASTER Grant Public Notice*. The FASTER Cable System commenced service on August 17, 2016. Letter from Ulises R. Pin, Counsel to GU Holdings Inc., Morgan, Lewis & Bockius LLP, to Marlene H. Dortch, Secretary, FCC (Sept. 7, 2016) (on file in File No. SCL-LIC-20150626-00015).

⁸² China Mobile Limited is a joint cable landing licensee of the FASTER Cable System. *2016 FASTER Grant Public Notice*. China Mobile Limited is also a joint cable landing licensee of the NCP system. *2017 NCP Grant Public Notice*.

⁸³ China Unicom is a joint cable landing licensee of the TPE Cable Network. *TPE Grant Public Notice*; *2008 TPE Modification Grant Public Notice*; *2009 TPE Modification Grant Public Notice*. China Unicom is also a joint cable landing licensee of the NCP system. *2017 NCP Grant Public Notice*.

⁸⁴ *China Mobile International (USA) Inc.; Application for Global Facilities-Based and Global Resale International Telecommunications Authority Pursuant to Section 214 of the Communications Act of 1934, as Amended*, Memorandum Opinion and Order, 34 FCC Rcd 3361 (2019) (*China Mobile USA Order*).

⁸⁵ See *China Telecom Americas Order on Revocation and Termination*, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*, *aff'd*, *Pacific Networks Corp. v. FCC*.

⁸⁶ See *China Telecom Americas Order on Revocation and Termination*, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*, *aff'd*, *Pacific Networks Corp. v. FCC*.

influence, and control by the Chinese government, and that mitigation would not address the national security and law enforcement concerns.⁸⁷

18. The Commission has taken further steps to protect the nation's communications networks from potential national security threats. In November 2019, the Commission prohibited the use of public funds from the Commission's Universal Service Fund (USF) to purchase, obtain, maintain, improve, modify, or otherwise support any equipment or services produced or provided by companies posing a national security threat to the integrity of communications networks or the communications supply chain.⁸⁸ In December 2020, the Commission enacted rules to, among other things, (1) create and maintain the Covered List, which identifies communications equipment and services that pose an unacceptable risk to the national security of the United States or the security and safety of United States persons within the meaning of the Secure and Trusted Communications Networks Act;⁸⁹ (2) prohibit the use of Federal subsidies made available through a program administered by the Commission that provides funds for the capital expenditures necessary for the provision of advanced communications service to purchase, rent, lease, or otherwise obtain any covered communications equipment and service on the Commission's Covered List, or to maintain any such equipment or service that was previously purchased, rented, leased, or otherwise obtained;⁹⁰ (3) require eligible telecommunications carriers receiving USF support to remove and replace covered communications equipment and services from their networks;⁹¹ (4) establish the Secure and Trusted Communications Networks Reimbursement Program (Reimbursement Program) to reimburse providers of advanced communications service for costs reasonably incurred to permanently

⁸⁷ See *China Telecom Americas Order on Revocation and Termination*, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*, *aff'd*, *Pacific Networks Corp. v. FCC*.

⁸⁸ *Protecting Against National Security Threats Order*, 34 FCC Rcd at 11433, para. 26, *aff'd*, *Huawei Technologies USA v. FCC*, 2 F.4th 421 (5th Cir. 2021). For the purposes of section 54.9 of the Commission's rules, covered communications equipment and services only include communications equipment and services produced or provided by Huawei Technologies Company (Huawei) and ZTE Corporation (ZTE). See 47 CFR § 54.9(b) (establishing a process to designate entities subject to the prohibition in section 54.9 of the Commission's rules); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs—Huawei Designation*, PS Docket No. 19-351, Order, 35 FCC Rcd 6604 (PSHSB 2020); *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs—ZTE Designation*, PS Docket No. 19-352, Order, 35 FCC Rcd 6633 (PSHSB 2020).

⁸⁹ *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Second Report and Order, 35 FCC Rcd 14284, 14311, para. 58 (2020) (*2020 Protecting Against National Security Threats Order*) (implementing the Secure and Trusted Communications Networks Act, 47 U.S.C. §§ 1601-1609). In March 2021, the Commission's Public Safety and Homeland Security Bureau (PSHSB) announced the publication of a list of communications equipment and services (Covered List) that are deemed to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons. *Public Safety and Homeland Security Bureau Announces Publication of the List of Equipment and Services Covered by Section 2 of the Secure Networks Act*, Public Notice, 36 FCC Rcd 5534 (PSHSB 2021). In March 2022 and September 2022, PSHSB announced additions to the Covered List. *Public Safety and Homeland Security Bureau Announces Additions to the List of Equipment and Services Covered by Section 2 of the Secure Networks Act*, Public Notice, DA 22-320 (PSHSB 2022); *Public Safety and Homeland Security Bureau Announces Additions to the List of Equipment and Services Covered by Section 2 of the Secure Networks Act*, Public Notice, DA 22-979 (PSHSB 2022).

⁹⁰ 47 CFR § 54.10; *2020 Protecting Against National Security Threats Order*, 35 FCC Rcd at 14325-26, paras. 94-95; 47 U.S.C. § 1602.

⁹¹ 47 CFR § 54.11 (requiring eligible telecommunications carriers receiving universal service support to certify that they do not use covered communications equipment and services prior to receiving a funding commitment or support); *2020 Protecting Against National Security Threats Order*, 35 FCC Rcd at 14292-99, paras. 21-31.

remove, replace, and dispose of covered communications equipment and services from their networks;⁹² and (5) implement a new data collection applying to all providers of advanced communications service that requires these providers to annually report on covered communications equipment and services that were purchased, rented, leased, or otherwise obtained on or after certain dates.⁹³ In November 2022, the Commission adopted revisions to its equipment authorization program to prohibit authorization of equipment that has been identified on the Commission’s Covered List as posing an unacceptable risk to national security of the United States or the security or safety of United States persons, and prohibited the marketing and importation of such equipment in the United States.⁹⁴

19. In 2023, the Commission began a rulemaking in the *Evolving Risks NPRM* to seek comment on proposed rules and possible alternative approaches that will further its goal of ensuring that the Commission continually accounts for evolving public interest considerations associated with international section 214 authorizations.⁹⁵ The Commission, among other things, proposed to adopt a 10-year renewal framework or, in the alternative, periodic review of such authorizations, and to prioritize renewal applications⁹⁶ with foreign ownership to regularly reassess any evolving national security, law enforcement, foreign policy, and/or trade policy concerns.⁹⁷ The *Evolving Risks NPRM* is also examining, for example, requiring targeted certifications, an ownership reporting threshold of 5% or greater, and information on foreign-owned MNSPs.⁹⁸

⁹² 47 U.S.C. § 1603(a) (directing the Commission to establish the Reimbursement Program); 47 CFR § 1.50004; *2020 Protecting Against National Security Threats Order*, 35 FCC Rcd at 14331-68, paras. 108-208. In July 2021, the Commission modified its rules to incorporate the Consolidated Appropriations Act, 2021 (CAA) amendments to the Secure and Trusted Communications Networks Act. *Protecting Against National Security Threats to the Communications Supply Chain Through FCC Programs*, WC Docket No. 18-89, Third Report and Order, 36 FCC Rcd 11958, para. 1 (2021) (*2021 Protecting Against National Security Threats Order*); Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, § 901, 134 Stat. 1182 (2020); , 47 U.S.C. §§ 1601-1609. These rule modifications included, but were not limited to, revising the eligibility to participate in the Reimbursement Program to providers of advanced communications service with 10 million or fewer customers and adopting the CAA’s prioritization scheme if program demand exceeds available funding. *2021 Protecting Against National Security Threats Order*, 36 FCC Rcd at 11963 at para. 13. The Commission also concluded that, pursuant to the CAA’s amendments to the Secure and Trusted Communications Networks Act, “covered communications equipment and services” eligible for Reimbursement Program support is limited to communications equipment and services produced or provided by Huawei or ZTE and obtained by providers on or before June 30, 2020. *Id.* at 11965, 11978, paras. 18-19, 46. The certification requirement in section 54.11 of the Commission’s rules is also limited to communications equipment and services produced or provided by Huawei or ZTE. *Id.* at 11975, para. 39 (aligning the scope of equipment and services required for removal under section 54.11 with the scope of equipment and services eligible for reimbursement through the Reimbursement Program).

⁹³ 47 CFR § 1.50007; *2020 Protecting Against National Security Threats Order*, 35 FCC Rcd at 14368-71, paras. 209-17.

⁹⁴ *Protecting Against National Security Threats to the Communications Supply Chain through the Equipment Authorization Program*; *Protecting Against National Security Threats to the Communications Supply Chain through the Competitive Bidding Program*, ET Docket No. 21-232, EA Docket No. 21-233, Report and Order, Order, and Further Notice of Proposed Rulemaking, FCC 22-84, 37 FCC Rcd 13493 (2022) (*2022 Protecting Against National Security Threats Order*).

⁹⁵ *Review of International Section 214 Authorizations to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks, Amendment of the Schedule for Application Fees Set Forth in Sections 1.1102 through 1.1109 of the Commission’s Rules*, IB Docket No. 23-199, MD Docket No. 23-134, Order and Notice of Proposed Rulemaking, 38 FCC Rcd 4346, 4362, para. 24 (2023) (*Evolving Risks NPRM*).

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

20. Most recently, in the *2024 Open Internet Order*, the Commission excluded the following entities and their current and future affiliates and subsidiaries from blanket section 214 authority for the provision of broadband Internet access service (BIAS)—China Mobile International (USA) Inc. (China Mobile USA), CTA, CUA, Pacific Networks, and ComNet—whose application for international section 214 authority was previously denied or whose domestic and international section 214 authority was previously revoked by the Commission in view of national security and law enforcement concerns.⁹⁹ The Commission in the *2024 Broadband Gateway Protocol NPRM*, also adopted a notice proposing steps applicable to providers of BIAS designed to improve the security of BGP routing, which is central to the Internet’s global routing system.¹⁰⁰

21. *Other National Security Initiatives Concerning Submarine Cables.* On February 28, 2024, President Biden issued Executive Order 14117 to prevent access to Americans’ bulk sensitive personal data and United States government-related data by countries of concern.¹⁰¹ Under this Executive Order, the Committee will prioritize “the initiation of reviews of existing licenses for submarine cable systems that are owned or operated by persons owned by, controlled by, or subject to the jurisdiction or direction of a country of concern, or that terminate in the jurisdiction of a country of concern.”¹⁰² Additionally, on April 30, 2024, President Biden issued National Security Memorandum on Critical Infrastructure Security and Resilience.¹⁰³ Under this memorandum, the President directed the Commission, to the extent permitted by law, and in coordination with DHS and other federal departments and agencies, to: (1) identify and prioritize communications infrastructure by collecting information regarding communications networks; (2) assess communications sector risks and work to mitigate those risks by requiring, as appropriate, regulated entities to take specific actions to protect communications networks and infrastructure; and (3) collaborate with communications sector industry members, foreign governments, international organizations, and other stakeholders to identify best practices and impose corresponding regulations.¹⁰⁴

⁹⁹ *Safeguarding and Securing the Open Internet; Restoring Internet Freedom*, WC Docket Nos. 23-320, 17-108, Declaratory Ruling, Order, Report and Order, and Order on Reconsideration (2024) (*2024 Open Internet Order*); see *In re: MCP No. 185*, No. 24-7000, 2024 WL 3650468, at *1 (6th Cir. Aug. 1, 2024) (per curiam) (granting the petitioners’ motion to stay the final rule from the *2024 Open Internet Order* classifying broadband Internet providers as common carriers subject to Title II of the Communications Act of 1934 pending review of the petitions).

¹⁰⁰ *Reporting on Border Gateway Protocol Risk Mitigation Progress; Secure Internet Routing*, PS Docket Nos. 24-146 & 22-90, Notice of Proposed Rulemaking, FCC 24-62, at 2 paras. 2-3 (2024) (*BGP Risk Mitigation NPRM*).

¹⁰¹ Preventing Access to Americans’ Bulk Sensitive Personal Data and United States Government-Related Data by Countries of Concern, Exec. Order No. 14117, 89 Fed. Reg. 15421 (Feb. 28, 2024) (Executive Order 14117).

¹⁰² *Id.* at 15426 (stating that the Committee, among other things, “shall, to the extent consistent with its existing authority and applicable law: (i) prioritize, for purposes of and in reliance on the process set forth in section 6 of Executive Order 13913, the initiation of reviews of existing licenses for submarine cable systems that are owned or operated by persons owned by, controlled by, or subject to the jurisdiction or direction of a country of concern, or that terminate in the jurisdiction of a country of concern”). Executive Order 14117 states, among other things, that the risk of access to bulk sensitive personal data and United States Government-related data “by countries of concern can be, and sometime is, exacerbated where the data transits a submarine cable that is owned or operated by persons owned by, controlled by, or subject to the jurisdiction or direction of a country of concern, or that connects to the United States and terminates in the jurisdiction of a country of concern.” *Id.*

¹⁰³ The White House, National Security Memorandum on Critical Infrastructure Security and Resilience, National Security Memorandum/NSM-22 (Apr. 30, 2024) (NSM-22), <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/04/30/national-security-memorandum-on-critical-infrastructure-security-and-resilience/>.

¹⁰⁴ *Id.*

III. NOTICE OF PROPOSED RULEMAKING

22. In this *Notice*, we initiate a comprehensive review of our submarine cable rules to develop forward-looking rules to better protect submarine cables, identify and mitigate harms affecting national security and law enforcement, and facilitate the deployment of submarine cables and capacity to the market. We believe this proceeding will improve Commission review and oversight of submarine cable landing licenses and ensure each licensee continues to serve the public interest in an evolving national security and law enforcement landscape.

A. Legal Authority under the Cable Landing License Act of 1921

1. Commission Jurisdiction

a. General License Requirement.

23. As an initial matter, we propose to codify in our rules when a submarine cable license is required under the Cable Landing License Act.¹⁰⁵ The Cable Landing License Act states that “[n]o person shall land or operate in the United States any submarine cable directly or indirectly connecting the United States with any foreign country, or connecting one portion of the United States with any other portion thereof, unless a written license to land or operate such cable has been issued by the President.”¹⁰⁶ The Cable Landing License Act further states that “[t]he conditions of sections 34 to 39 of this title shall not apply to cables, all of which, including both terminals, lie wholly within the continental United States.”¹⁰⁷

24. Specifically, we propose to adopt a rule stating that a submarine cable landing license must be obtained prior to landing a submarine cable that connects:

- (1) the continental United States with any foreign country;
- (2) Alaska, Hawaii or the U.S. territories or possessions with a
 - (i) foreign country,
 - (ii) the continental United States, or
 - (iii) with each other; or
- (3) points within the continental United States, Alaska, Hawaii, or a territory or possession in which the cable is laid in international waters.¹⁰⁸

Although we believe that the scope of the Cable Landing License Act has been well-understood,¹⁰⁹ we also believe that codifying these requirements will bring additional clarity to the application process and provide regulatory certainty to submarine cable owners and operators.

¹⁰⁵ 47 U.S.C. §§ 34-39; Executive Order 10530.

¹⁰⁶ 47 U.S.C. § 34.

¹⁰⁷ *Id.* In 1921, the definition of “United States” included “the Canal Zone, the Philippine Islands, and all territory, continental or insular, subject to the jurisdiction of the United States of America.” 47 U.S.C. § 38 (1921). In 1946, following the proclamation of the independence of the Philippines by the President, the definition was amended to remove the Philippines. 47 U.S.C. § 38 (1946). In 1959, Hawaii and Alaska became part of the United States and were admitted as states. Proc. No. 2695, eff. July 4, 1946, 11 Fed. Reg. 7517, 60 Stat. 1352. The Cable Landing License Act definition, however, was not later amended to incorporate Hawaii and Alaska as part of the continental United States, or other territories or possessions.

¹⁰⁸ See 47 U.S.C. §§ 34-39; Executive Order 10530.

¹⁰⁹ See e.g., File No. SCL-LIC-20060413-00004, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00014, DA 06-1213 (IB 2006); File No. SCL-LIC-20100914-00021, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00111, DA 10-2090 (IB 2010); File No. SCL-LIC-20160325- (continued....)

b. Submarine Cable System Definition

25. For the same reasons we propose to codify in our rules when a submarine cable landing license must be obtained, we seek comment generally on whether to adopt a definition of a submarine cable system. Conceptually and in simple terms, a submarine cable system is comprised of a cable laid beneath the water that carries telecommunication transmission signals between two or more cable landing stations containing equipment that converts submarine cable signals to terrestrial signals.¹¹⁰ The wet segment of the submarine cable system makes landfall at the beach manhole or beach joint that, in turn, connects to the dry segment and submarine cable landing stations. A submarine cable landing station is a dry land facility where submarine cables terminate traffic, allowing voice, data, and Internet to be transmitted to terrestrial or local networks.¹¹¹ At the terminal, equipment such as Submarine Line Terminal Equipment (SLTE),¹¹² converts cable signals to terrestrial signals allowing the cable to interconnect to terrestrial facilities in the United States.

26. Based on the description above, we seek comment on whether it is necessary to adopt a definition of submarine cable for purposes of our licensing process. If so, should we define a submarine cable as a cable(s) laid beneath the water¹¹³ that transmits voice, data, and Internet between terminal cable landing stations that, among other functions, contain the SLTE located in the continental United States, Alaska, Hawaii, or the U.S. territories or possessions. We believe that defining a submarine cable

00009, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00198, DA 17-312 (IB 2017).

¹¹⁰ In Appendix B, we provide a technical description of a submarine cable system for informational purposes. *See infra* Appx. B.

¹¹¹ *Id.* Cable landing stations contain equipment that supplies power to optical submarine cables and equipment that receives signals from submarine cables and transmits signals to a backhaul network that terminates at a Point of Presence (POP). *Id.* A data center can serve as a cable landing station, and POPs can be located within a cable landing station or data center. *Id.*

¹¹² The SLTE determines the cable's data throughput or performance. *Id.*

¹¹³ The Cable Landing License Act does not apply to submarine cables wholly within the continental United States, such as a cable traversing a river or a lake located wholly within the continental United States. *See* 47 U.S.C. § 34. A submarine cable landing license is required under the Cable Landing License Act, however, if a cable connects the United States to a foreign country, such as Canada or Mexico. *Id.* The Commission has granted cable landing licenses, for instance, (1) to land and operate a submarine cable under the Rio Grande River connecting the United States and Mexico, (2) to land and operate a submarine cable located within a tunnel traversing the Detroit River between the United States and Canada, and (3) to land and operate a submarine cable across Lake Ontario connecting the United States and Canada. File No. SCL-LIC-20210930-00042, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00376, 37 FCC Rcd 7380, 7381-82 (IB 2022) (granting a cable landing license to Neural Networks USA LLC “for the purpose of landing and operating a non-common carrier fiber optic submarine cable, the Neutral Networks Laredo Cable, that connects Laredo, Texas and Nuevo Laredo, Tamaulipas, Mexico,” which “will consist of three fiber optic cables in a seven duct conduit extending 251 feet under the Rio Grande River”); *GTE Sprint Communications Corp.; Application for a license to land in the United States a submarine cable extending between the United States at Detroit, Michigan and Canada at Windsor, Ontario*, S-C-L-85-002, Cable Landing License, 1986 WL 292524 at *1, paras. 2, 4 (CCB Jan. 10, 1986) (granting to GTE Sprint Communications Corp. a cable landing license “to land and operate a submarine cable between Detroit, Michigan and Windsor, Ontario, Canada,” which “will be located within the conduit space of the Detroit-Windsor tunnel which traverses the Detroit River between Detroit[,] Michigan and Windsor, Ontario”); File No. SCL-LIC-20180216-00002, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00226, DA 18-1026, 2018 WL 4851455 at *2 (IB 2018) (granting a cable landing license to Crosslake Fiber USA LP “for the purpose of constructing, landing and operating a private fiber-optic submarine cable network, the Crosslake Fibre cable system, connecting Toronto, Ontario, with Cambria, New York,” which “will consist of a single, unrepeatable segment across Lake Ontario”).

accordingly would account for a submarine cable system that may have more than one terminal landing point located on or near the coast. Moreover, we believe this definition is sufficiently flexible to also account for the various technical options available to cable owners and operators for routing traffic from a cable landing station located near the coast—which may have only certain equipment such as Power Feed Equipment (PFE)¹¹⁴—to another cable landing station to connect to a PoP, or similar facility.¹¹⁵ We seek comment on this definition and whether it would capture the current state of submarine cable systems and account for the evolution and upgrades of submarine cable technologies.

c. Public Interest Standard

27. We propose to codify in our rules the longstanding practice that applicants seeking a submarine cable landing license or modification, assignment, transfer of control, and renewal or extension of a cable landing license must include in their application information demonstrating how the grant of the application will serve the public interest, convenience, and necessity, consistent with the Commission’s authority to withhold or revoke any license where doing so “will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, or will promote the security of the United States.”¹¹⁶ The Commission has long found that national security, law enforcement, foreign policy, and trade policy concerns are important to its public interest analysis of submarine cable applications, and these concerns warrant continued consideration in view of evolving and heightened threats to the nation’s communications infrastructure.¹¹⁷ Our determination assesses whether the public interest, convenience, and necessity would be served by the grant of an application for a cable landing license or modification, assignment, transfer of control, and renewal or extension of a cable landing license and is based on the totality of the circumstances presented by each application, supplemented with additional information as necessary. We seek comment on this proposed codification.

d. Character Qualifications

28. We propose to codify in our rules regarding submarine cable applications the Commission’s longstanding practice regarding the character qualifications of applicants for Commission licenses and authorizations. Specifically, we propose that the Commission will consider whether an applicant seeking a cable landing license or modification, assignment, transfer of control, and renewal or extension of a cable landing license has the requisite character qualifications, including whether the applicant has violated the Cable Landing License Act, the Communications Act, or Commission rules, including making false statements or misrepresentations to the Commission; whether the applicant has been convicted of a felony; and whether there is an adjudicated determination that the applicant has violated U.S. antitrust or other competition laws, has been found to have engaged in fraudulent conduct before another government agency, or has engaged in other non-FCC misconduct the Commission has

¹¹⁴ The PFE, in general, provides the electrical current that powers submarine cable system repeaters and/or optical branching units, and are located in or close to terminal landing stations. *See infra* Appx. B.

¹¹⁵ *Id.*

¹¹⁶ 47 U.S.C. § 35.

¹¹⁷ *See Executive Branch Review Report and Order*, 35 FCC Rcd at 10928-29, para. 3 (“In adopting rules for foreign carrier entry into the U.S. telecommunications market over two decades ago in its *Foreign Participation Order*, the Commission affirmed that it would consider national security, law enforcement, foreign policy, and trade policy concerns in its public interest review of application for international section 214 authorizations and submarine cable landing licenses and petitions for declaratory ruling under section 310(b) of the Act.”); *Foreign Participation Order*, 12 FCC Rcd at 23918-21, paras. 59-66; *see, e.g., Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, et al.*, WT Docket 18-197, Memorandum Opinion and Order, Declaratory Ruling, and Order of Proposed Modification, 34 FCC Rcd 10578, 10732-33, para. 349 (2019) (“When analyzing a transfer of control or assignment application that involves foreign investment, we also consider public interest issues related to national security, law enforcement, foreign policy, or trade policy concerns.”).

found to be relevant in assessing the character qualifications of a licensee or authorization holder.¹¹⁸ The Commission has found in other contexts that such conduct demonstrates that an applicant may fail to comply with the Commission's rules and policies as well as any conditions on its authorization.¹¹⁹ The public interest may therefore require, in a particular case, that the Commission deny an application for a cable landing license or modification, assignment, transfer of control, and renewal or extension of a cable landing license because the applicant has violated the Cable Landing License Act, the Communications Act, or the Commission rules, or other laws that may be indicative of the applicant's truthfulness and reliability, or that the Commission revoke a cable landing license on such grounds. We believe consideration of an applicant's or cable landing licensee's regulatory compliance and adherence to other relevant laws is also consistent with the Commission's review of applications in other contexts¹²⁰ and is important to the Commission's assessment as to whether the public interest, convenience, and necessity would be served by grant of the applications. We seek comment on this proposed codification.

e. Process to Withhold or Revoke a Cable Landing License

29. In this *Notice*, we propose and seek comment on adopting a procedural framework that the Commission may use to consider whether withholding a grant of a cable landing license or revocation of a cable landing license is warranted pursuant to the Cable Landing License Act and Executive Order 10530.¹²¹ The Commission has specific statutory authority to withhold or revoke cable landing licenses under the Cable Landing License Act and Executive Order 10530.¹²² Section 35 of the Cable Landing License Act states that “[t]he President may withhold or revoke such license when he shall be satisfied after due notice and hearing that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, or will promote the security of the United States”¹²³ In addition, section 5 of Executive Order 10530 states that the Commission is “designated and empowered to . . . withhold [] or revoke licenses to land or operate submarine cables in the United States”¹²⁴ The Commission has not prescribed specific procedures applicable to withholding or revocation of a cable landing license, yet in the *Executive Branch Review Report and Order*, it has stated that if it is considering revoking a license that was granted following referral to the Committee or its predecessor pursuant to Executive Order

¹¹⁸ See generally *Policy Regarding Character Qualifications in Broadcast Licensing*, 102 FCC 2d 1179 (1986) (*Character Qualifications*), modified, 5 FCC Rcd 3252 (1990) (*Character Qualifications Modification*); see *infra* section III.B.6. The term “non-FCC misconduct” refers to misconduct other than a violation of the Rules or the Act. *Character Qualifications*, 102 FCC 2d at 1183 n.11, para. 7. The Commission and the courts have recognized that “[t]he FCC relies heavily on the honesty and probity of its licensees in a regulatory system that is largely self-policing.” See *Contemporary Media, Inc., v. FCC*, 214 F.3d 187, 193 (D.C. Cir. 2000). Reliability is a key, necessary element to operating a broadcast station in the public interest. See *Character Qualifications*, 102 F.C.C.2d at 1195, para. 35. An applicant or licensee’s propensity to comply with the law generally is relevant because a willingness to be less than truthful with other government agencies, to violate other laws, and, in particular, to commit felonies, is potentially indicative of whether the applicant or licensee will in the future conform to the Commission’s rules or policies. See *Character Qualifications Modification*, 5 FCC Rcd at 3252, para. 3.

¹¹⁹ *Foreign Participation Order*, 12 FCC Rcd at 23915, para. 53 & n.90. See *Character Qualifications*, 102 FCC 2d at 1195-97, 1200-03, paras. 34-37, 42-44; see also *MCI Telecommunications Corp.; Petition for Revocation of Operating Authority*, 3 FCC Rcd 509, 512, n.14 (1988) (stating that character qualifications standards adopted in the broadcast context, while not applicable to common carriers, can provide guidance in the common carrier context).

¹²⁰ See, e.g., FCC Form 303-S (broadcast license renewal application), Instructions at 7-8, <https://www.fcc.gov/sites/default/files/form303s.pdf>.

¹²¹ 47 U.S.C. § 35; Executive Order 10530, § 5(a).

¹²² 47 U.S.C. § 35; Executive Order 10530, § 5(a).

¹²³ 47 U.S.C. § 35.

¹²⁴ Executive Order 10530, § 5(a).

13913, it will provide “such notice and an opportunity to respond as is required by due process and applicable law, and appropriate in light of the facts and circumstances.”¹²⁵ Below, we seek to adopt a process applicable to withholding or revocation of cable landing licenses that will enable the Commission to fulfill its statutory responsibilities—including, among other things, promotion of the national and economic security of the United States and other public interest considerations, such as character issues—while ensuring procedural safeguards to protect licensees’ due process rights.

30. Specifically, we seek comment on integrating the approach utilized by the Commission in recent section 214 revocation proceedings—and which the Court of Appeals for the D.C. Circuit upheld¹²⁶—where the Commission exercised its discretion to “resolve disputes of fact in an informal hearing proceeding on a written record,”¹²⁷ and reasonably determined that the issues raised in those cases could be properly resolved through the presentation and exchange of full written submissions before the Commission itself.¹²⁸ We tentatively find that the Commission may exercise similar procedural discretion in its evaluation of each case as to whether withholding or revocation of a cable landing license is warranted. We believe that the statutory language “withhold . . . such license”¹²⁹ is identical to the concept of denying an application. For purposes of submarine cable licenses, withholding of a license would apply to the Commission’s consideration of a grant of an initial application for a cable landing license and an application to modify, assign, transfer control of, or renew or extend a cable landing license.¹³⁰ We seek comment on whether the Commission may use the same informal hearing process or

¹²⁵ *Executive Branch Review Report and Order*, 35 FCC Rcd at 10964, para. 92. Section 6 of Executive Order 13913 provides that the Committee may at any time “review existing licenses to identify any additional or new risks to national security or law enforcement interests of the United States.” Executive Order 13913, § 6. Executive Order 13913 defines “license” as “any license, certificate of public interest, or other authorization issued or granted by the Federal Communications Commission (FCC) after referral of an application by the FCC to the Committee established by subsection 3(a) of this order or, if referred before the date of this order, to the group of executive departments and agencies involved in the review process that was previously in place.” *Id.*, § 2(a).

¹²⁶ *China Telecom (Ams.) Corp. v. FCC*, 57 F.4th at 256, 269; *id.* at 262 (citing *Procedural Streamlining of Administrative Hearings*, Report and Order, 35 FCC Rcd 10729, 10732-33, para. 11 (2020) (*Administrative Hearings Order*)) (“‘The Communications Act gives the Commission the power of ruling on facts and policies in the first instance. In exercising that power, the Commission may resolve disputes of fact in an informal hearing proceeding on a written record. And the Commission may reach any decision that is supported by substantial evidence in the record.’”); *Pacific Networks Corp. v. FCC*, 77 F.4th 1160.

¹²⁷ *Evolving Risks NPRM*, 38 FCC Rcd at 4382, para. 78 (citing *Administrative Hearings Order*, 35 FCC Rcd at 10732-33, para. 11).

¹²⁸ *China Telecom (Ams.) Corp. v. FCC*, 57 F.4th at 256, 269 (“As explained above, the FCC has broad discretion to craft its own rules ‘of procedure and to pursue methods of inquiry capable of permitting them to discharge their multitudinous duties.’” *Schreiber*, 381 U.S. at 290, 85 S.Ct. 1459 (internal quotations omitted); *see also Vermont Yankee*, 435 U.S. at 543, 98 S.Ct. 1197). The Commission has exercised this discretion to “resolve disputes of fact in an informal hearing proceeding on a written record.” *Streamlining Order*, 35 FCC Rcd. at 10732. Here, the Commission reasonably determined that the issues raised in this case could be properly resolved through the presentation and exchange of full written submissions before the Commission itself.”); *Pacific Networks Corp. v. FCC*, 77 F.4th 1160.

¹²⁹ 47 U.S.C. § 35.

¹³⁰ Section 1.767(g)(15) sets forth that “[t]he cable landing license shall expire twenty-five (25) years from the in-service date, unless renewed or extended upon proper application. Upon expiration, all rights granted under the license shall be terminated.” 47 CFR § 1.767(g)(15). We note that within the category of applications for modifications, different procedures might be appropriate based on the nature of the modification. For example, procedures for reviewing an application seeking to incorporate a revised mitigation agreement may be more streamlined than procedures applicable to modifications to update facilities or add a submarine cable landing station.

an alternative process if it considers termination of a cable landing license due to a licensee's failure to comply with any condition of the license.¹³¹

31. Further, we propose to modify OIA's existing delegated authority to codify the Commission's existing ability to deny an application and to revoke and/or terminate a submarine cable landing license under the Cable Landing License Act and Executive Order 10530.¹³² We also propose to delegate authority to OIA to implement these procedures described above for denial, revocation, and/or termination, as required by due process and applicable law and in light of the relevant facts and circumstances, including providing the applicant or licensee with notice and opportunity to respond.¹³³

(i) Due Process and Procedural Requirements

32. We tentatively find that the process we seek to apply in cases involving withholding or revocation of cable landing licenses—which, in effect, would constitute an informal hearing process through the presentation and exchange of full written submissions before the Commission—is consistent with due process and procedural requirements under relevant statutes including the Cable Landing License Act, the Communications Act, and the Administrative Procedure Act (APA). The Cable Landing License Act sets forth, among other things, that “[t]he President may withhold or revoke such license when he shall be satisfied after due notice and hearing that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, or will promote the security of the United States”¹³⁴ The authority vested in the President, including the authority to withhold or revoke cable landing licenses, is delegated to the Commission pursuant to Executive Order 10530, on the condition that “[n]o such license shall be granted or revoked by the Commission except after obtaining approval of the Secretary of State and such advice from any executive department or establishment of the Government as the Commission may deem necessary.”¹³⁵ Currently, the Commission's rules codify as a condition of such license that “[t]he cable landing license is revocable by the Commission after due notice and opportunity for hearing pursuant to section 2 of the Cable Landing License Act, 47 U.S.C. 35, or for failure to comply with the terms of the license or with the Commission's rules.”¹³⁶

33. The Cable Landing License Act, which is the source of authority from which authority to

¹³¹ See generally *China Telecom Americas Order on Revocation and Termination*; *Pacific Networks and ComNet Order on Revocation and Termination*.

¹³² 47 U.S.C. § 35; Executive Order 10530, § 5(a). Our proposed delegation of authority to OIA would broaden OIA's existing delegated authority to act pursuant to section 0.19(q)-(r). 47 CFR § 0.19(q)-(r).

¹³³ See *Evolving Risks NPRM*, 38 FCC Rcd at 4382, para. 78; *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Second Report and Order and Second Further Notice of Proposed Rulemaking, 38 FCC Rcd 8951, 8972, para. 64 (2023) (*2023 VoIP Direct Access to Numbers Report and Order*). OIA's implementation could include, for example, establishing response and pleading cycle deadlines, addressing waiver requests, addressing requests for live hearing procedures, seeking additional information, and providing for additional pleading cycles.

¹³⁴ 47 U.S.C. § 35.

¹³⁵ Executive Order 10530, § 5(a) (“The Federal Communications Commission is hereby designated and empowered to exercise, without the approval, ratification, or other action of the President, all authority vested in the President by the act of May 27, 1921, ch. 12, 42 Stat. 8 (47 U. S. C. 34 to 39, inclusive), including the authority to issue, withhold, or revoke licenses to land or operate submarine cables in the United States: *Provided*, That no such license shall be granted or revoked by the Commission except after obtaining approval of the Secretary of State and such advice from any executive department or establishment of the Government as the Commission may deem necessary.”).

¹³⁶ 47 CFR § 1.767(g)(14). Except as otherwise ordered by the Commission, the rules in subpart (g) apply to each licensee of a cable landing license granted on or after March 15, 2002. 47 CFR § 1.767(g) (“Routine Conditions”).

withhold or revoke a cable landing license emanates, states that the President may “withhold or revoke such [cable landing] license . . . after due notice and hearing,”¹³⁷ but does not identify particular procedures that must be followed. As the Commission has stated, where an agency’s enabling statute does not expressly require an “on the record” hearing and instead calls simply for a “hearing,” a “full hearing,” or uses similar terminology, the statute does not trigger the APA’s formal adjudication procedures absent clear evidence of congressional intent to do so.¹³⁸ Agencies must adhere to the formal hearing procedures in sections 554, 556, and 557 of the APA only in cases of “adjudication required by statute to be determined on the record after opportunity for an agency hearing.”¹³⁹ In addition to the Cable Landing License Act, neither the Communications Act, the Commission’s rules, nor the APA requires trial-type hearing procedures.¹⁴⁰ Congress has granted the Commission broad authority to “conduct its proceedings in such manner as will best conduce to the proper dispatch of business and to the ends of justice.”¹⁴¹ The Commission has broad discretion to craft its own rules “of procedure and to pursue methods of inquiry capable of permitting them to discharge their multitudinous duties.”¹⁴² Furthermore, the Communications Act gives the Commission the power of ruling on facts and policies in the first instance.¹⁴³ In exercising that power, the Commission may resolve disputes of fact in an informal hearing proceeding on a written record.¹⁴⁴ For instance, the Commission’s subpart B hearing rules provide procedures for hearings in appropriate circumstances,¹⁴⁵ including procedures for the revocation of station licenses and construction permits.¹⁴⁶ In the *2023 VoIP Direct Access to Numbers Report and Order*, the Commission delegated authority to the Wireline Competition Bureau and the Enforcement

¹³⁷ 47 U.S.C. § 35.

¹³⁸ *Administrative Hearings Order*, 35 FCC Rcd at 10732, para. 9; see *United States v. Florida East Coast Railway Co.*, 410 U.S. 224, 234-38 (1973) (the words “after hearing” in the Interstate Commerce Act do not require formal APA adjudication); see also, e.g., *City of W. Chicago, Ill. v. U.S. Nuclear Regulatory Comm’n*, 701 F.2d 632, 641 (statutory requirement of a “hearing” does not trigger formal, on-the-record hearing provisions of the APA); *Chem. Waste Mgmt., Inc. v. EPA*, 873 F.2d 1477, 1480-83 (D.C. Cir. 1989) (no presumption that “public hearing” means “on the record” hearing); *Farmers Union Cent. Exch. v. FERC*, 734 F.2d 1486, 1499 n.39 (D.C. Cir. 1984) (“after full hearing” is “not equivalent to the requirement of a decision ‘on the record’”) (internal citation omitted).

¹³⁹ *Administrative Hearings Order*, 35 FCC Rcd at 10731-32, para. 9; 5 U.S.C. § 554; 5 U.S.C. § 551(7) (defining “adjudication”).

¹⁴⁰ *Evolving Risks NPRM*, 38 FCC Rcd at 4381, para. 77.

¹⁴¹ *Id.* at 4381-82, para. 77 (citing 47 U.S.C. § 154(j); *China Telecom. (Ams.) Corp. v. FCC*, 57 F.4th at 265).

¹⁴² *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Second Report and Order and Second Further Notice of Proposed Rulemaking, 38 FCC Rcd 8951, 8972, para. 64 (2023) (delegating authority to the Wireline Competition Bureau and the Enforcement Bureau to determine appropriate procedures and initiate revocation and/or termination proceedings and to revoke and/or terminate a direct access authorization, as required by due process and applicable law and in light of the relevant facts and circumstances, including providing the direct access authorization holder with notice and opportunity to respond); *Evolving Risks NPRM*, 38 FCC Rcd at 4382, para. 77; *China Telecom (Americas) Corp.*, 57 F.4th at 268 (citing *FCC v. Schreiber*, 381 U.S. 279, 290 (1965)) (internal quotations omitted); see also *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 543 (1978).

¹⁴³ *Administrative Hearings Order*, 35 FCC Rcd at 10732-33, para. 11; *Evolving Risks NPRM*, 38 FCC Rcd at 4382, para. 77.

¹⁴⁴ *Administrative Hearings Order*, 35 FCC Rcd at 10732-33, para. 11; *Evolving Risks NPRM*, 38 FCC Rcd at 4382, para. 77.

¹⁴⁵ *Administrative Hearings Order*, 35 FCC Rcd at 10729, para. 2.

¹⁴⁶ Section 1.91 of the Commission’s rules applies subpart B hearing rules to revocations of “station license[s]” or “construction permit[s],” which refer to spectrum licenses issued under Title III of the Communications Act. See 47 CFR § 1.91.

Bureau to determine appropriate procedures and initiate revocation and/or termination proceedings and to revoke and/or terminate a direct access authorization, as required by due process and applicable law and in light of the relevant facts and circumstances, including providing the direct access authorization holder with notice and opportunity to respond.¹⁴⁷

34. As discussed below, we propose an informal written process for Commission actions on denial of applications and revocation and termination of cable landing licenses.¹⁴⁸ We seek comment on the procedural measures necessary to ensure the development of an adequate administrative record, including procedures for participation by other interested parties, and on the appropriate procedural safeguards to ensure due process. To determine what process is due, we consider the factors set forth in the *Mathews v. Eldridge* three-part test: (1) “the private interest that will be affected by the official action;” (2) “the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards;” and (3) “the Government’s interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.”¹⁴⁹ With regard to the first *Mathews* factor (the nature of the private interest), while we recognize that denial of a cable landing license application or revocation of a cable landing license will have an impact on the applicant(s) or on the licensee(s) and any customers, we tentatively find that private companies have no unqualified right to land or operate a submarine cable in the United States. On the contrary, the Cable Landing License Act sets forth that a cable landing license may be withheld or revoked, stating that the President may “withhold or revoke such license when he shall be satisfied after due notice and hearing that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, or will promote the security of the United States.”¹⁵⁰ The Cable Landing License Act and Executive Order 10530, which delegates this denial and revocation authority to the Commission, thereby puts regulated parties on notice that any application for a cable landing license is subject to denial by the Commission and any grant of a cable landing license is contingent on the Commission’s authority to revoke such license. Further, whereas licensees facing revocation have a private interest in continuing to operate licensed facilities, applicants typically have no such interest.

35. With regard to the second *Mathews* factor (risk of erroneous deprivation without additional procedures and their probable value), we tentatively find that the process we seek to apply would provide cable landing licensees with sufficient due process—notice and the opportunity to be heard “at a meaningful time and in a meaningful manner.”¹⁵¹ Neither the Cable Landing License Act, the APA,

¹⁴⁷ 2023 *VoIP Direct Access to Numbers Report and Order*, 38 FCC Red at 8972, para. 64.

¹⁴⁸ See *infra* section III.A.1.e.ii. In the 2020 *Executive Branch Review Report and Order*, the Commission addressed how it would handle modifications and revocations requested by the Executive Branch. See *Executive Branch Review Report and Order*, 35 FCC Red at 10963-64, para. 92 (“Consistent with current practice, the Commission will provide any affected authorization holder or licensee an opportunity to respond to the Committee’s recommendation prior to any action by the Commission. This will address the commenters’ concern that the Commission might proceed with modification or revocation of an existing authorization or license without warning or the opportunity to comment. We find that new rules or a separate proceeding are unnecessary to address Committee reviews of existing licenses as the Commission already has procedural safeguards in place to protect licensees’ due process rights, and that until such time as the Commission has more experience with such Committee recommendations, it is more appropriate to tailor such procedures to the facts and circumstances of a particular Committee recommendation.”).

¹⁴⁹ *Mathews v. Eldridge*, 424 U.S. 319, 335 (1976).

¹⁵⁰ 47 U.S.C. § 35.

¹⁵¹ See, e.g., *Mathews*, 424 U.S. at 333 (citing *Armstrong v. Manzo*, 380 U.S. 545, 552 (1965)); cf. 5 U.S.C. § 558(c)(1)-(2) (permitting “revocation . . . of a license” following “notice by the agency in writing” of any basis for revocation and an “opportunity to demonstrate compliance”).

nor the Communications Act requires the conduct of evidentiary hearings for denial of cable landing license applications or revocation of cable landing licenses. We tentatively find it sufficient due process to provide applicants or cable landing licensees with timely and adequate notice of the reasons for any denial or revocation action, and opportunity to respond with their own evidence and to make any factual, legal, or policy arguments. Further, the process we propose would provide any other interested parties, including any joint applicants or licensees or other proposed or existing owners of a submarine cable, with notice and the opportunity to be heard. Finally, as noted above, the private interests in grant of an application typically are less than the private interests in continued use of licensed facilities, thus, we believe that the Commission may appropriately deny an application with fewer procedures than would be appropriate for revocation. We seek comment on this analysis. Would our proposed process for denying initial applications be appropriate for renewal and extension applications¹⁵² or for modification, assignment, or transfer of control applications? If not, what is the due process rationale for using different procedures in these circumstances?

36. With regard to the third *Mathews* factor (the Government's interest), we tentatively find that "the fiscal and administrative burdens" on the Commission and the relevant Executive Branch agencies, including the Committee, weigh in favor of our proposal to base its procedures on those utilized by the Commission in the denial of an international section 214 application of China Mobile USA and in subsequent section 214 revocation proceedings involving Chinese state-owned entities.¹⁵³ As the Commission stated in the *China Telecom Americas Order on Revocation and Termination*, *China Unicom Americas Order on Revocation*, and *Pacific Networks and ComNet Order on Revocation and Termination*, courts have recognized that hearings before an administrative law judge, with live testimony and cross examination, impose significant temporal and cost burdens on agencies.¹⁵⁴ The Commission determined, among other things, that the fiscal and administrative burden on the government would be especially heavy in those cases, as a trial before an administrative law judge could require participation by officials from other agencies¹⁵⁵ and take time away from their essential duties to participate in additional administrative proceedings.¹⁵⁶ For these same reasons, we tentatively find that the administrative burden on the government would be heavy in cases involving denial of cable landing license applications or revocation of cable landing licenses. More importantly, given the national security issues that may be at stake, any resulting unwarranted delay could be harmful.¹⁵⁷ We also believe that traditional live hearing

¹⁵² For purposes of this proceeding, we refer to applications to renew or extend a cable landing license collectively as "renewal applications." See *infra* para. 150.

¹⁵³ *China Mobile USA Order*, 34 FCC Rcd at 3364-65, paras. 4-7; *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15974-77, paras. 9-14; *China Unicom Americas Order on Revocation*, 37 FCC Rcd at 1487-92, paras. 11-20; *Pacific Networks and ComNet Order on Revocation and Termination*, 37 FCC Rcd at 4230-35, paras. 10-17.

¹⁵⁴ *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15985, para. 27, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*, 37 FCC Rcd at 1499, para. 35; *Pacific Networks and ComNet Order on Revocation and Termination*, 37 FCC Rcd at 4242, para. 29, *aff'd*, *Pacific Networks Corp. v. FCC*; see, e.g., *Chem. Waste Mgmt., Inc. v. EPA*, 873 F.2d at 1485; *G.E. v. EPA*, 595 F. Supp. 2d 8, 38-39 (D.D.C. 2009).

¹⁵⁵ *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15985, para. 27; *China Unicom Americas Order on Revocation*, 37 FCC Rcd at 1499, para. 35.

¹⁵⁶ *Pacific Networks and ComNet Order on Revocation and Termination*, 37 FCC Rcd at 4242, para. 29.

¹⁵⁷ *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15985, para. 27, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*, 37 FCC Rcd at 1499, para. 35; *Pacific Networks and ComNet Order on Revocation and Termination*, 37 FCC Rcd at 4242, para. 29, *aff'd*, *Pacific Networks Corp. v. FCC*; see, e.g., *California ex rel. Lockyer v. FERC*, 329 F.3d 700, 711, 713 (9th Cir. 2003) (agency has a strong interest in reaching a decision at the earliest practicable time when delay could endanger the agency's administrative mission by preventing it from acting to mitigate harm).

procedures involving testimony and cross-examination could entail significant administrative burdens on the Commission even in cases involving other issues that do not involve the Executive Branch agencies, such as character concerns, or other Commission rule violations. We seek comment on this assessment.

37. We seek comment generally on our *Mathews* analysis and whether the process we propose herein would provide applicants and cable landing licensees with sufficient due process and notice and opportunity to respond. We note that the process that we propose to apply in cases involving denial of cable landing license applications or revocation of cable landing licenses is distinct from the Commission's subpart B hearing rules, including the written hearing rules codified in sections 1.371 through 1.377.¹⁵⁸ The Commission has never applied its subpart B hearing rules to every adjudication,¹⁵⁹ and has never had an established practice of requiring subpart B hearings for denial of cable landing license applications or revocation of cable landing licenses. Indeed, we do not believe it would be appropriate to require subpart B rules and procedures, including the written hearing rules providing for discovery and the ability to request an oral hearing before a presiding officer,¹⁶⁰ in all proceedings to deny cable landing license applications or to revoke cable landing licenses, particularly in cases involving national security issues, where the Commission has previously concluded that the burdens on the Government of implementing such procedures outweighed the private interest and the probable value of additional procedures.¹⁶¹ Moreover, under the subpart B hearing rules, if the Commission were to delegate initial responsibility to an administrative law judge, the resulting decision could be appealed to the full Commission—which would be required to review the record independently and would not owe any deference to the administrative law judge's determinations.¹⁶² We tentatively conclude that the extra step of appointing an administrative law judge to preside prior to the Commission's independent review, rather than simply proceeding directly before the Commission, will not be necessary for nor will enhance the ability of the Commission, which will be the ultimate arbiter, to decide matters that may arise in the Commission's evaluation of applications for a cable landing license or existing cable landing licenses. Further, courts have held that the question of whether to hold an evidentiary hearing is “within [the agency's] discretion, and it may ‘properly deny an evidentiary hearing if the issues, even disputed issues, may be adequately resolved on the written record, at least where there is no issue of motive, intent or credibility.’”¹⁶³ Nevertheless, we seek comment on whether we should provide a process by which an applicant for a cable landing license or a cable landing licensee may request a live hearing in certain cases. We also seek comment on whether we should use different procedures for matters that do not involve Executive Branch expertise. If so, what due process or administrative considerations are relevant to this determination?

38. Furthermore, unlike revocations of Title III station licenses and construction permits, the Commission may not revoke a cable landing license “except after obtaining approval of the Secretary of

¹⁵⁸ See CFR §§ 1.201-1.377 (rules governing hearing proceedings).

¹⁵⁹ *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15982, para. 22, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*. See *Administrative Hearings NPRM*, 34 FCC Rcd at 8343, para. 4 & n.16. In fact, section 1.201 of those rules provides that subpart B applies only to cases that “have been designated for hearing.” 47 CFR § 1.201. An explanatory note makes clear that the new procedures for written hearings are a subset of such cases. *Administrative Hearings NPRM*, 34 FCC Rcd at 8341, n.1.

¹⁶⁰ 47 CFR §§ 1.372, 1.376.

¹⁶¹ See *supra* note 159; *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15985, paras. 27-28, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*.

¹⁶² See *Kay v. FCC*, 396 F.3d 1184, 1189 (D.C. Cir. 2005) (explaining how “an agency reviewing an ALJ decision is not in a position analogous to a court of appeals reviewing a case tried to a district court”); *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15986, para. 29.

¹⁶³ *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15984, para. 24, *aff'd*, *China Telecom (Ams.) Corp. v. FCC*.

State and such advice from any executive department or establishment of the Government as the Commission may deem necessary.”¹⁶⁴ Therefore, in contrast to subpart B hearings,¹⁶⁵ any revocation procedures for cable landing licenses must integrate approval or objection by the State Department before the Commission may issue a final decision. We note that the Commission and the State Department have existing procedures by which the State Department approves the Commission’s grant of a cable landing license application or revocation of a cable landing license, as required by Executive Order 10530,¹⁶⁶ and these procedures would continue to apply to any revocation of a cable landing license.¹⁶⁷ Such procedures would not apply to the Commission’s denial of a cable landing license application, given Executive Order 10530 does not require the State Department’s approval of a denial action and expressly states that “no such license shall be *granted or revoked* by the Commission except after obtaining approval of the Secretary of State”¹⁶⁸ We note that the language in Executive Order 10530 appears inconsistent with 1.767(b) of the existing rules, which states that cable license applications are “acted upon by the Commission after obtaining the approval of the Secretary of State.”¹⁶⁹ The term “acted upon” would appear to include denial of an application. We propose to amend the rule so that it does not state that denial of an application requires approval by the Secretary of State. We seek comment on the change. While the procedures under subpart B do not automatically apply to denial of cable landing license applications or revocation of cable landing licenses, we seek comment on whether the Commission should incorporate these or similar procedures, including hearings before an administrative law judge, should the Commission determine they are appropriate in a specific case, for example where a matter does not involve Executive Branch participation. Under what circumstances, if any, should any such procedures be incorporated in denial or revocation proceedings involving cable landing licenses? We further seek comment on whether our procedures for denial of an application might be more streamlined than our procedures for revocation of an existing license, consistent with the Cable Landing License Act, the APA, and due process.¹⁷⁰ Should our procedures for denial of an application to modify, assign, or transfer control of a license, or for renewal and extension applications mirror our procedures or denial of an initial application? What considerations are relevant to this determination?

¹⁶⁴ Executive Order 10530, § 5(a).

¹⁶⁵ See, e.g., 47 CFR §§ 1.267, 1.276, 1.282.

¹⁶⁶ Executive Order 10530, § 5(a) (stating that the Commission may not revoke a cable landing license “except after obtaining approval of the Secretary of State and such advice from any executive department or establishment of the Government as the Commission may deem necessary”).

¹⁶⁷ 2022 *State Department Revised Procedures Public Notice*; 2022 State Department Letter.

¹⁶⁸ Executive Order 10530, § 5(a) (emphasis added).

¹⁶⁹ 47 CFR § 1.767(b).

¹⁷⁰ We note, for example, that the Commission denied China Mobile USA’s application for an international section 214 authorization after review of the Executive Branch recommendation, China Mobile USA’s opposition, and the Executive Branch reply. *China Mobile USA Order*, 34 FCC Rcd at 3365. In contrast, when the Commission subsequently revoked the international section 214 authorizations of CTA, the Commission provided notice and an opportunity to respond before it instituted a revocation proceeding. See, e.g., *China Telecom. (Ams.) Corp. v. FCC*, 57 F.4th at 263. Similarly, under the APA, the procedure for denying an application need not mirror the procedure for revoking a license. Compare 5 U.S.C. § 558(c) (“When application is made for a license required by law, the agency, with due regard for the rights and privileges of all the interested parties or adversely affected persons and within a reasonable time, shall set and complete proceedings required . . . by law and shall make its decision”) with *id.* (“Except in cases of willfulness or those in which public health, interest, or safety requires otherwise, the withdrawal, suspension, revocation, or annulment of a license is lawful only if, before the institution of agency proceedings therefor, the licensee has been given—(1) notice by the agency in writing of the facts or conduct which may warrant the action; and (2) opportunity to demonstrate or achieve compliance with all lawful requirements.”).

(ii) Denial and Revocation Proceedings

39. Under our existing rules, the filing of an initial application for a cable landing license or an application to modify, assign, transfer control, or renew or extend a cable landing license after the Commission places the application on an Accepted for Filing public notice commences a proceeding in which the Commission may grant or deny an application. Commission staff may seek additional information after an application is filed, and once complete, the application is placed on public notice.¹⁷¹ Any Executive Branch recommendation to deny or condition the grant of an application is included in the record of the proceeding, and the Commission provides the applicant a written opportunity to respond. The Commission considers the entire record in reaching its determination. The Commission or OIA, pursuant to its delegated authority, can deny applications for cable landing licenses.¹⁷² Consistent with our rules, applicants may seek reconsideration of a denial of an application.¹⁷³ We seek comment on the extent to which existing procedures for denial of applications should be modified in any respect. We tentatively conclude that additional procedures are not warranted but that OIA should have delegated authority to adopt additional procedures on a case-by-case basis as circumstances warrant, and consistent with due process. We propose that the Commission may commence a revocation proceeding either on its own initiative or upon the filing of a recommendation by the Executive Branch agencies, including the Committee, to revoke the license of a cable landing licensee. To the extent the Commission considers whether revocation of a cable landing license is warranted, we propose to implement the approach the Commission used in the most recent section 214 revocation proceedings.¹⁷⁴ Specifically, in those revocation proceedings, the Commission exercised its discretion to “resolve disputes of fact in an informal hearing proceeding on a written record,”¹⁷⁵ and reasonably determined that the issues raised in those cases could be properly resolved through the presentation and exchange of full written submissions before the Commission itself.¹⁷⁶ The Commission explained that although the Commission adopted regulations prescribing certain procedures for the revocation of station licenses and construction permits pursuant to part 1, subpart B of its rules, those regulations do not apply to the revocation of a section 214 authorization.¹⁷⁷ To provide affected carriers with due process, the Commission allowed them to submit evidence and arguments in writing and determined the need for the revocation and/or termination of section 214 authorizations on the basis of a written record.¹⁷⁸ The court of appeals affirmed the Commission’s use of these procedures.¹⁷⁹ We seek comment on whether the Commission should

¹⁷¹ See 47 CFR § 1.767(a)(10) (requiring “[a]ny other information that may be necessary to enable the Commission to act on the application.”).

¹⁷² § 0.351(a)(9) (delegating authority to OIA “[t]o act upon applications for cable landing licenses pursuant to § 1.767 of this chapter”).

¹⁷³ § 1.106.

¹⁷⁴ See *China Telecom Americas Order on Revocation and Termination*, *aff’d*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*, *aff’d*, *Pacific Networks Corp. v. FCC*.

¹⁷⁵ *Evolving Risks NPRM*, 38 FCC Rcd at 4382, para. 78 (citing *Administrative Hearings Order*, 35 FCC Rcd at 10732-33, para. 11).

¹⁷⁶ *China Telecom. (Ams.) Corp. v. FCC*, 57 F.4th at 256, 269.

¹⁷⁷ See 47 CFR §§ 1.201-1.377; § 1.91(a), (d).

¹⁷⁸ See generally *China Telecom Americas Order on Revocation and Termination*, *aff’d*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*, *aff’d*, *Pacific Networks Corp. v. FCC*.

¹⁷⁹ *China Telecom (Americas) Corp.*, 57 F.4th at 262 (citing *Administrative Hearings Order*, 35 FCC Rcd at 10732-33, para. 11) (“The Communications Act gives the Commission the power of ruling on facts and policies in the first instance. In exercising that power, the Commission may resolve disputes of fact in an informal hearing proceeding (continued....)”).

incorporate similar procedures to determine whether revocation of a cable landing license is warranted. We also seek comment on whether the Commission should retain authority to modify these procedures on a case-by-case basis as circumstances warrant, as long as any alternative procedures provide adequate due process.

40. We seek comment on whether the Commission may use the same process or an alternative process if it considers termination of a cable landing license due to a licensee's failure to comply with any condition of the license. As discussed above, under section 5 of Executive Order 10530, the Commission is "designated and empowered to . . . withhold[] or revoke licenses to land or operate submarine cables in the United States"¹⁸⁰ Separate and apart from revocation, the Commission uses the term "termination" where a license or authorization is terminated based on the licensee's or authorization holder's failure to comply with a condition of the license or authorization,¹⁸¹ and has determined that the procedures applicable to termination need not mirror the procedures used for revocation of licenses or authorizations.¹⁸² We propose to delegate authority to OIA to determine appropriate procedures, within the framework authorized by the Commission and consistent with Commission precedent and guidance, and initiate revocation and/or termination proceedings and revoke and/or terminate a cable landing license, as required by due process and applicable law and in light of the relevant facts and circumstances, including providing a licensee with notice and opportunity to respond and, where appropriate, to achieve compliance with all lawful requirements.¹⁸³

41. We seek comment on whether this procedural framework would provide cable landing licensees and any other affected parties with sufficient notice of the basis for any denial, revocation, or termination action, an opportunity to present evidence and arguments that support their respective positions, and an opportunity to respond to opposing evidence and arguments. We also seek comment on whether this process would ensure the development of an adequate administrative record, including procedures for participation by other affected individuals and entities, and appropriate procedural safeguards to ensure due process.

on a written record. And the Commission may reach any decision that is supported by substantial evidence in the record.""); *id.* at 268-71 (holding that discovery and live hearing procedures, and an opportunity to achieve or demonstrate compliance were not required "by statute, regulation, FCC practice, or the Constitution"); *Pacific Networks Corp. v. FCC*, 77 F.4th 1160.

¹⁸⁰ Executive Order 10530, § 5(a).

¹⁸¹ Pursuant to the *Executive Branch Review Report and Order*, applicants for cable landing licenses must certify in the application, among other things, "[t]hat the applicant understands that if the applicant or authorization holder fails to fulfill any of the conditions and obligations set forth in the certifications set out in paragraph (q) of [section 63.18] or in the grant of an application or authorization and/or that if the information provided to the United States Government is materially false, fictitious, or fraudulent, applicant and authorization holder may be subject to all remedies available to the United States Government, including but not limited to revocation and/or termination of the Commission's authorization or license." 47 CFR §§ 1.767(a)(8)(i), 63.18(q)(1)(v); *Executive Branch Review Report and Order*, 35 FCC Rcd at 10954-55, paras. 73-74.

¹⁸² 2023 *VoIP Direct Access Report and Order*, 38 FCC Rcd at 8983, n.214; see *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15988, para. 35; see also *id.* at 15989, para. 36 ("[S]ection 558(c)(2) does not grant a substantive right to escape from a condition that terminates a license."); *Atlantic Richfield Co. v. United States*, 774 F.2d 1193, 1200-01 (D.C. Cir. 1985) (holding that the procedural requirements of section 558(c) apply only where "the licensee [may] be able to establish compliance with all legal requirements or . . . change its conduct in a manner that will put its house in lawful order") (internal quotation and citations omitted).

¹⁸³ See *China Telecom. (Ams.) Corp. v. FCC*, 57 F.4th at 270 ("Given the futility of offering China Telecom even more of an opportunity to demonstrate or achieve compliance than they received, the Commission did not err in denying it."); *Pacific Networks Corp. v. FCC*, 77 F.4th at 1166 ("In short, the FCC reasonably explained why no realistic agreement could have worked given the carriers' proven lack of trustworthiness.").

42. *Cable Landing Licenses/Licensees That are Insolvent or No Longer Exist.* Section 1.767(m)(2) of the rules requires that “[a]ny licensee that seeks to relinquish its interest in a cable landing license shall file an application to modify the license.”¹⁸⁴ The Commission’s records in ICFS and other records, indicate that some submarine cables licensed by the Commission may not have commenced service and/or some cable landing licensees of record may be insolvent or no longer in operation.¹⁸⁵ Furthermore, some licensees that may be insolvent or no longer exist did not file a modification application to relinquish their interest in the cable landing license or otherwise notify the Commission.¹⁸⁶ We seek comment on what processes the Commission should adopt when submarine cables and/or licensees are insolvent or no longer exist generally. We seek comment on whether the same process proposed above is appropriate in all cases involving cable landing licenses, or whether the Commission should consider alternative processes. For example, should the Commission adopt a similar cancellation process as proposed in the *Evolving Risks NPRM* for international section 214 authorization holders that are no longer in business, where failure to timely respond to an information collection or other inquiry by the Commission may be deemed presumptive evidence that the cable landing licensee is no longer in operation?¹⁸⁷ In these instances, the Commission or OIA may assess whether the cable landing licensee no longer complies with certain terms of the license or the Commission’s rules,¹⁸⁸ and thus revocation and/or termination of the license or the licensee’s rights under the license and the Cable Landing License Act is warranted.¹⁸⁹

¹⁸⁴ 47 CFR § 1.767(m)(2).

¹⁸⁵ See *supra* para. 11; see, e.g., Letter from Peter J. Schildkraut, Counsel for AT&T Mobility Puerto Rico Inc., to Marlene H. Dortch, Secretary, FCC at 2-3 (Feb. 5, 2020) (on file in File No. SCL-MOD-20191202-00038) (filing supplement to modification application and addressing, among other things, that the corporate status of certain licensees is void according to state records).

¹⁸⁶ See *supra* para. 11.

¹⁸⁷ See *Evolving Risks NPRM*, 38 FCC Rcd at 4363, paras. 25-26 (“If an international section 214 authorization holder fails to timely respond to the information collection required in the Order, we propose to cancel its authorization. We would deem the failure to respond to the Order as presumptive evidence that the authorization holder is no longer in operation. We propose to publish a list of non-responsive authorization holders in the Federal Register and provide an additional 30 days from that publication for those authorization holders to respond to the information collection requirement or surrender the authorization. If an authorization holder has not responded within 30 days of the publication of the notice in the Federal Register, we propose that those authorizations would be automatically cancelled); *id.* at 4377, para. 66 (“Through our assessment of the one-time information collection, we propose to delegate authority to the Office of International Affairs to (1) identify which authorization holders are existing and active and would undergo the renewal or other periodic review process; (2) identify which authorization holders fail to respond to the Order and thus presumptively are no longer in operation, and cancel their authorizations pursuant to the process proposed above”).

¹⁸⁸ 47 CFR § 1.767(g)(14) (“The cable landing license is revocable by the Commission after due notice and opportunity for hearing pursuant to section 2 of the Cable Landing License Act, 47 U.S.C. 35 , or for failure to comply with the terms of the license or with the Commission’s rules”).

¹⁸⁹ For instance, the Commission’s rules require, as a condition of a cable landing license, that “[t]he licensee, or in the case of multiple licensees, the licensees collectively, shall maintain *de jure* and *de facto* control of the U.S. portion of the cable system, including the cable landing stations in the United States, sufficient to comply with the requirements of the Commission’s rules and any specific conditions of the license.” 47 CFR § 1.767(g)(11); see also 47 CFR § 1.767(m)(2) (“Any licensee that seeks to relinquish its interest in a cable landing license shall file an application to modify the license. Such application must include a demonstration that the applicant is not required to be a licensee under paragraph (h) of this section and that the remaining licensee(s) will retain collectively *de jure* and *de facto* control of the U.S. portion of the cable system sufficient to comply with the requirements of the Commission’s rules and any specific conditions of the license, and must be served on each other licensee of the cable system.”).

43. For consortium cables, if any of the cable landing licensees no longer exists and was unable to file an application to modify the license to relinquish its interest in the license, should we adopt rules requiring the remaining joint licensee(s) of the cable, if any, to collectively file a modification application to remove the licensee from the license by demonstrating and certifying that (1) the licensee no longer exists as a legal entity, and (2) the remaining licensee(s) will retain collectively *de jure* and *de facto* control of the U.S. portion of the cable system sufficient to comply with the requirements of the Commission's rules and any specific conditions of the license? Or, should we adopt rules requiring joint licensees of a submarine cable system to identify the lead licensee responsible for administrative matters concerning the cable system, including directing the lead licensee to submit a filing in the record demonstrating and certifying whether or not an identified licensee is insolvent or has ceased to exist and that the remaining licensee(s) will retain collectively *de jure* and *de facto* control of the U.S. portion of the cable system?

2. Three-Year Periodic Reporting

44. Currently, a cable landing license expires “twenty-five (25) years after the in-service date for the cable, unless renewed or extended upon proper application” pursuant to section 1.767(g)(15) of the Commission's rules.¹⁹⁰ The Commission, however, does not routinely require a submarine cable landing licensee to provide updated ownership and related submarine cable system information during the 25-year term with the exception of annual circuit capacity data.¹⁹¹ The annual circuit capacity data, however, lacks critical ownership and facilities information that would allow the Commission and other government agencies to assess for evolving national security and law enforcement concerns. To ensure that the Commission has the information it needs to timely monitor and continually assess national security or other risks that may arise over the course of a licensee's 25-year license term, we propose to require licensees to provide certain information to the Commission every three years (hereinafter, “periodic reporting”). Alternatively, we seek comment on whether a different time period would support the Commission's goals.

45. As a fundamental matter, it is critical that the Commission has a continuous and systematic understanding of who owns and controls submarine cables and how they are used because submarine cables are a significant component of the global communications ecosystem. Submarine cables serve as the foundation for the global Internet infrastructure¹⁹² and carry over 99% of transoceanic digital communications.¹⁹³ Submarine cables are also critical infrastructure that historically have carried more than 95% of all U.S.-international voice, data, and Internet traffic, including civilian and military

¹⁹⁰ 47 CFR § 1.767(g)(15) (“The licensee must notify the Commission within thirty (30) days of the date the cable is placed into service. The cable landing license shall expire twenty-five (25) years from the in-service date, unless renewed or extended upon proper application. Upon expiration, all rights granted under the license shall be terminated.”). See *2001 Cable Report and Order*, 16 FCC Rcd 22167 (codifying the 25-year license term condition in 1.767(g)(14), and which is currently codified in 1.767(g)(15)). The 25-year license term is one of the routine conditions the Commission adopted in 2001 that applies to “each licensee of a cable landing licenses granted on or after March 15, 2002.”

¹⁹¹ 47 CFR § 43.82.

¹⁹² See Mary Jander, *Internet Growth Fuels Undersea Cable Race*, Futuriom (Feb. 23, 2021), <https://www.futuriom.com/articles/news/whats-happening-in-submarine-cable/2021/02>.

¹⁹³ Jill C. Gallagher, Cong. Research Serv., R47237, *Undersea Telecommunication Cables: Technology Overview and Issues for Congress* at 1 (Sept. 13, 2022), <https://crsreports.congress.gov/product/pdf/R/R47237>.

U.S. Government traffic.¹⁹⁴ And increasing demand for capacity¹⁹⁵ has spurred the deployment of more submarine cables.

46. Because the Commission does not ordinarily receive updated information about changes in the ownership of licensees or the submarine cable system over the course of the 25-year license term, the Commission likely has incomplete and outdated information regarding submarine cable landing licensees with foreign ownership and the submarine cable system itself. The Commission does receive such information when an applicant/licensee (1) seeks Commission consent to the substantial transfer of control and/or assignment or modification of its existing cable landing license, (2) the licensee undergoes a *pro forma* transfer of control and/or assignment that require(s) notification to the Commission, (3) files a foreign carrier affiliation notification, or (4) files a renewal application.¹⁹⁶ The information obtained from substantial or *pro forma* assignment and/or transfer of control applications and foreign carrier affiliation notifications, however, is limited to that particular licensee and does not provide updated information about the other licensees. In the case of renewal applications, the information obtained is based on the end of the license term. The Commission also has authority to conduct an *ad hoc* assessment of whether a licensee's cable landing license presents national security, law enforcement, foreign policy, and/or trade policy risks that warrant revocation.¹⁹⁷ Reliance on sporadic submissions of applications and *ad hoc* assessments for important information regarding this critical infrastructure, however, creates an information gap that limits the Commission's knowledge of the licensees, updated information on the cable itself, and its ability to assess any national security, law enforcement, foreign policy, and/or trade policy concerns.

47. We tentatively conclude that the periodic reporting requirement would improve the Commission's oversight of submarine cable licenses and ensure the license continues to serve the public interest. In this regard, we tentatively find that the information we would obtain from our proposed three-

¹⁹⁴ Section 43.62 Reporting Requirements for U.S. Providers of International Services; 2016 Biennial Review of Telecommunications Regulations, Report and Order, 32 FCC Rcd 8115, 8129, para. 28 (2017); see Communications, Security, Reliability, and Interoperability Council (CSRIC) IV, Working Group 8 Submarine Cable Routing And Landing, Final Report — Protection of Submarine Cables Through Spatial Separation, at 1 (2014), http://transition.fcc.gov/pshs/advisory/csric4/CSRIC_IV_WG8_Report1_3Dec2014.pdf (CSRIC IV Report).

¹⁹⁵ TeleGeography reports that, “[a]s recently as 2016, internet backbone providers accounted for the majority of demand.” At that time, Internet backbone providers or Internet Service Providers (ISPs) included businesses, such as AT&T, Verizon, Comcast, Tata Communications, CenturyLink, Cogent Communications, Deutsche Telekom, GTT, NTT Communications, and Sprint, among others. Alan Mauldin, *Used International Bandwidth Reaches New Heights*, Blog, TeleGeography (May 15, 2024), <https://blog.telegeography.com/used-international-bandwidth-reaches-new-heights> (*International Bandwidth*). Now, Internet backbone providers no longer dominate the demand for global submarine cable capacity. According to TeleGeography, “a handful of major content and cloud service providers—namely Google, Facebook, Amazon, and Microsoft—have become the primary sources of demand. As of 2020, these companies are the dominant users of international bandwidth, account for two-thirds of all used international capacity.” TeleGeography, *The State of the Network* (2022 Edition) at 4, <https://www2.telegeography.com/hubfs/LP-Assets/Ebooks/state-of-the-network-2022.pdf>. These entities “led the way in building mega Data Centers to meet th[e] growing demand [for data processing and storage capacity.” Joaquín Rodríguez Antibón, *History of Data Centers: From Early Beginnings to the Digital Era*, LinkedIn (Jan. 29, 2024), <https://www.linkedin.com/pulse/history-data-centers-from-early-beginnings-digital-rodriguez-antibon-ijodf>. Moreover, the “data demands of hyperscalers’ subsea cable is surging 45% to 60% per year.” Stephen Shankland, *The Secret Life of the 500+ Cables That Run the Internet*, CNET (Aug. 6, 2023), <https://www.cnet.com/home/internet/features/the-secret-life-of-the-500-cables-that-run-the-internet/>. Indeed, as of 2023, content and cloud networks accounted for more than 70% of all bandwidth usage.” See *International Bandwidth*.

¹⁹⁶ See, e.g., 47 CFR §§ 1.767(a)(11)(i)-(iii), (g)(7), 1.768, 63.24(f). We note that submarine cable landing licensees are required to submit annual circuit capacity data under section 43.82 of the Commission's rules. 47 CFR § 43.82.

¹⁹⁷ 47 U.S.C. § 35; 47 CFR § 1.767(g)(14).

year periodic reporting requirement provides crucial information about submarine cables that complements the capacity information we already receive from the annual section 43.82 circuit capacity reports provided by filing entities.¹⁹⁸ Among other things, we tentatively conclude information derived from the periodic reports such as updated contact information for licensees and cable landing stations and geographic coordinates of the cable landing stations, coupled with information from our annual circuit capacity reports, would better enable the Commission to carry out its public interest responsibilities such as assessing capacity information and conducting time-sensitive outreach to licensees during a natural disaster or in a state of emergency.¹⁹⁹ Importantly, we believe the updated information regarding this critical infrastructure would improve consistency in the Commission's consideration of evolving public interest risks (including national security risks), completeness of the Commission's information regarding submarine cable landing licensees, and timely Commission attention to issues that warrant heightened scrutiny.

48. Additionally, we tentatively conclude the periodic reporting requirement would ensure a more consistent and complete referral of relevant evolving issues to the Executive Branch agencies, including the Committee, for their review and ultimately, improved protection of U.S. communications infrastructure. With updated information regarding this critical infrastructure, we tentatively conclude the Commission, in coordination with the relevant Executive Branch agencies, could assess national security and other public interest risks and, if necessary, pursue remedial action and/or initiate a revocation or termination proceeding. As noted above, the Executive Branch agencies recommended that the Commission revoke certain international section 214 authorizations that posed unacceptable risks to national security and law enforcement interests of the United States.²⁰⁰ Ultimately, we believe that our proposed periodic reporting requirement would meet our principal goal of providing the Commission with updated critical information regarding licensees and the cable systems and “promote the security of the United States . . .” in accordance with the Cable Landing License Act.²⁰¹

49. Accordingly, as discussed below, we propose to adopt and codify in the Commission's rules a routine condition that would require all submarine cable landing licensees to jointly or separately submit to the Commission every three years updated information about, among other things, the licensee and its ownership, points of contact for the submarine cable system, use of foreign owned MNSPs, as well as cybersecurity and regulatory compliance certifications.²⁰² We also propose that failure to timely submit a periodic report would constitute a breach of this condition that could warrant Commission enforcement action or revocation, the procedures of which are discussed above.²⁰³ We tentatively conclude that the proposed reporting requirement would address the aforementioned information gap by providing the Commission with updated critical information necessary to fulfill its national security and other public interest responsibilities on a more regular and systematic basis.²⁰⁴ We seek comment on this proposal and the impact on small entities, as well as any alternatives.

50. Under our proposed approach, the submarine cable landing license would continue in force throughout its term. To the extent circumstances in any particular situation raise national security, law enforcement, foreign policy, and/or trade policy or other concerns (for example, due to

¹⁹⁸ 47 CFR § 43.82. For a discussion of our circuit capacity rules, *see supra* para. 10; *infra* section III.D.

¹⁹⁹ *See infra* Appx. A, § 1.70016(b) (setting forth the contents that must be included in the proposed periodic report).

²⁰⁰ *See supra* para. 17.

²⁰¹ 47 U.S.C. § 35.

²⁰² We discuss these requirements in greater detail below. *See infra* section III.C.

²⁰³ *See supra* section III.A.1.e.

²⁰⁴ We propose below rules for the periodic reporting requirement for submarine cable landing licenses. *See infra* Appx. A (Proposed Rules).

incompleteness of the periodic report or new foreign ownership), the Commission could initiate a further inquiry to assess the risks and concerns raised and coordinate with the relevant Executive Branch agencies²⁰⁵ that may, in turn, result in Commission enforcement action, Executive Branch mitigation efforts, and/or a revocation or termination proceeding. Our proposed periodic reporting requirement would not supplant existing Commission authority to conduct an *ad hoc* assessment of whether a licensee's cable landing license presents public interest concerns, including national security, law enforcement, foreign policy, and/or trade policy risks nor would this proposed approach replace the 25-year license term.²⁰⁶ We propose that each periodic report would be submitted through a filing in ICFS, or any successor system, under each licensee's license file number and would not require action from the Commission, i.e., a grant or confirmation. We propose that licensees with reportable foreign ownership as of thirty (30) days prior to the date of the submission or that have a mitigation agreement with the Committee or particular agencies must also file a copy of the report directly with the Committee.

51. We seek comment generally on this approach and whether a three-year period is the appropriate timeframe. We propose a three-year period because it strikes an appropriate balance between the Commission's need for current ownership, location and facilities information and the reporting burden on our licensees. We can also stagger the reviews over three years, reducing the workload on the Commission and on the Committee. We seek comment on whether the Commission should adopt a time period that is longer or shorter for purposes of assessing national security, law enforcement, and other risks. We note, however, that because the marketplace changes quickly, we believe requiring periodic information longer than three years might result in the Commission missing significant changes in ownership and changes in facilities, thus potentially endangering national security and other concerns.

52. We propose that any new report would reflect updated information since the report three-years prior or other substantive filing. If no changes have occurred since the licensee's last periodic report or other substantive filing—which may be an application for a cable landing license or modification, assignment, transfer of control, and renewal or extension of a cable landing license—should the licensee have to provide only a periodic statement that its license remains in compliance with the Commission's rules and with its most recent periodic report, or other substantive filing? How should we account for a situation where the substantive filing does not require all of the same information that would be in a periodic report? Lastly, should the licensee re-certify, such as to the character qualification requirements, among other requirements?

53. We seek comment on how to properly account for multiple licensees on a submarine cable system. We propose to require joint licensees to submit one joint periodic report per submarine cable system, subject to the proposed filing contents requirements. In what we expect will be the unlikely event of potential issues that may prevent a joint filing,²⁰⁷ we seek comment on whether to permit an individual licensee to file its own report. Should we adopt a rule that joint licensees or consortium members must identify a lead licensee that would be required to file the periodic report on behalf of the joint licensees or consortium? How can joint licensees or consortium members provide the periodic information while remaining accountable for providing truthful, complete, and accurate information? Additionally, how can we minimize burdens on licensees while balancing our policy considerations with administrative efficiency for the Commission and the relevant Executive Branch agencies, including the Committee? What other options should we consider given evolving national security, law enforcement, foreign policy, and/or trade policy risks?

²⁰⁵ See *supra* paras. 7-9.

²⁰⁶ See 47 CFR § 1.767(g)(15); see also *infra* section III.A.2.b.

²⁰⁷ See, e.g., *infra* section III.D.1 (discussing joint and individual filings in the context of the cable operator reports).

a. Prioritizing the Periodic Reporting and Other National Security and Law Enforcement Concerns

54. We propose to adopt a schedule that prioritizes the filing and review of periodic reports based on whether the cable's licensee(s) have reportable foreign ownership and the length of the time since the Commission's most recent review of the license. The proposal would structure the timing of the submission of periodic reports to minimize burdens on licensees, the Commission,²⁰⁸ and the Executive Branch staff, while ensuring that the Commission receives the information it needs to protect this critical infrastructure. We also propose to delegate authority to OIA to establish and modify, as appropriate, the filing categories and associated deadlines, and if needed, to consult with the relevant Executive Branch agencies concerning prioritization of the periodic reports.

55. As set forth below, we propose to assign each of the existing licensed cable systems to one of four categories with a different deadline for each, and with the deadlines separated by six months. We propose to require that licensees of submarine cable systems in Category 1 shall submit their initial periodic report by six months following the effective date of new rules adopted in this proceeding, and licensees of submarine cable systems in Categories 2, 3, and 4, respectively, shall submit their initial periodic reports thereafter in fixed intervals separated by six months.

- **Category 1:** Submarine cable systems that: (1) have a licensee that is directly or indirectly wholly or partially owned by a government of, or other entities with a place of organization in, a "foreign adversary" country, as defined in the Department of Commerce's rule, 15 CFR § 791.4; (2) have a licensee with a place of organization in a "foreign adversary" country; or (3) land in a "foreign adversary" country.²⁰⁹
- **Category 2:** Submarine cable systems where the Commission's most recent review of the license²¹⁰ occurred 4 or more years ago²¹¹ and where a licensee has reportable foreign ownership.
- **Category 3:** Submarine cable systems where the Commission's most recent review of the license occurred less than 4 years ago and where a licensee has reportable foreign ownership.

²⁰⁸ See *Review of the Commission's Assessment and Collection of Regulatory Fees for Fiscal Year 2024 Assessment and Collection of Space and Earth Station Regulatory Fees for Fiscal Year 2024*, MD Docket Nos. 24-85 and 24-86, Second Report and Order, FCC-24-93, para. 45 (2024) (*2024 Regulatory Fee Second Report and Order*) (noting that "in the Office of International Affairs, there are eight Full-Time Equivalents (FTEs) within the Telecommunications and Analysis Division that work on international bearer circuit-related issues, including the services provided over submarine cables . . .").

²⁰⁹ 15 CFR § 7.4 (stating "[t]he Secretary has determined that the following foreign governments or foreign non-government persons have engaged in a long-term pattern or serious instances of conduct significantly adverse to the national security of the United States or security and safety of United States persons and, therefore, constitute foreign adversaries solely for the purposes of the Executive Order, this rule, and any subsequent rule" promulgated pursuant to the Executive Order); see 15 CFR § 7.2 ("Foreign adversary means any foreign government or foreign non-government person determined by the Secretary to have engaged in a long-term pattern or serious instances of conduct significantly adverse to the national security of the United States or security and safety of United States persons."); see Executive Order 13873.

²¹⁰ We refer to the Commission's review of the license to include the grant of an initial application for a cable landing license or an application for modification, substantial assignment, substantial transfer of control, or renewal or extension of a cable landing license.

²¹¹ For purposes of prioritizing the filing and review of periodic reports, we refer to the Commission's most recent review of the license as its most recent action, which would include grant of an initial application for a cable landing license or an application for modification, substantial assignment, substantial transfer of control, or renewal or extension of a cable landing license and ensure that the Committee or particular Executive Branch agencies also reviewed the cable system for any national security, law enforcement, and other concerns.

- **Category 4:** All other submarine cable systems, including those where no licensee has reportable foreign ownership.

56. *FCC's Preliminary Review of Existing Licensed Submarine Cables.* Commission staff have conducted a preliminary review of its records, and based on this review, we assess that eight of the 84 licensed submarine cable systems would meet one or more of the criteria under Category 1: (1) Americas-1 Cable System, (2) Asia-America Gateway (AAG), (3) FASTER Cable System, (4) Japan-U.S. Cable Network,²¹² (5) Jupiter, (6) New Cross-Pacific (NCP), (7) PPC-1, and (8) Trans-Pacific Express (TPE) Cable Network. Based on our preliminary review of the 84 licensed cables to date,²¹³ Category 1 would include eight submarine cable systems; Category 2 would include 21 submarine cable systems; Category 3 would include 36 submarine cable systems; and Category 4 would include 19 submarine cable systems.²¹⁴ The full set of categories and the licensed submarine cable systems associated with each category are set forth in Appendix D.²¹⁵ We seek comment on the results of our preliminary review.

57. *FCC's Review of Future Licensed Submarine Cables.* We propose to require that cable landing licensees of submarine cable systems that are licensed after the effective date of new rules shall submit their initial periodic report by a deadline of three years following the date of the grant of authority. We propose to require licensees of future licensed submarine cable systems to file the periodic reports every three years after the deadline of their initial periodic report. We seek comment on whether a cable landing licensee should file the required report every three years based on the date of such grant of authority, until and unless the Commission grants a subsequent application filed by the licensee,²¹⁶ at which point the three-year reporting cycle would commence anew as of the date of the new grant.

58. We believe these approaches would simplify the reporting requirement and minimize administrative burdens while prioritizing the Commission's consideration of those licensees that most

²¹² On June 18, 2024, the current licensees of the Japan-U.S. Cable Network filed an application to modify the license to remove all licensees except Verizon Business Global LLC (Verizon) from the license, and request a waiver of section 1.767(h)(1) to replace AT&T Enterprises, LLC with Verizon as the licensee that controls the cable landing facilities in Makaha, Hawaii. Verizon Business Global LLC et al., Application to Modify the Cable Landing License for the Japan-U.S. Cable Network and Request for Waiver of Section 1.767(h)(1), File No. SCL-MOD-20240618-00027 (filed June 18, 2024). On July 25 2024, Verizon and Hawaiian Telcom Services Company, Inc. filed an application for a license to land and operate the California-Hawaii S1, which will consist of Segment 1 of the Japan-U.S. Cable Network. Verizon Business Global LLC and Hawaiian Telcom Services Company, Inc., Application for a License to Land and Operate a Domestic, Private Fiber-Optic Submarine Cable System Connecting Makaha, Hawaii and Morro Bay, California, to be Known as the California-Hawaii S1 Cable System, File No. SCL-LIC-20240725-00034 (filed July 25, 2024). To the extent the Commission grants these applications prior to the adoption of any final Report and Order in this proceeding, we propose that the Commission would adjust the categorization of the Japan-U.S. Cable Network accordingly in such Report and Order.

²¹³ This number of 84 licensed cables does not include cables for which the license expired and has not been renewed or extended, including where an application is pending before the Commission to renew or extend the license. See, e.g., File No. SCL-STA-20240626-00028, Actions Taken Under Cable Landing License Act, Report No. SCL-00484, DA 24-926 (OIA 2024) (granting the request for special temporary authority (STA) filed by GCI Communication Corp. to continue operation of the Alaska United East Cable System (AU-East) (SCL-LIC-19961205-00615, SCL-LIC-19980602-00008, SCL-MOD-20020409-00018, SCL-MOD-20020409-00019) while the Commission considers an application for a new cable landing license for the cable system (SCL-LIC-20240815-00036)). To the extent the Commission grants any application to renew or extend a cable landing license prior to the adoption of any final Report and Order in this proceeding, we propose that the Commission would include or adjust the categorization of the respective cable system accordingly in such Report and Order.

²¹⁴ See *infra* Appx. D.

²¹⁵ See *id.*

²¹⁶ See *supra* para. 52.

likely raise national security, law enforcement, foreign policy, and/or trade policy concerns. Prioritizing our review in the manner described above ensures the Commission focuses on those cables that potentially raise concerns and those that have not been reviewed by the Commission and the Committee. We believe this approach would accomplish our national security objectives and provide regulatory certainty to licensees. What are the benefits and potential drawbacks of this approach? Should we instead follow the *Evolving Risks NPRM* proposal and factor in mitigation agreements?²¹⁷ Why or why not? We seek comment generally on this and other approaches for periodic reporting of licensed submarine cables.

b. Shorten the 25 Year License Term

59. As an alternative to the proposed periodic reporting requirement we seek comment on whether shortening the current 25-year submarine cable license term or adopting a shorter license term in combination with periodic reporting would similarly account for evolving national security, law enforcement, and other risks. Like our proposed periodic reporting requirement, we would codify either of these options as a routine condition in the Commission's rules. We note that by rule, a submarine cable landing licensee's failure to renew its license would cause the license to expire, and "[u]pon expiration, all rights granted under the license shall be terminated."²¹⁸

60. Given changed circumstances since we codified the 25-year license term, we believe that a shortened license term or a shortened term in combination with periodic reporting, would be consonant with the Commission's public interest responsibilities under the Cable Landing License Act regarding national security.²¹⁹ We note that the 25-year license term appears to relate to operational aspects of submarine cable systems.²²⁰ Also, in light of the constantly changing national security environment, 25 years is an long time period in which a license is not reviewed. Shortening the license term by itself or in combination with periodic reporting, could enable the Commission to assess—earlier than the current 25-year license term—whether a particular cable landing licensee complies with the relevant statutory and rule requirements, whether there are any rule-compliant but unreported changes in ownership or operations, or other factors that present national security, law enforcement, foreign policy and/or trade policy concerns, and whether the license continues to serve the public interest.²²¹

61. We tentatively conclude that a shortened license term or a shortened term in combination with periodic reporting would provide the Commission and the relevant Executive Branch agencies the ability and opportunity to assess in a more timely and systematic manner, the evolving national security,

²¹⁷ *Evolving Risks NPRM*, 38 FCC Rcd at 4362, para. 63.

²¹⁸ See 47 CFR § 1.767(a)(9) (requiring applicants to certify "that the applicant accepts and will abide by the routine conditions specified in paragraph (g) of this section"); 47 CFR § 1.767(g)(15) ("[T]he cable landing license shall expire twenty-five (25) years from the in-service date, unless renewed or extended upon proper application. Upon expiration, all rights granted under the license shall be terminated.").

²¹⁹ 47 U.S.C. § 151.

²²⁰ For example, according to a working group report of CSRIC IV, "[t]he normal planned commercial lifespan of the cables is 25 years, though they often get used for longer periods of time. Nevertheless, the commercial lifespan of submarine cable systems may extend well beyond 25 years, particular where the systems have been upgraded or redeployed. Consistent with these characteristics, the Federal Communications Commission ('FCC') grants cable landing licenses for a term of 25 years (subject to renewal) from commencement of commercial service." CSRIC IV Report at 18; TeleGeography, *Submarine Cable Frequently Asked Questions*, <https://www2.telegeography.com/submarine-cable-faqs-frequently-asked-questions> (last visited Nov. 12, 2024) ("[c]ables are engineered with a minimum design life of 25 years. . .").

²²¹ See 47 U.S.C. §§ 34-39; Executive Order 10530; 47 CFR § 1.767.

law enforcement, foreign policy, and/or trade policy risks associated with cable landing licenses.²²² We seek comment on an appropriate time frame to better account for evolving risks while minimizing burdens on licensees, recognizing the significant capital expenditures and long lead times in planning and constructing submarine cable systems.²²³ What is the current lifespan of a modern submarine cable system, and should that factor into the Commission's analysis? We also seek comment on the economic impact of shortening the 25-year license term. Would a 5-year or 10-year license term alter investment incentives in new submarine cable infrastructure? Would shortened license terms impact the upgradation and maintenance of existing submarine cable systems? We note that the Commission has adopted various license terms for differing services. For example, wireless and broadcast licensees have renewal terms.²²⁴ For Miscellaneous Wireless Communications Services (WCS), the license term varies according to spectrum band, which results in different license periods such as 10, 12, or 15 years.²²⁵ License terms for satellites also vary. Space stations licensed under part 25 of the Commission's rules have a 15-year license term, except that small satellites have a 6-year license term and certain Satellite Digital Audio Radio Service (SDARS) and Direct Broadcast Satellite (DBS) space stations have an 8-year license term.²²⁶ In the context of broadcast licensing, each license granted for the operation of a broadcasting station is limited to a term not to exceed eight years.²²⁷ In the *Evolving Risks NPRM*, we tentatively concluded that a 10-year timeframe is reasonable under the proposed renewal framework for structuring a formalized and systemic reassessment of carriers' international section 214 authority.²²⁸

62. Would a shortened license term similar to the terms for a broadcast or wireless license or the proposed 10-year timeframe proposed for international section 214 authorizations be appropriate, and if so, why? Would adopting a 15-year license term similar to geostationary space station licenses under part 25 be more appropriate given the large capital investment typically required to launch these satellites and deploy submarine cable systems? Would a 10- to 15-year renewal time frame, as opposed to a 25-year term, better ensure that the Commission and the relevant Executive Branch agencies can continually

²²² See *Executive Branch Review Report and Order*, 35 FCC Rcd at 10934-35, para. 17 (discussing Executive Branch referral process for those applications for international section 214 authorizations and submarine cable licenses or to assign, transfer control or modify such authorizations and licenses where the applicant has reportable foreign ownership filed pursuant to sections 1.767, 63.18 and 63.24 of the rules, 47 CFR §§ 1.767, 63.18 and 63.24).

²²³ Letter from Evelyn L. Remaley, Counsel, International Connectivity Coalition, to Marlene H. Dortch, Secretary, FCC, OI Docket No. 24-523, MD Docket No. 24-524, at 1 (filed Nov. 17, 2024) (International Connectivity Coalition *Ex Parte*); Letter from Evelyn L. Remaley, Counsel, International Connectivity Coalition, to Marlene H. Dortch, Secretary, FCC, OI Docket No. 24-523, MD Docket No. 24-524, at 1 (filed Nov. 20, 2024) (International Connectivity Coalition Second *Ex Parte*).

²²⁴ See 47 CFR § 27.13; 47 U.S.C. § 307(c).

²²⁵ See 47 CFR § 27.13.

²²⁶ 47 CFR § 25.121(a). For geostationary space stations that are issued an initial license term for a period of 15 years, licensees may apply for a modification to extend the license term in increments of five years or less. 47 CFR § 25.121(f)(1).

²²⁷ 47 U.S.C. § 307(c); see, e.g., 47 CFR §§ 73.733, 73.1020(a), 74.15(d), 74.15(e); see generally *Implementation of Section 203 of the Telecommunications Act of 1996 (Broadcast License Terms)*, Report and Order, 12 FCC Rcd 1720 (1997) (1997 *Broadcast License Terms Order*).

²²⁸ See *Evolving Risks NPRM*, 38 FCC Rcd at 4369-70, para. 45. In the *Evolving Risks NPRM*, we tentatively found that a renewal timeframe of 10 years—in conjunction with the proposal in that NPRM to require authorization holders to provide updated ownership information, cross border facilities information, and other information every three years—would ensure that the Commission and the relevant Executive Branch agencies can continually reassess and account for evolving national security, law enforcement, foreign policy, and/or trade policy concerns associated with international section 214 authorizations. Moreover, we noted that a 10-year timeframe would minimize burdens on authorization holders and balance our policy considerations with administrative efficiency for the Commission and the relevant Executive Branch agencies, including the Committee. *Id.*

reassess and account for evolving national security and other concerns? We also seek comment on whether licensees should or could ask for different renewal terms prior to the expiration of their current license term based on their particular circumstances. What is the capital investment and lifespan of current fiber optic cable infrastructure and how should that impact our proposal? While most cable landing licensees have asked for a renewal term of 25 years, a few have asked for a shorter term.²²⁹ Should we adopt a rule reserving our discretion to impose a shorter license term on a case-by-case basis based on risk factors where the Commission deems it would be in the public interest?²³⁰ Should a license term reset if a submarine cable landing licensee undergoes a complete review, such as during the review of a substantial assignment or transfer of control application?²³¹ What factors should we take into consideration in our analysis of whether to shorten the submarine cable landing license term and renewal process? We seek comment on whether to adopt a renewal expectancy standard for submarine cable licenses, subject to any approval of or objection to a proposed grant of an application by the State Department.²³² Should such a standard apply only in the event we shorten the license term? Should a specific showing at renewal be required, such as certification that the licensee has been in operation consistent with their initial application for a license?²³³ Commenters should address the burdens that will be placed on the licensees based on the length of the license term and identify the costs and benefits overall and impact, if any, on small businesses.

63. We tentatively affirm that, regardless of whether we adopt any new license term separately or in combination with periodic reporting, the Commission will continue to exercise its existing authority, as it deems necessary, to conduct *ad hoc* reviews of submarine cable landing licenses at any time during any license term. For instance, if the Commission were to adopt a license term of 10 years combined with periodic reporting, the Commission might still elect to exercise its existing authority

²²⁹ File No. SCL-MOD-20190305-00007, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00238, 34 FCC Rcd 2810 (IB 2019) (granting Hawaiian Telecom, Inc.'s application to modify the cable landing license for the Hawaiian Interisland Cable System, to extend the license term for an additional five-year period).

²³⁰ The Commission's rules expressly preserve the Commission's discretion to grant individual broadcast station licenses for less than the standard license term if the public interest, convenience, and necessity would be served by such action. See 47 CFR § 73.1020(a) ("Both radio and TV broadcasting stations will ordinarily be renewed for 8 years. However, if the FCC finds that the public interest, convenience and necessity will be served thereby, it may issue either an initial license or a renewal thereof for a lesser term."); *id.* § 74.15(d) ("Lower power TV and TV translator station and FM translator station licenses will ordinarily be renewed for 8 years. However, if the FCC finds that the public interest, convenience or necessity will be served, it may issue either an initial license or a renewal thereof for a lesser term. The FCC may also issue a license renewal for a shorter term if requested by the applicant."); *1997 Broadcast License Terms Order*, 12 FCC Rcd at 1729, 1739, n.24, Appx. A. See also 47 U.S.C. § 309(k)(2) (where applicant fails to meet the standards for renewal, the Commission may grant the application "on terms and conditions as are appropriate, including renewal for a term less than the maximum otherwise permitted.").

²³¹ For example, assuming we were to adopt a 10-year license term, if an entity that is granted a license in 2025, so that its 10-year renewal period would be 2035, subsequently files a substantial transfer of control application which is granted in 2030, should the 10-year renewal period be reset to 2040?

²³² Executive Order 10530, § 5(a).

²³³ We note that broadcast licenses must be renewed unless the Commission makes one of the findings enumerated by statute. 47 U.S.C. § 309(k). See also *Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 to Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services*, WT Docket No. 10-112, Second Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 8874 (adopting rules that, among other things, establish a consistent standard for renewing wireless licenses).

to review and, if necessary, modify or revoke or terminate licenses at any time during the 10-year license term.²³⁴ We seek comment on our proposed approach.

64. *Potential Rules Would Apply to All Licensees.* We generally seek comment on the application of any new license term we may adopt to all submarine cable landing licensees. In particular, we seek comment on whether all submarine cable landing licenses, regardless of issuance date, should be subject to any new license term.

65. *Licensees Whose License is Granted After the Effective Date of New Rules.* With respect to licensees whose license is granted after the effective date of any new rules adopted in this proceeding, we tentatively conclude that we would apply any new license term adopted in this proceeding to such licensees. If the Commission adopts a new license term, we propose to direct OIA to include a condition in submarine cable landing licenses granted after the effective date of any new rules requiring compliance with any new license term. We seek comment on this approach.

66. *Licensees Whose License Was or is Granted Prior to the Effective Date of New Rules.* With respect to licensees whose license was or is granted prior to the effective date of the new rules, we seek comment on whether their existing license term should remain the same, but that at the time of renewal, the Commission would apply any new license term it adopts in this proceeding.²³⁵ We also seek comment on whether any license granted after the issuance of this *Notice* and before the effective date of the new rules should be subject to any shortened term we may adopt in this proceeding.²³⁶ If the Commission applies a shortened license term to existing licenses, how should it handle situations in which an existing license has been in effect for a period that exceeds the new license term?

67. *Other Matters.* We seek comment on whether to apply any shortened license term as a condition of granting an application for a substantial and/or *pro forma* assignment or transfer of control of an existing submarine cable landing license. We also seek comment on whether cable landing licensees that have a pending renewal application prior to the effective date of any shortened license term should be subject to any new license term we might adopt.

68. *Due Process and Retroactivity.* We seek comment on due process and retroactivity concerns—including “primary” versus “secondary” retroactivity—that may arise from modifying existing licenses to conform the license term with any shorter term that may be adopted in final rules or from applying a new, shorter license term as a condition of granting applications for modification, assignment, transfer of control, and renewal or extension of existing licenses.²³⁷

69. The courts have established a distinction for rules between “primary” retroactivity and “secondary” retroactivity. A rule is primarily retroactive if it (1) “increase[s] a party’s liability for past conduct”; (2) “impair[s] rights a party possessed when he acted”; or (3) “impose[s] new duties with respect to transactions already completed.”²³⁸ The standard for primary retroactivity assesses whether a rule has changed the past legal consequences of past actions.²³⁹ In contrast, a rule would be “secondarily”

²³⁴ 47 U.S.C. § 35.

²³⁵ 47 U.S.C. § 35.

²³⁶ We note that applicants seeking licenses after issuance of the *Notice* will be aware of the possibility that the Commission may adopt a shortened license term and that any new license term may be a condition of grant of their application.

²³⁷ See, e.g., *Mobile Relay Assocs. v. FCC*, 457 F.3d 1, 11 (D.C. Cir. 2006) (non-renewal resulting from a new regulatory framework may “upset[] expectations based on prior law,” but that is not primarily retroactive).

²³⁸ *Landgraf v. USI Film Prods.*, 511 U.S. 244, 280 (1994).

²³⁹ *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 217-20 (1988).

retroactive if it “affects a regulated entity’s investment made in reliance on the regulatory status quo before the rule’s promulgation.”²⁴⁰ Secondary retroactivity will be upheld “if it is reasonable.”²⁴¹

70. We tentatively conclude that any shorter license term we ultimately adopt would not be “primarily” retroactive, as the mere adoption of such a requirement would not make past conduct unlawful, alter rights the licensee had at the time when it acted, or impose new duties with respect to completed transactions.

71. We recognize, however, that such a requirement could upset the expectations of existing submarine cable landing licensees. To the extent that applying any new license term may constitute “secondary” retroactivity, we seek comment on any impact of applying a new license term to existing licensees. How would such an impact compare to the benefits of applying a shortened license term to existing submarine cable landing licenses, including those granted before the issuance of this *Notice*, such as providing for a more timely, systematic, and uniform review process that will enable the Commission to consider pertinent issues, including national security, law enforcement, foreign policy, and/or trade policy concerns, in the context of a renewal application without waiting for current licenses to expire, potentially decades from now? We also seek comment on whether and under what circumstances denial of a submarine cable landing license renewal application or an application for assignment/transfer of control would trigger primary or secondary retroactivity concerns. For example, if we adopt a shorter license term and apply it to existing licensees, would non-renewal of a submarine cable landing license based on evolving national security, law enforcement, foreign policy, and/or trade policy risks, regardless of that submarine cable landing licensee’s prior compliance with the Commission’s rules, have primary or secondary retroactive effect? Additionally, would the application of a new license term to existing cable landing licensees require different standards or procedures based on retroactivity, reliance interests, or fair notice concerns? How would application of a new license term to existing licensees affect those licensees’ operations, financial position, or investment incentives?

B. Updated Application Requirements for National Security and Other Purposes

72. In this section, we propose and seek comment on appropriate applicant and application requirements to account for the evolution of technologies and facilities and changes in the national security landscape over the last two decades. Our goal is to update and improve our rules to ensure the Commission has targeted and granular information regarding the ownership, control, use of a submarine cable system, and other things, which are critical to the Commission’s review to assess potential national security risks and other important public interest factors.

1. Requirements to be an Applicant/Licensee

73. We seek comment on modernizing our existing rules setting forth minimum applicant/licensee eligibility requirements to ensure that the Commission identifies and captures information on those entities that own and control the submarine cable system and connect with terrestrial networks in the United States.²⁴² Currently, section 1.767(h) of the Commission’s rules identifies the following as those entities that, at a minimum, shall be applicants for and licensees on a cable landing

²⁴⁰ *Mobile Relay Assoc.*, 457 F.3d at 11.

²⁴¹ *Id.*

²⁴² The Commission has reserved the ability to expand the minimum requirements as to who must apply for and become a licensee on a cable landing license. 47 CFR § 1.767(h) (“Except as otherwise required by the Commission, the following entities, at a minimum, shall be applicants for, and licensees on, a cable landing license . . .”). Although the Commission prescribes the minimum requirements concerning who must be an applicant for and licensee on a cable landing license, this does not foreclose entities that do not meet the minimum requirements from applying to be joint applicants for and licensees on a cable landing license.

license: (1) “[a]ny entity that owns or controls a cable landing station in the United States[.]”²⁴³ and (2) “[a]ll other entities owning or controlling a five percent (5%) or greater interest in the cable system and using the U.S. points of the cable system.”²⁴⁴ We seek comment generally on an appropriate rule that would capture who should be an applicant/licensee on a cable landing license under the Cable Landing License Act today and in the future to ensure the Commission meets its public interest responsibilities.

74. *Entities that Own or Control a U.S. Landing Station or Submarine Line Terminal Equipment (SLTE).* We seek comment on whether to require not only entities that own or control the U.S. cable landing station, but also entities that own or control the SLTE or equivalent equipment to be applicants for and licensees on a cable landing license. The SLTE is among the most important equipment associated with the submarine cable system and this modification to our rule would enable the Commission to know and assess any national security and law enforcement concerns related to the entities that will deploy SLTE and thus who can significantly affect the cable system’s operations. Specifically, we seek comment on whether to expand the applicant/licensee requirement to include any entity that owns or controls or operates a cable landing station(s) or the SLTE or equivalent that converts submarine signals into terrestrial signals located in the U.S. portion of a cable system. We believe that including the term “submarine line terminal equipment” and a general description of the functionality of the equipment would better reflect technological advances in submarine cable systems. Would this be consistent with the statutory requirement that “[n]o person shall land or operate . . . any submarine cable” without a license as specified in the Cable Landing License Act?²⁴⁵ Moreover, we believe that including such language would capture the potential of a submarine cable system to have more than one cable landing station or a cable landing station that includes multiple SLTEs that could be located farther inland such as in another facility (e.g., a data center). A proposed cable system could also have multiple locations where SLTE is deployed. We seek comment on whether and if so, how, to incorporate entities with ownership and control of SLTE into our regulatory framework. Lastly, we seek comment on how this potential change could impact existing entities, including small business entities, that were not previously required to obtain a cable landing license but now would be required to do so because they own or control SLTE. Should we apply any new requirement to such existing entities and if so, when should we require such existing entities to submit applications? We seek comment on the burdens this potential change could have on such existing entities, as well as existing licensees, which may include small entities, including how long it would take them to comply with this potential requirement.

75. This option would require any entity with ownership or control of a cable landing station or SLTE or equivalent equipment to be applicants/licensees for a submarine cable landing license. Under this option, Indefeasible Right of Use (IRU)²⁴⁶ holders or grantees likely meet these requirements. As background, companies that own and operate submarine cable systems may choose to use the capacity on their submarine cable systems themselves or seek to lease, sell, or swap unused or unowned capacity to

²⁴³ 47 CFR § 1.767(h)(1).

²⁴⁴ 47 CFR § 1.767(h)(2). The Commission has reserved the ability to expand the types of entities who must be applicants and licensees on a cable landing license. § 1.767(h) (stating that “Except as otherwise required by the Commission . . .”). Thus, other entities are not foreclosed from applying to be a joint applicant and licensee.

²⁴⁵ 47 U.S.C. § 34.

²⁴⁶ See also Katie Terrell Hanna, TechTarget, *Definition: Indefeasible Right of Use (IRU)* (March 2022), <https://www.techtarget.com/searchunifiedcommunications/definition/Indefeasible-Right-of-Use> (“In telecommunications, the Indefeasible Right of Use (IRU) is a contractual agreement (temporary ownership) of a portion of the capacity of an international cable. As the name suggests, the contract provides an indefeasible right to use a cable and cannot be annulled or voided. IRU contracts are specified in terms of a certain number of channels of a given bandwidth.”) (*IRU Definition*); *id.* (“Large-scale internet service providers (ISPs) are typical IRU owners. This gives ISPs the ability to assure their own customers of international telecom service on a long-term basis. IRU fibers are also referred to as dark fibers. Here, dark fiber means fiber between two locations that has no electronics attached to it. This needs to be lit by the IRU grantee rather than the cable provider.”).

recoup their investment in the submarine cable project. Internet Content Providers (ICPs) that are licensees may use the capacity themselves to connect to their data centers abroad to serve customers globally. Alternatively, they may choose to sell, lease, or swap capacity of the submarine cable fiber to telecommunications companies or other entities in need of capacity along a certain route, such as research institutions, education institutions, governments, banks, and enterprises, among others.

76. Although IRUs can be short-term, they more typically constitute long-term contracts of 20 years or longer and provide a holder or grantee with a certain amount of bandwidth of capacity or fiber on a submarine cable system.²⁴⁷ These contracts provide holders or grantees with the rights to use the capacity, which includes equipment, fibers, or capacity, and may constitute assets as well, even though legal title is held by the grantor.²⁴⁸ Holders or grantees of these rights may further lease out capacity to other companies that need only a portion of the holder's capacity. The contracts to lease unused or unowned capacity typically constitute short-term contracts of five years or may be shorter or longer and, unlike IRUs, generally do not require an upfront payment. However, these lease contracts do typically require monthly payments during the course of the lease term and provide a grantee with a certain amount of bandwidth of capacity or spectrum of a fiber on a submarine cable system. Importantly, as noted above, some IRU holders or grantees, such as dark fiber IRU holders, may own, control, and use specific SLTE at the ends of the cable system to interconnect with their terrestrial networks,²⁴⁹ and such SLTE could be physically or logically accessed by IRU holders or grantees, thus potentially raising national security and law enforcement concerns arising from our lack of information about and regulatory oversight of these relationships and the ownership of the IRU holder or grantee.

77. Would requiring entities with ownership or control of a cable landing station or SLTE to be applicants/licensees for a submarine cable landing license appropriately address national security and law enforcement concerns regarding physical and/or logical access? Would this be consistent with the statutory requirement that “[n]o person shall land or operate . . . any a submarine cable” without a license as specified in the Cable Landing License Act?²⁵⁰ Does the Commission's legal authority to withhold or grant a cable landing license²⁵¹ extend to authorizing such purchases or sales of capacity? Would this be consistent with the statutory requirement to obtain a license to “land or operate . . . any submarine cable”?²⁵² If the Commission requires such entities that meet this requirement to become

²⁴⁷ *Understanding IRU Fiber: A Comprehensive Guide*, 123NET (Mar. 15, 2024), <https://www.123.net/blog/understanding-iru-fiber-a-comprehensive-guide/> (“An Indefeasible Right of Use (IRU) agreement is a legal contract that grants the buyer a permanent right to use a portion of a fiber-optic cable's capacity for a set period.”).

²⁴⁸ Fernando Margarit *et al.*, *IRUS AND FIBER OPTIC CABLES: An Overview and Examination of Associated Risks*, Submarine Telecoms Forum, <https://subtelforum.com/telecom-indefeasible-rights-of-use/> (last visited Aug. 11, 2024) (“These critical instruments grant exclusive, long-term rights to use specific assets, such as fiber cables, closely mirroring actual ownership without the transfer of legal title.”).

²⁴⁹ *Open Submarine Cables Handbook* at 4 (“Apart from increased competition for the SLTE supply and deployment of the latest SLTE technology, the open cable model is also more adapted to new business models by providing multiple system owners more independence. Many recent new cables have been built with a per-fiber pair ownership model allowing multiple cable systems owners to use different SLTE (including management systems) on their own fiber pairs. Spectrum sharing within a fiber pair can also be supported. Lastly, when the different owners want to upgrade, they can do so independently from the other owners.”).

²⁵⁰ 47 U.S.C. § 34.

²⁵¹ 47 U.S.C. § 35 (“The President may withhold . . . such license when he shall be satisfied after due notice and hearing that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, or will promote the security of the United States, or may grant such license upon such terms as shall be necessary to assure just and reasonable rates and service in the operation and use of cables so licensed.”).

²⁵² 47 U.S.C. § 34.

applicants/licensees for a submarine cable landing license, how should this requirement be implemented as to such existing entities as well as existing licensees? We seek comment on the burdens this potential change could have on affected entities, including small entities, and to identify how long it would take them to comply with this potential requirement.

78. We note that with respect to the entities that own or control the cable landing stations, the Commission frequently receives waiver requests from entities, such as data center owners, that do not seek to become an applicant or licensee. These entities state that they own the real property/facility in which the cable landing station is located but do not have any ability to significantly affect the cable system's operation.²⁵³ We have granted such waiver requests, based on our review of the particular circumstances raised in each waiver request and done so in coordination with the Committee, as necessary.²⁵⁴ We seek comment generally on the applicability of our rules to data center owners, including the access they have over submarine cables and the site operations, such as physical security, power, backup power, HVAC, and other environmental support essential to proper operations of cable landing systems housed in their facilities.

79. *Own or Control a 5% or Greater Interest in the Cable System and Using the U.S. Points of the Cable System.* We seek comment on whether we should retain the requirement that an entity that owns or controls a 5% or greater interest in the cable and uses the U.S. points of the cable system shall be an applicant for and licensee on a cable landing license.²⁵⁵ Prior to the rules adopted in 2001, there was no exception for those entities that owned less than a 5% interest in the cable. In the *2001 Cable Report and Order*, the Commission recognized that “the greater a firm’s investment in a cable system, the greater ability the firm has to influence the way in which a cable is operated . . . [and] observed that entities with minimal investment in a cable system, on the other hand, do not have the same ability to affect the operation of the cable system[.]”²⁵⁶ The Commission concluded that “there is not the same need, therefore, to subject these entities to the conditions and responsibilities that come with a cable landing license”²⁵⁷ unless such entities had at least a 5% or greater ownership interest in the cable system and used the U.S. points of the cable system.²⁵⁸ At the time of that proceeding, it was commonplace for consortia

²⁵³ We have seen instances where a submarine cable system will land in an Internet exchange, PoP, data center, or a like facility that is owned by a company that leases colocation space and services to submarine cable owners and operators but does not have any ability to significantly affect the cable system's operation. See, e.g., Restated Application of Neutral Networks USA, LLC for a License to Construct, Land and Operate a Private Fiber-Optic Submarine Cable System, File No. SCL-LIC-20210930-00042 at 4-5 (Oct. 22, 2021); Application of GU Holdings Inc. for a License to Construct, Land and Operate a Submarine Cable Connecting the United States, Brazil, Uruguay, and Argentina, to be Known as The Firmina Cable System, File No. SCL-LIC-20220422-00015, at 6-7 (Apr. 21, 2022); Application of GU Holdings Inc. and Edge Cable Holdings USA, LLC for a License to Construct, Land, and Operate the Pacific Light Cable Network to Connect the United States to Taiwan and the Philippines, File No. SCL-LIC-20200827-00038 at 11-12 (Aug. 26, 2020); Application of GU Holdings Inc. for a License to Construct, Land, and Operate a Submarine Cable Connecting the United States and Chile, File No. SCL-LIC-20181008-00034 at 7-9 (Oct. 8, 2018).

²⁵⁴ See e.g., File No. SCL-LIC-20210329-00020, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00353, DA 22064 (IB 2022) (granting the applicants' request for a waiver of 47 CFR § 1.767(h)(1)).

²⁵⁵ 47 CFR § 1.767(h)(2).

²⁵⁶ *2001 Cable Report and Order*, 16 FCC Rcd at 22167, n.131 (citing *2000 Cable NPRM*, 15 FCC Rcd at 20824, para. 82); see *id.* at 22194-95, paras. 53-54 (modifying the rules to require any entity that could exert influence or control over the cable system or who owned or controlled the cable landing station(s), or the facilities that would permit the cable to interconnect to a terrestrial network in the United States, to be an applicant and licensee on a cable landing license).

²⁵⁷ *Id.* at 22196, n.131 (citing *2000 Cable NPRM*, 15 FCC Rcd at 20824, para. 82).

²⁵⁸ See *id.* at 22194, 22196-97, paras. 54, 58 & n.131.

of many telecommunications companies to join to co-fund and own and operate a submarine cable system. Now, it is less common for consortia of more than a few entities to jointly pursue a submarine cable project. Moreover, the 5% ownership threshold was created in part to not unduly burden small carriers or investors that lacked the ability to significantly affect the operation of a cable system, such as those consortia members that entered the consortia to obtain capacity on the cable system, but held minimal investments in the cable system and did not have any ability to control the submarine cable system.²⁵⁹

80. Should we retain the 5% or greater interest threshold requirement for the same reasons noted above? Is the same rationale to retain the 5% threshold reasonable in today's national security environment? Do commenters believe we can accomplish our goals in this proceeding by retaining the 5% threshold? At this level of ownership, can we continue to properly assess whether certain applicants present any national security and law enforcement risks? If we retain the 5% threshold, will we be able to assess whether entities should not obtain a submarine cable license based on public interest assessments? Or should we instead adopt a lower or higher threshold, and if so, why? If we retain a threshold for when an owner of the cable must be an applicant/licensee, we seek comment on whether we should require the applicant(s) to identify all of the owners of the cable, and for those owners that are not applicants, provide an explanation for each one as to why it is not required to be an applicant/licensee.

81. We also seek comment on how entities are currently calculating ownership interests to determine if they hold a 5% or greater interest.²⁶⁰ Should the Commission specify a method for making this calculation? If so, what is an appropriate basis for the calculation given all of the varying pieces of infrastructure in a cable system—the U.S. cable landing station(s) that has the terminal equipment, including the SLTE and the dry segment; the wet segment (including the U.S. beach manhole and every segment and branching unit of the cable system to the foreign beach manhole(s)); and ultimately, the foreign dry plant(s) terminating with the SLTE in the cable landing station(s)? Should the calculation be based on the number of fiber pairs owned by each entity, the percentage of capacity held by each entity, the percent of the total cost of the cable system that each applicant is contributing, or the percentage of the total distance of the cable system from SLTE to SLTE or from beach manhole to beach manhole?²⁶¹ We seek comment on these and other bases for making this calculation.

82. In discussing the basis for adopting the 5% requirement in the *2000 Cable NPRM*, the Commission stated that it intended for an entity that has a “five percent or greater ownership interest in the proposed cable . . . and . . . will use the U.S. points of the cable system in *any capacity*, unless that use was simply to hard patch through the United States and would not drop traffic in the United States or would use the U.S. points to re-originate traffic,” to be included as an applicant.²⁶² The Commission, however, did not further define the phrase “use of the U.S. points of the cable system” in the *2001 Cable Report and Order*. Since the Commission adopted this rule over two decades ago, are there new developments in the landing and operation of submarine cable systems that we should take into account when providing guidance on what it means to use the U.S. points of the cable system? In addition, how should we consider use of the U.S. points of the cable system when the traffic's destination is not the

²⁵⁹ *Id.* at 22196-97, para. 57 (citing *2000 Cable NPRM*, 15 FCC Rcd at 20824, para. 82).

²⁶⁰ 47 CFR § 1.767(h)(2) (“All other entities owning or controlling a five percent (5%) or greater interest in the cable system and using the U.S. points of the cable system” shall be applicants for, and licensees on, a cable system). The Commission has reserved the ability to expand the types of entities who must be applicants and licensees on a cable landing license. 47 CFR § 1.767(h) (stating that “Except as otherwise required by the Commission . . .”). Thus, other entities are not foreclosed from applying to be a joint applicant and licensee.

²⁶¹ For example, assuming that the total cable system distance was 20,000 km, and Company A owns a segment of a cable system that is 1,000 km in length and will use the U.S. points of the cable system, should Company A be attributed with a 5% ownership ($1,000 \text{ km} / 20,000 \text{ km} = 0.05$) and required to be an applicant/licensee?

²⁶² *2000 Cable NPRM* at 20823-24, para. 81 (emphasis added).

United States? We seek comment on whether and how the Commission should consider “use of the U.S. point” today and for the benefit of any public interest concerns.

83. *Any Entity that Owns the Submarine Cable System.* We seek comment on whether we should instead require any entity that owns the submarine cable system to be an applicant/licensee, even if the entity does not use the cable system. Should we require that any entity that owns any interest in the cable to become a licensee similar to the Commission’s rules prior to 2001? Prior to the rules adopted in 2001, there was no exception for those entities that owned less than a 5% interest in the cable. Would this approach be consistent with the statutory requirement that no person shall “land or operate . . . any submarine cable” without a license as specified in the Cable Landing License Act?²⁶³ Given the importance of this critical infrastructure and to protect against national security and law enforcement threats, would a rule requiring entities that have any ownership in the cable system to become applicants/licensees be more appropriate today and into the future? Could we better accomplish our goals by adopting this requirement? What are the benefits and concerns with adopting this rule and how would this increase the number of applicants/licensees? What burdens would be imposed on existing and future applicants/licensees, including any implementation concerns? How would this option affect investment incentives and what would be the impact for implementation of this option on existing licenses? How long would it take for entities to come into compliance? How would this change affect small entities? If we were to adopt this rule, would the Commission be able to better assess applicants/licensees for any public interest concerns, including national security or law enforcement risks?

84. *Any Entity that Has Capacity on the Submarine Cable System.* We seek comment generally on whether to require any entity that holds capacity on the submarine cable to be an applicant/licensee. Would this be consistent with the statutory requirement that no person shall “land or operate . . . any submarine cable” without a license as specified in the Cable Landing License Act?²⁶⁴ Any entity that holds capacity on the submarine cable system, such as an entity that leases capacity and may not own the terminal equipment or SLTE, may still have an ability to operate a portion of the cable system. Would this broader requirement better facilitate the Commission’s public interest assessment? Would small entities be affected by this rule change? For example, we seek comment on whether holding capacity on the cable system should be defined to include the leasing, purchasing, selling, buying, or swapping of a fiber (spectrum, capacity, partial fiber pair, or a full fiber pair, among others) for transmission of voice, data, and Internet over the cable system to interconnect with a U.S. terrestrial network. We seek comment on whether the rule should be limited to entities that hold capacity and are selling, leasing, and/or swapping spectrum or capacity, or extend to those entities that enter into contracts or arrangements to receive spectrum or capacity or a fiber pair. We seek comment on the same implementation questions as above. For example, what burdens would be imposed on existing and future applicants/licensees? How would this option affect investment incentives and what would be the impact for implementation of this option on existing licenses? How long would it take for entities to come into compliance? How would this change affect small entities? Should the rule apply to entities that lease or employ SLTE in the U.S. point(s) of the cable system for operation of spectrum or capacity? We intend that the rule should not extend to customers on the edge of a network and should instead apply to entities that hold capacity and are using the U.S. end of a submarine cable, which may include ICPs,²⁶⁵ telecommunications providers, or other businesses.

²⁶³ 47 U.S.C. § 34.

²⁶⁴ § 34.

²⁶⁵ See *supra* para. 75.

2. Presumption of Entities Not Qualified to Become a New Submarine Cable Landing Licensee

85. To protect U.S. communications networks from national security and law enforcement threats, we propose to adopt a presumption that certain entities and their current and future affiliates and subsidiaries shall not be qualified to become a new submarine cable landing licensee. We propose that such entities shall bear the burden of overcoming this presumption if they file an application for a cable landing license. We also seek comment on whether we should instead adopt a categorical qualifying condition that would preclude the grant of a cable landing license application filed by any applicant: (1) that is directly and/or indirectly owned or controlled by, or subject to the influence of a government organization of a foreign adversary country, as defined under 15 CFR § 791.4;²⁶⁶ (2) that is directly and/or indirectly owned or controlled by, or subject to the influence of an individual or entity that has a citizenship(s) or place(s) of organization in a foreign adversary country;²⁶⁷ (3) that is directly and/or indirectly owned or controlled by, or subject to the influence of an individual or entity on the Commission's Covered List;²⁶⁸ and/or (4) that is using or will use equipment or services identified on the Commission's Covered List in the proposed submarine cable infrastructure.²⁶⁹ Should we also adopt a categorical qualifying condition based on other U.S. government determinations that certain individuals and entities pose national security or other risks, such as the Consolidated Screening List from the Departments of Commerce, State, and Treasury?²⁷⁰

86. Specifically, we propose to adopt a presumption that any entity whose application for international section 214 authority was previously denied or whose domestic or international section 214 authority was previously revoked in view of national security and law enforcement concerns, and its current and future affiliates and subsidiaries, shall not be qualified to become a new cable landing licensee.²⁷¹ We propose to apply the definitions of affiliate and subsidiary that are set out in section 2.903(c) of the rules and seek comment on this approach.²⁷² We propose that such entities shall bear the burden of overcoming this presumption if they file an application for a cable landing license. Accordingly, we propose to adopt this presumption with respect to the following entities and their current and future affiliates and subsidiaries—China Mobile USA, CTA, CUA, Pacific Networks, and ComNet.²⁷³

²⁶⁶ 15 CFR § 791.4(a); *see supra* para. 12.

²⁶⁷ 15 CFR § 791.4(a); *see supra* para. 12.

²⁶⁸ *See supra* para. 18; *see infra* section III.B.6.

²⁶⁹ *See supra* para. 18; *see infra* section III.B.6.

²⁷⁰ The Consolidated Screening List is a list of parties for which the United States Government maintains sanctions or restrictions on certain exports, reexports, or transfers of items. *See* International Trade Administration, Consolidated Screening List, <https://www.trade.gov/consolidated-screening-list> (last visited Nov. 20, 2024).

²⁷¹ *China Telecom Americas Order on Revocation and Termination*, 36 FCC Rcd at 15966-67, para. 1; *China Unicom Americas Order on Revocation*, 37 FCC Rcd at 1480-81, para. 1; *Pacific Networks and ComNet Order on Revocation and Termination*, 37 FCC Rcd at 4220-21, para. 1.

²⁷² 47 CFR § 2.903(c) (defining “affiliate” as “an entity that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another entity; for purposes of this paragraph, the term ‘own’ means to have, possess, or otherwise control an equity interest (or the equivalent thereof) of more than 10 percent”); *id.* (defining “subsidiary” as “any entity in which another entity directly or indirectly: (i) Holds de facto control; or (ii) Owns or controls more than 50 percent of the outstanding voting stock”).

²⁷³ *See China Telecom Americas Order on Revocation and Termination; China Unicom Americas Order on Revocation; Pacific Networks and ComNet Order on Revocation and Termination*. Our proposed approach would not modify the cable landing licenses currently held by affiliates of these identified entities. *See supra* para. 16 (discussing a number of entities ultimately majority-owned and controlled by the Chinese government—including China Telecom, China Telecom Global, China Mobile Limited, and China Unicom—became licensees on FCC (continued....))

In the *China Mobile USA Order*, *China Telecom Americas Order on Revocation and Termination*, *China Unicom Americas Order on Revocation*, and *Pacific Networks and ComNet Order on Revocation and Termination*, the Commission found that these entities are subject to exploitation, influence, and control by the Chinese government, and that mitigation would not address the national security and law enforcement concerns.²⁷⁴ Further, in the *2024 Open Internet Order*, the Commission excluded China Mobile USA, CTA, CUA, Pacific Networks, ComNet, and their current and future affiliates and subsidiaries from grant of blanket section 214 authority for the provision of BIAS.²⁷⁵ Consistent with the Commission's findings in those proceedings, we believe that allowing entities whose authorizations have been denied or revoked on national security and law enforcement grounds to access critical communications infrastructure would present significant and unacceptable risks.²⁷⁶ Furthermore, we propose to adopt this presumption with respect to any entity whose application (including an application for any authorization or license) is or was previously denied or whose authorization or license is or was previously revoked and/or terminated on national security or law enforcement grounds, and its current and future affiliates and subsidiaries.

87. We tentatively find that our proposal to adopt a presumption that these entities shall not be qualified to become a new cable landing licensee is consistent with the Commission's statutory authority to withhold cable landing licenses under the Cable Landing License Act and Executive Order 10530.²⁷⁷ The Cable Landing License Act sets forth, among other things, that the President "may withhold or revoke such license when he shall be satisfied after due notice and hearing that such action . . . will promote the security of the United States."²⁷⁸ The authority vested in the President is delegated to the Commission pursuant to Executive Order 10530.²⁷⁹ We tentatively find that the Commission has authority to adopt this presumption with respect to a class of entities, and to assign them the burden of overcoming the presumption in any cable landing license application, where it relates to the

licenses to land and operate submarine cables connecting the United States to China and other foreign location). The Commission retains the authority to revoke a licensee's cable landing license when warranted. *See supra* section III.A.1.e.

²⁷⁴ *See China Telecom Americas Order on Revocation and Termination; China Unicom Americas Order on Revocation; Pacific Networks and ComNet Order on Revocation and Termination.*

²⁷⁵ *2024 Open Internet Order*, at *131, paras. 339-340.

²⁷⁶ *See China Telecom Americas Order on Revocation and Termination, aff'd, China Telecom. (Ams.) Corp. v. FCC; China Unicom Americas Order on Revocation; Pacific Networks and ComNet Order on Revocation and Termination, aff'd, Pacific Networks Corp. v. FCC; 2024 Open Internet Order* at *131, paras. 339-340; *see also id.* at para. 32 ("There can be no question about the importance to our national security of maintaining the integrity of our critical infrastructure, including communications networks . . . Disruptions of communications can easily have significant cascading effects on other critical infrastructure sectors that rely on communications.").

²⁷⁷ 47 U.S.C. § 35; Executive Order 10530, § 5(a).

²⁷⁸ 47 U.S.C. § 35 ("The President may *withhold* or revoke such license when he shall be satisfied after due notice and hearing that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States or of its citizens in foreign countries, *or will promote the security of the United States . . .*") (emphasis added).

²⁷⁹ 47 U.S.C. § 35; Executive Order 10530, § 5(a) (The Federal Communications Commission is hereby designated and empowered to exercise, without the approval, ratification, or other action of the President, all authority vested in the President by the act of May 27, 1921, ch. 12, 42 Stat. 8 (47 U.S.C. 34 to 39), including the authority to issue, withhold, or revoke licenses to land or operate submarine cables in the United States: *Provided*, That no such license shall be granted or revoked by the Commission except after obtaining approval of the Secretary of State and such advice from any executive department or establishment of the Government as the Commission may deem necessary. The Commission is authorized and directed to receive all applications for the said licenses.).

Commission's evaluation as to whether withholding a cable landing license from such entities would "promote the security of the United States."²⁸⁰ We seek comment on these tentative findings.

88. In the recent section 214 denial proceeding and revocation proceedings, the Commission extensively evaluated national security and law enforcement considerations raised by existing section 214 authorizations and determined, based on thorough record development, that the present and future public interest, convenience, and necessity was no longer served by those carriers' retention of their section 214 authority.²⁸¹ We believe the same national security and law enforcement concerns identified in those proceedings equally exist with respect to these entities seeking to land or operate a submarine cable in the United States. We therefore believe that the Commission's determinations in those proceedings are directly relevant to the determination as to whether grant of a new cable landing license to the identified entities and their current and future affiliates and subsidiaries would serve the public interest.²⁸² We seek comment on this proposal.

89. We also propose to presume that any entity whose application for a Commission authorization is or was previously denied, or whose license or authorization for any service is or was previously revoked and/or terminated, for national security and/or law enforcement reasons, and their current and future affiliates and subsidiaries, is presumptively unqualified to hold a cable landing license. We note this approach would supplement the Commission's existing character qualifications policy, which looks to whether an applicant has violated the Communications Act or Commission rules, has been convicted of a felony, or has engaged in other specified types of misconduct indicating that the applicant is not trustworthy or reliable.²⁸³ We also seek comment on whether there are other types of entities that also pose national security, law enforcement, or other concerns and to which the Commission should apply a similar presumption that such entities shall not be qualified to become cable landing licensees and must overcome such a presumption in any cable landing license application that they file with the Commission. What factors or criteria should inform our determination of any such types of entities and whether they pose national security, law enforcement, and other concerns that warrant adoption of such a presumption? We also seek comment on whether we should apply a standard in assessing whether such entities have overcome this presumption in any application that is filed for a new cable landing license.

90. We seek comment on whether we should instead adopt a categorical qualifying condition that would preclude grant of any submarine cable application—including an application for a cable landing license or the modification, assignment, transfer of control, or renewal or extension of such license—filed by any applicant that is directly and/or indirectly owned or controlled by, or subject to the influence of, (1) a government organization of a "foreign adversary" country, and/or (2) an individual or entity that has a citizenship(s) or place(s) of organization in a "foreign adversary" country, as defined under 15 CFR § 791.4.²⁸⁴ If so, what ownership threshold should we apply to any categorical condition precluding the grant of a cable landing license application filed by applicants that are owned by foreign interest holders associated with a foreign adversary country? For example, should we preclude grant of a cable landing license application filed by any applicant that is directly and/or indirectly majority-owned

²⁸⁰ 47 U.S.C. § 35; Executive Order 10530, § 5(a).

²⁸¹ *China Telecom Americas Order on Revocation and Termination*, *aff'd*, *China Telecom. (Ams.) Corp. v. FCC*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*, *aff'd*, *Pacific Networks Corp. v. FCC*, 77 F.4th 1160.

²⁸² See *China Telecom Americas Order on Revocation and Termination*; *China Unicom Americas Order on Revocation*; *Pacific Networks and ComNet Order on Revocation and Termination*; *2024 Open Internet Order*, at para. 34.

²⁸³ See generally *Policy Regarding Character Qualifications in Broadcast Licensing*, 102 FCC 2d 1179 (1986) (*Character Qualifications*), modified, 5 FCC Rcd 3252 (1990) (*Character Qualifications Modification*); see *supra* section III.A.1.d.

²⁸⁴ 15 CFR § 791.4(a); see *supra* para. 12.

by such foreign interest holders? Or should we preclude grant of a cable landing license application filed by any applicant that has a direct and/or indirect 10% or greater foreign interest holder associated with a foreign adversary country? Is 10% the appropriate threshold, or should we adopt a greater or lesser threshold?

91. We seek comment on whether the Commission should prohibit cable landing licensees from entering into arrangements for IRUs or leases for capacity on submarine cables landing in the United States, with any entity that has a citizenship(s) or place(s) of organization in a “foreign adversary” country, as defined under 15 CFR § 791.4.²⁸⁵ We also seek comment on whether the Commission should prohibit cable landing licensees from entering into such arrangements with any entity that is directly and/or indirectly owned or controlled by, or subject to the influence of, (1) a government organization of a foreign adversary country, and/or (2) any individual or entity that has a citizenship(s) or place(s) of organization in a “foreign adversary” country, as defined under 15 CFR § 791.4.²⁸⁶ What ownership threshold should we apply to the extent we prohibit cable landing licensees from entering into arrangements for IRUs or leases for capacity with entities that are owned by foreign interest holders associated with a foreign adversary country? For example, should we prohibit licensees from entering into such arrangements with any entity that is directly and/or indirectly majority-owned by such foreign interest holders? Or should we prohibit licensees from entering into such arrangements with any entity that has a direct and/or indirect 10% or greater foreign interest holder associated with a foreign adversary country? Is 10% the appropriate threshold, or should we adopt a greater or lesser threshold? Additionally, we seek comment on whether to adopt rules that prohibit cable landing licensees from landing a cable licensed by the Commission in certain locations, such as landing points in a “foreign adversary” country, as defined under 15 CFR § 791.4.²⁸⁷

3. Five (5) Percent Threshold for Reportable Interests

92. We seek comment on whether to lower the current 10% ownership reporting threshold to five percent (5%) or greater direct and indirect equity and/or voting interests in the applicant(s) and licensee(s). The 5% threshold would apply to initial applications for cable landing licenses and applications for modification, assignment, transfer of control, and renewal or extension of submarine cable licenses. Currently, applicants for a submarine cable landing license must submit the information required in section 63.18(h) of the rules,²⁸⁸ including identification of “any individual or entity that directly or indirectly owns ten percent or more of the equity interests and/or voting interests, or a controlling interest, of the applicant, and the percentage of equity and/or voting interest owned by each of those entities (to the nearest one percent).”²⁸⁹

93. We believe that greater insight into the ownership of applicants and licensees who own, control, and operate submarine cable systems is crucial to responding to the evolving threat environment, and that the current reporting threshold of 10% may not capture all interests that may present national security and policy concerns. When the Commission adopted the Standard Questions in the *2021 Standard Questions Order*, it incorporated input from the Committee staff recommending a 5% ownership reporting threshold.²⁹⁰ The Commission noted the views of the Committee staff that it was important because “when ownership is widely held, five percent can be a significant interest” and “a

²⁸⁵ 15 CFR § 791.4(a); *see supra* para. 12.

²⁸⁶ 15 CFR § 791.4(a); *see supra* para. 12.

²⁸⁷ 15 CFR § 791.4(a); *see supra* para. 12.

²⁸⁸ 47 CFR §§ 1.767(a)(8)(i); § 63.18(h).

²⁸⁹ § 63.18(h)(1).

²⁹⁰ *2021 Standard Questions Order*, 36 FCC Rcd at 14856, para. 16.

group of foreign entities or persons, each owning nine percent and working together, could easily reach a controlling interest in a company without having to disclose any of their interests.”²⁹¹

94. Moreover, both the Commission and other federal government entities use a 5% reporting threshold. We note that the Commission uses a 5% ownership threshold in the broadcast context.²⁹² Additionally, a reporting threshold of 5% applies to information that U.S. public companies and their shareholders provide to the Securities and Exchange Commission (SEC).²⁹³ The Exchange Act Rule 13d-1 requires a person or “group” that becomes, directly or indirectly, the “beneficial owner” of more than 5% of a class of equity securities registered under Section 12 of the Exchange Act to report the acquisition to the SEC.²⁹⁴ We note that various SEC forms filed by issuers, including their annual reports (or proxy statements) and quarterly reports, require the issuer to include a beneficial ownership table that contains, among other things, the name and address of any individual or entity, or “group,” who is known to the issuer to be the beneficial owner of more than 5% of any class of the issuer’s voting securities.²⁹⁵ A reporting threshold of 5% would also be consistent with that required by the Committee on Foreign Investment in the United States (CFIUS)²⁹⁶ from parties to a voluntary notice filed with CFIUS.²⁹⁷ The 5% threshold thus appears to be a generally accepted benchmark for understanding the investors in an entity. We also anticipate, based on this fact, that entities generally will or should already know their 5% interest holders. Thus, we tentatively conclude that our proposal to adopt a reporting threshold of 5% would be consistent with the reporting requirements of other federal agencies and would impose minimal burdens on applicants.

95. We seek comment on whether a reporting threshold of 5% equity and/or voting interest adequately captures the relationship, association, and/or extent of influence that an investor may have in an applicant. Would a reporting threshold of 5% equity and/or voting interests sufficiently account for powers held by shareholders with less than 5% equity and/or voting interests but who may hold other special privileges or powers in the corporate structure? For instance, would the reporting threshold account for a situation where a foreign government interest holder with a smaller ownership and/or voting interest, below the 5% threshold, may wield a disproportionately significant influence on the applicant

²⁹¹ *Id.* (citing Letter from Francis Gutierrez, Deputy Chief, Telecommunications and Analysis Division, International Bureau, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 16-155, at 2 (filed Sept. 7, 2021)).

²⁹² 47 CFR § 73.3555, n.2 (“[t]he sum of the interests other than those held by or through ‘passive investors’ is equal to or exceeds 5 percent.”); *FCC Form 323 Instruction for Ownership Reports for Commercial Broadcast Stations*, at 5 (“Each officer, director, and owner of stock accounting for 5 percent or more of the issued and outstanding voting stock of the Respondent is considered the holder of an attributable interest, and must be reported.”), <https://www.fcc.gov/sites/default/files/323.pdf> (last visited Oct. 22, 2024).

²⁹³ 15 U.S.C. § 78m(d)(1); 17 CFR § 240.13d-1; 17 CFR § 229.403; see *Review of Foreign Ownership Policies for Broadcast, Common Carrier and Aeronautical Radio Licensees under Section 310(b)(4) of the Communications Act of 1934, as Amended*, GN Docket No. 15-236, Report and Order, 31 FCC Rcd 11272, 11293-94, paras. 45-46 & n.130 (2016) (*2016 Foreign Ownership Report and Order*).

²⁹⁴ 17 CFR § 240.13d-1(a).

²⁹⁵ *2016 Foreign Ownership Report and Order*, 31 FCC Rcd at 11294, n.130; see SEC Regulation S-K, 17 CFR § 229.403; see also 17 CFR § 229.10.

²⁹⁶ CFIUS is “an interagency committee authorized to review certain transactions involving foreign investment in the United States and certain real estate transactions by foreign persons, in order to determine the effect of such transactions on the national security of the United States.” U.S. Department of Treasury, *The Committee on Foreign Investment in the United States (CFIUS)*, <https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius> (last visited Oct. 22, 2024); see U.S. Department of Treasury, *CFIUS Overview*, <https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius/cfius-overview> (last visited Oct. 22, 2024).

²⁹⁷ See 31 CFR §§ 800.502(c)(1)(v)(C), 802.502(b)(1)(vi)(C).

through “golden shares?”²⁹⁸ Should we require additional information about an applicant’s reportable interest holders? Should we expand the reportable interests beyond percentages of equity and/or voting interests, for example, by requiring applicants to identify other types of interests or interest holders, such as management agreements? What other indicia of significant influence or control should the Commission consider in order to fully identify interest holders that are either foreign governments or foreign state-owned entities? What additional information would fully inform and assist the Commission’s assessment of any national security, law enforcement, foreign policy, and/or trade policy risks raised by such interest holders?

96. We seek comment on what, if any, potential burdens would be imposed on applicants if they were required to report direct and indirect equity and/or voting interests at a 5% threshold. We also seek comment on ways for the Commission to minimize those burdens. While we anticipate that most entities should readily be able to identify their 5% interest holders given other existing reporting requirements at that threshold, we seek comment on this belief. We likewise invite comment on whether this lower reporting threshold will generally result in the identification of a substantially, or only marginally, greater number of interest holders.²⁹⁹

97. Commenters should also address whether there are any privacy concerns implicated by the lower reporting threshold, and whether this information is “financial information” of a privileged and confidential nature.³⁰⁰ Do licensees and interest holders view this information as confidential? What, if any, privacy or other harms, would result from disclosure of these interest holders?³⁰¹ We tentatively conclude that the privacy interest of 5% interest holders, if any, in not being identified in applications and any interest in withholding privileged and confidential financial information of this nature is outweighed by national security and other public interest benefits from such reporting. Moreover, we believe that these interests can be otherwise protected. For instance, if we adopt a 5% reporting threshold, filers can seek confidential treatment, as is the case under our current reporting threshold. We seek comment on whether we should instead treat the disclosure of certain ownership interests of 5% and up to less than 10% as presumptively confidential,³⁰² without requiring the applicant to file a request for

²⁹⁸ See, e.g., *In re Franchise Services of North America, Inc. v. U.S. Trustee*, 891 F.3d 198, 205 (5th Cir. 2018) (“Generally speaking, a ‘golden share’ is ‘[a] share that controls more than half of a corporation’s voting rights and gives the shareholder veto power over changes to the company’s charter.’ E.g., *Golden Share*, Black’s Law Dictionary (10th ed. 2014); see also Mariana Pargendler, *State Ownership and Corporate Governance*, 80 Fordham L. Rev. 2917, 2967 (2012) (noting that in the context of formerly state-owned entities, “[g]olden shares are essentially a special class of stock issued to the privatizing government that grants special voting and veto rights that are disproportionate to, or even independent of, its cash-flow rights in the company”).); see also Ryan McMorrow, Qianer Liu, Cheng Leng, *China moves to take ‘golden shares’ in Alibaba and Tencent units* (Jan. 12, 2023), <https://www.ft.com/content/65e60815-c5a0-4c4a-bcec-4af0f76462de>; Reuters, *Fretting about data security, China’s government expands its use of “golden shares”* (Dec. 15, 2021), <https://www.reuters.com/article/china-regulationdata-idCAKBN2IU2B7> (“Seeking influence, Beijing began taking golden shares in private online companies – usually about 1% of a firm – some five years ago. The stakes are bought by government-backed funds or companies which gain a board seat and/or veto rights for key business decisions.”).

²⁹⁹ To the extent that the lower reporting threshold results in a substantial increase in the number of interest holders identified—or as otherwise required by other proposals in this *Notice*, see *infra* section III.B.13—the Commission will make necessary changes to applicable Privacy Act System of Records Notices (SORNs). See, e.g., Federal Communications Commission, *Privacy Act; System of Records*, 88 F.R. 77580 (Nov. 13, 2023) (FCC-2); Federal Communications Commission, *Privacy Act; System of Records*, 86 F.R. 43237 (Aug. 6, 2021) (IB-1).

³⁰⁰ See 47 CFR § 0.457(d).

³⁰¹ Commenters should identify any harms from disclosure that would warrant the withholding of this information under the Commission’s rules and the Freedom of Information Act (FOIA). See 47 CFR § 0.457; 5 U.S.C. § 552(b).

³⁰² Other Commission requirements, such as supply chain annual reporting, provide for a checkbox certification and the submission of information that is presumptively confidential. *2020 Protecting Against National Security*

(continued....)

confidentiality.³⁰³ We note that the ownership information must not be publicly available elsewhere either in this country or another country for us to treat it as presumptively confidential. Alternatively, should the Commission require public disclosure of ownership interests of 5% and up to less than 10% of only those interest holders that are citizens, entities, or government organizations of foreign adversary countries, as defined in the Department of Commerce’s rule, 15 CFR § 791.4?³⁰⁴

4. Submarine Cable Infrastructure Information

98. Consistent with our goal of ensuring the Commission has sufficient information concerning this critical infrastructure,³⁰⁵ we propose to require applicants³⁰⁶ for a cable landing license or modification, assignment, transfer of control, and renewal or extension of a license, and licensees seeking to submit their periodic reports, to provide additional detailed information concerning the submarine cable infrastructure. Currently, section 1.767(a)(4) of our rules requires applicants for a cable landing license to provide “[a] description of the submarine cable, including the type and number of channels and the capacity thereof[.]”³⁰⁷

99. We propose to also require that the detailed information regarding the submarine cable system include (1) the states, territories, or possessions in the United States and the foreign countries where the cable will land;³⁰⁸ (2) the number of segments in the submarine cable system and the designation of each (e.g., Segment A, Main Trunk, A-B segment); (3) the length of the cable by segment

Threats Order, 35 FCC Rcd at 14369-70, para. 214 (“We believe that the public interest in knowing whether providers have covered equipment and services in their networks outweighs any interest the carrier may have in keeping such information confidential Other information, such as location of the equipment and services; removal or replacement plans that include sensitive information; the specific type of equipment or service; and any other provider specific information will be presumptively confidential.”). In order to request confidential treatment of the Circuit Status Report (the predecessor of the Circuit Capacity Report), a submitter simply has to check a box that appears on the certification form accompanying all submissions. *Reporting Requirements for U.S. Providers of International Telecommunications Service; Amendment of Part 43 of the Commission’s Rules*, IB Docket No. 04-112, Second Report and Order, 28 FCC Rcd 575, 613, para. 119 (IB 2013).

³⁰³ See, e.g., *Section 43.62 Reporting Requirements for U.S. Providers of International Services; 2016 Biennial Review of Telecommunications Regulations*, Report and Order, 32 FCC Rcd 8115, 8125-26, para. 22 (2017); 47 CFR § 0.457.

³⁰⁴ 15 CFR § 791.4; see *supra* para. 12.

³⁰⁵ See Executive Order 10530, § 5(a).

³⁰⁶ For purposes of the information requirements proposed in this *Notice*, unless otherwise indicated, we use the terms “applicant” or “applicants” to refer to an applicant or licensee that files an application or notification under section 1.767 of the Commission’s rules, as well as the proposed rules for certain types of applications: (1) applicants that file an initial application for a cable landing license or an application for modification, substantial assignment, substantial transfer of control, or renewal or extension of a cable landing license; (2) cable landing licensees that file a notification of *pro forma* assignment or transfer of control of a cable landing license; and/or (3) applicants that file a request for an STA related to the operation of a submarine cable. See 47 CFR § 1.767(a), (g)(6)-(7); 47 CFR § 63.24(e) (referring to “substantial” transactions); 47 CFR § 63.24(d) (defining “Pro forma assignments and transfers of control”). Unless otherwise indicated, we use the term “application” or “submarine cable application” to refer to an initial application for a cable landing license; an application for modification, substantial assignment, substantial transfer of control, or renewal or extension of a cable landing license; and a *pro forma* assignment or transfer of control notification.

³⁰⁷ 47 CFR § 1.767(a)(4).

³⁰⁸ Section 1.767(a)(5) of the rules requires, among other things, “[a] specific description of the cable landing stations on the shore of the United States and in foreign countries where the cable will land.” 47 CFR § 1.767(a)(5). In addition to revisions to section 1.767(a)(5) on which we seek comment below, we propose to specifically require that applicants must include in their description of the submarine cable the states, territories, or possessions in the United States and the foreign countries where the cable will land. See *infra* para. 100.

and in total; (4) the location, by segment, of branching units; (5) the address and county or county equivalent of each U.S. and non-U.S. cable landing station, (6) the number of optical fiber pairs, by segment, of the submarine cable; (7) the design capacity, by segment, of the cable system, and (8) anticipated time frame when the applicant intends to place the submarine cable system into service.³⁰⁹ We also propose to modify the requirement for applicants and licensees to provide the geographic coordinates of cable landing stations as well as beach manholes, to the extent they differ from cable landing station coordinates.³¹⁰ Under our proposal, applicants would provide a specific description of the submarine cable system, including a map and geographic data in generally accepted GIS formats or other formats. We seek comment on the specific information and the file formats and specific data fields that should be submitted. For example, applicants could provide a specific description of the dry plants, including geographic data in generally accepted GIS formats (e.g., GeoJSON, Shapefile, Geopackage, etc.) with a map that specifies the location of (1) each beach manhole, (2) each cable landing station, including locations of each PFE and each SLTE, and (3) each NOC³¹¹ providing remote access to the submarine cable system. For example, the GIS data could include the routing of the optical fiber cable from the beach manhole to the cable landing station or like facility/facilities and location of the PFE, SLTE, and NOC. The map could specify the geographic coordinates (longitude and latitude) and street address, county and county equivalent, if applicable, of each beach manhole and cable landing station or similar facility. Should applicants provide maps and geographic coordinates of the location of the dry plant components that are located at the U.S. and foreign ends of the submarine cable system? We propose to delegate authority to OIA, in coordination with the Office of Economics and Analytics, to determine the file formats and specific data fields in which data will ultimately be collected. We seek comment on the proposals and approaches above.

100. *Route Position Lists.* Relatedly, we seek comment on whether we should require applicants for cable landing licenses and cable landing licensees to file with the Commission route position lists containing the geographic coordinates of the wet segment of the submarine cable. We note that maps showing the exact location of submarine cables are treated as presumptively confidential under our rules.³¹² The Commission's rules require applicants for cable landing licenses to submit "a map showing specific geographic coordinates . . . of each landing station" and "the coordinates of any beach joint where those coordinates differ from the coordinates of the cable station."³¹³ Should we also require

³⁰⁹ See *infra* Appx. A.

³¹⁰ See 47 CFR § 1.767(a)(5); see *infra* Appx. A. We seek comment on whether we should modify the part of that rule that states, "[t]he applicant initially may file a general geographic description of the landing points; however, grant of the application will be conditioned on the Commission's final approval of a more specific description of the landing points, including all information required by this paragraph, to be filed by the applicant no later than ninety (90) days prior to construction. The Commission will give public notice of the filing of this description, and grant of the license will be considered final if the Commission does not notify the applicant otherwise in writing no later than sixty (60) days after receipt of the specific description of the landing points, unless the Commission designates a different time period." We propose to redesignate this part of section 1.767(a)(5) under a new section 1.70005(f)(1). See *infra* Appx. A.

³¹¹ A NOC is a centralized location where information technology administrators can continuously monitor the performance of the wet and dry segments of the submarine cable system, either on site or from a remote location. See Rahul Awati, TechTarget Network, *Definition, Network Operations Center (NOC)*, <https://www.techtarget.com/searchnetworking/definition/network-operations-center> (last visited Oct. 21, 2024) (*Definition, Network Operations Center*). The role of a NOC is to "provide full visibility" into the infrastructure and equipment. *Id.* ("From a security perspective, the NOC functions as the first line of defense that enables the organization to monitor network security and recognize and address any attacks or disruptions to the network.").

³¹² 47 CFR § 0.457(c)(1)(i) (withholding from public inspection "[m]aps showing the exact location of submarine cables").

³¹³ 47 CFR § 1.767(a)(5); see also 47 CFR § 1.767(g)(8).

applicants and licensees to submit the geographic coordinates of the entire wet segment of the submarine cable (for example, including the U.S. and foreign portions of the cable) and/or other components of the cable? Would such data enhance the ability of the Commission and other federal agencies to identify, prevent, or mitigate spatial conflicts affecting submarine cables and further ensure the protection of this critical infrastructure?

101. *Confidential Treatment of Submarine Cable Landing Geographic Coordinates and Other Information.* We propose to provide confidential treatment for the exact addresses and specific geographic coordinates of cable landing stations, beach manholes, and other location information associated with a submarine cable system under the Commission's rules.³¹⁴ Given the risks associated with the public availability of critical aspects of these cable systems, we believe the exact addresses and geographic coordinates and other specific location information should be treated as presumptively confidential. We seek comment on the extent to which, if any, this information is treated as privileged and confidential, and what impacts might the public availability of this information have on the commercial interests of cable system owners and users.

102. Among the most sensitive parts of a submarine cable system are the wet segment as it approaches the shore, the submarine cable as it reaches the beach manhole, and the dry segment including the cable landing station(s), such as where the SLTE is located. At present, several applicants for initial cable landing licenses have requested that such information should be confidential and filed under a request for confidential treatment.³¹⁵ We propose to withhold the exact location information from public inspection. We propose to only release publicly more general location information, such as the city, state/province/department, and country in which the submarine cable system will land. We seek comment on applicants' commercial interests in this information, the extent to which such information is treated as confidential by the applicants, and what harms would result to applicants' commercial interests if the information were disclosed to the public.³¹⁶ We seek comment on how to treat such information if it is already publicly available from another source.

103. *Sharing with Federal Agencies.* To the extent confidential treatment is requested for submarine cable infrastructure information, any sharing of the information with other federal agencies would be subject to the procedures set out in section 0.442 of the rules.³¹⁷ Under section 0.442,³¹⁸ the Commission may disclose to other federal agencies, upon the Commission's own motion or another agency's request, records that have been submitted to the Commission in confidence,³¹⁹ subject to providing the filer notice of the proposed sharing and ten (10) days to object.³²⁰ In general, under federal law, the Commission may share information it has collected pursuant to an information collection with

³¹⁴ See *infra* Appx A (proposing revisions to section 0.457(c)(1) of the rules).

³¹⁵ See, e.g., Letter from Craig J. Brown, Assistant General Counsel, Lumen to Marlene H. Dortch, Secretary, Federal Communications Commission at 1 (Feb. 15, 2023) (requesting confidential treatment of coordinate information, citing security risks to the cable) (on file in File No. SCL-LIC-20230222-00005); Letter from Ulises R. Pin and Brett P. Ferencak, Counsel for GU Holdings, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission at 1-2 (June 9, 2023) (requesting confidential treatment of coordinate and address information, citing security risks to the cable) (on file in File No. SCL-LIC-20230511-00013); Letter from Ulises R. Pin and Brett P. Ferencak, Counsel for Starfish Infrastructure Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission at 1-2 (July 8, 2024) (requesting confidential treatment of coordinate and address information, citing security risks to the cable) (on file in File No. SCL-LIC-20240621-00030).

³¹⁶ See 47 CFR § 0.457(d).

³¹⁷ 47 CFR § 0.442.

³¹⁸ 47 CFR § 0.442.

³¹⁹ 47 CFR § 0.442(b).

³²⁰ 47 CFR § 0.442(d).

other federal government agencies.³²¹ If it does, all provisions of law that relate to the unlawful disclosure of information apply to the employees of the agency to which the information is released “to the same extent and in the same manner” as they do to employees of the collecting agency.³²² We seek comment on whether to adopt a rule that would allow the Commission to share submarine cable landing geographic coordinates, the route position lists, and other information with relevant federal agencies, including information for which confidential treatment is requested, without the pre-notification procedures of section 0.442(d).³²³ We note that we are seeking comment on this same process for sharing cybersecurity risk management plans and annual circuit capacity data.³²⁴ We seek comment generally on this process to ensure the Commission and other federal agencies have adequate information on submarine cable infrastructure to assess for any national security, law enforcement, and other concerns.

5. Current and Future Service Offerings

104. We propose to require applicants for an initial application for a cable landing license or an application for modification, assignment, transfer of control, and renewal or extension of such license to include in their application information about the capacity services they currently provide or plan to provide through the submarine cable system. This information includes the capacity they currently own or lease, the amount of capacity they intend to sell or lease, and the capacity management services they will provide. We also propose to require applicants for a cable landing license, licensees, assignees, and transferees (as appropriate) to disclose current and expected future service offerings as part of their application for a cable landing license or modification, assignment, transfer of control, and renewal or extension of a submarine cable landing license. Collecting such information will help the Commission properly evaluate national security and other risks and the robustness of submarine cable infrastructure on an ongoing basis. Such requirements would bring our approach for submarine cable landing licenses in line with proposals for international section 214 authorization holders in the *Evolving Risks NPRM*,³²⁵ and incorporate insights from the Executive Branch agencies’ efforts to obtain information about services from applicants with reportable foreign ownership.³²⁶

105. Specifically, we propose to require applicants to provide the following information regarding services that they currently provide and/or will provide through the submarine cable system: (1) identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping; (2) identify the types of customers that currently are served and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity; (3) identify whether the applicant currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the submarine cable landing station(s), through an IRU or leasehold interest; (4) identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and (5) identify the general terms and conditions that currently apply and/or will apply to the services, such as contract duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery

³²¹ 44 U.S.C. § 3510.

³²² 44 U.S.C. § 3510(b)(1).

³²³ 47 CFR § 0.442(d).

³²⁴ See *infra* sections III.B.6 & III.D.5.

³²⁵ See *Evolving Risks NPRM*, 38 FCC Rcd at 4396-97, paras. 98-100.

³²⁶ See, e.g., *2021 Standard Questions Order*, 36 FCC Rcd at 14912, Attach. C (stating in the Instructions for Standard Questions for a Submarine Cable Landing License Application, “[t]he questions seek further details regarding the Applicant and its security-related practices, and some questions are particularly directed at identifying and assessing the complete scope of the equipment that the Applicant will be operating and the services the Applicant will be offering should the FCC grant those authorities”).

or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions. This information might be provided as service tiers, ranges, or other applicable frames of reference. We seek comment on whether this information should be considered presumptively confidential, similar to our proposal with respect to the exact addresses and specific geographic coordinates of certain sensitive components of a submarine cable system, such as the cable landing stations and beach manholes, among others.³²⁷ If so, what is the basis for why the information should be treated as presumptively confidential under the Commission's rules and the FOIA?³²⁸ In other words, to what extent does this information constitute privileged or confidential trade secrets or commercial or financial information?³²⁹ To what extent, if any, is this information already publicly available?

6. Regulatory Compliance Certifications

106. Given concerns about ensuring the security and integrity of this critical infrastructure, we propose new certifications to protect against national security, law enforcement, and other risks. We tentatively conclude that such requirements would help mitigate national security, economic security, law enforcement, and other concerns associated with threats to the security of submarine cable infrastructure. We also expect that requiring applicants to provide these certifications will help to expedite Commission review. We seek comment on our proposals below.

107. *Compliance with FCC Rules.* We propose that all applicants seeking a cable landing license or modification, assignment, transfer of control, and renewal or extension of such license, and licensees filing their three-year periodic reports, must certify in the applications and the reports whether or not they are in compliance with the Cable Landing License Act, the Communications Act, the Commission's rules, and other laws. Specifically, we propose to require each applicant to certify in its application whether or not the applicant has violated the Cable Landing License Act, the Communications Act, or Commission rules, including making false statements or misrepresentations to the Commission; whether the applicant has been convicted of a felony; and whether there is an adjudicated determination that the applicant has violated U.S. antitrust or other competition laws, has been found to have engaged in fraudulent conduct before another government agency, or has engaged in other non-FCC misconduct the Commission has found to be relevant in assessing the character qualifications of a licensee or authorization holder. We seek comment on these proposals. We also seek comment on whether the Commission should require applicants to disclose any pending FCC investigations, including any pending Notice of Apparent Liability, and any adjudicated findings of non-FCC misconduct. In addition, we seek comment on whether the Commission should require applicants to disclose any violations of the Communications Act, Commission rules, or U.S. antitrust or other competition law, or any other non-FCC misconduct only where there has been adjudication or notification of a violation by an agency or court.

108. *Cybersecurity Certifications.* We propose to require all applicants for a cable landing license or modification, assignment, transfer of control, and renewal or extension of a cable landing license, and licensees filing their three-year periodic reports, to certify in the application or report that they have created, updated, and implemented cybersecurity risk management plans. We also propose to require that existing licensees shall certify to the same for the first time based on the prioritization schedule set out in section III.A.2.³³⁰ To facilitate our review of existing cable landing licenses, we propose to require that existing licensees provide this cybersecurity certification in their respective periodic reports consistent with the categories and deadlines to be established by OIA as proposed

³²⁷ See *supra* section III.B.4.

³²⁸ Commenters should identify any harms from disclosure that would warrant the withholding of this information under the Commission's rules and the FOIA. See 47 CFR § 0.457; 5 U.S.C. § 552(b).

³²⁹ See 47 CFR § 0.457(d); 5 U.S.C. § 552(b).

³³⁰ See *supra* section III.A.2.

above.³³¹ We also propose to require these applicants and licensees to certify that they take reasonable measures to protect the confidentiality, integrity, and availability of their systems and services that could affect their provision of communications services. In this regard, we propose that applicants' and licensees' cybersecurity risk management plans must identify the cyber risks they face, the controls they use or plan to use to mitigate those risks, and how they ensure that these controls are applied effectively to their operations. The plans would also describe how the applicant or licensee employs its organizational resources and processes to ensure the confidentiality, integrity, and availability of its systems and services. We seek comment on these proposals.

109. Given the importance of cybersecurity, we believe that the operation of submarine cable systems should meet baseline security requirements to safeguard systems against threats. We believe these proposals are consistent with the National Cybersecurity Strategy and, in that connection, are in keeping with a whole-of-government effort to "establish cybersecurity requirements to support national security and public safety."³³² We expect that creating, updating, and implementing cybersecurity risk management plans would help protect applicants' and licensees' systems and services from serious threats to national security, public safety, and the economy. These proposals would require specific actions to protect communications networks and infrastructure and collaborating with communications sector industry members to identify best practices.³³³ We seek comment on these expectations and on any national security, economic, or public safety benefits of effective cybersecurity practices and cybersecurity risk management for applicants and licensees.

110. We propose that each applicant or licensee have flexibility to structure its cybersecurity risk management plan in a manner that is tailored to its organization, provided that the plan demonstrates that the applicant or licensee is taking affirmative steps to analyze security risks and improve its security posture. While we believe there are many ways that applicants or licensees may satisfy this requirement, we propose that they could successfully demonstrate compliance with this proposed requirement by following an established risk management framework, such as the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF).³³⁴ The NIST CSF is designed to be scalable and adaptable to the needs and capabilities of companies both large and small, is well understood by industry, and is flexible. We seek comment on this flexible approach, including whether it would reduce the costs imposed on applicants and licensees. What other risk management frameworks do applicants and

³³¹ See *id.*; see *infra* section III.C.

³³² White House, National Cybersecurity Strategy at 8 (2023), <https://www.whitehouse.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf>. Other federal agencies are likewise either requiring or proposing to require their regulated entities to take cybersecurity measures to protect their systems. For example, the Commodity Futures Trading Commission (CFTC) requires registrants to establish and maintain information security controls as part of their mandatory system safeguards and to implement five types of security testing through ongoing risk assessments and board oversight: (1) vulnerability testing; (2) penetration testing; (3) controls testing; (4) security incident response plan testing; and (5) enterprise technology risk assessment. See generally CFTC, *Fact Sheet: Final Rules on System Safeguards Testing Requirements* (Sept. 8, 2016), http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/syssafeguard_factsheet090816.pdf. The SEC has proposed periodic cybersecurity reporting requirements that include disclosing a registrant's policies and procedures to identify and manage cybersecurity risks. The SEC adopted cybersecurity reporting requirements that include disclosing a registrant's policies and procedures to identify and manage cybersecurity risks. See SEC, *Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure* (July 26, 2023), <https://www.sec.gov/files/rules/final/2023/33-11216.pdf>.

³³³ See Exec. Off. of the President, National Security Memorandum on Critical Infrastructure Security and Resilience (Apr. 30, 2024), <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/04/30/national-security-memorandum-on-critical-infrastructure-security-and-resilience/>.

³³⁴ See NIST, NIST Cybersecurity Framework 2.0 (2024), <https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.29.pdf> (NIST CSF).

licensees implement other than the NIST CSF? To the extent commenters believe we should mandate a particular risk management framework or take a less flexible approach, we seek comment on their proposed alternative, as well as their rationale and why it would serve the public interest. For example, should we require applicants and licensees to apply the NIST CSF, as we have done in other proceedings?³³⁵ We further seek comment on how an applicant should demonstrate that it has taken affirmative steps to analyze security risks and improve its security posture after it has implemented a cybersecurity risk management plan.

111. We propose that an applicant's Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Technology Officer (CTO), or a similarly situated senior officer responsible for governance of the organization's security practices would be required to sign the applicant's cybersecurity risk management plan. We believe that a signatory with visibility into the full network and organization is essential to ensure the plan encompasses all necessary elements and is executed throughout the organization. In recommendations made to Microsoft after the Cyber Safety Review Board's investigation of an incident resulting in compromise of Microsoft's systems as a result of a threat actor associated with the Chinese government, the Board noted the importance of "rigorous risk management" and focus on security at the executive level.³³⁶ We seek comment on this approach. Are there additional steps that we should take to ensure that cybersecurity is an integral part of corporate governance for applicants and licensees?

112. We seek comment on whether to require applicants' and licensees' cybersecurity risk management plans to include provisions for identifying, assessing, and mitigating supply chain cybersecurity threats. According to NIST, "[g]iven the complex and interconnected relationships in this ecosystem, supply chain risk management . . . is critical for organizations."³³⁷ To what extent do applicants' and licensees' cybersecurity risk management plans already identify and mitigate supply chain cybersecurity risks? We note that the Commission already requires participants in the Enhanced A-CAM and 5G Fund programs to submit separate supply chain risk management plans that incorporate best practices published by NIST, such as those discussed in *Key Practices in Cyber Supply Chain Risk Management: Observations from Industry* (NISTIR 8276), and *Cybersecurity Supply Chain Risk Management Practices for Systems and Organizations* (NIST 800-161), in addition to cybersecurity risk management plans.³³⁸ Should we require all applicants and licensees to certify to having created, updated, and implemented cybersecurity supply chain risk management plans, either as part of their cybersecurity risk management plan or as a separate document?

113. We propose to require applicants and licensees to describe in their risk management plans their implementation of security controls sufficient to ensure the confidentiality, integrity, and availability of all aspects of their communications systems and services. While we believe there are many ways for

³³⁵ See *Connect America Fund: A National Broadband Plan for Our Future High-Cost Universal Service Support et al.*, WC Docket No. 10-90 et al., Report and Order, Notice of Proposed Rulemaking, and Notice of Inquiry, 38 FCC Rcd 7040, 7086-87 para. 111 (2023) (*Enhanced A-CAM Order*); (requiring Enhanced A-CAM support recipients to implement cybersecurity risk management plans that reflect the latest version of the NIST CSF as a condition of receiving support); *Establishing a 5G Fund for Rural America*, GN Docket No. 20-32, Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, FCC 24-89, at 64-65, para. 122 (Aug. 14, 2024) (*5G Fund Second Report and Order*) (requiring 5G Fund support recipients to implement cybersecurity risk management plans that reflect the NIST CSF as a condition of receiving 5G Fund support).

³³⁶ Cyber Safety Review Board, *Review of the Summer 2023 Microsoft Exchange Online Intrusion*, at iv (Mar. 20, 2024), https://www.cisa.gov/sites/default/files/2024-04/CSRB_Review_of_the_Summer_2023_MEO_Intrusion_Final_508c.pdf.

³³⁷ NIST CSF at 13.

³³⁸ See *Enhanced A-CAM Order* at 7086-87, paras. 109-11 (2023); *5G Fund Second Report and Order* at 65, para. 123.

applicants and licensees to satisfy this aspect of the requirement, we propose that applicants and licensees will satisfy it if they demonstrate they have successfully implemented an established set of cybersecurity best practices, such as the Cybersecurity and Infrastructure Security Agency's (CISA) Cross-Sector Cybersecurity Performance Goals (CPGs)³³⁹ or the Center for Internet Security Critical Security Controls (CIS Controls).³⁴⁰ We expect that compliant cybersecurity risk management plans will not be limited to a predetermined set of specific measures, but instead plans will vary based on individual applicants' and licensees' needs and circumstances sufficient to protect against cyber threats.³⁴¹ We seek comment on this proposal.

114. In conjunction with this proposal, we seek comment on whether to require applicants and licensees to implement specific security controls sufficient to protect the confidentiality, integrity, and availability of their systems and services. In the *Alerting Security NPRM*, the Commission proposed to require alerting participants to implement the following six controls, among other measures: (1) changing default passwords prior to operation; (2) installing security updates in a timely manner; (3) securing equipment behind properly configured firewalls or using other segmentation practices; (4) requiring multifactor authentication, where applicable; (5) addressing the replacement of end-of-life equipment; and (6) wiping, clearing, or encrypting user information before disposing of old devices.³⁴² These six controls were drawn from CISA's common baseline of cybersecurity controls.³⁴³ We seek comment on whether we should require the implementation of these or some other subset of common security controls to protect applicants' and licensees' systems and services.

115. We observe that applicants and licensees can benefit from free and low-cost resources that are available to help identify and implement best practices and improve their security over time without requiring the hiring of outside experts. NIST publishes guidance that could assist organizations with measuring their safeguards, including how to address ransomware, malware, malicious code, spyware, distributed denial of service (DDoS) attacks, phishing, securing networks, and threats to mobile

³³⁹ See CISA, *Cross-Sector Cybersecurity Performance Goals*, <https://www.cisa.gov/cross-sector-cybersecurity-performance-goals>.

³⁴⁰ See Center for Internet Security, *Critical Security Controls Version 8*, <https://www.cisecurity.org/controls> (last visited Oct. 22, 2024) (providing security controls grouped by priority and feasibility for different sizes and resources of businesses in Implementation Groups).

³⁴¹ We note that the Commission has also sought comment on whether applicants for international section 214 authority and modification, assignment, transfer of control, and renewal of international section 214 authority should be required to certify in the application that they will undertake to implement and adhere to baseline cybersecurity standards based on universally recognized standards such as those provided by CISA or NIST. *Evolving Risks NPRM*, 38 FCC Rcd at 4405, paras. 122-23. We assess that the proposals in this *Notice* do not limit any proposals from that proceeding. *Id.* We seek comment on this assessment.

³⁴² *Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System; Wireless Emergency Alerts; Protecting the Nation's Communications Systems from Cybersecurity Threats*, PS Docket Nos. 15-94, 15-91, & 22-329, Notice of Proposed Rulemaking, 37 FCC Rcd 12932, 12945, para. 25 (Oct. 27, 2022) (*Emergency Alert System Cybersecurity NPRM*). On August 22, 2022, PSHSB advised EAS participants to promptly secure their equipment against potential Internet-based risks, emphasizing the importance of updating software, changing default passwords, and implementing security measures to prevent unauthorized access. *See Public Safety and Homeland Security Bureau Urges Emergency Alert System (EAS) Participants to Take Immediate Steps to Secure EAS Equipment*, PS Docket No. 15-94, Public Notice, 37 FCC Rcd 9334 (PSHSB 2022). The advisory addressed a vulnerability identified by the Federal Emergency Management Agency and underscored the responsibility of EAS participants to ensure proper functioning during operational times to avoid enforcement consequences. *Id.* These requirements are grounded in the guidance provided in that Public Notice. *Id.*

³⁴³ See CISA, *Cross-Sector Cybersecurity Performance Goals (CPGs) Common Baseline: Controls List (Draft)*, https://www.cisa.gov/sites/default/files/publications/Common_Baseline_v2_Controls_List_508c.pdf (CISA Baseline).

phones.³⁴⁴ CISA offers vulnerability scanning at no cost for critical infrastructure, which includes communications providers,³⁴⁵ and also provides CPG Assessment Training with regional cybersecurity experts that will help communications providers better understand CPGs and the cybersecurity risk assessment process.³⁴⁶ We assume that these resources, along with any number of other publicly available resources that we have not specifically identified or that may arise in the future, will assist applicants' and licensees' employees and their existing technical contractors in identifying and implementing appropriate security controls without needing specialized cybersecurity expertise. We seek comment on this assumption.

116. We propose that applicants and licensees submit cybersecurity risk management plans to the Commission upon request. We propose to delegate to OIA, in coordination with PSHSB, the authority to request, at its discretion, submission of such cybersecurity risk management plans and to evaluate them for compliance against the rules that are adopted under this proceeding. Access to applicants' and licensees' cybersecurity risk management plans would allow the Commission to confirm whether plans are being regularly updated, review a specific plan as needed, or proactively review a sample of applicants' and licensees' plans to confirm they identify the cybersecurity risks to those applicants' and licensees' communications systems and services. We would treat the cybersecurity risk management plans as presumptively confidential under our rules.³⁴⁷ We seek comment on this approach, including the types of information included in these plans that warrant confidential treatment and the reasons why that information should be considered confidential. Do providers treat this information as confidential when it is used in other contexts? What harms could befall a provider if its plan was publicly disclosed? In addition, we seek comment on whether to adopt a rule that would allow the Commission to share the plans with relevant federal agencies, including information for which confidential treatment is requested, without the pre-notification procedures of section 0.442(d). We seek comment on whether the Commission should share the plans with federal agencies, such as CISA and other components of DHS, and give notice to the applicant or licensee. Under section 0.442,³⁴⁸ the Commission may disclose to other federal agencies, upon the Commission's own motion or another agency's request, records that have been submitted to the Commission in confidence, subject to providing the filer notice of the proposed sharing and ten (10) days to object.³⁴⁹ We believe that forgoing these pre-notification procedures when sharing plans with relevant federal agencies would more rapidly facilitate the federal government's response to cyber incidents affecting the communications sector. We seek comment on this approach.

117. We also propose that applicants and licensees must preserve data and records related to their cybersecurity risk management plans, including any information that is necessary to show how the cybersecurity risk management plan is implemented, for two years from the submission of the related risk management plan certification to the Commission. We seek comment on this approach. Should we

³⁴⁴ See NIST, *Cybersecurity Risks* (Nov. 3, 2023), <https://www.nist.gov/itl/smallbusinesscyber/cybersecurity-basics/cybersecurity-risks>.

³⁴⁵ CISA, *CISA Vulnerability Scanning*, <https://www.cisa.gov/resources-tools/services/cisa-vulnerability-scanning> (last visited Oct. 22, 2024).

³⁴⁶ CISA, *Cybersecurity Performance Goals (CPG) Assessment Training*, <https://www.cisa.gov/resources-tools/training/cybersecurity-performance-goals-cpg-assessment-training> (last visited Oct. 22, 2024).

³⁴⁷ See 47 CFR §§ 0.457 and 0.459.

³⁴⁸ 47 CFR § 0.442.

³⁴⁹ § 0.442(b). In general, under federal law, the Commission may share information it has collected with other federal government agencies information it has collected pursuant to an information collection and, if it does, all provisions of law that relate to the unlawful disclosure of information apply to the employees of the agency to which the information is released "to the same extent and in the same manner" as they do to employees of the collecting agency. 44 U.S.C. § 3510(b)(1). 44 U.S.C. § 3510.

require applicants and licensees to retain prior versions of their cybersecurity risk management plans for a shorter or longer period of time? If so, why?

118. We believe it would promote neither public safety nor national security if applicants and licensees could escape responsibility for the cybersecurity of their systems and services by outsourcing the provision of those systems and services to third parties. Accordingly, if an applicant relies on a third-party contractor for provision of a communications system or service, we propose to require the applicant's cybersecurity risk management plan to cover the systems and services offered by the third-party contractor. We propose to hold applicants and licensees responsible for the acts, omissions, or failures of third-party contractors that impact the cybersecurity of the applicant's systems and services. In connection with our requirement to take reasonable measures to protect the confidentiality, integrity, and availability of its communications systems and services, if an applicant relies on a third-party contractor to provide equipment or services, and an unreasonable act or omission of that third-party contractor results in the applicant's failure to protect the confidentiality, integrity, or availability of its systems and services, we propose to hold the applicant responsible for that act or omission. We seek comment on this approach. We also seek comment on the extent to which applicants and licensees currently include minimum cybersecurity requirements in their contracts with third parties.

119. *"Covered List" Certification for Applicants.* To protect U.S. communications networks and the communications supply chain against national security threats, we propose to require that applicants, as a condition of the potential grant of their application, certify that the submarine cable system will not use covered equipment or services identified on the Commission's "Covered List" that the Commission maintains pursuant to the Secure and Trusted Communications Networks Act.³⁵⁰ Such equipment and services have been deemed to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons.³⁵¹ We propose that this certification would apply to covered equipment or services purchased, rented, leased, or otherwise obtained on or after August 14, 2018 (in the case of Huawei, ZTE, Hikvision, Dahua, and Hytera), or on or after 60 days after the date that any equipment or service is placed on the Covered List.³⁵² Given the national security and law enforcement risks to submarine cable systems, we also propose to adopt a rule prohibiting use of such equipment or services in the submarine cable system. We seek comment on this proposal, the financial burdens on applicants, and any alternatives to this proposal.

120. *"Covered List" Certification for Licensees.* Additionally, we propose to require that licensees certify as to whether or not they use, for the relevant submarine cable system, equipment or services identified on the "Covered List."³⁵³ We also propose that this certification would apply to covered equipment or services purchased, rented, leased, or otherwise obtained on or after August 14, 2018 (in the case of Huawei, ZTE, Hikvision, Dahua, and Hytera), or on or after 60 days after the date that any equipment or service is placed on the Covered List.³⁵⁴ Further, we propose requiring licensees to

³⁵⁰ Pursuant to sections 2(a) and (d) of the Secure and Trusted Communications Networks Act, and sections 1.50002 and 1.50003 of the Commission's rules, PSHSB publishes a list of communications equipment and services that have been determined by one of the sources specified in that statute to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons ("covered" equipment). *See supra* note 89; 47 U.S.C. § 1601(a), (d); *see* 47 U.S.C. §§ 1601-1609; 47 CFR §§ 1.50002, 1.50003.

³⁵¹ *See* 47 U.S.C. §§ 1601-1609; 47 CFR § 1.50000 *et seq.*; *see also* FCC, *List of Equipment and Services Covered by Section 2 of the Secure Networks Act*, <https://www.fcc.gov/supplychain/coveredlist> (last updated July 24, 2024) (*List of Covered Equipment and Services*).

³⁵² *See List of Covered Equipment and Services*; *see e.g.*, *Supply Chain Second Report and Order*, 35 FCC Rcd at 14334, para. 116.

³⁵³ *See* 47 U.S.C. § 1601(a), (d);- *see* 47 U.S.C. §§ 1601-1609; 47 CFR §§ 1.50002, 1.50003; *List of Covered Equipment and Services*.

³⁵⁴ *See List of Covered Equipment and Services*.

provide this certification within sixty (60) days of the effective date of any rule adopted in this proceeding, following approval by OMB.

121. In the event that existing licensees use such equipment or services, we seek comment on whether we should require those licensees to remove such equipment or services to ensure the security and reliability of submarine cable systems. Should we require those licensees to develop plans to address the removal of such equipment and services with specified timelines? If so, should we require licensees to submit their plans with the Commission? Additionally, we seek comment on whether the Commission should prohibit licensees from purchasing, obtaining, maintaining, improving, modifying, or otherwise supporting any equipment or services produced or provided by entities on the Covered List. If so, what penalties would apply for non-compliance? To what extent should the Commission's framework for requiring the recipients of reimbursement funds under section 4 of the Secure Networks Act³⁵⁵ and carriers receiving Universal Service Fund support to remove and replace equipment and services that are included on the "Covered List" from the submarine cable system inform our approach here?³⁵⁶ What would be our source of legal authority for applying a prohibition on covered equipment and services on cable landing licensees? Are there scenarios in which replacement of removed equipment and services is not necessary? Are there networks in which there is sufficient redundancy that, if removed, the covered equipment and services need not be replaced? We seek comment on the timing and deadlines for removal of covered equipment and services. We specifically seek comment on the amount of time that may be necessary to remove covered equipment and services and the financial cost to cable landing licensees. We also seek comment on whether there are other sources of information that we should consider to inform our decisions on removal timing and deadlines and to understand the scope of the effort. We seek comment on these approaches and generally on what other certifications the Commission should adopt concerning the "Covered List."

122. We seek comment on whether we should rely solely on the "Covered List" or consider other lists or sources of information to identify equipment or services that should be prohibited, including but not limited to the Department of Commerce's Entity List³⁵⁷ and the Department of Defense's List of Chinese Military Companies (1260H List).³⁵⁸ Are there gaps or limitations with the "Covered List"? What alternative sources would reduce those gaps or limitations? What information or guidelines would assist applicants and licensees in providing certifications regarding the "Covered List"? Should applicants and licensees certify, in addition or as an alternative to these proposed certifications, that they will not use vendors for equipment or services from certain countries, such as any foreign country that is a "foreign adversary" as defined in the Department of Commerce's rule, 15 CFR §

³⁵⁵ See Secure Networks and Trusted Communication Act § 4(a).

³⁵⁶ See 47 CFR §§ 1.50004-.50007.

³⁵⁷ 15 CFR § 744.16; see Bureau of Industry and Security, U.S. Department of Commerce, Supplement No. 4 to Part 744 – Entity List (2023), <https://www.bis.doc.gov/index.php/documents/regulations-docs/2326-supplement-no-4-to-part-744-entity-list-4/file> [<https://perma.cc/STW5-B8GW>].

³⁵⁸ See DOD National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116–283, § 1260H, 134 Stat. 3388, 3965–66 (2021); Office of the Under Secretary of Defense (Acquisition and Sustainment), Department of Defense, Notice of Designation of Chinese Military Companies Under the William M. (Mac) Thornberry NDAA for FY21, 86 Fed. Reg. 33994 (June 28, 2021); Press Release, U.S. Department of Defense, DOD Releases List of People's Republic of China (PRC) Military Companies in Accordance With Section 1260H of the National Defense Authorization Act for Fiscal Year 2021 (Jan. 31, 2024), <https://www.defense.gov/News/Releases/Release/article/3661985/dod-releases-list-of-peoples-republic-of-china-prc-military-companies-in-accord/> (releasing an update to the names of "Chinese military companies" operating directly or indirectly in the United States in accordance with the statutory requirement of Section 1260H of the National Defense Authorization Act for Fiscal Year 2021 and providing the list at <https://media.defense.gov/2024/Jan/31/2003384819/-1/-1/0/1260H-LIST.PDF>).

791.4?³⁵⁹ We seek comment generally on how best to promote the security and integrity of the communications supply chain with respect to submarine cable systems.

123. *Interrupt Traffic on Submarine Cable System Certification.* Mitigation agreements associated with submarine cable landing licenses typically include a provision requiring the licensee entering into the agreement to have the ability to physically or logically interrupt, in whole or in part, traffic to and from the United States on the submarine cable system by disabling or disconnecting circuits at the U.S. cable landing station or at other locations within the United States and to configure all necessary systems to ensure the licensee can suspend or interrupt the optical signal or all communications functionality of the licensed submarine cable system.³⁶⁰ Given the importance of submarine cables, we seek comment on whether and how we should incorporate this requirement into our rules. Should we incorporate this requirement as a certification or a routine condition under our rules? We tentatively conclude that every submarine cable application should include an assurance from the applicant(s) that, upon any grant of the application, the licensee will be able to suspend or interrupt the optical signal or all communications' functionality. We seek comment on whether joint licensees may appoint one party to be responsible for complying with this requirement.

7. Third-Party Access

124. National security and law enforcement risks can and do arise with third-party access to a submarine cable system, whether that access involves physical or logical access to the cable system. In this regard, we are concerned about the risks posed by non-licensee individuals and entities with access to U.S.-licensed submarine cable systems. This includes, but is not limited to, owners of the buildings that house submarine cable systems, the cable landing station, co-tenants of the submarine cable system's location, contractors hired by the licensee to manage the cable system, including MNSPs, and other third-party entities with access to the cable system's NOC.

125. *Physical Access to Submarine Cable Systems.* The physical security of a submarine cable system, including its sturdiness and impenetrability and prevention of unauthorized access into the cable landing station, is important to the safety of the cable system,³⁶¹ and knowledge of who has physical access to a submarine cable system, including the cable landing station, is important for determining vulnerabilities. We seek comment on whether to require basic information about an applicant's lessors of submarine cable landing stations and/or data center housing hardware. Additionally, we seek comment on the overlap between physical and logical access to submarine cable systems. Are there aspects of the physical operation of submarine cable systems that can be controlled or managed remotely?

³⁵⁹ 15 CFR § 791.4.

³⁶⁰ See, e.g., Letter from Sameer Bhatti, CEO, Bahamas Telecommunications Company Limited, to Under Secretary for Strategy, Policy and Plans, Office of Strategy, Policy, and Plans, U.S. Department of Homeland Security; Chief, Foreign Investment Review Section (FIRS) and Deputy Chief, Compliance and Enforcement (FIRS), on behalf of the Assistant Attorney General for National Security, United States Department of Justice, National Security Division; Office of Foreign Investment Review, Director, Undersecretary of Acquisition and Sustainment, U.S. Department of Defense at 5 (July 12, 2023) (on file in File No. SCL-LIC-20220422-00016); see also Letter from Corey M. Anthony, Senior Vice President, Network Engineering and Operations, AT&T Services, Inc., to Assistant Secretary for Trade and Economic Security, Office of Strategy, Policy, and Plans, U.S. Department of Homeland Security; Global Investment and Economic Security Directorate, Director, Undersecretary of Acquisition and Sustainment, U.S. Department of Defense (Jan. 23, 2022) (on file in File No. SCL-LIC-20220114-00004).

³⁶¹ Communications Security, Reliability, and Interoperability Council, Working Group 4A Submarine Cable Resiliency, Final Report – Clustering of Cables and Cable Landings at 5 (Aug. 2016), https://transition.fcc.gov/bureaus/pshs/advisory/csrc5/WG4A_Final_091416.pdf (highlighting the importance of protecting a cable landing station from physical threats such as “intrusion, ballistic, [and] surveillance.”).

126. *Logical Access to the Submarine Cable Systems.* We are interested in understanding and addressing the vulnerabilities posed by third-party individuals and entities with logical access to submarine cable systems.³⁶² We seek comment generally on ways the Commission can address vulnerabilities associated with such logical access.

127. *Remote Access Services.* We understand submarine cable landing licensees sometimes employ third parties' services to remotely manage the submarine cable networks.³⁶³ Such access to a submarine cable system can pose a vulnerability, not only from the third-party itself but from any hostile actor that breaches the third-party's remote management system.³⁶⁴ On September 30, 2021, the Commission adopted the *2021 Standard Questions Order* that requires certain applicants and petitioners with reportable foreign ownership to provide answers to a set of standardized national security and law enforcement questions.³⁶⁵ The Standard Questions ask applicants about applicants' capabilities to "control or monitor operations . . . via Remote Access" and whether any "third-party vendors, associated companies, or Owners have Remote Access."³⁶⁶ We seek comment on the challenges posed by submarine cable landing licensees' use of remote service vendors and their services and steps the Commission could take to mitigate those challenges.

128. *Foreign-Owned Managed Network Service Providers.* We propose to require all applicants/licensees, with or without reportable foreign ownership, to report whether or not they use and/or will use foreign-owned MNSPs in the operation of the submarine cable. We propose to require this information in the initial licensing application, in subsequent submarine cable applications upon grant of a license, and as an ongoing requirement in the three-year periodic reports. We seek comment on how often to require such information in the event we shorten the license term.³⁶⁷ Below, we propose and seek comment on criteria for how we propose to define "foreign-owned."³⁶⁸ We propose to define an MNSP as any entity other than the applicant(s) or licensee(s) (i.e., third-party entity) with whom the applicant(s) or licensee(s) contracts to provide, supplement, or replace certain functions for the U.S. portion of the submarine cable system (including any cable landing station and SLTE located in the United States) that require or may require access to the network, systems, or records of the applicant(s) or licensee(s). Such functions could include, but are not limited to operations and management support; network operations and service monitoring, including intrusion testing; network performance, optimization, and reporting;

³⁶² United States Government Accountability Office, CYBERSECURITY - Internet Architecture Is Considered Resilient, but Federal Agencies Continue to Address Risks, Report to the Committee on Armed Services, House of Representatives, GAO-22-104560 at 13 (Mar. 2022), <https://www.gao.gov/assets/gao-22-104560.pdf> (identifying "[m]alicious insider(s)," defined as "[a]n individual or group with authorized access . . . that has the potential to harm an information system or enterprise through destruction, disclosure, modification of data, and/or denial of service," as a threat to submarine cable systems.).

³⁶³ Justin Sherman, Cyber defense across the ocean floor: The geopolitics of submarine cable security, Atlantic Council (Sept. 13, 2021), <https://www.atlanticcouncil.org/in-depth-research-reports/report/cyber-defense-across-the-ocean-floor-the-geopolitics-of-submarine-cable-security/#trend-2>.

³⁶⁴ *Id.*

³⁶⁵ See *2021 Standard Questions Order*, 36 FCC Rcd at 14920 (inquiring, "[w]hat, if any, capability do Applicants have to control or monitor operations over the network (e.g., audit mechanisms, record access monitoring) via Remote Access" and "[w]ill any third-party vendors, associated companies, or Owners have Remote Access/monitoring to the network, systems, or records to provide Managed Services? If so, provide additional details, i.e., third party identifying information, role, and reason for their access").

³⁶⁶ *Id.* at 14912, Attach. C (Standard Questions for a Submarine Cable Landing License Application).

³⁶⁷ See *supra* section III.A.2.b.

³⁶⁸ See *infra* para. 132.

installation and testing; network audits, provisioning and development; and the implementation of changes and upgrades.³⁶⁹

129. The Standard Questions adopted in the *2021 Standard Questions Order*³⁷⁰ define the term “Managed Services” (or “Enterprise Services”) as “the provision of a complete, end-to-end communications solutions to customers.”³⁷¹ Specifically, the Standard Questions associated with submarine cable landing license applications require applicants to respond whether any “third-party vendors, associated companies, or Owners will have Remote Access/monitoring of the network, systems, or records to provide Managed Services,” and if so, to “provide additional details, i.e., third party identifying information, role, and reason for their access.”³⁷²

130. The Standard Questions require an applicant to submit answers directly to the Committee, and applicants without reportable foreign ownership are not routinely referred to the Committee or to other relevant Executive Branch agencies. Applicants whose applications are not referred to the Committee or to other Executive Branch agencies nevertheless may reach contractual agreements or have other arrangements with foreign-owned MNSPs, thereby providing the foreign-owned MNSPs with access to the submarine cable system and potentially allowing them to act in ways that are contrary to U.S. interests without the Commission or Committee ever being informed.

131. We propose to require all applicants for submarine cable landing licenses, regardless of reportable foreign ownership, to report in their application whether or not they use and/or will use foreign-owned MNSPs. We also propose to require such disclosure of foreign-owned MNSP use in applications to modify, assign, transfer control of, and renew or extend a submarine cable license. We note that the Standard Questions associated with applications for assignments and transfers of control ask whether “any third-party vendors, associated companies, or Owners have Remote Access/monitoring to the network, systems, or records to provide Managed Services.”³⁷³ We propose to direct the Office of International Affairs to draft, update as appropriate, and make available on a publicly available website, a standardized set of national security and law enforcement questions that elicit information related to MNSPs (MNSP Standard Questions) in accordance with any new rules adopted in this proceeding, following OMB approval. We propose that any applicant/licensee that indicates in the application that it uses and/or will use a foreign-owned MNSP will need to answer the MNSP Standard Questions and those applications would be routinely referred to the Executive Branch agencies, including the Committee.³⁷⁴ We seek comment on whether all applicants, regardless of reportable foreign ownership, should be required to answer all of the existing Standard Questions, or only those existing Standard Questions relating to MNSPs, or a new set of questions devised by the Office of International Affairs.

132. We propose and seek comment on the specific criteria for considering an MNSP to be “foreign-owned,” such that an applicant would have to report its use. We propose that an MNSP be

³⁶⁹ This proposed definition is based on the definitions of “Managed Network Service Provider” articulated by the Departments of Justice, Homeland Security, and Defense in recent National Security Agreements with cable landing licensees. See GU Holdings NSA at 3; and Edge Cable Holdings NSA at 3.

³⁷⁰ In the *2021 Standard Questions Order*, the Commission adopted a set of standardized national security and law enforcement questions (Standard Questions) that certain applicants and petitioners with reportable foreign ownership will be required to answer as part of the Executive Branch review process of their applications and petitions. *2021 Standard Questions Order*, 36 FCC Rcd at 14848.

³⁷¹ *2021 Standard Questions Order*, 36 FCC Rcd at 14914, Attach. C.

³⁷² *Id.* at 14920, Attach. C (listing Standard Questions for a Submarine Cable Landing License Application); see also *id.* at 14933, Attach. D (listing Standard Questions for an Application for Assignment or Transfer of a Submarine Cable Landing License).

³⁷³ *Id.* at 14933, Attach. D.

³⁷⁴ See generally *2021 Standard Questions Order*, Attachs. C-D.

considered “foreign-owned” if it is majority-owned and/or controlled (1) by a foreign individual or entity or (2) in the aggregate by foreign individuals or entities. We seek comment on whether we should require applicants to explain in detail the foreign individuals’ or entities’ involvement and management roles in the foreign-owned MNSP.³⁷⁵ In addition, we seek comment on whether any MNSPs also possess physical access to the submarine cable system. Relatedly, we seek comment on which functions of the submarine cable system can be controlled remotely. Further, are there other functions of a submarine cable system that are managed by third-party entities, including MNSPs, that we have not addressed in this *Notice* but and should consider? If submarine cables use MNSPs, should the Commission work with providers to recommend standards or best practices regarding the use of foreign-owned MNSPs to help reduce risk? What should be included in any standards?

133. We generally seek comment on our proposed definition of MNSP and the use of MNSPs and managed network services by submarine cable operators. We seek information as to whether our proposed identification of functions offered by an MNSP is sufficiently comprehensive. Are there other vulnerabilities associated with contracted services that we should consider?

134. *Network Operations Centers.* We are interested in logical access to and control of NOCs,³⁷⁶ the locations and facilities where network management, monitoring, maintenance, performance measurement, or other operational functions are performed for the submarine cable system.³⁷⁷ The Standard Questions require applicants with reportable foreign ownership to provide “a list of the anticipated addresses or physical locations” for “[t]he NOC (and back-up NOC, if any).”³⁷⁸ We propose to require all applicants, regardless of foreign ownership, to supply this information in generally accepted GIS formats or other formats, on a presumptively confidential basis in the initial application for a cable landing license and application for modification, assignment, transfer of control, and renewal or extension of a cable landing license, and in the periodic reports.³⁷⁹ We propose to delegate authority to OIA, in consultation with the Office of Economics and Analytics, to determine the file formats and specific data fields in which data will ultimately be collected. Should the requirement to report the locations of NOCs also encompass other components of the submarine cable system, such as cable landing stations and/or main distribution facilities?³⁸⁰ What is the basis for why the information should be treated as presumptively confidential under the Commission’s rules and the FOIA?³⁸¹ Is this information publicly available, or is it treated as confidential information by the submarine cable industry? To what extent, if any, does this information constitute privileged or confidential trade secrets or commercial or financial

³⁷⁵ *Id.* at 14920, Attach. C (Requesting of applicants that they provide, for “any third-party vendors, associated companies, or Owners [that] have Remote Access/monitoring to the network, systems, or records to provide Managed Services,” additional details such as “third party identifying information, role, and reason for their access.” *Id.*).

³⁷⁶ *Definition, Network Operations Center*; see *supra* note 312.

³⁷⁷ See, e.g., Letter from Brian Quigley, GU Holdings Inc., to Under Secretary for Strategy, Policy and Plans Office of Strategy, Policy, and Plans, U.S. Department of Homeland Security; Chief, Foreign Investment Review Section (FIRS) and Deputy Chief, Compliance and Enforcement (FIRS) on Behalf of the Assistant Attorney General for National Security, U.S. Department of Justice; and the Office of Foreign Investment Review, and Director Undersecretary of Acquisition and Sustainment, U.S. Department of Defense at 3 (Nov. 30, 2022) (on file in SCL-LIC-20220422-00015) (*GU Holdings Firmina LOA*).

³⁷⁸ 2021 Standard Questions Order, 36 FCC Rcd at 14919, Attach. C.

³⁷⁹ See *id.* at 14932, Attach. D. (requiring applicants to provide “addresses or physical locations” for “[t]he NOC (and back-up NOC, if any).”).

³⁸⁰ *GU Holdings Firmina LOA* at 5 (requiring disclosure of network management information including “locations and functions of any NOCs, data centers, Points of Presence (PoPs) and main distribution facilities” “[w]ithin 60 days of the execution of [the] LOA, and, thereafter, within 30 days upon . . . request.” *Id.* at 4-5.).

³⁸¹ 47 CFR § 0.457; 5 U.S.C. § 552(b).

information?³⁸² What harms to commercial interests could result from public disclosure of this information?

135. We also seek comment on whether ownership of NOCs by third parties may be encompassed by our proposed definition of an MNSP and whether there are benefits or consequences to including or excluding such third-party owners of NOCs from the proposed definition of an MNSP.

8. Other Risks to Submarine Cable Infrastructure

136. We seek comment generally on how the Commission can take action to strengthen the security and resilience of submarine cable infrastructure, pursuant to its legal authority, including activities in coordination with its federal partners. In particular, we seek comment on what actions the Commission can take to mitigate risks and strengthen the security and resilience of this critical infrastructure, pursuant to its legal authority, including activities in coordination with its federal partners. Given the role of submarine cables to the nation's communications networks and other vital infrastructure and assets, it is important to ensure the protection, security, and resilience of this critical infrastructure. Accordingly, damage to submarine cable infrastructure would affect other critical infrastructure sectors that rely on communications and would have a debilitating impact on the nation's economic and national security. The Commission's responsibilities in securing communications networks are well established. Congress created the Commission, among other reasons, "for the purpose of the national defense, [and] for the purpose of promoting safety of life and property through the use of wire and radio communication."³⁸³ Furthermore, the President's recent National Security Memorandum, NSM-22, directs the Commission, among other things, to "assess communications sector risks and work to mitigate those risks by requiring, as appropriate, regulated entities to take specific actions to protect communications networks and infrastructure" and to "collaborate with communications sector industry members, foreign governments, international organizations, and other stakeholders to identify best practices and impose corresponding regulations," to the extent permitted by law and in coordination with DHS and other federal departments and agencies.³⁸⁴ As an initial matter, to further these efforts, we seek comment on risks to submarine cable infrastructure, including human and natural risks, and what steps the Commission can take to mitigate such threats of damage and ensure the protection of this critical infrastructure.

137. *Malicious Threats.* We observe that NSM-22 addresses malicious threats to U.S. critical infrastructure, stating, "[t]he United States also faces an era of strategic competition with nation-state actors who target American critical infrastructure and tolerate or enable malicious actions conducted by non-state actors."³⁸⁵ We have reason to believe that adversaries and other malicious actors may be targeting submarine cables landing and operated in the United States and invite comments providing examples, details about geography, extent, and frequency of such targeting. What measures are implemented by the submarine cable industry to protect submarine cable infrastructure against malicious threats? How can the Commission facilitate information sharing between national security agencies and industry, consistent with NSM-22? We seek comment on any actions the Commission can take to mitigate those threats pursuant to its legal authority, including in coordination with its federal partners. We also seek comment on what measures are implemented by the submarine cable industry to mitigate such risks.

³⁸² 47 CFR § 0.457(d); 5 U.S.C. § 552(b).

³⁸³ 47 U.S.C. § 151.

³⁸⁴ NSM-22 at 14; *id.* at 33 (defining critical infrastructure as "systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on national security, national economic security, national public health or safety, or any combination of those matters").

³⁸⁵ NSM-22 at 2.

138. *Spatial Conflicts.* We seek comment as to whether, and to what extent, close spatial proximity between submarine cables and other marine infrastructure and activities presents risks of damage to submarine cables landing in the United States. In 2014, the Communications, Security, Reliability, and Interoperability Council (CSRIC)³⁸⁶ issued a report examining risks to submarine cable infrastructure, including activities that “pose direct risks to submarine cables by threatening installed cables with equipment, anchors, infrastructure installation and operation, and resource exploration, exploitation, and transport.”³⁸⁷ CSRIC identified “traditional risks” including commercial fishing,³⁸⁸ anchoring,³⁸⁹ sand and gravel dredging and beach replenishment,³⁹⁰ and oil and gas development,³⁹¹ among other things.³⁹² CSRIC also identified “emerging risks” such as offshore renewable energy development—namely, offshore wind projects, marine and hydrokinetic (MHK) projects, and ocean thermal energy conversion (OTEC) projects³⁹³—and deep-sea mining,³⁹⁴ while noting the risks remain uncertain.³⁹⁵

³⁸⁶ The purpose of CSRIC, an advisory committee established under the Federal Advisory Committee Act, is to provide recommendations to the Commission regarding ways the Commission can help to ensure security, reliability, and interoperability of communications systems. FCC, *Advisory Committees of the FCC*, <https://www.fcc.gov/about-fcc/advisory-committees-fcc> (last visited Oct. 23, 2024); FCC, *Communications Security, Reliability, and Interoperability Council*, <https://www.fcc.gov/about-fcc/advisory-committees/communications-security-reliability-and-interoperability-council-0> (last visited Oct. 23, 2024).

³⁸⁷ CSRIC IV Report at 5; *id.* at 2 (“Although damage to submarine cables is rare, it is most often caused by human activities such as commercial fishing (in which trawl nets, clam dredges, and other bottom-contact gear ensnare cables), vessel anchoring, dredging related to sand and mineral extraction, petroleum extraction, pipeline construction and maintenance, renewable energy construction and maintenance, and other cable activity.”); *see also* Communications Security, Reliability and Interoperability Council (CSRIC) V, Final Report—Clustering of Cables and Cable Landings at 9-10 (Aug. 2016) (CSRIC V Report), https://transition.fcc.gov/bureaus/pshs/advisory/csric5/WG4A_Final_091416.pdf. CSRIC identified “traditional risks” including commercial fishing, anchoring, sand and gravel dredging and beach replenishment, and oil and gas development, among other things. *See* CSRIC IV Report at 31-36. CSRIC also identified “emerging risks” such as offshore renewable energy development—namely, offshore wind projects, marine and hydrokinetic (MHK) projects, and ocean thermal energy conversion (OTEC) projects—and deep-sea mining, while noting the risks remain uncertain. CSRIC IV Report at 36-42; CSRIC V Report at 9.

³⁸⁸ While the CSRIC IV Report stated, “[h]istorically, commercial fishing has accounted for more than 40 percent of all submarine cable faults worldwide,” it also noted that “it is relatively rare in the U.S. territorial sea and [outer continental shelf (OCS)], as the mitigation strategies pursued by submarine cable operators have proved very effective in the United States.” CSRIC IV Report at 31-32.

³⁸⁹ *Id.* at 32 (“Anchoring accounts for approximately 15 percent of cable faults worldwide”).

³⁹⁰ *See id.* at 32-33; *id.* at 32 (“These practices can be highly incompatible with submarine cables, which can be damaged by the dredging process itself and by anchors used by vessels, barges, and pipelines used to recover, transport, and pump dredged material back onto shore.”).

³⁹¹ *See id.* at 33-35; *id.* at 34 (“Although the submarine cable and offshore oil and gas industries have a long history of working with each other, the renewed focus on U.S. domestic energy production and possible opening of the U.S. Atlantic OCS regions to oil and gas development (in the event the current development moratorium expires in 2017) will increase the risks to submarine cables.”).

³⁹² *See id.* at 35-36 (addressing risks associated with clustering of submarine cable systems, earthquakes and tsunamis, sea floor geology, and weather conditions).

³⁹³ *See id.* at 36-41.

³⁹⁴ *See id.* at 41-42.

³⁹⁵ *Id.* at 36 (noting, “[b]ecause offshore renewable energy is an emerging industry, the risks remain uncertain. Consequently, submarine cable operators, offshore renewable energy developers, and regulators have yet to develop (continued....)

139. Given the passage of time, we seek updated information on any new facts or circumstances that can inform our evaluation of the equities, risks of damage, and mitigation measures associated with spatial relationships between submarine cables and other marine infrastructure and activities. What, if any, spatial conflicts today present the most significant risks of damage to submarine cables landing in the United States? To the extent other marine infrastructure and activities cross or are in close proximity to submarine cables, what spatial distance is necessary to reduce or eliminate the risk of damage to submarine cables? Are there examples of how installation or maintenance of marine infrastructure and activities near or over submarine cable infrastructure resulted in damage to submarine cables landing in the United States, or affected the maintenance or repair of such submarine cables? Where do such incidents, if any, occur geographically? What is the extent and frequency of any damage to submarine cables?

140. We also seek comment on what measures the submarine cable industry has implemented/will implement to protect submarine cable infrastructure in the event of any spatial conflicts with wind farms, or electric or other infrastructure or activities that may affect submarine cables. For example, do cable landing licensees coordinate with other industries and establish crossing agreements to mitigate risks of damage to each respective infrastructure? Do cable landing licensees consult and address these risks with federal agencies that authorize other marine infrastructure and activities? If so, at what stage of the permitting or licensing process or deployment of such marine projects do cable landing licensees coordinate with other industries or federal agencies?

9. Interagency Coordination and Submarine Cable Protection

141. We seek comment on what actions the Commission can take to mitigate both the risks identified previously in this *Notice* and any other risks and strengthen the security and resilience of submarine cable infrastructure, pursuant to its legal authority, including activities in coordination with its federal partners. Should the Commission play a more active role in coordinating with other agencies that have jurisdiction over other marine infrastructure that may impact submarine cables, or other agencies that regulate or oversee the installation and protection of submarine cables? In particular, the Commission has previously recognized that “interagency coordination is very important to protect submarine cable infrastructure.”³⁹⁶ With regard to spatial conflicts, in addition to submarine cables, CSRIC addressed how various federal agencies regulate a number of other marine infrastructure and

systematic risk minimization strategies and consultation and coordination mechanisms, which has resulted in some unresolved conflicts.”); *id.* at 41 (“At present, deep-sea mining present a low risk to installed cables, as the mining of particular marine minerals has not yet proved economic. Nevertheless, it is very likely that improved (and cheaper technologies) and increasing demand for particular minerals (and/or a more stable supply thereof) will pose greater threats to installed submarine cables and limit routes for future cables.”); CSRIC V Report at 9 (stating, “[i]t remains to be seen whether other marine infrastructure, such as oil and gas exploration or marine renewable energy will have a significant effect on the routing of submarine cables or the selection of landing sites for those cables.”).

³⁹⁶ 2016 *Submarine Cable Outage Report and Order*, 31 FCC at 7976, para. 80 (“To this end, the International Bureau, in coordination with the Public Safety and Homeland Security Bureau, will continue to lead interagency coordination efforts to help increase transparency and information sharing among the government agencies, cable licensees, and other stakeholders and promote improved interagency coordination processes to mitigate threats to undersea cables and facilitate new projects to improve geographic diversity.”); *see also* 2015 *Submarine Cable Outage NPRM*, 30 FCC Rcd at 10509, para. 47.

activities, including offshore renewable energy projects,³⁹⁷ oil and natural gas development,³⁹⁸ dredging and coastal replenishment,³⁹⁹ and other matters.⁴⁰⁰ We ask commenters whether interagency consultation, information-sharing, and other coordination could help to mitigate risks of damage to submarine cable infrastructure that arise from its spatial relationship to other marine infrastructure and activities. In addition, we seek comment on whether coordination with states that regulate marine infrastructure and activities could help to mitigate risks of damage to submarine cable infrastructure. What are examples of how the Commission could coordinate with relevant agencies to protect submarine cable infrastructure while taking into consideration the U.S. government's equities in other critical marine infrastructure and resources? For example, do federal statutes provide any source of authority for the Commission to take regulatory and operational actions to mitigate or reduce risks of damage to submarine cables in marine areas subject to U.S. jurisdiction, including in coordination with other federal or state agencies?⁴⁰¹

³⁹⁷ See, e.g., FCC, *Activities Related to Undersea Cables* (last updated Oct. 3, 2016) (*Activities Related to Undersea Cables*), <https://www.fcc.gov/activities-related-undersea-cables>; CSRIC IV Report at 5-7, 30-42. For example, the Federal Energy Regulatory Commission (FERC), among other things, licenses non-federal hydropower projects, which includes marine and hydrokinetic (MHK) projects. *Activities Related to Undersea Cables*; FERC, *What FERC Does* (last updated Feb. 12, 2024), <https://www.ferc.gov/what-ferc-does>; FERC, *Hydropower—Commission's Responsibilities* (last updated Jan. 25, 2023), <https://www.ferc.gov/industries-data/hydropower>; FERC, *Hydrokinetic Projects* (last updated Aug. 15, 2024), <https://www.ferc.gov/licensing/hydrokinetic-projects> (defining hydrokinetic projects as “[p]rojects that generate electricity from waves or directly from the flow of water in ocean currents, tides, or inland waterways”). The Outer Continental Shelf Lands Act of 1953, as amended (OCSLA), authorizes the Bureau of Ocean Energy Management (BOEM) to grant leases and prescribe regulations that govern mineral and renewable energy development on the U.S. outer continental shelf (OCS). *Activities Related to Undersea Cables*; BOEM, BOEM Governing Statutes, <https://www.boem.gov/about-boem/regulations-guidance/boem-governing-statutes> (last visited Aug. 22, 2024). BOEM, among other things, issues leases, easements and rights of way on the OCS for projects that generate electricity from offshore wind, wave and currents and for renewable energy transmission projects. *Activities Related to Undersea Cables*; BOEM, *Renewable Energy*, <https://www.boem.gov/renewable-energy> (last visited Aug. 22, 2024).

³⁹⁸ For example, under the OCSLA, BOEM authorizes leases, easements and rights of way for oil and natural gas development and other marine minerals such as sand and gravel for coastal restoration activity. *Activities Related to Undersea Cables*; BOEM, *Oil and Gas Energy*, <https://www.boem.gov/oil-and-gas-energy> (last visited Aug. 22, 2024).

³⁹⁹ See BOEM, *Marine Minerals*, <https://www.boem.gov/marine-minerals> (last visited Aug. 22, 2024); U.S. Army Corps of Engineers, *Dredging*, <https://www.iwr.usace.army.mil/Missions/Coasts/Tales-of-the-Coast/Corps-and-the-Coast/Navigation/Dredging/> (Aug. 22, 2024); CSRIC IV Report at 32-33 (stating that “[t]he Army Corps of Engineers and the Bureau of Ocean Energy Management of the U.S. Department of the Interior (‘BOEM’) frequently authorize sand and gravel dredging in the U.S. territorial sea and OCS.”).

⁴⁰⁰ See, e.g., CSRIC IV Report at 5-7, 30-42. For example, the National Marine Sanctuaries Act allows the National Oceanic and Atmospheric Administration (NOAA) to identify, designate and protect areas of the marine and Great Lakes environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or aesthetic qualities as national marine sanctuaries. NOAA, *Designations*, <https://sanctuaries.noaa.gov/management/designations.html> (last visited Aug. 22, 2024). If a submarine cable system will traverse a national marine sanctuary, the cable owner must also obtain a permit from NOAA's Office of National Marine Sanctuaries under the National Marine Sanctuaries Act. See also 2015 *Submarine Cable Outage NPRM*, 30 FCC Rcd at 10509, para. 45; NOAA, *Policy & Planning*, <https://sanctuaries.noaa.gov/management/> (last visited Aug. 22, 2024).

⁴⁰¹ We note that the national laws of countries such as Australia and New Zealand authorize the establishment of submarine cable protection zones within specific geographic areas. Telecommunications Act 1997, Schedule 3A—Protection of submarine cables; Submarine Cables and Pipelines Protection Act 1996, Part 2—Protection and enforcement, 12(1) (“Protected areas”). Additionally, the national laws and regulations of some countries establish minimum spatial distance requirements with regard to submarine cables. See, e.g., CSRIC IV Report at 50-51

(continued....)

10. Streamlining Procedures to Expedite Cable Processing

142. We seek comment on ways to modify our streamlining procedures to expedite submarine cable processing while ensuring national security and law enforcement concerns are addressed. We seek comment on actions or measures the Commission or Committee can take to expedite the review and licensing process. The Commission originally adopted streamlining procedures for processing applications for submarine cable landing licenses in the *2001 Cable Report and Order*.⁴⁰² The intent was to adopt rules that “are designed to facilitate the expansion of capacity and facilities-based competition in the submarine cable market . . . [and] to enable submarine cable applicants and licensees to respond to the demands of the market with minimal regulatory oversight and delay, saving time and resources for both industry and government, while preserving the Commission’s ability to guard against anti-competitive behavior.”⁴⁰³ The Commission assessed that this framework would result in a reduction of costs for deploying submarine cables and ultimately benefit U.S. consumers.⁴⁰⁴ It created a procedure and competitive safeguards that were aligned with those adopted for section 214 authorizations, whereby applications qualifying for streamlining generally would be acted on in a 45-day period.⁴⁰⁵ In addition to adopting specific criteria for streamlining eligibility, the Commission also sought to ensure that those entities having a significant ability to affect the operation of a cable system would be applicants for a cable landing license and thus would become licensees upon any grant of an application so that they are subject to the conditions and responsibilities that are associated with a cable landing license, and otherwise provided that “entities that do not own or control a landing station in the United States or have a five percent or greater interest in the proposed cable system generally will not be required to become licensees.”⁴⁰⁶ The Commission also allowed for post-transaction notifications of *pro forma* assignments or transfers of control in cable landing licenses.⁴⁰⁷ Over time, the Commission modified these rules to address changes in Commission policy and to assist in the expeditious review of applications.⁴⁰⁸

(identifying “foreign governments [that] have established default or minimum separation distances to protect submarine cables”).

⁴⁰² *2001 Cable Report and Order*, 16 FCC Rcd at 22168, para. 1.

⁴⁰³ *Id.*

⁴⁰⁴ *See id.*

⁴⁰⁵ *Id.* at para. 2.

⁴⁰⁶ *Id.*; *see also 2001 Cable Report and Order*, 16 FCC Rcd at 22194, para. 54 (“Specifically, we conclude that only the following entities must be required to be applicants for a cable landing license: an entity that (1) owns or control a U.S. landing station or (2) owns or controls a five percent or greater interest in the cable system and will use the U.S. points of the cable system.”). The 2001 proceeding focused on capacity expansion and facilities-based competition and, although it adopted safeguards against anti-competitive conduct associated with market power in foreign markets where U.S.-licensed cable systems land and operate, to the detriment of competition in U.S. markets, it did not otherwise address specific national security concerns. *Id.* at 22178-86, paras. 19-39.

⁴⁰⁷ *Id.* at 22168, para. 2.

⁴⁰⁸ In 2014, the Commission adopted rules that eliminated the effective competitive opportunities (ECO) test that was previously adopted in 1995 “as a condition to entry into the U.S. international telecommunications services market by foreign carriers that possess market power on the foreign end of a U.S.-international route on which they seek to provide service pursuant to section 214 of the Communications Act of 1934, as amended[.]” *Reform of Rules and Policies on Foreign Carrier Entry Into the U.S. Telecommunications Market*, IB Docket No. 12-299, Report and Order, 29 FCC Rcd 4256, 4256, para. 1 (2014). The Commission determined that it was no longer necessary to apply the ECO test to non-WTO members, or otherwise, to protect competition and found that a market based approach, where the applicant or notification filer from a non-WTO Member country must demonstrate whether or not it has market power in the country where the cable lands, would reduce regulatory burdens and provide for an expeditious review of foreign entry to benefit U.S. consumers. *See generally id.*

143. In 2020, the Commission adopted rules that sought to codify the timeframes set forth under Executive Order 13913 and Commission procedures for the referral of applications for cable landing licenses or assignment or transfer of control of submarine cable landing licenses,⁴⁰⁹ among other types of applications, to the Executive Branch agencies including the Committee, for their feedback on any national security, law enforcement, foreign policy, and/or trade policy issues associated with the foreign ownership of applicants.⁴¹⁰ The Commission codified its policy that it would continue referring applications to the Executive Branch agencies where the applicant has reportable foreign ownership, i.e. “when an applicant has a 10% or greater direct or indirect foreign investor[.]”⁴¹¹ The Commission further noted that it “retains discretion to determine which applications it will refer to the [Executive Branch] agencies [including the Committee] for review.”⁴¹²

144. *Eligibility for streamlining.* Under the Commission’s rules, each applicant for a cable landing license seeking streamlining must request such processing in its application, follow the procedure set out under 47 CFR § 1.767(i) and (j), and provide the following information and certifications:

- (1) Certifying that it is not a foreign carrier and it is not affiliated with a foreign carrier in any of the cable’s destination markets;
- (2) Demonstrating pursuant to § 63.12(c)(1)(i) through (iii) of this chapter that any such foreign carrier or affiliated foreign carrier lacks market power; or
- (3) Certifying that the destination market where the applicant is, or has an affiliation with, a foreign carrier is a World Trade Organization (WTO) Member and the applicant agrees to accept and abide by the reporting requirements set out in paragraph (l) of this section. An application that includes an applicant that is, or is affiliated with, a carrier with market power in a cable’s non-WTO Member destination country is not eligible for streamlining.
- (4) Certifying that for applications for a license to construct and operate a submarine cable system or to modify the construction of a previously approved submarine cable system the applicant is not required to submit a consistency certification to any state pursuant to section 1456(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. 1456.
- (5) Certifying that all ten percent or greater direct or indirect equity and/or voting interests, or a controlling interest, in the applicant are U.S. citizens or entities organized in the United States.⁴¹³

145. The rules provide that, for applications that are eligible for streamlined processing, the Commission will take action upon such application within 45 days after release of the public notice announcing the application was acceptable for filing and eligible for streamlining.⁴¹⁴ The Commission

⁴⁰⁹ *Executive Branch Review Report and Order*, 35 FCC Rcd at 10929, para. 4.

⁴¹⁰ *Id.* at 10971-89, Appx. B (amending section 1.767 by adding paragraph (k)(5)). In the *Executive Branch Review Report and Order*, the Commission adopted an additional requirement that entities seeking streamlining must demonstrate eligibility by further certifying that all ten percent or greater direct or indirect equity and/or voting interests, or a controlling interest, in the applicant are U.S. citizens or entities organized in the United States. *Id.* The Commission also adopted timeframes for the Executive Branch agencies to complete their review consistent with Executive Order 13913. *Id.* at 10928, para. 1.

⁴¹¹ *Id.* at 10929, para. 4.

⁴¹² *Id.*

⁴¹³ 47 CFR § 1.767(k).

⁴¹⁴ 47 CFR § 1.767(i).

will publish a public notice indicating if an application is ineligible for streamlined processing. The rules also provide that the Commission will take action upon a non-streamlined application within 90 days or provide public notice of additional time, which may be further extended, if an application raises questions of extraordinary complexity.⁴¹⁵ Applications that involve foreign ownership or control of the applicants and may present national security, law enforcement, foreign policy, and/or trade policy issues are referred to the Executive Branch agencies for their review and feedback.⁴¹⁶ Since the beginning of 2016, on average, more than 10 submarine cable applications per year are referred to the Executive Branch agencies, including the Committee, for review of national security, law enforcement, foreign policy, and/or trade policy concerns.⁴¹⁷ For the five-year period from 2016 through June 2020, the pre-Committee agencies took on average of 367 days to complete review after receiving all answers to preliminary questions.⁴¹⁸ From July 2020 to the November 2024, the Committee has taken on average 237 days to complete review of submarine cable applications.⁴¹⁹ The average time for review by the Committee once an application starts the review clock has dropped significantly from the average time for review by the Executive Branch agencies prior to the establishment of the Committee, but we understand that this process can be improved.

146. We seek comment on measures the Commission can take to provide a streamlining process that is effective and beneficial to both industry and government, while ensuring national security review. We understand that applying for a cable landing license can be a lengthy and complex process that requires considerable advanced planning on the part of submarine cable owners and operators. We understand that submarine cable systems can take years to plan, finance, license, construct, test, and prepare for operation. We seek to identify mechanisms to reduce the time it takes to review and take action on a submarine cable application in the current environment in which hostile threats and malicious actors pose significant risks to critical infrastructure. For example, if an applicant for a cable landing license is a frequent filer with the Commission because it has numerous submarine cable projects, are there mechanisms the Commission can adopt to reduce the time it takes to review and act on an application for a cable landing license from such filer? What additional steps can the Commission take to streamline its review of an application? Are there specific certifications or other filings that applicants can provide to the Committee in order to expedite the review of a referred application? Should the Commission revisit the Standard Questions associated with submarine cable applications? Should the Commission create a program that would distinguish the review of applicants' ownership and cable management qualifications, barring any significant changes in ownership as of its prior review, from the investigation of specific risk factors associated with each cable system's route, landing stations, and equipment? How should the related risk factors associated with resiliency, trusted supply chains, and national competitiveness be assessed while minimizing the time it takes to review applications?⁴²⁰ Should the Commission identify classes of risk (such as a nexus to a country of concern)? In order to speed the deployment of submarine cables that connect points solely within the United States and its territories and

⁴¹⁵ 47 CFR § 1.767(i).

⁴¹⁶ See 47 CFR § 1.40001-1.40004.

⁴¹⁷ Since the beginning of 2016 through the end of 2020, a total of 84 submarine cable applications, including initial applications for cable landing license and application for modification, assignment, transfer of control, and renewals or extension of a cable landing license were referred to the Executive Branch agencies for review of national security, law enforcement, foreign policy, and/or trade policy concerns.

⁴¹⁸ From 2016 to June 2020, the Commission referred 52 submarine cable applications to the Executive Branch agencies.

⁴¹⁹ From July 2020 to November 2024 the Commission has referred 32 submarine cable applications to the Executive Branch agencies.

⁴²⁰ See International Connectivity Coalition *Ex Parte*, International Connectivity Coalition Second *Ex Parte*, see *supra* note 223.

possessions, should the Commission consider streamlining review of applications that connect domestically unless there is a nexus to a country of concern or foreign adversary? We seek comment on this question as well as on other mechanisms that may reduce the time it takes to process a submarine cable application while providing for assessment of national security and other risks⁴²¹ and ensuring that any grant of an application is in the public interest. Should the Commission work with applicants and stakeholders to share risk information and threat alerts with trusted providers on a regular basis, consistent with National Security Memorandum 22? What would be the benefits of doing so?

11. Other Changes to Current Requirements

147. We seek to improve and formalize our current application requirements set forth in section 1.767(a) of the Commission's rules. We believe modifications to the rules would, among other things, reduce uncertainty for applicants by clarifying application requirements and address any gaps in our rules that impact the national security of the United States. We also propose to adopt new and updated information requirements and certification requirements. We propose specific requirements for other types of applications, including applications to modify, assign, transfer control of, or renew or extend cable landing licenses, requests for special temporary authority, and *pro forma* assignment and transfer of control notifications, among other matters as applicable. In this regard, and to further improve the clarity of the rules, we propose to create a new subpart in Part 1 of the rules to address each type of application. We seek comment generally on whether there are specific rules applicable to submarine cable applications and notifications where the benefits do not outweigh the burdens and whether the Commission should eliminate or modify such rules.

148. *Contact Information.* The Commission's rules currently require applicants for cable landing licenses and for assignments and transfers of control of such licenses to provide "[t]he name, address, and telephone number(s) of the applicant" and "[t]he name, title, post office address, and telephone number of the officer and any other contact point" in the applications.⁴²² Additionally, the rules require that, while an application is pending for purposes of section 1.65 of the rules, the applicant is responsible for the continuing accuracy and completeness of all information submitted and that "the applicant agrees to inform the Commission and the Committee of any substantial and significant changes while an application is pending."⁴²³ The rules also require that, after the application is no longer pending for purposes of section 1.65 of the rules, "the applicant must notify the Commission and the Committee of any changes in the . . . licensee information and/or contact information promptly, and in any event within thirty (30) days."⁴²⁴ We propose to amend the submarine cable rules to expressly apply these requirements to applications for modification and renewal or extension of cable landing licenses.⁴²⁵ We also propose to require applicants for cable landing licenses and for modification, assignment, transfer of control, and renewal or extension of licenses to provide an e-mail address on behalf of the applicant and an e-mail address on behalf of the officer and any other contact point, to whom correspondence regarding the application can be addressed.

149. *Renewal Applications.* To provide regulatory certainty, we propose to adopt rules for cable landing licensees that seek to renew or extend the term of their license. Under the Commission's rules, a cable landing license expires "twenty-five (25) years from the in-service date, unless renewed or extended upon proper application."⁴²⁶ Although section 1.767(e) of the rules requires that an application

⁴²¹ 47 CFR § 151.

⁴²² 47 CFR § 1.767(a)(1), (3), (11)(i).

⁴²³ 47 CFR §§ 1.767(a)(8), (a)(11)(i); 63.18(q)(1)(iv)(a).

⁴²⁴ 47 CFR §§ 1.767(a)(8), (a)(11)(i); 63.18(q)(1)(iv)(b).

⁴²⁵ See 47 CFR §§ 1.767(a)(1), (3), (11)(i); 63.18(q)(1)(iv)(a)-(b).

⁴²⁶ 47 CFR § 1.767(g)(15).

must be filed with respect to each submarine cable system for which a renewal or extension of an existing license is requested,⁴²⁷ the rules do not set out specific requirements for such applications. In addition, the rules do not expressly address the Commission's longstanding policy of considering national security, law enforcement, foreign policy, and/or trade policy considerations in its review of such applications.

150. We propose, as a baseline, to require applicants seeking to renew or extend a cable landing license to provide in the application the same information and certifications required in an application for a new cable landing license under sections 1.767(a) and 63.18(h), (o), (p), (q) of the rules,⁴²⁸ as well as any new requirements adopted in this proceeding.⁴²⁹ Specifically, the current application rules for a new cable landing license require important information and attestations concerning an applicant's contact information, the submarine cable (including the landing locations), and whether the cable will be operated on a common carrier or non-common carrier basis, among other things.⁴³⁰ We propose to adopt rules applying these provisions of sections 1.767(a) and 63.18(h), (o), (p), (q) to applications to renew or extend a cable landing license (collectively, "renewal applications"). To the extent we adopt any new or modified information and certification requirements in this proceeding with respect to applications for a new cable landing license, we propose to similarly apply those requirements to renewal applications and thus harmonize the application requirements.⁴³¹ We further propose to codify our longstanding practice that applicants must demonstrate how grant of the renewal application will serve the public interest, convenience, and necessity. We seek comment on these approaches.

151. *Renewal Streamlined Processing Procedures.* We seek comment on whether we should adopt streamlined processing for renewal applications in certain situations. For instance, section 1.767(i) of the Commission's rules provides that, "[t]he Commission will take action upon an application eligible for streamlined processing, as specified in paragraph (k) of this section, within forty-five (45) days after release of the public notice announcing the application as acceptable for filing and eligible for streamlined processing."⁴³² In current practice, once filed, Commission staff review the renewal application for compliance with the Commission's rules and place the application on an Accepted for Filing public notice once it is acceptable for filing. Should we adopt similar streamlined processing procedures for renewal applications in certain situations, subject to the State Department's approval of any proposed grant of a renewal application? Specifically, we seek comment on whether the Commission should place a renewal application on streamlined Accepted for Filing public notice and grant such application within forty-five (45) days after release of the public notice if: (1) the Commission does not refer the application to the Executive Branch agencies because the applicant does not have reportable foreign ownership and the application does not raise other national security, law enforcement, or other considerations warranting Executive Branch review; (2) the application does not raise other public interest considerations, including regulatory compliance; (3) the Executive Branch agencies do not separately request during the comment period that the Commission defer action and remove the application from streamlined processing; (4) no objections to the application are timely raised by an opposing party; and (5) any proposed grant of a renewal application is approved by the State Department.

⁴²⁷ Section 1.767(e) of the rules states that "[a] separate application shall be filed with respect to each individual cable system for which a license is requested or a modification of the cable system, *renewal, or extension of an existing license is requested*. Applicants for common carrier cable landing licenses shall also separately file an international section 214 authorization for overseas cable construction." 47 CFR § 1.767(e) (emphasis added).

⁴²⁸ See 47 CFR §§ 1.767(a)(1)-(10); 63.18(h), (o), (p), (q).

⁴²⁹ See *supra* section III.B.1-7.

⁴³⁰ See, e.g., 47 CFR §§ 1.767(a)(1)-(10); 63.18(h), (o), (p), (q).

⁴³¹ See *supra* section III.B.1-7.

⁴³² 47 CFR § 1.767(i).

152. *Licenses Pending Renewal.* As with Title III licensees pursuant to section 307(c) of the Act, and consistent with the Administrative Procedure Act, we propose to adopt a rule that an applicant that has timely applied for renewal or extension of its cable landing license may continue operating the submarine cable system while its renewal application is pending review.⁴³³ We propose that the Commission may deny the renewal application, for instance, if an applicant fails to provide any information that is required by the rules or is reasonably requested by staff in its review of the renewal application.⁴³⁴ We tentatively conclude that this proposal is consistent with the Administrative Procedure Act, and seek comment on this tentative conclusion.⁴³⁵ We also propose to amend section 1.767(g)(15) by providing that, upon expiration, all rights granted under the license shall be terminated if the licensee has not timely filed a renewal application.⁴³⁶ Should we further amend the rule by expressly requiring the filing of a renewal application before the cable landing license expires? Alternatively, to the extent a licensee fails to timely file a renewal application, should we allow the licensee to continue operating the submarine cable following the expiration of a license if the licensee files a request for an STA, either prior to or after such expiration and pending the filing of an application to renew or extend the cable landing license? Or should we require the filing of a waiver demonstrating good cause to allow a late filing of a renewal application? In any instance where a licensee fails to timely file a request for an STA or a renewal application and seeks to continue operating the submarine cable, we propose that the Commission shall reserve the right to take enforcement action for unauthorized operations following expiration of the license and the filing of a request for an STA or renewal application. We seek comment on these approaches.

153. *Modification Applications.* We propose to adopt rules for cable landing licensees that seek to modify a cable landing license. Additionally, we seek comment on whether the Commission should amend the rules by clarifying the types of facts and circumstances that warrant the filing of an application to modify a cable landing license. Section 1.767 of the rules addresses certain cases where a modification application is required, including situations where a licensee seeks to add a new licensee to the cable landing license,⁴³⁷ or relinquish its interest in a cable landing license,⁴³⁸ or add a new landing point that is not included in the grant of authority for the submarine cable system.⁴³⁹ We propose to codify our practice in a new subsection of the rules that will address requirements related to modifying a cable landing license, including the current requirement that licensees must obtain prior Commission approval of certain changes to a license such as the addition or removal of a licensee and the addition of a

⁴³³ See 5 U.S.C. § 558(c) (“When the licensee has made timely and sufficient application for a renewal or a new license in accordance with agency rules, a license with reference to an activity of a continuing nature does not expire until the application has been finally determined by the agency.”); *id.* § 551(8) (“license” defined to mean “the whole or a part of an agency permit, certificate, approval, registration, charter, membership, statutory exemption or other form of permission”).

⁴³⁴ See *supra* at III.A.1.e.

⁴³⁵ See 5 U.S.C. § 558(c).

⁴³⁶ 47 CFR § 1.767(g)(15) (stating that, “[u]pon expiration, all rights granted under the license shall be terminated”).

⁴³⁷ 47 CFR § 1.767(m)(1).

⁴³⁸ *Id.* § 1.767(m)(2).

⁴³⁹ See 47 U.S.C. § 34; 47 CFR § 1.767(a)(5) (“The applicant initially may file a general geographic description of the landing points; however, grant of the application will be conditioned on the Commission’s final approval of a more specific description of the landing points, including all information required by this paragraph, to be filed by the applicant no later than ninety (90) days prior to construction.”); 47 CFR § 1.767 (g)(8) (“Unless the licensee has notified the Commission in the application of the precise locations at which the cable will land, as required by paragraph (a)(5) of this section, the licensee shall notify the Commission no later than ninety (90) days prior to commencing construction at that landing location.”).

new landing point.⁴⁴⁰ We also propose that licensees must obtain prior approval to remove or otherwise change the location of a landing point previously authorized by the Commission. Further, we propose that licenses must obtain prior approval to construct or add a new connection, such as a segment or a branching unit, to an FCC-licensed submarine cable system.

154. Additionally, we propose to codify our longstanding practice by specifying in the rules the required contents of a modification application. We propose to require that applicants seeking to modify a cable landing license must include in the application a narrative description of the modification(s) that is being requested, including relevant facts and circumstances. We propose to adopt application requirements and certifications from sections 1.767(a) and 63.18(h), (o), (p), (q) of the rules that are tailored to the type of modification requested, such as a modification to (1) add a cable landing station, a segment, or other material change to the cable system; (2) add a new licensee to the cable landing license; (3) remove a licensee from the cable landing license; or (4) add, modify, or remove a condition on the cable landing license. For instance, we propose that the Commission would require information about the change to the submarine cable system, specifically the location of the new landing point, the ownership and control of the landing point, and other information, whereas, for a modification to add a licensee to a cable landing license, the Commission would seek information about the applicant and its ownership, among other information. What other information should the Commission require from an applicant that seeks to modify a cable landing license by adding or removing a licensee, adding or removing a landing point, or adding, modifying, or removing a condition on a cable landing license? To the extent we adopt any new or modified information and certification requirements in this proceeding with respect to applications for a new cable landing license, we propose to similarly apply those requirements to modification applications.⁴⁴¹ We further propose to codify longstanding practice that applicants must demonstrate how grant of the modification application will serve the public interest, convenience, and necessity. We seek comment on these approaches.

155. Over the years, Commission staff have received questions as to whether a modification application must be filed for the construction or addition of new segments or branching units to FCC-licensed submarine cable systems, which may not always involve the addition of new landing points. We understand that many cable systems are constructed with branching units to allow new connections in the future. These connections are often to new landings or sometimes to other cable systems. We propose to adopt a specific rule prescribing that if a new connection to a branching unit is to be made after the Commission has issued a license, the licensee must file an application to modify the license before constructing, landing, and operating the new connection. We set forth two examples where a modification application would be required of a licensee under our proposed rule.

156. *Adding a Segment Connecting Two FCC-Licensed Cables.* In this example, there are two separately owned and FCC-licensed submarine cable systems that connect two separate points in the United States to two separate foreign countries. The licensees of the cable systems (Company A and Company B, respectively) both seek to install a new segment in the deep waters that will connect to each other's cable via a branching unit. There would be no new landing points in the United States, no new foreign landing points, and no change in the ownership of either cable. Company A would hold capacity, through an IRU, on Company B's cable to reach Company B's U.S. landing point (via the new segment), but would not have access to Company B's foreign landing point. Company B would not have access to Company A's U.S. or foreign landing points. Under our proposed rule, the licensees would be required to obtain prior approval for the new connection by such segment of the two separately owned and FCC-licensed submarine cable systems in deep waters by filing a modification application with the Commission.

157. *Adding a New Foreign Landing Point.* In this example, Company D is the licensee of an

⁴⁴⁰ See 47 CFR § 1.767(a)(5), (g)(8), (m)(1)-(2).

⁴⁴¹ See *supra* section III.B.1-7.

FCC-licensed submarine cable system that connects a U.S. landing point to a foreign landing point in Country D. A portion of the cable system is deployed in waters near another foreign country, Country C. Company C from Country C has constructed a cable landing station on its shores and deployed a submarine cable with the intent to connect its cable to Company D's cable system through a branching unit. Company D will not own any portion of Company C's cable system and will not use Company C's landing point in Country C. In turn, Company C will not own any portion of Company D's cable system, including the portion connecting a U.S. landing point to the landing point in Country D. Company C plans to purchase from Company D capacity on the portion of Company D's cable system from the new branching unit (i.e., located in the waters near Country C) to the landing point in Country D. Under our proposed rule, Company D, as the FCC licensee, would be required to obtain prior approval for the new connection of its cable to Company C's cable system by such branching unit by filing a modification application with the Commission.

158. *Assignment and Transfer of Control Applications.* We propose to amend section 1.767(a)(11) of the rules to incorporate changes consistent with the approach we propose in this *Notice*.⁴⁴² The rules currently require, as a condition of a cable landing license, that the license and rights granted in the license shall not be transferred or assigned without prior approval by the Commission.⁴⁴³ Applicants seeking authority to assign or transfer control of an interest in a submarine cable system are required to file an application that contains information in accordance with section 1.767(a)(11) of the rules.⁴⁴⁴ As an initial matter, we propose to amend section 1.767(a)(11)(i) of the rules to clarify that applicants seeking to assign or transfer control of a cable landing license must include the percentage of voting and ownership interests being assigned or transferred “including in the U.S. portion of the cable system, which includes all U.S. cable landing station(s).” Currently, section 1.767(a)(11)(i) refers more narrowly to “a U.S. cable landing station” by stating that applicants must provide, on a segment specific basis, “the percentage of voting and ownership interests being transferred or assigned in the cable system, including in a U.S. cable landing station.”⁴⁴⁵ We believe our proposed change to expressly state “including in *the U.S. portion of the cable system* (which includes all U.S. cable landing station(s))” (emphasis added) would improve the clarity of the rule and is also consistent with the approaches on which we seek comment in this *Notice*, including a definition of a submarine cable system and our proposed amendments to the application requirements for new cable landing licenses.⁴⁴⁶ Additionally, we propose to amend section 1.767(a)(11)(i) to codify the long-standing requirement that applicants must demonstrate that grant of the

⁴⁴² See *supra* sections III.A.1 & III.B.1-7.

⁴⁴³ See 47 CFR § 1.767(g)(6). A *pro forma* assignee or person or company that is the subject of a *pro forma* transfer of control of a cable landing license is not required to seek prior approval for the *pro forma* transaction to the extent the cable landing license was granted on or after March 15, 2002, or modified to incorporate section 1.767(g)(7) of the routine conditions. *Id.* § 1.767(g)(7); *Id.* § 1.767(g) (“Except as otherwise ordered by the Commission, the following rules apply to each licensee of a cable landing license granted on or after March 15, 2002 . . .”). A *pro forma* assignee or person or company that is the subject of a *pro forma* transfer of control must notify the Commission no later than thirty (30) days after the assignment or transfer of control is consummated. *Id.* § 1.767(g)(7).

⁴⁴⁴ See 47 CFR § 1.767(a)(11)(i) (“If applying for authority to assign or transfer control of an interest in a cable system, the applicant shall complete paragraphs (a)(1) through (a)(3) of this section for both the transferor/assignor and the transferee/assignee. Only the transferee/assignee needs to complete paragraphs (a)(8) through (a)(9) of this section. The applicant shall include both the pre-transaction and post-transaction ownership diagram of the licensee as required under paragraph (a)(8)(i) of this section. The applicant shall also include a narrative describing the means by which the transfer or assignment will take place. The applicant shall also specify, on a segment specific basis, the percentage of voting and ownership interests being transferred or assigned in the cable system, including in a U.S. cable landing station.”).

⁴⁴⁵ *Id.*

⁴⁴⁶ See *supra* sections III.A.1 & III.B.1.

transaction will serve the public interest, convenience, and necessity. To the extent we adopt any new or modified information and certification requirements in this proceeding with respect to applications for a new cable landing license, we propose to similarly apply those requirements to assignment and transfer of control applications.⁴⁴⁷ We seek comment on these approaches and whether we should adopt other changes to the rules to improve clarity or ensure consistency with our overall objectives in this proceeding.

159. *Pro Forma Assignment and Transfer of Control Post-Transaction Notifications.* We propose to amend the rules applicable to *pro forma* assignments and transfers of control of cable landing licenses by clarifying what information must be provided in such notifications. To improve the organization and clarity of the rules applicable to *pro forma* assignment and transfer of control notifications, we propose to create a new subsection that would address the specific requirements. As discussed in section III.B.12, we propose to eliminate the distinction in section 1.767(g) that applies the routine conditions—including the *pro forma* condition under section 1.767(g)(7)—only “to each licensee of a cable landing license granted on or after March 15, 2002,”⁴⁴⁸ and to apply the routine conditions to all cable landing licensees.⁴⁴⁹ Section 1.767(g)(7) of the rules requires, as a condition of a cable landing license, that “[a] *pro forma* assignee or person or company that is the subject of a *pro forma* transfer of control must notify the Commission no later than thirty (30) days after the assignment or transfer of control is consummated,” and such notification “must certify that the assignment or transfer of control was *pro forma*, as defined in § 63.24 of this chapter and, together with all previous *pro forma* transactions, does not result in a change of the licensee’s ultimate control.”⁴⁵⁰ As part of our proposed reorganization of the rules, we propose to move the text of section 1.767(g)(7) that specifically addresses the information requirements of *pro forma* assignment and transfer of control notifications into the new subsection.⁴⁵¹ With respect to section 1.767(g)(7), we propose to retain the outstanding text of the routine condition, while adding a statement that the *pro forma* assignment and transfer of control notifications must be filed in accordance with the requirements set forth in the new subsection applicable to *pro forma* transactions. We propose to incorporate into this new subsection the text of section 63.24(d), to which

⁴⁴⁷ See *supra* section III.B.1-7.

⁴⁴⁸ 47 CFR § 1.767(g) (“Routine conditions. Except as otherwise ordered by the Commission, the following rules apply to each licensee of a cable landing license granted on or after March 15, 2002 . . .”).

⁴⁴⁹ See *infra* section III.B.12; 47 CFR § 1.767(g), (g)(6)-(7). In the *2001 Cable Report and Order*, the Commission determined that “[t]he rules we adopt today carve out a limited exception to this condition for *pro forma* transactions for all cable landing licenses that the Commission grants after the effective date of this Report and Order,” and “[f]or cable landing licenses granted prior to the effective date of this Report and Order, a licensee may file an application with the Commission seeking a modification of its license to incorporate this limited exception to the prior approval requirement currently set forth in the applicable license condition.” *2001 Cable Report and Order*, 16 FCC Rcd at 22200, paras. 62-63. As discussed below, we believe this distinction in section 1.767(g) between cable landing licenses granted prior to and on or after March 15, 2002 is no longer meaningful given that licenses granted prior to March 15, 2002, including those that have not been modified to incorporate the exception to section 1.767(g)(6) as applied to *pro forma* transactions, either have expired or are nearing the expiration of their 25-year term. Where a renewal of a cable landing license is granted, it is Commission practice to apply the routine conditions of section 1.767(g)(6) to the terms of the new license. See *infra* section III.B.12.

⁴⁵⁰ 47 CFR § 1.767(g)(7); see 47 CFR § 63.24.

⁴⁵¹ Specifically, we propose to move to the new subsection the text of section 1.767(g)(7) that states, “[t]he notification must certify that the assignment or transfer of control was *pro forma*, as defined in § 63.24 of this chapter, and, together with all previous *pro forma* transactions, does not result in a change of the licensee’s ultimate control. The licensee may file a single notification for an assignment or transfer of control of multiple licenses issued in the name of the licensee if each license is identified by the file number under which it was granted.” 47 CFR § 1.767(g)(7).

section 1.767(g)(7) currently refers, and further clarify references contained therein to other parts of the Commission's rules.⁴⁵²

160. Upon receiving a *pro forma* assignment or transfer of control notification, Commission practice involves reviewing the notification for compliance with the rules, including whether it contains information required under section 1.767(a)(11)(i) and whether the assignment or transfer of control was in fact *pro forma*⁴⁵³ and, accordingly, issuing an "Actions Taken" Public Notice. To reduce regulatory uncertainty, we propose to codify existing Commission practice by clarifying that the requirements under section 1.767(a)(11)(i) are not only applicable to substantial assignments and transfers of control, but also apply to *pro forma* assignment and transfer of control notifications.⁴⁵⁴ Therefore, a *pro forma* assignee or person or company that is the subject of a *pro forma* transfer of control must also submit information consistent with such requirements.⁴⁵⁵ Accordingly, we propose that the new aforementioned subsection will incorporate the requirements set out in section 1.767(a)(11)(i) by requiring that *pro forma* assignment and transfer of control notifications shall (1) provide information as required under section 1.767(a)(1) through (3) of the rules for both the assignor/transferor and the assignee/transferee; (2) provide information as required under section 1.767(a)(8) and (9) of the rules for only the assignee/transferee; (3) include both the pre-transaction and post-transaction ownership diagram of the licensee as required under section 1.767(a)(8)(i) of the rules; (4) include a narrative describing the means by which the *pro forma* assignment or transfer of control occurred, and (5) specify, on a segment specific basis, the percentage of voting and ownership interests that were assigned or transferred in the cable system, including in *the U.S. portion of the cable system* (which includes all U.S. cable landing station(s)). The Commission reserves the right to request additional information concerning the transaction to aid it in making its public interest determination.⁴⁵⁶ Additionally, we propose to make administrative changes to section 1.767(a)(11) by changing "transferor/assignor" and "transferee/assignee" to instead reflect "assignor/transferor" and "assignee/transferee," consistent with the overall structure of section 1.767(a)(11).⁴⁵⁷ We tentatively find

⁴⁵² See 47 CFR § 63.24(d) ("*Pro forma assignments and transfers of control*. Transfers of control or assignments that do not result in a change in the actual controlling party are considered non-substantial or *pro forma*. Whether there has been a change in the actual controlling party must be determined on a case-by-case basis with reference to the factors listed in Note 1 to this paragraph (d). The types of transactions listed in Note 2 to this paragraph (d) shall be considered presumptively *pro forma* and prior approval from the Commission need not be sought."). By incorporating the text of section 63.24(d) into a new subsection under section 1.767(a), we propose to specify that "Note 1 to this paragraph (d)" and "Note 2 to this paragraph (d)" refer to those respective notes in section 63.24(d) of the rules. Our proposed approach is limited to the new subsection that we propose to adopt in section 1.767(a). We do not propose amendments to section 63.24(d) in this Notice. In the *Evolving Risks NPRM*, the Commission proposed, among other administrative changes, the conversion of certain Notes into respective subsections for consistency with the Office of Federal Register requirements, including Note 1 and Note 2 of section 63.24(d). See *Evolving Risks NPRM*, 38 FCC Rcd at 4417, para. 166; *id.* at 4440, Appx. A.

⁴⁵³ 47 CFR § 1.767(a)(11)(i), (g)(7).

⁴⁵⁴ See 47 CFR § 1.767(a)(11)(i).

⁴⁵⁵ *Id.* ("If applying for authority to assign or transfer control of an interest in a cable system, the applicant shall complete paragraphs(a)(1) through (3) of this section for both the transferor/assignor and the transferee/assignee. Only the transferee/assignee needs to complete paragraphs (a)(8) and (9) of this section. The applicant shall include both the pre-transaction and post-transaction ownership diagram of the licensee as required under paragraph (a)(8)(i) of this section. The applicant shall also include a narrative describing the means by which the transfer or assignment will take place. The applicant shall also specify, on a segment specific basis, the percentage of voting and ownership interests being transferred or assigned in the cable system, including in a U.S. cable landing station. The Commission reserves the right to request additional information concerning the transaction to aid it in making its public interest determination.").

⁴⁵⁶ See *id.*

⁴⁵⁷ See *id.*

that these approaches are consistent with the Commission's longstanding practice. We seek comment on these proposals and whether there are additional ways that we should clarify the rules applicable to *pro forma* assignment and transfer of control notifications.

161. *Requests for an STA.* To provide clarity in the rules and reduce regulatory uncertainty, we propose to adopt a framework for applicants requesting an STA to allow, at the applicant's own risk, the construction, testing, or operation of a submarine cable. Generally, the Commission may receive requests for an STA from applicants: (1) seeking to commence construction of or commercial service on a cable system while the cable landing license application is pending Commission approval; (2) seeking to continue operating a cable system following the expiration of a license and pending the filing of an application to renew or extend the cable landing license; (3) who are operating a cable system without first obtaining a license; (4) that consummated a transaction without prior Commission consent; or (5) seeking to provide emergency service arising from a need occasioned by conditions unforeseen by, and beyond the control of, the licensee(s), among other examples. It is the Commission's current practice to place a request for an STA on Accepted for Filing public notice and to send a courtesy copy of such public notice to the Committee for STA requests where the applicant has reportable foreign ownership. The Commission may consult with the Committee on a particular request for an STA, where appropriate, prior to releasing the public notice. Any grant of a request for an STA does not prejudice action by the Commission on any underlying application, including enforcement action, as is set forth in public notices issued in association with the request.⁴⁵⁸

162. We propose to adopt rules based on our current practice above. We propose to require that any person or entity seeking an STA with respect to the construction, testing, or operation of a submarine cable must expeditiously file all requisite applications related to the request for an STA—including any application(s) for a cable landing license or modification, assignment, transfer of control, or renewal or extension of such license—before or immediately upon submitting the request for an STA. We propose to require that applicants requesting an STA must identify the file number(s) of any pending application(s) associated with the request for an STA. We seek comment on whether the Commission should impose any other requirements related to filing a request for an STA.

163. We propose to adopt rules requiring that applicants requesting an STA related to the construction, testing, or operation of a submarine cable must provide the following information in its request: (1) applicant and contact information as required under section 1.767(a)(1) through (3) of the rules;⁴⁵⁹ (2) a description of the request for an STA, the reason why applicants seek an STA, and the justification for such request; (3) the name of the cable system for which applicants request an STA; (4) the name(s) and citizenship(s) or place(s) of organization of each applicant requesting an STA with respect to the submarine cable, including the licensees that jointly hold a cable landing license; (5) a statement as to whether or not any individual or entity directly or indirectly owns 5% or more of the equity interests and/or voting interests, or a controlling interest, of any applicant requesting an STA (or 10% or more to the extent we retain the current ownership reporting threshold); (6) the type of request for an STA, such as a new request for an STA, a request to extend or renew an STA, or other type; (7) whether or not the request for an STA is associated with an application(s) pending with the Commission,

⁴⁵⁸ See, e.g., File No. SCL-STA-20220318-00011, *Non-Streamlined Submarine Cable Landing License Applications Accepted for Filing*, Public Notice, Report No. SCL-00371NS (IB Apr. 22, 2022) (releasing an "Accepted for Filing" public notice and stating that the applicant "acknowledges that grant of such STA will not prejudice action by the Commission on the underlying application, and that the STA is subject to cancellation or modification upon notice without a hearing"); File No. SCL-STA-20220318-00011, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00374, 37 FCC Rcd 6065 (IB 2022) (granting the request for an STA and stating that the applicant "acknowledges that grant of the STA will not prejudice action by the Commission on the underlying application and that the STA is subject to cancellation or modification upon notice without a hearing.").

⁴⁵⁹ See 47 CFR § 1.767(a)(1)-(3).

and if so, identification of the related file number(s); (8) the date by which applicants seek grant of the request for an STA; (9) the duration for which applicants seek an STA.⁴⁶⁰

164. In addition to these proposed requirements, we seek comment on whether the Commission should require applicants requesting an STA to provide any information required by section 63.25 of the Commission's rules.⁴⁶¹ While section 63.25 addresses requirements relating to temporary or emergency service by international carriers,⁴⁶² it has been the Commission's long-standing practice to rely on section 63.25 to review and act on requests for STAs involving submarine cables.⁴⁶³ We seek comment on whether we should continue to rely on section 63.25 instead of adopting new rules specifically for submarine cables. To the extent we integrate the provisions of section 63.25 into our proposed framework, should we require applicants to comply with the requirements set out in section 63.25 to the extent they are applicable? We seek comment on whether certain requirements in section 63.25 are inapplicable in the submarine cable context.⁴⁶⁴

165. We also propose to require applicants requesting an STA related to the construction, testing, or operation of a submarine cable to provide certain certifications in such request. Specifically, we propose to adopt in our rules the following certification requirements: (1) applicants must provide the same certifications required in an application for a new cable landing license, including the certification required in section 63.18(o) of the rules,⁴⁶⁵ as well as any new certification requirements adopted in this proceeding;⁴⁶⁶ (2) applicants must acknowledge that any grant of the request for an STA does not prejudice action by the Commission on any underlying application(s); (3) applicants must acknowledge that any grant of the request for an STA is subject to revocation/cancellation or modification by the Commission on its own motion without a hearing; and (4) applicants must acknowledge that any grant of the request for an STA does not preclude enforcement action for non-compliance with the Cable Landing

⁴⁶⁰ See para. 163.

⁴⁶¹ 47 CFR § 63.25.

⁴⁶² See *id.*

⁴⁶³ Section 63.25(a)(1) defines "[t]emporary service" as "a period not exceeding 6 months." 47 CFR § 63.25(a)(1). Section 63.25(a)(2) defines "[e]mergency service" as "service for which there is an immediate need occasioned by conditions unforeseen by, and beyond the control of, the carrier." *Id.* § 63.25(a)(2). Section 63.25(c) provides that an application may be filed to request continuing authority to provide temporary or emergency service. *Id.* § 63.25(c).

⁴⁶⁴ See, e.g., 47 CFR § 63.25(c) (providing that any carrier may request continuing authority "to provide temporary or emergency service by the construction or installation of facilities where the estimated construction, installation, and acquisition costs do not exceed \$35,000 or an annual rental of not more than \$7,000 provided that such project does not involve a major action under the Commission's environmental rules"); *id.* (requiring that any carrier to which continuing authority has been granted must file, following the end of each 6-month period covered by such authority, certain information with the Commission, including "[t]he type of facility constructed, installed, or leased," "[t]he route kilometers thereof (excluding leased facilities)," "[t]he terminal communities served and the airline kilometers between terminal communities in the proposed project," "[t]he cost thereof, including construction, installation, or lease," and "[w]here appropriate, the name of the lessor company, and the dates of commencement and termination of the lease").

⁴⁶⁵ See 47 CFR § 1.767(a)(8)(i), (a)(11)(i); 47 CFR § 63.18(o) (requiring "[a] certification pursuant to §§ 1.2001 through 1.2003 of this chapter that no party to the application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988. See 21 U.S.C. 853a."); see 47 CFR § 1.2002(b) (explaining the meaning of "party to the application" for purposes of this section); *Id.* § 1.2002(c) ("The provisions of paragraphs (a) and (b) of this section are not applicable to the Amateur Radio Service, the Citizens Band Radio Service, the Radio Control Radio Service, to users in the Public Mobile Services and the Private Radio Services that are not individually licensed by the Commission, or to Federal, State or local governmental entities or subdivisions thereof.").

⁴⁶⁶ See *supra* sections III.B.1-7.

License Act, the Communications Act, or the Commission's rules. In addition, we propose to codify our long-standing practice of requiring applicants requesting an STA to demonstrate that grant of such request would serve the public interest, convenience, and necessity. We seek comment on these proposed requirements. Should we require applicants requesting an STA to provide additional information or certifications for the Commission's assessment?

166. *Amendments.* We propose to codify our longstanding practice to set forth in the rules that any submarine cable application may be amended as a matter of right prior to the date of any final action taken by the Commission or designation for hearing. We also propose to require that amendments to applications shall be signed and submitted in the same manner as was the original application. Further, we propose to require that if a petition to deny or other formal objection has been filed in response to the application, the amendment shall be served on the parties.

12. Routine Conditions Applicable to All Licensees

167. Below, we propose to amend the routine conditions that are attached to cable landing licenses under section 1.767(g) of the rules,⁴⁶⁷ which provide a set of public, standard requirements and procedures to ensure that licensees consistently certify that they will comply with the conditions imposed on the license following grant of an application. The routine conditions provide the Commission with important information about licensee status and updated points of contact for the submarine cables licensed by the Commission, and other updated information for purposes of assessing any national security, law enforcement, and other concerns.

168. *Eliminate 2002 Distinction.* We propose to eliminate the distinction in section 1.767(g) that applies the routine conditions only “to each licensee of a cable landing license granted on or after March 15, 2002.”⁴⁶⁸ We believe that this distinction is no longer meaningful given that cable landing licenses granted prior to March 15, 2002 either have expired or are nearing the expiration of their 25-year term. Further, to the extent we grant applications to renew the license of a submarine cable, our current practice is to issue a new cable landing license based on the rules that were effective as of March 15, 2002, instead of renewing the terms of the license that were in effect prior to this date.⁴⁶⁹ Therefore, we propose to amend section 1.767(g) by eliminating the text “granted on or after March 15, 2002” and to apply the routine conditions, as they may be amended in this proceeding, “to each licensee of a cable landing license” irrespective of the date of grant. We seek comment on this proposal.

169. *Points of Contact.* We propose to amend our rules by adding a new routine condition requiring cable landing licensees to notify the Commission of any changes to their contact information within thirty (30) days of such change, consistent with the information requirements on which we seek comment in this proceeding.⁴⁷⁰ It is essential for the Commission to maintain updated contact information for the appropriate points of contact to whom any matters concerning a licensed submarine cable may be addressed. Specifically, we propose that cable landing licensees must inform the Commission of any changes to the contact information provided in their most recent submarine cable application—including the application for a new cable landing license or any modification, assignment, transfer of control, or

⁴⁶⁷ 47 CFR § 1.767(g) (“Routine conditions”).

⁴⁶⁸ *Id.* (“Routine conditions. Except as otherwise ordered by the Commission, the following rules apply to each licensee of a cable landing license granted on or after March 15, 2002 . . .”).

⁴⁶⁹ See, e.g., File No. SCL-LIC-20230222-00005, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00435, DA No. 23-945, 38 FCC Rcd 9350 (OIA 2023); File No. SCL-LIC-20180702-00019, *Actions Taken Under Cable Landing License Act*, Public Notice, Report No. SCL-00301, DA No. 21-113, 36 FCC Rcd 1363 (IB 2021); 2020 *Americas-1 Grant Public Notice*.

⁴⁷⁰ See *supra* section III.B.11.

renewal or extension of the license—and the most recent three-year periodic report. We seek comment on this proposal.

170. *Notification of Changes to the Name of the Licensee or Submarine Cable System.* We propose to amend our rules by adding a new routine condition requiring licensees to notify the Commission of any changes to the name of the licensee (including the name under which it is doing business) or the name of its submarine cable within thirty (30) days of such change. If there are multiple licensees of the submarine cable, we propose that the lead licensee must file the notification with the Commission within the 30-day timeframe. It is important for the Commission to maintain updated information that is critical to identifying the licensees and the licensed submarine cable system. We seek comment on this proposal.

171. *Covered List Equipment.* We propose to amend our rules by adding a new routine condition prohibiting licensees from using, for the relevant submarine cable system, equipment or services identified on the “Covered List.” We also propose that this prohibition would apply to covered equipment or services purchased, rented, leased, or otherwise obtained on or after August 14, 2018 (in the case of Huawei, ZTE, Hikvision, Dahua, and Hytera), or on or after 60 days after the date that any equipment or service is placed on the Covered List.

172. *Commencement of Service Requirement.* Currently, an entity can obtain a cable landing license and then not construct, land, or operate the cable pursuant to the license. This may occur because business plans change or the entity goes out of business, and it has resulted in the retention of cable landing licenses in our records where the license likely was not used to construct or operate the cable. Section 1.767(g)(15) of the rules requires that “the licensee must notify the Commission within thirty (30) of the date the cable is placed into service.”⁴⁷¹ In addition, section 1.767(g)(15) sets forth that “[t]he cable landing license shall expire twenty-five (25) years from the in-service date, unless renewed or extended upon proper application.”⁴⁷² However, there currently is no rule requiring licensees to notify the Commission that they have not utilized the licenses and, as a result, there are a few licenses associated with submarine cable systems that likely were not built, but are reflected as current licenses in ICFS.⁴⁷³ We note that the Commission has requirements for other licensees of regulated services where the licensee must begin providing service within a set period of time or its license is cancelled.⁴⁷⁴ We propose to adopt similar requirements for cable landing licensees. This proposed requirement would provide the Commission with more accurate information as to which license grants were not utilized to construct and operate submarine cables and improve the administration of the Commission’s rules.

173. We tentatively conclude that cable landing licensees should retain their license only if they construct and operate the submarine cable under that license. Consequently, we propose to adopt a rule requiring a cable landing licensee to commence commercial service on the cable under its license within three years following the grant. We propose that if a cable landing licensee seeks a request for a waiver of the three-year time period, the licensee must identify the projected in-service date and reasons

⁴⁷¹ 47 CFR § 1.767(g)(15).

⁴⁷² *Id.*

⁴⁷³ See *supra* note 49.

⁴⁷⁴ 47 CFR § 1.946(c) (requiring, with regard to a licensee in the Wireless Radio Services, “[i]f a licensee fails to commence service or operations by the expiration of its construction period or to meet its coverage or substantial service obligations by the expiration of its coverage period, its authorization terminates automatically (in whole or in part as set forth in the service rules), without specific Commission action, on the date the construction or coverage period expires”); see also 47 CFR § 1.955(a)(2) (“Authorizations automatically terminate (in whole or in part as set forth in the service rules), without specific Commission action, if the licensee fails to meet applicable construction or coverage requirements.”).

for the delay and demonstrate good cause for grant of a waiver.⁴⁷⁵ We also seek comment on whether the Commission should instead allow a licensee to request an extension of the three-year time period rather than requesting a waiver. We propose that if a cable landing licensee does not notify the Commission of the commencement of service or file a request for a waiver within three years following the grant of the license, such failure to meet this condition will result in automatic cancellation of the license. Other Commission rules have similar automatic cancellations.⁴⁷⁶ We seek comment on this proposal, including whether three years after license grant is sufficient time to commence commercial operation or if another time period may be appropriate. The Commission's records in ICFS indicate that most licensees of operating submarine cables commenced service within this timeframe.

13. Foreign Carrier Affiliation Notifications

174. We propose to amend section 1.768(e)(4) of the rules to require that licensees must include in a notification of a foreign carrier affiliation voting interests, in addition to the equity interests, and a diagram of individuals or entities with a 10% or greater direct or indirect ownership in the licensee. Currently, a licensee is required to include, among other things, in a foreign carrier affiliation notification “[t]he name, address, citizenship, and principal business of any person or entity that directly or indirectly owns at least ten percent (10%) of the equity of the licensee, and the percentage of equity owned by each of those entities (to the nearest one percent (1%)).”⁴⁷⁷ We propose revisions to section 1.768(e)(4) that would be consistent with the ownership reporting requirements of other submarine cable applications and notifications.⁴⁷⁸ Specifically, we propose to amend section 1.768(e)(4) to require that licensees must provide the name, address, citizenship, and principal businesses of any individual or entity that directly or indirectly owns 10% or more of the equity interests and/or voting interests, or a controlling interest, of the licensee, and the percentage of equity and/or voting interest owned by each of those entities (to the nearest one percent). Where no individual or entity directly or indirectly owns ten percent or more of the equity interests and/or voting interests, or a controlling interest, of the licensee, we propose that the license must provide a statement to that effect. We further propose to amend section 1.768(e)(4) by integrating the provisions set out in section 63.18(h)(1)(i) and (ii) of the rules, which address calculation of indirect equity interests and voting interests, respectively, and are applicable to other submarine cable applications and notifications.⁴⁷⁹

175. Additionally, we propose to amend section 1.768(e) by requiring that licensees must provide an ownership diagram that illustrates the licensee's vertical ownership structure, including individuals or entities with a 10% or greater direct or indirect ownership (equity and voting) interests, or a controlling interest, in the licensee. To the extent the Commission adopts a 5% ownership reporting threshold as a requirement of applications for a cable landing license and modification, assignment, transfer of control, and renewal or extension of the license, as discussed above,⁴⁸⁰ we propose that the Commission amend section 1.768(e)(4) by similarly adopting a 5% ownership reporting threshold and thus harmonize the requirements. We seek comment on this proposal.

⁴⁷⁵ 47 CFR § 1.3. Under the “good cause” standard, waiver is appropriate only if both (1) special circumstances warrant a deviation from the general rule, and (2) such deviation better serves the public interest. *NetworkIP, LLC v. FCC*, 548 F.3d 116, 125-128 (D.C. Cir. 2008) (citing *Northeast Cellular Telephone Co.*, 897 F.2d 1164, 1166 (1990)); see also *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) (“An applicant for waiver faces a high hurdle even at the starting gate.”).

⁴⁷⁶ See 47 CFR §§ 1.946(c), 1.955(a)(2), 30.104(e), 90.757(a), 90.767(c), 90.769(c), 73.3598(e).

⁴⁷⁷ 47 CFR § 1.768(e)(4).

⁴⁷⁸ See 47 CFR § 1.767(a)(8)(i), (a)(11)(i); *id.* § 63.18(h).

⁴⁷⁹ See 47 CFR § 63.18(h)(1)(i)-(ii); *id.* § 1.767(a)(8)(i), (a)(11)(i).

⁴⁸⁰ See *supra* section III.B.3.

14. Other Changes to the Rules

176. We propose to amend section 1.767 of the rules by eliminating certain provisions that we tentatively conclude are no longer applicable or consistent with the Commission's current rules or practice. Specifically, we propose to eliminate section 1.767(c), which states that "[o]riginal files relating to submarine cable landing licenses and applications for licenses since June 30, 1934, are kept by the Commission. Such applications for licenses (including all documents and exhibits filed with and made a part thereof, with the exception of any maps showing the exact location of the submarine cable or cables to be licensed) and the licenses issued pursuant thereto, with the exception of such maps, shall, unless otherwise ordered by the Commission, be open to public inspection in the offices of the Commission in Washington, D.C."⁴⁸¹ Additionally, we propose to eliminate section 1.767(d), which states that "[o]riginal files relating to licenses and applications for licenses for the landing operation of cables prior to June 30, 1934, were kept by the Department of State, and such files prior to 1930 have been transferred to the Executive and Foreign Affairs Branch of the General Records Office of the National Archives. Requests for inspection of these files should, however, be addressed to the Federal Communications Commission, Washington, D.C., 20554; and the Commission will obtain such files for a temporary period in order to permit inspection at the offices of the Commission."⁴⁸² We note that the requirements set forth in section 1.767(c) and (d) are not required under the Cable Landing License Act or section 5 of Executive Order 10530.⁴⁸³ Furthermore, the Commission does not implement these record-keeping practices with respect to other Commission records. We tentatively find that the Commission should maintain consistent record-keeping practices with respect to its records, including records relating to cable landing licenses and applications for cable landing licenses. In addition, we tentatively conclude that the requirements under section 1.767(c) and (d) are inconsistent with the electronic filing requirements set out in section 1.767(n)(1) of the rules, which states that, "[w]ith the exception of submarine cable outage reports, and subject to the availability of electronic forms, all applications and notifications described in this section must be filed electronically through the International Communications Filing System (ICFS)."⁴⁸⁴ We seek comment on these proposals.

177. We also propose to eliminate section 1.767(f), which requires that "[a]pplicants shall disclose to any interested member of the public, upon written request, accurate information concerning the location and timing for the construction of a submarine cable system authorized under this section. This disclosure shall be made within 30 days of receipt of the request."⁴⁸⁵ We tentatively find that this requirement under section 1.767(f) is inconsistent with section 0.457(c)(1)(i) of the rules, which provides that "[m]aps showing the exact location of submarine cables" should be withheld from public inspection.⁴⁸⁶ Further, this requirement is inconsistent with our proposal in this *Notice* to provide confidential treatment for the exact addresses and specific geographic coordinates of cable landing stations, beach manholes, and other sensitive locations associated with a submarine cable system.⁴⁸⁷ We seek comment on this proposal.

15. Other Administrative Modifications

178. *New Subpart FF.* We propose to reorganize the submarine cable rules codified in sections 1.767 and 1.768 by relocating those rules from subpart E of Part 1 to a new subpart in Part 1.

⁴⁸¹ 47 CFR § 1.767(c).

⁴⁸² 47 CFR § 1.767(d).

⁴⁸³ See generally Cable Landing License Act; Executive Order 10530, § 5(a).

⁴⁸⁴ 47 CFR § 1.767(n)(1).

⁴⁸⁵ 47 CFR § 1.767(f).

⁴⁸⁶ 47 CFR § 0.457(c)(1)(i).

⁴⁸⁷ See *supra* section III.B.4.

Specifically, we propose to redesignate those rules under a new subpart FF. Currently, subpart E addresses “Complaints, Applications, Tariffs, and Reports Involving Common Carriers” and the submarine cables are identified in that subpart as a specific type of application under Title II of the Communications Act.⁴⁸⁸ In light of changes in the submarine cable industry, we believe this designation of submarine cable applications is no longer applicable. Additionally, we tentatively conclude that reorganizing the submarine cable rules into a separate subpart will provide clarity for applicants seeking to file any type of submarine application with the Commission. To the extent the Commission amends any rule provisions currently set forth under section 1.767 and 1.768, we propose to codify such changes under subpart FF. Further, we propose to improve the clarity and structure of section 1.767 by reorganizing existing rules and implementing any new rules adopted in this proceeding into specific subsections by topic.

179. *Other Administrative Changes.* Throughout Appendix A, we have proposed various ministerial, non-substantive changes not individually discussed in this Notice. These changes include, among other things, the conversion of Notes into respective subsections for consistency with the Office of Federal Register requirements. We seek comment on whether to require applicants file a copy of a submarine cable application with CISA, DHS. We also seek comment on whether we should add certain existing requirements in the submarine cable subpart rather than a cross reference to other rules.⁴⁸⁹

C. Three-Year Periodic Reporting Requirement

180. Below, we discuss the information we propose to require that all licensees to file in the three-year periodic reports. As discussed in section III.A.1. of this *Notice*, we propose to codify, as a routine condition a requirement that all cable landing licensees must provide to the Commission updated information about their ownership, points of contact, description of the submarine cable system, and other critical information every three years.⁴⁹⁰ Specifically, we propose that all licensees must provide in their periodic reports updated information and certifications identical to what is required in an application, including new information and certification requirements that we may adopt in this proceeding.⁴⁹¹ We also seek comment on whether to require additional information as part of the periodic reporting requirement. We seek comment on the nature and extent of the potential burdens of this proposed reporting requirement.

181. *Reports Must Provide Current Information.* We generally propose to require cable landing licensees to provide in the periodic reports updates every three years. The information will be updates from the time they submitted their application for the cable landing license or any modification, assignment, transfer of control, or renewal or extension of the license or the last periodic report, whichever is most recent, consistent with the application requirements.⁴⁹² We propose that these periodic reports must contain information that is current as of thirty (30) days prior to the date of the submission. To the extent that certain information has not changed since last filed in an application for the cable landing license or the modification, substantial assignment, transfer of control, and renewal or extension of the license or last periodic report, should we allow the cable landing licensee to include a certification attesting that its current information is identical to the information contained in such application?

182. *Submarine Cable Infrastructure Information.* We propose to require licensees to provide additional detailed information concerning the submarine cable infrastructure in their periodic reports.

⁴⁸⁸ See 47 CFR, Part 1, Subpart E.

⁴⁸⁹ See e.g., 47 CFR § 1.767(a)(8)(1) (cross references to 47 CFR §§ 63.18(h), (o), (p), and (q)).

⁴⁹⁰ As needed, we propose that Commission staff may require licensees to submit information required as part of the periodic filing prior to the three-year reporting deadline.

⁴⁹¹ See *supra* section III.B; see *infra* Appx. A.

⁴⁹² See *supra* section III.A.2.

We propose among other things that licensees must provide updated submarine cable system information including the length of the cable by segment and in total, the location of branching units, the location, address, and county or county equivalent of U.S. and non-U.S. cable landing points, the number of optical fiber pairs in the cable, and the design capacity of the system. We also propose to modify requirement for applicants and licensees to provide the geographic coordinates of cable landing stations as well as beach manholes, to the extent they differ from cable landing station coordinates. Additional information regarding this requirement is described in section III.B.4. above.⁴⁹³

183. *Current and Future Service Offerings.* We propose to require licensees to submit as part of the periodic report information about the capacity services they currently offer or plan to offer through the submarine cable system. The service includes the capacity it currently owns, the amount of capacity it intends to sell and the capacity management services. We also propose to require applicants, licensees, transferees, and assignees (as appropriate) to disclose current and expected future service offerings as part of their applications for modification, assignment, transfer of control, and renewal or extension of submarine cable landing licenses. Additional information regarding this requirement is described in section III.B.5. above.⁴⁹⁴

184. *Regulatory Compliance Certifications.* We propose to require cable landing licensees to certify in the report whether or not they are in compliance with the Cable Landing License Act, the Communications Act, the Commission's rules, and other laws as described in section III.B.6.⁴⁹⁵ Specifically, we propose to require each licensee to certify in its report whether or not the licensee has violated the Cable Landing License Act of 1921, the Communications Act of 1934, or Commission rules, including making false statements or misrepresentations to the Commission; whether the applicant has been convicted of a felony; and whether there is an adjudicated determination that the applicant has violated U.S. antitrust or other competition laws, has been found to have engaged in fraudulent conduct before another government agency, or has engaged in other non-FCC misconduct the Commission has found to be relevant in assessing the character qualifications of a licensee or authorization holder.⁴⁹⁶ We also seek comment on whether the Commission should require cable landing licensees to disclose any pending FCC investigations, including any pending Notice of Apparent Liability, and any adjudicated findings of non-FCC misconduct. In addition, we seek comment on whether the Commission should require cable landing licensees to disclose any violations of the Communications Act, Commission rules, or U.S. antitrust or other competition law, or any other non-FCC misconduct only where there has been adjudication or notification of a violation by an agency or court.

185. *Cybersecurity Certifications.* We propose to require cable landing licensees to provide in the report the cybersecurity certifications described in section III.B.6. above.⁴⁹⁷ Among other things, we propose that licensees certify in the report that they have created, updated, and implemented cybersecurity risk management plans. We also propose to require these applicants and licensees to certify that they take reasonable measures to protect the confidentiality, integrity, and availability of their systems and services that could affect their provision of communications services.⁴⁹⁸

186. *"Covered List" Certification.* We propose to require cable landing licensees to make the "covered list" certifications described in section III.B.6. above. We propose to require that licensees, in their periodic reports, certify that they have not purchased and/or used, and will not purchase and/or use,

⁴⁹³ See *supra* section III.B.4.

⁴⁹⁴ See *supra* section III.B.5.

⁴⁹⁵ See *supra* section III.B.6.

⁴⁹⁶ See *id.*

⁴⁹⁷ See *id.*

⁴⁹⁸ See *id.*

equipment or services produced or provided by entities (and their subsidiaries and affiliates) identified on the Commission's "Covered List" deemed pursuant to the Secure and Trusted Communications Networks Act⁴⁹⁹ to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons.⁵⁰⁰ We propose that this certification would apply to covered equipment or services purchased, rented, leased, or otherwise obtained on or after August 14, 2018 (in the case of Huawei, ZTE, Hikvision, Dahua, and Hytera), or on or after 60 days after the date that any equipment or service is placed on the Covered List.⁵⁰¹ This periodic reporting certification would ensure licensees continue to comply with the rule and the licensees' routine condition that protects against national security, law enforcement, and other risks.

187. *Foreign-Owned MNSPs.* We propose to require cable landing licensees, with or without reportable foreign ownership, to report whether or not they use and/or will use foreign-owned MNSPs in the operation of the submarine cable, as described in section III.B.7.⁵⁰²

188. *Licensee Information and Points of Contact.* We propose to require cable landing licensees to include in their periodic reports updated information concerning: (1) the name, address, telephone number, and e-mail address of the licensee, and (2) the name, title, address, telephone number, e-mail address, of the officer and any other contact point, such as legal counsel, to whom correspondence concerning the cable landing license is to be addressed.⁵⁰³ We further propose to require cable landing licensees to provide any updated information concerning the Government, State, or Territory under the laws of which the licensee is organized.

189. In addition to the proposals above, we seek comment on whether to require other information as part of the periodic reporting requirement. We also seek comment on the nature and extent of the potential burdens of this proposed reporting requirement.

190. *Ownership of the Submarine Cable System.* We seek comment on whether, as part of the periodic reporting requirement, the cable landing licensee should provide information identifying any individuals or entities that hold an ownership interest in the submarine cable system that does not meet the threshold eligibility requirements requiring them to be licensees of the cable, including the proposed eligibility requirements on which we seek comment in this proceeding. To the extent we require this information, should we also require the cable landing licensee to provide additional information about those other owners of the submarine cable, such as (1) their citizenship(s) and place(s) of organization and (2) identification of any individuals and entities that hold a certain threshold of direct and/or indirect equity and/or voting interests (e.g., 10% or greater), or a controlling interest, in those other owners of the submarine cable? Would information concerning other owners of the submarine cable system that are not licensees better ensure that the Commission can more fully account for evolving national security, law enforcement, foreign policy, and/or trade policy risks to submarine cable infrastructure? Should the criteria for identification of any individuals and entities that hold a certain threshold of direct and/or indirect equity and/or voting interests in those other owners of the submarine cable be set at 5% or greater

⁴⁹⁹ Pursuant to sections 2(a) and (d) of the Secure and Trusted Communications Networks Act, and sections 1.50002 and 1.50003 of the Commission's rules, PSHSB publishes a list of communications equipment and services that have been determined by one of the sources specified in that statute to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons ("covered" equipment). 47 U.S.C. § 1601(a), (d); see 47 U.S.C. §§ 1601-1609; 47 CFR §§ 1.50002, 1.50003.

⁵⁰⁰ See 47 U.S.C. §§ 1601-1609; 47 CFR § 1.50000 *et seq.*; see also *List of Covered Equipment and Services*.

⁵⁰¹ See *List of Covered Equipment and Services; Supply Chain Second Report and Order*, 35 FCC Rcd at 14334, para. 116 (*Supply Chain Second Report and Order*).

⁵⁰² See *supra* section III.B.7.

⁵⁰³ 47 CFR 1.767(a)(1)-(3); see *supra* section III.B.11-12.

instead? Should the Commission inquire about U.S. citizens' other non-U.S. citizenships, as in other Commission proceedings?⁵⁰⁴

191. *Ownership of Licensees.* We seek comment on whether the cable landing licensee should provide updated ownership information. For example, if the Commission adopts a 5% reportable ownership threshold, licensees would be required to provide updated ownership as required by the rules.⁵⁰⁵ We seek comment on whether an ongoing reporting requirement every three years should be broader and include additional information about ownership, control, and/or influence by foreign governments or foreign state-owned entities. If so, how should the Commission define "influence"?

192. *Other Information.* We seek comment on what other information we should require generally in the periodic reports so that we can address evolving national security, law enforcement, foreign policy, and/or trade policy risks. We seek comment on the types of ongoing information that the Commission should refer to the Executive Branch agencies for review. For example, should the Commission require cable landing licensees to periodically notify the Commission of any criminal convictions involving the licensee? We note that a similar requirement applies to broadcast licensees.⁵⁰⁶

193. *Application Fees.* We seek comment on whether to require cable landing licensees to pay a fee when submitting the three-year periodic reports that we propose in this *Notice*.⁵⁰⁷ Section 8(a) of the Communications Act states that "[t]he Commission shall assess and collect application fees at such rates as the Commission shall establish in a schedule of application fees to recover the costs of the Commission to process applications."⁵⁰⁸ The Commission has adopted a schedule of fees based on the cost of

⁵⁰⁴ See *Evolving Risks NPRM* at 4361, para. 20 n.79-80.

⁵⁰⁵ See *supra* section III.B.3.

⁵⁰⁶ See 47 CFR § 1.65(c) ("All broadcast permittees and licensees must report annually to the Commission any adverse finding or adverse final action taken by any court or administrative body that involves conduct bearing on the permittee's or licensee's character qualifications and that would be reportable in connection with an application for renewal as reflected in the renewal form . . ."); see *Policy Regarding Character Qualifications in Broadcast Licensing, Amendment of Part 1, the Rules of Practice and Procedure, Relating to Written Responses to Commission Inquiries and the Making of Misrepresentations to the Commission by Applicants, Permittees, and Licensees, and the Report of Information Regarding Character Qualifications*, MD Docket No. 81-500, Policy Statement and Order, 5 FCC Rcd 3252, para. 4 (1990) ("[E]vidence of any conviction for misconduct constituting a felony will be relevant to our evaluation of an applicant's or licensee's character.").

⁵⁰⁷ See *supra* section III.A.2.

⁵⁰⁸ The Commission has the authority to assess application fees under Section 8 of the Communications Act and has assessed application fees since 1986. Consolidated Omnibus Budget Reconciliation Act of 1985, Pub. L. No. 99-272, §§ 5002(e), (f), 100 Stat. 82, 118-121 (1986). In 2018, Congress revised the Commission's application fee authority by amending section 8 and adding section 9A to the Communications Act. Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018 (RAY BAUM'S Act), Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, 132 Stat. 1084, Division P, Title I, § 103 (2018). In doing so, Congress modified section 8 of the Communications Act to change the application fee program from a statutory schedule of application fees to a requirement that the Commission update and amend the existing schedule of application fees by rule to recover the costs of the Commission to process applications. Section 8(c) of the Act also requires the Commission to, by rule, amend the application fee schedule if the Commission determines that the schedule requires amendment to ensure that: (1) such fees reflect increases or decreases in the costs of processing applications at the Commission or (2) such schedule reflects the consolidation or addition of new categories of applications. In order to implement the RAY BAUM'S Act, the Commission sought comment on and adopted a new streamlined schedule of application fees that aligns with the types of applications received by the Commission in 2020. *Amendment of the Schedule of Application Fees Set Forth in Sections 1.1102 through 1.1109 of the Commission's Rules*, Notice of Proposed Rulemaking, 36 FCC Rcd 1618 (2020) (*2020 Application Fee Notice of Proposed Rulemaking*); *Amendment of the Schedule of Application Fees Set Forth in Sections 1.1102 through 1.1109 of the Commission's Rules*, MD Docket No. 20-270, Report and Order, 35 FCC Rcd 15089 (2020) (*2020 Application Fee Report and Order*) (the 2020

(continued....)

processing applications, with cost determined based on direct labor costs.⁵⁰⁹ The Commission uses time and staff compensation estimates to establish the direct labor costs of application fees, which are, in turn, based on applications processed by Commission staff found to be typical in terms of the amount of time spent on processing each type of application. The Commission has broadly construed the term “applications” to apply to a wide range of submissions for which filing fees are required. For example, we note that the Commission applies an application fee for the Biennial Ownership Report as applied to Full Power TV Stations, Commercial AM Radio Stations, and Commercial FM Radio Stations.⁵¹⁰

194. We anticipate that staff review of the periodic reports will require a significant investment of labor hours. The Commission also envisions a substantive filing comprising not only certifications but substantive updates of the infrastructure used in the cable system including locations of dry plants, the services being offered by the licensees, ownership of the cable and ownership of the licensees. Such submissions must be carefully reviewed by Commission staff to determine if they are complete and provide the required information, including specific descriptions of the cable system and services. The review will also need to determine the significance of any changes to the information previously filed with the Commission and whether the changes had been properly and timely reported to the Commission and appropriately sought approval when necessary, such as changes in ownership. The review will also require a determination as to whether the information provided in the report provides a basis for referring the license to the Committee for review for national security or law enforcement concerns. Such review would require staff resources, including analysts to review each filing, attorneys to perform compliance assessments, specialists to process the GIS location data and to review the cybersecurity certifications, and a supervisory attorney to oversee the process and coordinate the referral to the Committee, other federal agencies or other bureaus and offices within the Commission. The total amount of staff hours could be approximately two hours of review by an analyst, two hours of review by a GIS specialist, 20 hours of review by an attorney and 5 hours of supervisory attorney review. We therefore seek comment on adding a new category of fees in section 1.1107 of the Commission’s rules, and to set that application fee based on our final cost estimate.

195. We seek comment on whether any fee adopted for the periodic reports should be consistent with the fee for applications for a renewal of a cable landing license because the periodic report, similar to a renewal application, will require the licensee(s) to update information about the cable system.⁵¹¹ We seek comment on whether the new fee should be added to the established fee category of

Notice of Proposed Rulemaking and the *2020 Application Fee Report and Order* collectively explain the statutory changes and the methodology for adopting and maintaining the new schedule of application fees and discussing how it will be maintained) (collectively *2020 Application Fee Proceeding*). See 47 CFR subpart G (Schedule of Statutory Charges and Procedures for Payment).

⁵⁰⁹ See *2020 Application Fee Report and Order*, 35 FCC Rcd at 15092, para. 10. In reviewing any particular methodology, it is important to note that the agency is not required to calculate its costs with “scientific precision.” *Central & Southern Motor Freight Tariff Ass’n v. United States*, 777 F.2d 722, 736 (D.C. Cir. 1985). Instead, reasonable approximations will suffice. *Id.*; *Mississippi Power & Light v. U.S. Nuclear Regulatory*, 601 F.2d 223, 232 (5th Cir. 1979); *National Cable Television Ass’n v. FCC*, 554 F.2d 1094, 1105 (D.C. Cir. 1976).

⁵¹⁰ See *Application Fee Filing Guide For Media Bureau* (Effective March 2, 2023), <https://docs.fcc.gov/public/attachments/DOC-391414A1.pdf>. The fee is calculated based on the number of stations for which the report is filed. It is currently \$95 per station.

⁵¹¹ See 47 U.S.C. § 158(a); 47 CFR § 1.1101; 47 CFR § 1.1107. Section 8(c)(2) of the Act does not mandate that the Commission update our fee schedule to reflect “the consolidation or addition of new categories of applications” within any particular timeframe. 47 U.S.C. § 158(c). Rather, we have determined that if the application fee schedule may require an amendment pursuant to section 8(c), the Commission will initiate a rulemaking to seek comment on any proposed amendment(s) to the application fee schedule. *2022 Application Fee Order*, 37 FCC Rcd 14994, at n.2. We do so here.

“International Service”⁵¹² and follow the fee calculation methodology adopted by the Commission in the *2020 Application Fee Report and Order*.⁵¹³ Currently, the fee for an application for a renewal of cable landing license is \$2,725.⁵¹⁴ We seek comment on whether a fee of \$2,725 is appropriate for review of the periodic reports. We seek comment on whether there are other filings that commenters consider analogous to the proposed periodic report. And if so, would our processes for those filings suggests that we adopt a different fee here? We generally seek comment on what fee calculation methodology should be adopted to determine a fee amount, if any, for the three-year periodic reports for cable landing licensees. In so doing, we remind commenters that fees collected pursuant to our Section 8 authority are deposited in the general fund of the U.S. Treasury. Thus, while the determination of the fee amount will be based on cost, the collected fees are not used to fund Commission activities. In crafting comments, we ask that commenters explain whether their proposals are supported by the statute.

D. Improving the Quality of the Circuit Capacity Data

196. The Commission receives two types of annual circuit capacity reports regarding U.S.-international submarine cables.⁵¹⁵ First, licensees of a submarine cable between the United States and any foreign point must report the capacity of the submarine cable as of December 31 of the reporting period (i.e., available capacity) and two years from the reporting period (i.e., planned capacity).⁵¹⁶ Second, cable landing licensees and common carriers must report their capacity on submarine cables between the United States and any foreign point as of December 31 of the reporting period.⁵¹⁷ The Commission has found

⁵¹² *2020 Application Fee Report and Order*, 35 FCC Rcd 15089, 15094, para. 15.

⁵¹³ *Id.* at 15092, para. 11 (adopting the methodology proposed in the *2020 Application Fee Notice of Proposed Rulemaking* to “base the application fees on an estimate of direct labor costs where possible,” as modified therein); *id.* at 15132, para. 137 (“We adopt the proposed cost-based cable landing license fees in the [2020 Application Fee Notice of Proposed Rulemaking] with one change to reduce the cost of a pro forma assignment or transfer of control.”); *2020 Application Fee Notice of Proposed Rulemaking*, 36 FCC Rcd 1618, 1654-55, para. 140 (“New cable landing license applications are filed online using the International Bureau Filing System (IBFS) and involve International Bureau staff review. Staff must review the application for compliance with our rules and the technical aspects of the proposed submarine cable system, including information regarding cable landing stations and ownership of the applicants. As noted above, the Commission coordinates the application with the State Department and other federal agencies, as necessary. We estimate that the Commission’s resources to process a typical new cable landing license application consist of the following: industry analyst processing and review, staff attorney review, and supervisory review.”).

⁵¹⁴ *2022 Application Fee Order* at Appx.; 47 CFR § 1.1107. This fee rate became effective on March 2, 2023. See Federal Communications Commission, Schedule of Application Fees, 88 Fed. Reg. 6169 (Jan. 31, 2023).

⁵¹⁵ See 47 CFR § 43.82. The requirement to file submarine cable circuit capacity data dates back to the 1970s when it was included as a condition in many of the international section 214 authorizations granted by the Commission. *Rules for the Filing of International Circuit Status Reports*, CC Docket No. 93-157, Notice of Proposed Rulemaking, 8 FCC Rcd 4902, para. 2 (1993); *2017 Section 43.62 Report and Order*, 32 FCC Rcd at 8117, para. 4. The requirement was subsequently incorporated into the Commission’s rules and extended to all facilities-based international common carriers and to cable landing licensees. *Rules for the Filing of International Circuit Status Reports*, CC Docket No. 93-157, Report and Order, 10 FCC Rcd 8605 (1995); see *2017 Section 43.62 Report and Order*, 32 FCC Rcd at 8117, para. 4. Pursuant to section 43.82 of the rules, authority is delegated to the Chief of the Office of International Affairs to prepare instructions and reporting requirements for the filing of these reports prepared and published as a Filing Manual. 47 CFR § 43.82(c); see Filing Manual for Section 43.82 Circuit Capacity Reports (IB Feb. 2020) (Filing Manual), <https://docs.fcc.gov/public/attachments/DOC-362660A1.pdf>.

⁵¹⁶ 47 CFR § 43.82(a)(1); *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 608, para. 108.

⁵¹⁷ 47 CFR § 43.2(a)(2). Any U.S. international common carrier or cable landing licensee that owned or leased capacity on a submarine cable between the United States and any foreign point on December 31 of the reporting period is required to file capacity amounts for the following categories: (1) owned capacity; (2) net indefeasible rights-of-use (IRUs); (3) net inter-carrier leaseholds (ICLs); (4) net capacity held (i.e., the total of categories (1) (continued....)

that the data from the circuit capacity reports are necessary for the Commission to fulfill its statutory obligations and serve a vital public interest role for other federal agencies.⁵¹⁸ The Committee regularly requests this data for its work on national security and law enforcement issues,⁵¹⁹ as has DHS for its national security and homeland security functions.⁵²⁰ The Commission has honored these requests for access to the data that has been filed on a business confidential basis after giving the filers an opportunity to comment.

197. In light of our goal in this proceeding to strengthen the Commission’s ability to assess national security, law enforcement, and other concerns relating to submarine cable infrastructure and its ownership and operation, we seek comment on how we could improve the collection of circuit capacity data. We also seek comment on streamlining the process for sharing the confidential data provided in the reports with other federal agencies for national security, law enforcement, and emergency preparedness purposes. Below we discuss and seek comment on how to improve the quality and usefulness of the data and provide greater clarity on the reporting requirements to Filing Entities.⁵²¹

1. Cable Operators Report

a. Who Should File a Cable Operator Report

198. Section 43.82 of the Commission’s rules requires the licensee or licensees to report the available and planned capacity of the cable.⁵²² The current Filing Manual requires that, “[w]here there are multiple licensees for a cable, only one cable landing licensee may file the Cable Operator Report for that cable. The licensees shall determine which licensee will file the capacity data for that submarine cable.”⁵²³ This requirement is based on a rule that the Commission initially adopted in the *2013 Part 43 Second Report and Order*.⁵²⁴ Subsequently, in the *2017 Part 43.62 Report and Order*, the Commission

through (3)); (5) activated capacity; and (6) non-activated capacity. *Section 43.62 Reporting Requirements for U.S. Providers of International Services, 2016 Biennial Review of Telecommunications Regulations*, IB Docket Nos. 17-55, 16-131, Report and Order, 32 FCC Rcd 8115, 8117-18, para. 4 & n.20 (2017) (*2017 Section 43.62 Report and Order*); *Reporting Requirements for U.S. Providers of International Telecommunications Services, Amendment of Part 43 of the Commission's Rules*, IB Docket No. 04-112, Second Report and Order, 28 FCC Rcd 575, 608, para. 108, 660-62, Appx. D (2013) (*2013 Part 43 Second Report and Order*); Filing Manual at 6-7, paras. 32-34.

⁵¹⁸ *2017 Section 43.62 Report and Order*, 32 FCC Rcd at 8127, para. 24; *id.* at 8128-29, para. 28; *id.* at 8118, para. 5 (“The circuit capacity data provide information on ownership of submarine cable capacity that is used for national security and public safety purposes.”).

⁵¹⁹ See, e.g., Letter from David Plotinsky, Acting Chief, Foreign Investment Review Section, National Security Division, U.S. Department of Justice, to Denise Coca, Chief, Telecommunications and Analysis Division, International Bureau, FCC (Jul. 19, 2021) (on file in IB Docket No. 21-439) (requesting access to circuit capacity data for the 2015 to 2020 reporting periods, including data for which confidential treatment has been requested).

⁵²⁰ See Letter from Bryan S. Ware, Assistant Director, Cybersecurity Division, Cybersecurity and Infrastructure Security Agency, DHS, and Scott Glabe, Assistant Secretary for Trade and Economic Security Office of Strategy, Policy, and Plans, DHS, to Denise Coca, Chief, Telecommunications and Analysis Division, International Bureau, FCC (Mar. 5, 2020) at 1 (DHS March 5, 2020 Letter) (on file in IB Docket No. 19-32) (requesting access to circuit capacity data for the 2015 to 2019 reporting periods, including data for which confidential treatment has been requested).

⁵²¹ For purposes of this section, we use the term “Filing Entities” to refer to a person or entity that is required to file information with the Commission pursuant to section 43.82. See Filing Manual at para. 2 n.2.

⁵²² 47 CFR § 43.82(a)(1).

⁵²³ Filing Manual at 6, para. 30.

⁵²⁴ *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 629-630, Appx. C, para. 5 (adopting a requirement under section 43.62 of the rules that “[o]nly one cable landing licensee shall file the capacity data for each submarine cable. For cables with more than one licensee, the licensees shall determine which licensee will file the reports”).

removed this requirement from the rules,⁵²⁵ noting the concerns raised in the proceeding “that allowing only one licensee to file the Cable Capacity Report for a consortium cable requires licensees to share information about their capacity and planned upgrades that may be competitively sensitive.”⁵²⁶ The Commission directed the International Bureau “to consult with stakeholders on appropriate changes to the Filing Manual to allow for more than one licensee to file a cable operator report for a submarine cable if appropriate.”⁵²⁷

199. We seek comment on whether the Filing Manual should be revised to allow more than one licensee of a submarine cable to file a cable operator report for a submarine cable that has multiple licensees. We seek comment on whether and how we can retain the single-filer requirement set out in the Filing Manual while addressing any cable landing licensee concerns about sharing of competitively sensitive information with other joint licensees. As the Commission has previously stated, the data are critical for analyzing international transport markets and for national security, defense, and public safety responsibilities.⁵²⁸ We also note that the Commission has found there are no alternative reliable third party commercial sources for the reported data.⁵²⁹ We contemplate that requiring each joint licensee to submit a cable operator report capturing its own available capacity and planned capacity on the cable may not produce reliable information about the overall cable capacity given that joint licensees may report their data inconsistently. Such an approach may also be duplicative of how those licensees report their owned capacity on that cable in the capacity holder report.⁵³⁰ Given the important public interest benefits of the cable operator reports, is it in the public interest to retain the current requirement in the Filing Manual that only one licensee of a submarine cable may file the cable operator report for that cable?

200. To the extent commenters propose alternative methods, we request detailed explanation of how such methods would ensure the dataset fully accounts for the available capacity and planned capacity of each submarine cable. Are there alternative methods that would enable the Commission and the Committee to obtain reliable and accurate data about the capacity of submarine cables, while responding to any concerns of joint licensees about sharing competitively sensitive information? Should we allow joint licensees of a submarine cable to separately report the available and planned capacity of fiber pairs if they each own and operate their own fiber pair on the cable? Should we also require each

⁵²⁵ 2017 Section 43.62 Report and Order, 32 FCC Rcd at 8132, para. 34; *see id.* at 8138, Appx. B, para. 7.

⁵²⁶ *Id.* at 8132, para. 34 (citing *ICIO Aug. 31 Ex Parte Letter*, Attach. at 2-3).

⁵²⁷ *Id.*; *see id.* (“We agree that the consortium cable reporting requirement raises issues requiring modification of our rules”).

⁵²⁸ *Id.* at 8128-30, paras. 28-29; *see also id.* at 8130, para. 29, n.111 (stating, among other things, “[t]he data on submarine cable capacity by region that the Commission collects and makes available provide potential entrants or new investors with an accurate industry overview showing where cable capacity connecting the United States to foreign points is presently deployed [and] provide potential new entrants, investors, and other small business entities with business planning data for assessing potential market demand”).

⁵²⁹ *Id.* at 8130, para. 29. In the 2017 Section 43.62 Report and Order, the Commission stated, “[a]lthough certain cable capacity data may be available through other sources, those sources are not as reliable as information that has been submitted to a federal agency and verified by officials in the company.” *Id.*, 32 FCC Rcd at para. 29, n.110; *id.* at para. 29 (“For example, TeleGeography’s submarine cable reports include capacity information, but the data are not verified by company officials.”).

⁵³⁰ *See* Filing Manual at 6-7, para. 32-33; *see infra* section III.D.2.b. Moreover, discrepancies in the data indicate that aggregation of data from the capacity holder reports, such as aggregation of owned capacity by cable, would not be an adequate or reliable substitute for the available capacity data that are collected in the cable operator reports.

licensee to identify in the report all other licensees, if any, on whose behalf it submits the capacity information for the cable?⁵³¹

b. What Data Should be Reported in a Cable Operator Report

201. Section 43.82 requires licensees to report “the capacity of the submarine cable” and “the planned capacity of the submarine cable.”⁵³² While section 43.82 does not define the term “capacity of the submarine cable,” in the *2013 Part 43 Second Report and Order*, the Commission explained that cable landing licensees will be required to report the “available capacity” and “planned capacity” of an international submarine cable.⁵³³ The Commission stated that “[a]vailable capacity is all of the capacity currently available on the cable using equipment currently used on the cable”⁵³⁴ and that “[p]lanned capacity is the intended capacity of the international submarine cable two years out from the reporting date (December 31 of the reporting period plus two years) based on the plans of the cable operators for upgrades to the technology used with the cable.”⁵³⁵ On December 28, 2018, the International Bureau released a revised Filing Manual which, among other things, clarified the definition of “available capacity” to ensure that the cable operator reports capture all of the capacity of the cable.⁵³⁶ Specifically, the revised Filing Manual defined the term “available capacity” as “also known as design capacity,”

⁵³¹ The Filing Manual currently advises that “[i]f a Filing Entity is filing a Cable Operator Report on behalf of other cable landing licensees on the cable, the Filing Entity should email the International Bureau with the list of licensees for which it is filing data.” Filing Manual at 6, para. 31.

⁵³² 47 CFR § 43.82(a)(1) (“The licensee(s) of a submarine cable between the United States and any foreign point shall file a report showing the capacity of the submarine cable as of December 31 of the preceding calendar year. The licensee(s) shall also file a report showing the planned capacity of the submarine cable (the intended capacity of the submarine cable two years from December 31 of the preceding calendar year).”).

⁵³³ *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 608, para. 108; *id.* at 606, para. 5 (stating, “as part of our changes to the reporting requirements we will require operators of international submarine cables to report the current capacity for the cable as well as the planned capacity.”).

⁵³⁴ *Id.* at 608, para. 108.

⁵³⁵ *Id.*; see Filing Manual for Section 43.62 Annual Reports at 27, para. 136 (IB Feb. 2016) (2016 Filing Manual), <https://docs.fcc.gov/public/attachments/DOC-337916A1.pdf> (“Available capacity is all of the capacity currently available on the cable using equipment currently used on the cable, where ‘currently’ means December 31 of the reporting period. Planned capacity is the entire intended capacity of the cable two years out from the reporting date (December 31 of the reporting period plus two years) based on the plans for upgrades to the technology used on the cable.”).

⁵³⁶ *International Bureau Releases Revised Filing Manual for Section 43.82 Circuit Capacity Reports*, 33 FCC Rcd 12517, 12518, Public Notice (IB 2018) (*Revised Filing Manual Public Notice*). In 2017, the Commission streamlined the international reporting requirements and eliminated the traffic and revenue reports and the requirement to file terrestrial and satellite circuit data, but retained the requirement to file submarine cable operator and capacity holder reports under a newly codified section 43.82. *Id.* at 12517; see generally *2017 Section 43.62 Report and Order*. The rule changes went into effect in April 2018. *Revised Filing Manual Public Notice*, 33 FCC Rcd at 12518; Reporting Requirements for U.S. Providers of International Services; 2016 Biennial Review of Telecommunications Regulations, Announcement of Effective Date, 83 Fed. Reg. 17931 (2018). By Public Notice, the International Bureau released a revised Filing Manual that included only the instructions for filing the section 43.82 circuit capacity reports, in light of the elimination of the traffic and revenue reports and terrestrial and satellite data, and also stated, “[b]ased on questions received from Filing Entities this year, the revised Filing Manual also clarifies the definition of ‘available capacity’ in the submarine cable operator reports.” *Revised Filing Manual Public Notice* at 12517-18.

noting that “[a]vailable capacity, also known as design capacity, is all of the capacity (both lit and unlit capacity) on the cable as of the reporting date (December 31 of the reporting period).”⁵³⁷

202. Based on Commission staff review of the annual cable operator data and questions that staff receive from Filing Entities, we believe that clarifying the term “available capacity” would improve the consistency of data submitted in the cable operator reports. We seek comment on whether we should use a different definition of “available capacity” than set out in the Filing Manual. If so, how should we define “available capacity”? Should the definition be codified in the rules or is it appropriate to define the term in the Filing Manual? Would adopting a definition in the rule rather than the Filing Manual better ensure that Filing Entities use a consistent method of reporting the capacity of a submarine cable?

203. We seek comment on whether we should continue to use the definition in the Filing Manual, where “available capacity” of a submarine cable is also referred to as “design capacity.”⁵³⁸ Alternatively, we seek comment on whether to distinguish between “available capacity” and “design capacity” to the extent this distinction is consistent with current developments in the submarine cable market and technology. We seek comment on whether the “design capacity” of a submarine cable is more appropriately understood as the maximum theoretical capacity based on equipment currently used on the cable, or as the maximum theoretical capacity based on the current plans of a cable operator to upgrade the technology used with the cable.

204. The Commission assesses regulatory fees on submarine cables based on the lit capacity of the cable.⁵³⁹ We seek comment on whether the Commission should collect information through the circuit capacity reports on the lit capacity of each licensed and operating cable system that can be used to determine tiers for assessing regulatory fees for submarine cable operators and the fee amount for each tier.⁵⁴⁰

205. We seek comment as to how Filing Entities are measuring available capacity, given that the current and potential capacity of fiber optic submarine cables depends on the equipment currently used on a submarine cable and developments in the latest technology. The capacity of fiber optic submarine cables in the current market can change significantly (e.g., by orders of magnitude) and quickly (e.g., in a matter of days), depending on the latest technology and the equipment that is attached on those cables. We seek comment on whether we need to update our circuit capacity rules and reporting requirements to reflect the current dynamics of the submarine cable market.

206. We also seek comment on how and to what degree the initial design capacity of a submarine cable is subject to change over time due to planned upgrades. How frequently do cable operators upgrade or plan to upgrade equipment on a submarine cable, such as SLTEs, and how does this implementation affect assessment of current and future capacity on the cable? Should we reconsider the

⁵³⁷ *Revised Filing Manual Public Notice*, 33 FCC at 12518; Filing Manual For Section 43.82 Circuit Capacity Reports at 6, para. 26 (IB Dec. 2018), <https://docs.fcc.gov/public/attachments/DA-18-1306A2.pdf>. The current Filing Manual contains this definition of “available capacity” for purposes of the cable operator report. See Filing Manual at 6, para. 28.

⁵³⁸ Filing Manual at 6, para. 28.

⁵³⁹ See *2024 Regulatory Fee Second Report and Order* at para. 87(7) (regulatory fees for submarine cable are assessed on a per cable landing license basis based on lit circuit capacity as of December 31 of the relevant fiscal year).

⁵⁴⁰ The Commission uses “lit capacity” for assessing regulatory fees because “that is the amount of capacity that submarine cable operators are able to provide services over and the regulatory fee is in part recovering the costs related to the regulation and oversight of such services.” *Assessment and Collection of Regulatory Fees for Fiscal Year 2019*, MD Docket No. 19-105, Report And Order And Further Notice Of Proposed Rulemaking, 34 FCC Rcd 8189, 8224-25, para. 41 (2019). See also *Assessment and Collection of Regulatory Fees for Fiscal Year 2020*, Report And Order And Further Notice Of Proposed Rulemaking, 36 FCC Rcd 1731, 1760, para. 75 (2020).

definition in the Filing Manual and instead define “available capacity” of a submarine cable as all of the capacity (both lit and unlit capacity) on the cable based on equipment currently used on the cable? If so, should we include an additional category in the cable operator report for reporting “design capacity,” separate from reporting “available capacity” and “planned capacity”? Or should we require Filing Entities to report “design capacity,” “current equipped capacity,” and “planned capacity” in the cable operator report? We also seek comment on whether the concept of “design capacity” is similar to or distinct from the “planned capacity” data collected by the Commission.⁵⁴¹ We ask commenters to provide detailed comments, including any relevant facts and circumstances related to the technology, the market, or other factors, that can inform these proposed definitions and the assessment of whether to revise the reporting methodology in the cable operator report.

2. Capacity Holders Report

a. Who Should File a Capacity Holder Report

207. Section 43.82 requires cable landing licensees and common carriers to report their capacity on international cables.⁵⁴² Because this reporting requirement only applies to licensees and common carriers, there exists a gap in the Commission’s knowledge of the entities that hold capacity on a particular cable as other entities that hold capacity on that cable are not required to report their capacity. This is borne out by our circuit capacity data. According to the annual capacity holder data, there is substantial capacity leased or purchased from cable landing licensees and common carriers that is not accounted for in the data.⁵⁴³ We seek comment on the scope of this issue, whether this raises national security concerns, and whether the Commission should and under what authority require other entities to report their capacity.

208. We seek comment on whether we should require all entities that hold capacity on cables landing in the United States to file capacity holder reports. Would requiring the filing of circuit capacity data by all entities that hold capacity on submarine cables—including capacity held through ownership in a cable, an IRU, an ICL, or on a fiber or spectrum basis—reduce the gap in the data and provide the Commission and its federal partners with greater insight into the ownership and use of capacity on submarine cables? Are there certain entities, such as the U.S. Government, that should be exempt from reporting their capacity holdings? If the Commission requires other entities to report their capacity, should there be a threshold for the reporting requirement (e.g., 1 Gbps)? Alternatively, or in addition to requiring all holders of capacity on submarine cables landing in the United States to annually file data regarding their capacity holdings, we seek comment on whether we should require cable landing licensees and common carriers to include in their annual capacity holder reports a list of customers to whom they sold or leased capacity as of December 31 of the reporting period. To the extent we adopt these

⁵⁴¹ 47 CFR § 43.82(a)(1). The Filing Manual states that “[p]lanned capacity is the entire intended capacity (both lit and unlit capacity) of the cable two years out from the reporting date (December 31 of the reporting period plus two years) based on current plans to upgrade the capacity of the cable.” Filing Manual at 6, para. 28; see *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 608, para. 108.

⁵⁴² 47 CFR § 43.82(a)(2).

⁵⁴³ For example, the capacity holder data for the 2022 reporting period reflect total net IRUs of -315,566.7 Gbps and total net ICLs of -120,988.1 Gbps, including net IRUs of -92,977.3 Gbps and net ICLs of -45,232.2 Gbps in the Americas region, net IRUs of -192,593.3 Gbps and net ICLs of -63,050.1 Gbps in the Atlantic region, and net IRUs of -29,996.1 Gbps and net ICLs of -12,705.8 Gbps in the Pacific region. See *FCC Releases Circuit Capacity Data for U.S.-International Submarine Cables as of December 31, 2022*, Public Notice, DA 23-1085, Tbl. 5 (OIA Nov. 16, 2023). In addition, the capacity holder data for the 2021 reporting period reflect total net IRUs of -248,551.6 Gbps and total net ICLs of -120,477.4 Gbps, including net IRUs of -78,865.1 Gbps and net ICLs of -38,099.7 Gbps in the Americas region, net IRUs of -161,244.7 Gbps and net ICLs of -54,614.6 Gbps in the Atlantic region, and net IRUs of -8,441.8 Gbps and net ICLs of -27,763.1 Gbps in the Pacific region. See *FCC Releases Circuit Capacity Data for U.S.-International Submarine Cables as of December 31, 2021*, Public Notice, 37 FCC Rcd 15104, 15115, Tbl. 5 (OIA 2022).

approaches, we propose to share with our federal partners the information that is collected pursuant to such requirements, including any information for which confidential treatment is requested, through the procedures we propose in this *Notice* with respect to sharing annual circuit capacity data with the Committee and DHS.⁵⁴⁴ We seek comment on these approaches and on the potential burdens on affected entities. We seek comment as to which of these approaches would be less burdensome, and whether any such information requirements could be designed to minimize the burdens on potential new filers, including small entities. We also seek comment generally on the potential benefits associated with any collection of information under these approaches.

209. We seek comment on whether the Commission has legal authority pursuant to the Cable Landing License Act, the Communications Act, or any other sources of authority, to require capacity holders not already subject to section 43.82, to submit data regarding their capacity on submarine cables landing in the United States. The Commission has long determined that it has authority to require the filing of circuit capacity data from cable landing licensees and common carriers pursuant to the Cable Landing License Act and Executive Order 10530 and section 214 of the Communications Act.⁵⁴⁵ While the Commission adopted the circuit capacity reporting requirements for a specific class of non-common carriers in the *2013 Part 43 Second Report and Order*,⁵⁴⁶ the Commission noted that the provisions of the Cable Landing License Act “do not distinguish between common carriage and non-common carriage of services over licensed cables.”⁵⁴⁷ We seek comment on whether the Commission’s authority to require the filing of circuit capacity data extends to any and all entities—beyond cable landing licensees and Title II common carriers—holding capacity on submarine cables landing in the United States.⁵⁴⁸ We seek comment on whether this information is necessary for the Commission to make informed decisions on matters within its jurisdiction and to carry out its statutory duties.⁵⁴⁹ This includes, for example, assessing whether to grant or deny applications for cable landing licenses or revoke licenses in the interest of national security or competition.⁵⁵⁰ Further, we seek comment on whether the Commission could rely on

⁵⁴⁴ See *infra* section III.D.5.

⁵⁴⁵ See *2017 Section 43.62 Report and Order*, 32 FCC Rcd at 8130, para. 30 (“The Commission has authority to grant – and condition – authorizations and licenses. Specifically, Section 214 of the Communications Act gives the Commission authority to ‘attach to the issuance of the certificate such terms and conditions as in its judgment the public convenience and necessity may require.’ The Cable Landing License Act of 1921 and Executive Order 10530 authorize the Commission to condition licenses ‘upon such terms as are necessary to assure just and reasonable rates and service in the operation and use of the cables so licensed.’”); *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 606, para. 104 (“Our authority to require the filing of international circuit data by common carriers is well established and these carriers currently file circuit data pursuant to section 43.82. We find we also have authority under the Cable Landing License Act as well as the Communications Act to require cable landing licensees that are not common carriers to report their capacity. As discussed in the *Further Notice*, the Commission licenses submarine cables and associated cable landing stations located in the United States pursuant [to] the Cable Landing License Act. The provisions of the Cable Landing License Act do not distinguish between common carriage and non-common carriage of services over licensed cables. . . .”); 47 U.S.C. § 35; Executive Order 10530; 47 U.S.C. § 214.

⁵⁴⁶ *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 604-607, paras. 97-106.

⁵⁴⁷ *Id.* at 604-607, paras. 104; *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission’s Rules*, IB Docket No. 04-112, First Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 7274, 7317, para. 124 (2011).

⁵⁴⁸ Below, we address separately whether to apply the circuit capacity reporting requirements to entities that provide only broadband Internet access service (BIAS).

⁵⁴⁹ See *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 606, para. 104.

⁵⁵⁰ 47 U.S.C. § 35.

ancillary authority in conjunction with other primary sources of legal authority in adopting such a requirement.⁵⁵¹

210. *BIAS Providers.* In the *2024 Open Internet Order*, the Commission reclassified BIAS as a telecommunications service under Title II of the Communications Act.⁵⁵² In that Order, the Commission waived the current rules implementing section 214(a)-(d) of the Communications Act with respect to BIAS to the extent they are otherwise applicable, including section 43.82,⁵⁵³ stating that it “expects to release a Further Notice at a future time to examine whether any section 214 rules specifically tailored to BIAS, including for small providers, are warranted.”⁵⁵⁴ Although the *2024 Open Internet Order* was stayed by the Sixth Circuit pending judicial review,⁵⁵⁵ we seek comment on whether and to what extent we should depart from the regulatory framework contemplated by that Order insofar as the Order becomes operative after judicial review. Given that all Title II common carriers are required to file annual circuit capacity reports under section 43.82(a)(2) of the rules,⁵⁵⁶ we seek comment generally on whether the Commission should consider retaining or removing the waiver of section 43.82 of the rules as applied to BIAS providers, subject to judicial review of that Order. Do the important public interest benefits of the circuit capacity data collection warrant the collection of capacity holder data from entities providing *only* BIAS?⁵⁵⁷ We seek comment, for example, on whether such information would provide the Commission and its federal partners important insight into the ownership and use of submarine cable capacity for national security and public safety purposes.

211. Further, if the Commission were to eliminate the waiver, should we adopt the same requirements applicable to all other reporting entities or tailored requirements as applied to entities providing *only* BIAS? For example, should a transition period be provided for entities providing *only* BIAS to submit an initial capacity holder report? What potential burdens, if any, would be imposed on such BIAS providers if they were required to file data regarding their submarine cable capacity, including capacity held through ownership in a cable, an IRU, an inter-carrier lease (ICL), or on a fiber or spectrum basis? To the extent the Commission adopts any changes to section 43.82 of the rules and the current reporting requirements as addressed in this Notice,⁵⁵⁸ we seek comment on whether those changes should similarly be applied to entities providing *only* BIAS as well as the potential burdens, if any, that would be imposed upon such BIAS providers.

b. What Data Should be Filed in a Capacity Holder Report

212. Section 43.82 does not specify the data to be reported in the capacity holder report. The Commission, however, stated in the *2013 Part 43 Second Report and Order* that cable landing licensees and common carriers should report their available capacity on a cable “by the type of ownership interest they have in the capacity – ownership in the cable, an indefeasible right of use (IRU) or an inter-carrier

⁵⁵¹ To exercise ancillary authority “two conditions [must be] satisfied: (1) the Commission’s general jurisdictional grant under Title I [of the Communications Act] covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.” *Am. Library Ass’n v. FCC*, 406 F.3d 689, 691-92 (D.C. Cir. 2005).

⁵⁵² See generally *2024 Open Internet Order*.

⁵⁵³ *Id.* at *132-133, paras. 342-344 & n.1379; *id.* at *133, para. 344 (“We find that the public interest is served by this waiver as it will ensure that consumers can continue to receive the broadband Internet access services to which they presently subscribe and avoid any disruption to, or uncertainty for, BIAS consumers and BIAS providers”).

⁵⁵⁴ *2024 Open Internet Order* at *132, para. 342.

⁵⁵⁵ See *In re: MCP No. 185*, at *1.

⁵⁵⁶ 47 CFR § 43.82(a)(2).

⁵⁵⁷ See 47 CFR § 8.1.

⁵⁵⁸ See generally section III.D.

lease (ICL).⁵⁵⁹ The Commission further explained that available capacity consists of the sum of (1) capacity that a Filing Entity owns; (2) the net of IRUs leased from other capacity holders less IRUs leased to other capacity holders; and (3) the net of ICLs leased from other capacity holders less ICLs leased to other capacity holders.⁵⁶⁰ These requirements are reflected in the Filing Manual.⁵⁶¹

213. As discussed above in the context of cable operator reports, we seek comment on how the Commission should define “available capacity.” We also seek comment on whether we should require Filing Entities to use the same definition of “available capacity” when reporting their owned capacity in their capacity holder reports. To assess the accuracy of reported data, our current practice is to compare the total available capacity reported in the cable operator reports with the total owned capacity reported in the capacity holder reports by region.⁵⁶² Should we ensure that these data continue to be consistent and comparable for purposes of our assessment and use of the data for national security and public safety purposes?⁵⁶³ We also seek comment on whether any approach we may adopt with regard to defining the “available capacity” of a submarine cable should similarly be applied to other data submitted in the capacity holder report, including the net amount of IRUs,⁵⁶⁴ net amount of ICLs,⁵⁶⁵ and net capacity, and whether the net capacity is activated (i.e., lit) or non-activated (i.e., unlit).⁵⁶⁶ Overall, would requiring Filing Entities to apply the approach used to define “available capacity” of a submarine cable to similarly report their capacity holdings assist our efforts to verify the accuracy and consistency of the data reported in the cable operator reports and capacity holder reports?

214. We seek comment on whether the capacity holder report should be revised to capture new developments in the provisioning of capacity in the submarine cable market. In the *2017 Part 43.62*

⁵⁵⁹ *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 605, para. 100.

⁵⁶⁰ *Id.*

⁵⁶¹ Filing Manual at 7, para. 32. Each Filing Entity is required to calculate its available capacity as the sum of (1) cable ownership; (2) the net of IRUs leased from other entities less IRUs leased to other entities; and (3) the net of ICLs leased from other entities less ICLs leased to other entities. *Part 43 Second Report and Order*, 28 FCC Rcd at 604-5, 608, paras. 100, 108; Filing Manual at 6-7, para. 32.

⁵⁶² Ideally, we expect that the total available capacity reported in the cable operator report for a given cable (filed on behalf of the licensee or joint licensees) should match the aggregated owned capacity reported in all of the capacity holder reports on that cable. See, e.g., *FCC Releases Circuit Capacity Data for U.S.-International Submarine Cables as of December 31, 2022*, Public Notice, DA 23-1085, Tbl. 6 (OIA Nov. 16, 2023); *FCC Releases Circuit Capacity Data for U.S.-International Submarine Cables as of December 31, 2021*, Public Notice, 37 FCC Rcd 15104, 15116, Tbl. 6 (OIA 2022). Thus, we expect that the total available capacity and the total owned capacity by region should also match, though there may be discrepancies between these figures. For example, some amount of capacity may be owned by non-reporting entities, such as entities that own capacity on a cable through an ownership interest in the submarine cable system but are not required to be a licensee under section 1.767(h) of the Commission’s rules and are otherwise not common carriers.

⁵⁶³ For instance, if we adopt a definition in the rules that “[a]vailable capacity, also known as design capacity, is all of the capacity (both lit and unlit capacity) on the cable as of the reporting date (December 31 of the reporting period),” should we clarify that Filing Entities must report their owned capacity using a similar methodology? On the other hand, if we distinguish between “available capacity” and “design capacity” and create separate categories for reporting these data in the cable operator report, how should Filing Entities report their owned capacity on a submarine cable in the capacity holder report?

⁵⁶⁴ See Filing Manual at 11 (“Indefeasible Right of Use (IRU) refers to an arrangement in which the holder has made an upfront payment for the full length of the lease, such as 5, 10, 20 years, or the remaining useful life of the asset.”).

⁵⁶⁵ See *id.* at 11 (“Inter-Carrier Lease (ICL), for section 43.82 reporting purposes, refers to a lease of bare capacity between one entity and another.”).

⁵⁶⁶ See *id.* at 6-7, paras. 32-34.

Report and Order, the Commission noted the comments raised in the proceeding, “that in addition to sales through IRUs and ICLs, capacity is now sold on a fiber pair or spectrum basis.”⁵⁶⁷ We seek detailed comments on any new facts or circumstances which may inform our understanding of how capacity is owned, sold, or leased in the submarine cable market, and how to capture this information in the capacity holder report if appropriate. In particular, information about capacity held on a submarine cable is relevant to Commission and other federal government agency assessments of the impact on communications during national security or public safety emergencies, including where a cable is rendered inoperable, and to factor the information into emergency response efforts. Currently, to what extent is submarine cable capacity sold or leased through IRUs, short-term leases, or other means such as on a fiber pair or spectrum basis? How is submarine cable capacity sold or leased by fiber pair or spectrum? Does the licensee of a submarine cable sell or lease capacity by fiber pair or spectrum to other entities, or do entities other than the licensee of a cable also sell or lease capacity by fiber pair or spectrum? Where a cable landing licensee sells or leases capacity by fiber pair to other entities, how does the licensee maintain *de jure* and *de facto* control of the U.S. portion of the submarine cable system as required by the Commission’s rules?⁵⁶⁸ Is there additional information related to these and other types of capacity holdings that would enhance the Commission’s understanding of the ownership and use of capacity or assist the Commission in the protection, restoration, and resiliency of submarine cable infrastructure during national security or public safety emergencies?

215. To the extent we revise the capacity holder report to include additional categories of capacity holdings, how should such information be reported? For instance, if we include additional categories for reporting capacity that is sold, purchased, or leased by fiber pair or spectrum, how should Filing Entities calculate the net capacity they hold on the submarine cable?⁵⁶⁹ Should Filing Entities report those capacity holdings as an amount in Gbps?⁵⁷⁰ Should we require Filing Entities to annually report all whole fiber pairs that they own (including for their own use or which they have leased out) or manage on submarine cables landing in the United States? Do national security, law enforcement, or other concerns warrant that we obtain updated information each year confirming who currently owns and/or manages the fiber pairs on such submarine cables, especially if the entity that manages the fiber pair of a particular cable is not the licensee whose original application was subject to review by the Committee? We also seek comment on what it means for an entity to “manage” a fiber pair to the extent the role and capabilities differ from solely having ownership of a fiber pair. To the extent the manager of a fiber pair is neither a cable landing licensee nor a common carrier subject to section 43.82 of the rules, should we require that the licensee of a submarine cable landing in the United States identify the entities that own and/or manage each fiber pair on the cable? Should we require Filing Entities to identify the U.S. and foreign landing points of any fiber pair that they sell or lease to other entities for use of capacity? Should any or all of this information be provided in the cable operator report, capacity holder report, or a separate report?

⁵⁶⁷ 2017 Section 43.62 *Report and Order*, 32 FCC Rcd at 8132, para. 34 (citing *ICIO Aug. 31 Ex Parte Letter*, Attach. at 3). The Commission directed the International Bureau “to consult with stakeholders and to review and revise as needed the categories of ownership interests reported in the cable capacity holder reports to reflect changes in industry’s provisioning of capacity, while ensuring that the capacity holder data are accurately captured by our reporting requirements.” *Id.*

⁵⁶⁸ See 47 CFR § 1.767(g)(11).

⁵⁶⁹ See Filing Manual at 7, para. 32. As discussed above, we also seek comment on whether holding capacity on the cable system should be defined to include the leasing, purchasing, selling, buying, or swapping of a fiber (spectrum, capacity, partial fiber pair, or a full fiber pair, among others) for transmission of voice, data, and Internet over the cable system to interconnect with a U.S. terrestrial network. See *supra* para. 84.

⁵⁷⁰ See Filing Manual at 7, para. 35; *International Bureau Releases Revised Filing Manual for Section 43.82 Circuit Capacity Reports*, Public Notice, 34 FCC Rcd 12478 (IB 2019).

3. Reporting of Capacity on Domestic Cables

216. The requirement to file circuit capacity reports applies only to U.S.-international cables, and not to domestic cables (cables that do not connect the United States with foreign points).⁵⁷¹ However, the national security environment has changed significantly since the Commission adopted this approach in 2013.⁵⁷² In light of evolving national security, law enforcement, and other risks, we seek comment on whether the distinction between U.S.-international submarine cables and domestic submarine cables for purposes of reporting circuit capacity information is justified. We seek comment on whether the lack of information on domestic cables creates a critical gap in the Commission's insight into the ownership and use of capacity on submarine cables regulated by the Commission. For example, would collecting capacity information regarding domestic submarine cables allow the Commission and the Committee to identify whether any entities associated with a "foreign adversary" country, as defined in the Department of Commerce's rule,⁵⁷³ hold capacity on those cables?⁵⁷⁴ Would this information enhance the Commission's ability to use the circuit capacity data to assist in the protection, restoration, and resiliency of submarine cable infrastructure during national security or public safety emergencies, even where there is no foreign ownership, especially given the role that domestic submarine cables also have in providing connectivity among the continental United States and Alaska, Hawaii, Guam, American Samoa, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands?

217. If we find that circuit capacity reports should be filed for domestic cables, we seek comment on whether we should require Filing Entities to include in the cable operator report and the capacity holder report the same capacity information that we collect for U.S.-international submarine cables, with respect to submarine cables that do not have a foreign landing point and connect (1) Alaska, Hawaii, or the U.S. territories or possessions with the continental United States or with each other, and (2) points within the continental United States, Alaska, Hawaii, or a territory or possession in which the cable is laid within international waters. Alternatively, should Filing Entities be required to provide more limited or tailored capacity information relating to domestic submarine cables in a separate report? We seek comment on these approaches and on potential burdens on licensees and common carriers if we require that they include capacity data for domestic submarine cables in cable operator reports and capacity holder reports.

4. Other Issues with Reporting of Circuit Capacity Data

a. Reporting of Submarine Line Terminal Equipment

218. As discussed above, the SLTE is among the most important equipment associated with the submarine cable system for national security and law enforcement purposes.⁵⁷⁵ Given the importance of this equipment and who controls and operate the SLTE, we seek comment on whether the Commission should require all Filing Entities to identify in the annual capacity holder report whether they control or operate their own SLTE on any of the U.S. or foreign ends of a submarine cable landing in the United States.⁵⁷⁶ In addition, should we require all Filing Entities to file a notification of any installation of their own SLTE on the U.S. or foreign ends of a submarine cable landing in the United States, within a certain

⁵⁷¹ 47 CFR § 43.82(a)(1)-(2); *2013 Part 43 Second Report and Order*, 28 FCC Rcd at 604, para. 100 & n.173.

Licensees and common carriers are not required to file a cable operator report or capacity holder report with respect to submarine cables that only connect points within the United States, such as cables connecting the Hawaiian Islands or Alaska to the conterminous United States. *Id.*; Filing Manual at 6, n.18; *see also* 47 U.S.C. § 34.

⁵⁷² *See, e.g., Evolving Risks NPRM*.

⁵⁷³ 15 CFR § 791.4.

⁵⁷⁴ *See Evolving Risks NPRM*, 38 FCC Rcd at 4361, para. 20.

⁵⁷⁵ *See supra* section III.B.1.

⁵⁷⁶ *See supra* paras. 74-77.

time period following such installation (such as 30 days)? If the Commission were to extend the circuit capacity reporting requirements to new entities not currently subject to section 43.82, as addressed herein,⁵⁷⁷ should we require such entities to similarly identify in the annual capacity holder report, or in a separate report, whether they control or operate their own SLTE and to provide notification of any installation of their own SLTE within a certain time period (such as 30 days)? To the extent we adopt these approaches, we propose to share with our federal partners the information that is collected pursuant to such requirements, including any information for which confidential treatment is requested, through the procedures.⁵⁷⁸ We seek comment on these approaches and what potential burdens, if any would be imposed by requiring such information.

b. Which Corporate Entity May File Reports

219. The Filing Manual requires affiliated entities to file separate circuit capacity reports to the extent that they are considered to be separate legal entities, unless the Commission has authorized such affiliated entities to submit a consolidated FCC Form 499-A filing.⁵⁷⁹ The Commission chose to use this standard for administrative convenience because common carriers are familiar with this requirement. This requirement originated when the Filing Manual covered not only the Circuit Capacity Reports but also the International Traffic and Revenue Reports, which were filed by common carriers and interconnected VOIP providers, which also had to file FCC Form 499 reports.⁵⁸⁰ The Filing Manual retained this requirement even after the Commission eliminated the International Traffic and Revenue Reports and the Filing Manual now only covers the circuit capacity reports.⁵⁸¹

220. We seek comment on whether to allow any subsidiary, parent entity, or affiliate of a Filing Entity to file the annual circuit capacity reports on behalf of the Filing Entity, so long as the subsidiary, parent entity, or affiliate identifies the Filing Entity in the reports. Specifically, should the Filing Manual be revised to allow any subsidiary, parent entity, or affiliate to file the annual circuit capacity reports on behalf of a Filing Entity? Is there any reason to parallel the filing procedure applicable to FCC Form 499-A filings? To what extent do current Filing Entities comprise of telecommunications carriers or other providers that are required to submit FCC Form 499-A filings?⁵⁸²

⁵⁷⁷ See *supra* section III.D.2.a.

⁵⁷⁸ See *infra* section III.D.5.

⁵⁷⁹ The Filing Manual states that affiliated companies “must file separate section 43.82 reports to the extent that they are considered to be separate legal entities where they have separate articles of incorporation, articles of formation, or similar legal documents,” but where the Commission has authorized them “to make a consolidated FCC Form 499-A filing, the affiliated companies similarly shall make a consolidated section 43.82 filing.” Filing Manual at 2, para. 5.

⁵⁸⁰ See 2016 Filing Manual.

⁵⁸¹ 2017 Section 43.62 Report and Order, 32 FCC Rcd at 8116, paras. 1-3. Previously, any person or entity that holds an international Section 214 authorization to provide International Telecommunications Services (ITS) and/or any person or entity that is engaged in the provision of Interconnected Voice over Internet Protocol (VoIP) Services through the Public Switched Telephone Network (PSTN) between the United States and any foreign point was required to file an annual Traffic and Revenue Report. *Id.* at para. 3.

⁵⁸² The Communications Act requires that the Commission establish mechanisms to fund universal service, interstate telecommunications relay services, the administration of the North American Numbering Plan, and the shared costs of local number portability administration. 47 U.S.C. §§ 151, 225, 251, 254. To accomplish these congressionally-directed objectives, the Commission requires telecommunications carriers and certain other providers of telecommunications (including Voice over Internet Protocol (VoIP) service providers) to report each year on the FCC Form 499-A the revenues they receive from offering service. See 47 CFR §§ 52.17(b), 52.32(b), 54.708, 54.711, 64.604(b)(5)(iii)(B); *Wireline Competition Bureau Releases the 2024 Telecommunications Reporting Worksheets and Accompanying Instructions*, WC Docket No. 06-122, Public Notice, 38 FCC Rcd 10216 (WCB 2023).

221. We seek comment generally on whether it is common practice for cable landing licensees and common carriers to maintain, track, or consolidate their capacity information with affiliated entities in the ordinary course of business. In such cases, we seek comment on what potential burdens, if any, would be imposed upon Filing Entities if we were to require all affiliated entities to file their own annual circuit capacity reports instead of submitting consolidated reports. If a subsidiary, parent entity, or affiliate files the annual circuit capacity reports on behalf of a Filing Entity, how can the Commission improve the efficiency of its current practice, which involves informal inquiries by Commission staff, to confirm whether the Filing Entity has complied with its reporting obligations?⁵⁸³ To the extent a subsidiary, parent entity, or affiliate of a Filing Entity submits the circuit capacity reports on the of a Filing Entity's behalf, we tentatively conclude that the Filing Entity shall be held accountable for any defects in the certification as to the accuracy and completeness of information filed in the circuit capacity reports.⁵⁸⁴ Should we codify such a requirement in the rules? Should we also codify the requirement in the Filing Manual that an officer of the Filing Entity must certify the accuracy and completeness of the Filing Entity's section 43.82 information?⁵⁸⁵ If a subsidiary, parent entity, or affiliate files the annual circuit capacity reports on behalf of a Filing Entity, should an officer of the Filing Entity submit a separate attachment certifying that the information in the reports is accurate and complete? We seek comment on whether and why an alternative approach may be more desirable, and how the Commission could implement any alternative approach while retaining the ability to enforce compliance against a Filing Entity.

c. Compliance

222. We propose to set forth in the rules that filing false or inaccurate certifications or failure to file timely and complete annual circuit capacity reports in accordance with the Commission's rules and the Filing Manual shall constitute grounds for enforcement action, including but not limited to a forfeiture, revocation, or termination of the cable landing license or international section 214 authorization, pursuant to the Communications Act and any other applicable law. Although the Filing Manual addresses consequences for failure to file timely section 43.82 reports⁵⁸⁶ or submission of inaccurate or untruthful information,⁵⁸⁷ we tentatively conclude that addressing the issue of compliance in the rules would ensure greater compliance overall with the reporting requirements. We seek comment on this proposal. We also seek comment on whether to allow any exceptions to the reporting requirements of section 43.82 and whether we should revise the rules or the Filing Manual accordingly. For example, should we revise section 43.82(a)(2) of the rules or the Filing Manual to set out an exception to the reporting requirements where a licensee that holds no capacity in its licensed submarine cable—for example, where a joint licensee only owns and/or controls a landing station(s) in the United States and holds no capacity at the landing station(s) or other portion of the cable—or any other cables landing in the United States need not file a capacity holder report? Should we require such licensees to file an annual certification attesting to the continuing applicability of such an exception?

⁵⁸³ The Filing Manual advises that “[i]f a Filing Entity is filing a consolidated section 43.82 report or filing on behalf of an affiliated entity or entities, we ask the Filing Entity to email the International Bureau with the list of entities for which it is filing data.” Filing Manual at 2-3, para. 6. We seek comment on any alternative, more efficient methods that the Commission can use to confirm that an entity has complied with its reporting obligations.

⁵⁸⁴ *Id.* at 5, para. 21 (“Filing Entities must certify on the Registration Form the accuracy and completeness of the data filed in the accompanying Circuit Capacity Report.”).

⁵⁸⁵ *Id.*

⁵⁸⁶ *Id.* at 3, para. 10 (“Failure to file the Circuit Capacity Report on time is a violation of the Commission's rules and could result in the imposition of forfeitures or other penalties.”).

⁵⁸⁷ *Id.* (“Inaccurate or untruthful information contained in section 43.82 reports may lead to prosecution under section 220(e) of the Communications Act or the criminal provisions of Title 18 of the United States Code.”) (citing 47 U.S.C. § 220(e); 18 U.S.C. § 1001).

5. Sharing the Circuit Capacity Data with Federal Agencies

223. We seek comment on adopting a rule which would allow the Commission to share with other federal government agencies the circuit capacity data filed on a confidential basis without the pre-notification requirements of section 0.442(d) of the Commission's rules.⁵⁸⁸ Since 2019, the Commission has annually issued a Public Notice to announce its intent to share the annual circuit capacity data with DHS⁵⁸⁹ and subsequently the Committee⁵⁹⁰ pursuant to the procedures set out in section 0.442 of the Commission's rules, and no party has opposed such disclosure of the circuit capacity data for which confidential treatment was requested.⁵⁹¹ Under this approach, the Commission would be able to share the confidential data with federal agencies that have a legitimate need for the data consistent with their functions without the delay attendant to providing parties an opportunity to object to the sharing. The sharing of confidential circuit capacity data would, however, continue to be subject to the requirement that each of the other federal agencies comply with the confidentiality protections applicable both to the Commission and the other agency's relating to the unlawful disclosure of information,⁵⁹² and we would provide notice to the parties whose information is being shared.

224. *Federal Agencies' Need for the Information.* The Commission may share information that has been submitted to it in confidence with other federal agencies when they have a legitimate need for the information and the public interest will be served by sharing the information.⁵⁹³ As we discussed above, the Commission has found that the data provided in the Circuit Capacity Reports "are essential for our national security and public safety responsibilities in regulating communications submarine cables" and that "circuit capacity data are important for the Commission's contributions to the national security and defense of the United States."⁵⁹⁴ The data are also useful for federal agencies in fulfilling their other duties and responsibilities. We contemplate that such sharing would include cable operator data, capacity holder data, and the names and contact information (including addresses, e-mail addresses, telephone numbers, and fax numbers) of individual points of contact identified in the circuit capacity reports, as well

⁵⁸⁸ 47 CFR § 0.442(d); *see supra* para. 103.

⁵⁸⁹ *See Notice of Intent to Share International Circuit Capacity Data from 2015 to 2017 with Federal Agencies*, IB Docket No. 19-32, Public Notice, 34 FCC Rcd 561 (IB 2019).

⁵⁹⁰ *See Notice of Intent to Share International Circuit Capacity Data for the 2021 and 2022 Reporting Periods with the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector*, OIA Docket No. 23-303, Public Notice, 38 FCC Rcd 7980 (OIA 2023) (2023 OIA Public Notice); *Notice of Intent to Share International Circuit Capacity Data with the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector*, IB Docket No. 21-439, Public Notice, 37 FCC Rcd 88 (IB 2022) (2022 IB Public Notice).

⁵⁹¹ *See also* Letter from Ulises R. Pin, Counsel to ARCOS-1 USA Inc. et. al, Morgan, Lewis & Bockius LLP, to Marlene H. Dortch, Secretary, FCC (Jul. 2, 2020) (on file in IB Docket No. 20-194) (stating, "[b]ecause the purpose of the disclosure is national security, law enforcement and emergency response, the Commission should only share confidential information contained in C&W Networks' circuit capacity reports with DHS and other federal agencies charged with national security, law enforcement and emergency response, including those agencies forming part of the new Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector. The Commission, however, should not share this information other agencies that fall outside of that scope.").

⁵⁹² 47 CFR § 0.442(b)(3) (citing 44 U.S.C. § 3510(b)).

⁵⁹³ *See* 44 U.S.C. § 3510; *see also* 47 U.S.C. § 154(j); *Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, Report and Order, 13 FCC Rcd 24816, 24818, para. 2 (1998); *Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, Notice of Inquiry and Notice of Proposed Rulemaking, 11 FCC Rcd 12406, 12414-15, 12417-18, paras. 15, 21 (1996).

⁵⁹⁴ *2017 Section 43.62 Report and Order*, 32 FCC Rcd at 8128-29, para. 28.

as any additional information that is collected pursuant to any new requirements adopted in this proceeding or in a revised Filing Manual.⁵⁹⁵ We seek comment on whether to make clear in section 43.82 that sharing of the annual circuit capacity data with other federal government agencies is subject to the requirements of the confidentiality protections contained in the Commission's regulations⁵⁹⁶ and 44 U.S.C. § 3510,⁵⁹⁷ and, in the case of the Committee, section 8 of Executive Order 13913⁵⁹⁸ that require the Committee to keep the information confidential.

225. In addition, we tentatively find that several agencies have a special need for the information contained in the Circuit Capacity Reports. First, we tentatively find that Executive Order 13913 provides a basis to share annual circuit capacity data with the Committee by establishing that the members and advisors of the Committee have a legitimate need for such information.⁵⁹⁹ The policy of Executive Order 13913 is to ensure the "[t]he security, integrity, and availability of the United States telecommunications networks [that] are vital to United States national security and law enforcement interests."⁶⁰⁰ Further, in this regard, Executive Order 13913 authorizes the Committee to review not only license applications but also existing licenses.⁶⁰¹ DOJ, in its capacity as Chair of the Committee, has stated in formal requests for access to the annual circuit capacity data that this information "will enhance and improve the Committee's ability to execute its mission to assess risk to the national security and law enforcement interests of the United States."⁶⁰² In the context of reviews within the scope of Executive

⁵⁹⁵ See 47 CFR § 43.82(c). To the extent required, the Commission will ensure that any new disclosures are fully covered by applicable Privacy Act SORNs. See *supra* note 300 (citing potentially applicable SORNs); cf. IB-1, 86 F.R. at 43238 ("Information filed with a request for confidentiality may be disclosed to other Federal government agencies pursuant to 47 CFR 0.442.").

⁵⁹⁶ See 47 CFR §§ 0.442, 0.457, 0.459, and 0.461. The Commission's regulations provide that confidential proprietary and commercially sensitive information will be withheld from public disclosure, subject to the public's right to seek disclosure under the Freedom of Information Act and implementing regulations. 5 U.S.C. § 552; 47 CFR §§ 0.457(d), 0.459(d).

⁵⁹⁷ 44 U.S.C. § 3510.

⁵⁹⁸ Executive Order 13913, § 8 ("Information submitted to the Committee pursuant to this subsection and analysis concerning such information shall not be disclosed beyond Committee Member entities and Committee Advisor entities, except as appropriate and consistent with procedures governing the handling of classified or otherwise privileged or protected information, under the following circumstances: (a) to the extent required by law or for any administrative or judicial action or proceeding, or for law enforcement purposes; (b) to other governmental entities at the discretion of the Chair, provided that such entities make adequate assurances to the Chair that they will not further disclose the shared information, including to members of the public; or (c) to the Committee on Foreign Investment in the United States with respect to transactions reviewed by that Committee pursuant to 50 U.S.C. 4565, in which case this information and analysis shall be treated consistent with the disclosure protections of 50 U.S.C. 4565(c).").

⁵⁹⁹ See 47 CFR § 0.442(b)(2) ("Information submitted to the Commission in confidence pursuant to 0.457(c)(2) and (3), (d) and (g) or § 0.459, or any other statute, rule or order, may be disclosed to other agencies of the Federal government upon request or upon the Commission's own motion, provided . . . The other agency has established a legitimate need for the information . . ."); see Executive Order 13913, § 1.

⁶⁰⁰ Executive Order 13913, § 1. Under section 8 of Executive Order 13913, the Committee "may seek information from applicants, licensees, and any other entity as needed" in furtherance of its reviews and assessments of applications and licenses. *Id.* § 8.

⁶⁰¹ *Id.* § 5-6.

⁶⁰² DOJ Aug. 9, 2023 Letter at 1; see 2023 OIA Public Notice, 38 FCC Rcd at 7980; IB 2022 Public Notice, 37 FCC Rcd at 88. DOJ has explained that having circuit capacity information "provides a clearer picture of how [submarine cables] are being used, which better enables the Committee to evaluate international data flows on various cables (and related issues such as internet topography)" and that "[w]ith this data, the Committee has

(continued....)

Order 13913, the Committee's important role in reviewing applications and licenses for risks to national security and law enforcement interests establishes its legitimate need for the information.⁶⁰³ We seek comment on this tentative conclusion.

226. The Commission's established policy in the *2017 Section 43.62 Report and Order* also provides a basis to share annual circuit capacity data with DHS by establishing that DHS has a legitimate need for such information. In that Report and Order, the Commission specifically noted that DHS "finds this information to be critical to its national and homeland security functions"⁶⁰⁴ and "[DHS] states that this information, when combined with other data sources, is used to protect and preserve national security and for its emergency response purposes."⁶⁰⁵ DHS has stated in formal requests for access to the annual circuit capacity data that "[t]his information, when combined with other data sources, will be used to protect and preserve national security and for the Department's emergency response purposes."⁶⁰⁶ DHS has also stated that the data will "enhance its efforts and inform its analysis and decision-making that protect the resilience of the Nation's critical infrastructure."⁶⁰⁷

227. Finally, we tentatively find that Executive Order 10530 provides a basis for the Commission to share annual circuit capacity data with the State Department. Executive Order 10530, which delegates the President's authority to license submarine cables to the Commission, requires the Commission to obtain approval from the State Department for any such action.⁶⁰⁸ Our approach contemplates sharing the annual circuit capacity data with the State Department in light of the agency's legitimate need for the information in furtherance of its functions related to approving (or disapproving) Commission actions on submarine cable licenses. We seek comment on this tentative conclusion.

E. Costs and Benefits

228. We seek comment on the potential benefits and costs of the proposals discussed throughout this *Notice*. The rule changes identified in the *Notice* would advance U.S. national security, law enforcement, foreign policy, and trade policy interests. These proposals are designed to update and formalize the submarine cable rules and to enable the Commission to better identify and address national security and law enforcement risks.

229. Among the proposals, in the *Notice*, we propose to codify the Commission's rules and legal requirements under the Cable Landing License Act, adopt a process to withhold or revoke a cable landing license, and adopt a three-year periodic review process for cable landing licenses for national security and law enforcement concerns. We also seek comment on shortening current 25-year submarine cable license term or adopting a shorter license term in combination with periodic reporting. We propose to adopt a presumption that certain entities and their current and future affiliates and subsidiaries shall not be qualified to become a new submarine cable landing licensee if their international section 214 authority was previously denied or revoked on national security or law enforcement grounds. We propose several certifications, including a certification that applicants have created, updated, and implemented cybersecurity risk management plans and that the submarine cable system will not use covered equipment

another tool to assess data-security risk . . . [thus providing] additional context to the Committee's risk-based analyses." DOJ Aug. 9, 2023 Letter at 1-2; *2023 OIA Public Notice*, 38 FCC Rcd at 7981.

⁶⁰³ See Executive Order 13913, § 1.

⁶⁰⁴ *2017 Section 43.62 Report and Order*, 32 FCC Rcd at 8127, para. 26 (citing DHS Sept. 21, 2017 *Ex Parte* Letter).

⁶⁰⁵ *Id.* at 8129, para. 28 (citing DHS Sept. 21, 2017 *Ex Parte* Letter at 1-2).

⁶⁰⁶ DHS March 5, 2020 Letter at 1; *2020 Sharing Circuit Capacity Data Public Notice*, 35 FCC Rcd at 6533.

⁶⁰⁷ *Id.*

⁶⁰⁸ Executive Order 10530, § 5(a) ("Provided, That no such license shall be granted or revoked by the Commission except after obtaining approval of the Secretary of State . . .").

or services identified on the Commission's "Covered List" that the Commission maintains pursuant to the Secure and Trusted Communications Networks Act.⁶⁰⁹ We also propose that all submarine cable landing licensees certify as to whether or not they use, for the relevant submarine cable system, equipment or services identified on the "Covered List" within sixty (60) days of the effective date of any rule adopted in this proceeding. We propose, among other things, to require (1) applicants/licensees, with or without reportable foreign ownership, to report whether or not they use and/or will use foreign-owned MNSPs and (2) any applicant/licensee that indicates it uses and/or will use a foreign-owned MNSP will answer the Standard Questions and those applications would be routinely referred to the relevant Executive Branch agencies. We also propose to adopt a rule allowing the sharing of critical submarine cable data filed in the applications and confidential circuit capacity data with federal agencies without undertaking the procedures required under section 0.442 of the rules.

230. The benefits of the proposed rules will ensure the Commission fulfills its national security and public interest responsibilities under the Cable Landing License Act. Similar to our work in other related proceedings, we expect that the resulting changes would improve the Commission's oversight of submarine cable licenses and ensure that a submarine cable license and the licensees continue to serve the public interest, as the Act intended.⁶¹⁰ As we stated there, "[t]hese benefits cannot be achieved with ad hoc reviews alone."⁶¹¹ By adopting a periodic reporting requirement for submarine cable licenses, this process will help ensure that the Commission and the Executive Branch agencies review submarine cable licenses on a continuing basis and have the necessary information to address evolving national security, law enforcement, foreign policy, and/or trade policy risks. While we tentatively find that a three-year periodic reporting requirement is a critical component of protecting U.S. national security, law enforcement, foreign policy, and trade policy interests against evolving threats, we acknowledge that such a process or other proposals in the *Notice* may create economic burdens for submarine cable landing licensees.

231. Broadly, concerning benefits, we seek to ensure the safety and reliability of the submarine cable systems while adopting processes to expedite and streamline our rules. Submarine cables carry an estimated 99% of intercontinental data traffic⁶¹² and our efforts will enable the industry to continue to deploy submarine cables ensuring reliable communications in a competitive marketplace, fulfilling its public interest duties. Importantly, the Commission has previously found that "a foreign adversary's access to American communications networks could result in hostile actions to disrupt and surveil our communications networks, impacting our nation's economy generally and online commerce specifically, and result in the breach of confidential data."⁶¹³ Given that our national gross domestic product was over \$26 trillion in 2023,⁶¹⁴ the digital economy accounted for \$3.7 trillion of our economy in

⁶⁰⁹ Secure Networks and Trusted Communication Act; see 47 CFR §§ 1.50002, 1.50003; see also *infra* note 5350.

⁶¹⁰ *Evolving Risks NPRM*, 38 FCC Rcd at 4421-22 para. 175.

⁶¹¹ *Id.* at 4421, para. 175.

⁶¹² According to a report by the Congressional Research Service, "undersea telecommunication cable network carries about 95% of intercontinental global internet traffic, and 99% of transoceanic digital communications." Jill C. Gallagher, CRS, *Undersea Telecommunication Cables: Technology Overview and Issues for Congress* at 1 (Sept. 13, 2022), <https://crsreports.congress.gov/product/pdf/R/R47237>. According to an article on TeleGeography's website, submarine cables account for over 99% of intercontinental data traffic. Alan Mauldin, *Do Submarine Cables Account For Over 99% of Intercontinental Data Traffic?*, TeleGeography (May 4, 2023), <https://blog.telegeography.com/2023-mythbusting-part-3>.

⁶¹³ *2020 Protecting Against National Security Threats Order*, 34 FCC Rcd at 11465, para. 109 (2019).

⁶¹⁴ See Press Release, Bureau of Economic Analysis, U.S. Department of Commerce, Gross Domestic Product (Third Estimate), Corporate Profits (Revised Estimate), and GDP by Industry, First Quarter 2023 (June 29, 2022), https://www.bea.gov/sites/default/files/2023-06/gdp1q23_3rd.pdf.

2021,⁶¹⁵ and the volume of international trade for the United States (exports and imports) was \$6.9 trillion in 2023,⁶¹⁶ even a temporary disruption in international submarine cable communications could cause billions of dollars in economic losses. The harms would be significant, causing disruption to business import and export trade, multinational corporation operations, international financial flows, online commerce, residential and government communications, and online access to information, including emergency services. A 2012 report by APEC stated that submarine cables carried over \$10 trillion in financial transactions globally each day.⁶¹⁷ Assuming the United States' share is approximately equal to its share of global GDP, it would account for nearly \$2.6 trillion per day.⁶¹⁸ We seek comment on the expected benefits of the proposals in the *Notice*.

232. Our estimate of costs should include all the expected ongoing costs that would be incurred as a result of the rules proposed in the *Notice*. We note that the annual aggregate cost of the proposed rules described above could vary, depending on the rules adopted and whether applications and license reviews are referred to the Committee. We tentatively conclude that the benefits of establishing the proposed licensing process – which include the safety and reliability of the submarine cable systems and the protection of national security and law enforcement interests – will be in excess of these costs.

233. We base our cost estimate on the Commission's records, as described above, that indicate there are currently 84 submarine cable systems owned by approximately 145 unique licensees. Furthermore, we estimate that every year, there are approximately eight (8) cable landing license applications for new cables.⁶¹⁹ We also estimate that there are approximately 23 applications every year for modification, assignment, transfer, or control.⁶²⁰ Based on these groups, we estimate that 35 applications are submitted annually.⁶²¹

234. Our cost estimate assumes that approximately 105 licensees will undergo the application process each year for the estimated 35 cable systems. We base this on the conservative assumption that

⁶¹⁵ See Tina Highfill & Christopher Surfield, Bureau of Economic Analysis, U.S. Department of Commerce, New and Revised Statistics of the U.S. Digital Economy, 2005-2021 (November 2022), <https://www.bea.gov/system/files/2022-11/new-and-revised-statistics-of-the-us-digital-economy-2005-2021.pdf>.

⁶¹⁶ See Press Release, Bureau of Economic Analysis, U.S. Department of Commerce, U.S. International Trade in Goods and Services, December and Annual 2023 (Feb. 7, 2024), <https://www.bea.gov/news/2024/us-international-trade-goods-and-services-december-and-annual-2023>.

⁶¹⁷ APEC Policy Support Unit, Economic Impact of Submarine Cable Disruptions at 9 (Dec. 2012), <https://www.apec.org/publications/2013/02/economic-impact-of-submarine-cable-disruptions> (citing a U.S. Federal Reserve representative's seminar presentation).

⁶¹⁸ World Bank Group, GDP (current US\$) <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD> (last visited Oct. 21, 2024). U.S. GDP is given as \$27.36 trillion, world GDP is given as \$105.44 trillion ($27.36 / 105.44 = 25.95\%$).

⁶¹⁹ Based on internal staff analysis, there were 24 cable landing license applications for new cables between January 1, 2022 and October 20, 2024, which produces an annual average of eight cable landing license applications.

⁶²⁰ Based on internal staff analysis, there were 67 applications for modification, assignment, or transfer of control between January 1, 2022 and October 20, 2024, which produces an annual average of approximately 23 applications. We conservatively assume that the cost for an application for modification, assignment, transfer, or control is equivalent to the cost for a new application.

⁶²¹ For the purposes of renewal of existing licenses, we assume a uniform distribution of license renewal applications over the entirety of the 25-year license term, thereby projecting that there will be 4 applications submitted annually for existing submarine cable systems ($84 / 25 = 3.36$ rounded up to 4 applications per year). Annual number of applications submitted would therefore be approximately 35 ($23 + 8 + 4$).

each submarine cable landing license application will have an average of three licensees.⁶²² We estimate that the costs to applicants related to applying for licenses would include, among other tasks, providing responses to standard questions, reporting on current and future service offerings, reporting on the use of foreign-owned MNSPs, providing information on the submarine cable infrastructure, and providing information pertaining to reportable foreign ownership. In addition to the requirements, we estimate that applicants will incur an additional cost associated with our proposal to certify compliance to baseline cybersecurity standards, including implementing the cybersecurity risk management plans. We expect that the amount of work associated with preparing a new license application likely will be similar to the work associated with preparing a renewal application.⁶²³ Additionally, the licensees would be required to provide the Commission with updated information every three years.

235. We have estimated that the preparation of a new or renewal application for each submarine cable system by an average of three licensees will require 80 hours of work by attorneys⁶²⁴ and 80 hours of work by support staff, at a cost of \$27,200 per application.⁶²⁵ To this cost, we add the cost of cybersecurity certification required for all new and renewal application, and which we estimate to be \$9,100.⁶²⁶ We also estimate that the 3-year periodic reporting review will require twelve hours of attorney

⁶²² Based on the Commission's records, there are 237 total licensees for 84 cable systems, which produces an average of 2.8 licensees per application, which we conservatively round up to 3 licensees per cable system.

⁶²³ This is based on our proposal to require applicants seeking to renew or extend a cable landing license to provide in the application the same information and certifications required in an application for a new cable landing license. *See supra* para. 150.

⁶²⁴ Our cost data on wages for attorneys are based on the Commission's estimates of labor costs as represented in previous Paperwork Reduction Act (PRA) statements. International Section 214 Process and Tariff Requirements – 47 CFR Sections 63.10, 63.11, 63.13, 63.18, 63.19, 63.21, 63.24, 63.25, and 1.1311, OMB Control No. 3060-0686 Paperwork Reduction Act (PRA) Supporting Statement at 13 (Mar. 25, 2021), https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=202103-3060-012 (March 2021 Supporting Statement); International Section 214 Process and Tariff Requirements – 47 CFR Sections 63.10, 63.11, 63.13, 63.18, 63.19, 63.21, 63.24, 63.25, and 1.1311, OMB Control No. 3060-0686 Paperwork Reduction Act (PRA) Supporting Statement at 14 (Nov. 28, 2017), https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201711-3060-029 (November 2017 Supporting Statement).

⁶²⁵ Consistent with the Commission's calculations in the PRA statements, we estimate the median hourly wage for attorneys as \$300 for outside counsel. *Id.* We assume that this wage reasonably represents an average for all attorney labor, across a range of authorization holders with different sizes and business models, used to comply with the rules proposed in the Notice. Also, consistent with the Commission's calculations in PRA statements, we estimate the median hourly wage for support staff (paralegals and legal assistants) as \$40. *Id.* Thus, 80 hours of work by attorneys would cost \$24,000 and 80 hours of work by support staff would cost \$3,200, for a total of \$27,200 per application.

⁶²⁶ Previously, the Commission had estimated a cost of drafting a cybersecurity risk management plan and submitting a certification as \$820. Specifically, the Commission estimated that compliance would take 10 hours of labor from a General and Operations Manager compensated at \$82 per hour ($\$820 = \$82 \times 10$). *Emergency Alert System Cybersecurity NPRM*, 37 FCC Rcd at 12939, para. 12, n.49 (2022). We update this estimate to account for a baseline increase in compensation for General and Operations Managers from \$55 to approximately \$62.18 per hour, which when accounting for a benefits estimate of 45% becomes \$90.16 ($= \$62.18 \times 1.45$). *See* Bureau of Labor Statistics, *Occupational Employment and Wages, May 2023, 11-1021 General and Operations Managers* (Apr. 3, 2024), <https://www.bls.gov/oes/current/oes111021.htm> (General and Operation Managers Mean Hourly Wage) (mean hourly wage is \$62.18 for occupation code 11-1021 General and Operations Managers). Several commenters in that proceeding argued that the proposed cost of creating, updating, implementing and certifying cybersecurity risk management plans is too low. For example, NPR estimates that the Commission's estimate is "off by a factor of 10 or more." NPR Comments, PS Docket Nos. 15-94, 15-91, and 22-329, at 8 (filed Dec. 23, 2022); *see* Colorado Broadcasters Association Comments (filed Dec. 23, 2022). In light of this record, we update

(continued....)

and twelve hours of support staff time, at a cost of \$4,100, which we multiply by one-third to calculate the annual estimated cost of \$1,370.⁶²⁷ We then multiply the sum of these costs by 35 to produce a total estimate of approximately \$1.32 million per year for the 25-year period, as a baseline estimate of the annual application and license review costs.⁶²⁸ We anticipate that later rounds of the three-year periodic reporting review will cause significantly lower costs, since much of the information will not have changed between reviews.

236. We seek comment on the estimates provided here, which are based on our experience and calculations of the likely costs of past submarine cable application processing and cybersecurity reviews. We seek comment on the additional costs that applicants will incur from the new reporting requirements detailed above. We also seek comment on the expected costs incurred by applicants, licensees and government agencies for applications and periodic reporting reviews that are referred to the Committee for additional review. We seek comment on the potential burdens on licensees, including on small entities.⁶²⁹ We note that some proposals may lower industry costs by streamlining or simplifying the application process. Also, some national security requirements might financially benefit companies that had not yet fully secured their networks from harm and thus were vulnerable to costly disruptions. Indeed, some of these requirements could be considered the minimum security needed in today's communications environment, and thus should already have been implemented by all submarine cables operators. Do our assumptions represent a reasonable estimate of total costs of the proposals in the *Notice*? Any suggestions for alternative approaches should include clear explanations of the cost estimates, as well as estimates as to whether the benefits under any proposed alternatives would increase or decrease compared to the benefits described above.

F. Digital Equity and Inclusion

237. Finally, the Commission, as part of its continuing effort to advance digital equity for all,⁶³⁰ including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations⁶³¹ and benefits (if any) that

our estimate to \$9,100 to be consistent with the record in that proceeding ($= (100 \text{ hours per applicant}) \times (\$62.18 \text{ mean hourly wage}) \times (1 + 45\% \text{ benefit mark-up})$, which we round up to \$9,100). *See also BGP Risk Mitigation NPRM* at 32, para. 89. To account for benefits, we mark up wages by 45%, which results in total hourly compensation of $\$62.18 \times 145\% = \$90.16$. According to the Bureau of Labor Statistics, as of June 2023, civilian wages and salaries averaged \$29.86/hour and benefits averaged \$13.39/hour. Total compensation therefore averaged $\$29.86 + \$13.39$, rounded to \$43.26. *See Press Release, Bureau of Labor Statistics, Employer Costs for Employee Compensation—June 2023* (Sept. 12, 2023), <https://www.bls.gov/news.release/pdf/eccec.pdf>. Using these figures, benefits constitute a markup of $\$13.39/\$29.86 \sim 45\%$.

⁶²⁷ Twelve hours of work by attorneys would cost \$3,600 (12 hours x \$300 per hour) and twelve hours of work by support staff would cost \$480 (12 hours x \$40 per hour), which sums to \$4,080, which we round up to \$4,100. We then calculate the annual cost by dividing the three-year cost by 3 to produce an estimate of \$1,370 ($\$4,100 / 3 = \$1,366.67$, rounded up to \$1,370).

⁶²⁸ $\$27,200 + \$9,100 + \$1,370 = \$37,670$. Multiplying by 35 applications per year, we have, \$1,318,450 ($= \$37,670 \times 35$), which we round up to \$1,319,000 per year.

⁶²⁹ For example, we seek comment on the costs and benefits of requiring all applicants, including those without reportable foreign ownership, to provide information on foreign-owned MNSPs. *See supra* section III.B.7.

⁶³⁰ Section 1 of the Communications Act of 1934 as amended provides that the FCC “regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex.” 47 U.S.C. § 151.

⁶³¹ The term “equity” is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have
(continued....)

may be associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well the scope of the Commission's relevant legal authority.

IV. PROCEDURAL ISSUES

238. *Ex Parte Rules.* This proceeding shall be treated as a “permit-but disclose” proceeding in accordance with the Commission's *ex parte* rules.⁶³² Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

239. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),⁶³³ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”⁶³⁴ Accordingly, we have prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the potential impact of rule and policy changes in this Notice of Proposed Rulemaking on small entities. The IRFA is set forth in Appendix C. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the Notice indicated on the first page of this document and must have a separate and distinct heading designating them as responses to IRFA.

240. *Initial Paperwork Reduction Act Analysis.* This Notice of Proposed Rulemaking may contain proposed new or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the OMB to comment on any information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4), we seek specific comment on how we

been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. *See* Exec. Order No. 13985, 86 Fed. Reg. 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Jan. 20, 2021).

⁶³² 47 CFR § 1.1200 *et seq.*

⁶³³ *See* 5 U.S.C. § 603.

⁶³⁴ *See id.* § 605(b).

might further reduce the information collection burden for small business concerns with fewer than 25 employees.

241. *Filing of Comments and Reply Comments.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS).

- *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the ECFS: <https://www.fcc.gov/ecfs>.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing.
 - Filings can be sent by hand or messenger delivery, by commercial courier, or by the U.S. Postal Service. **All filings must be addressed to the Secretary, Federal Communications Commission.**
 - Hand-delivered or messenger-delivered paper filings for the Commission's Secretary are accepted between 8:00 a.m. and 4:00 p.m. by the FCC's mailing contractor at 9050 Junction Drive, Annapolis Junction, MD 20701. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
 - Commercial courier deliveries (any deliveries not by the U.S. Postal Service) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
 - Filings sent by U.S. Postal Service First-Class Mail, Priority Mail, and Priority Mail Express must be sent to 45 L Street NE, Washington, DC 20554.

242. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

243. *Providing Accountability Through Transparency Act.* Consistent with the Providing Accountability Through Transparency Act, Public Law 118-9, a summary of this document is available on <https://www.fcc.gov/proposed-rulemakings>.

244. *Additional Information.* For further information regarding Notice of Proposed Rulemaking, please contact Desiree Hanssen, Attorney Advisor, Telecommunications and Analysis Division, Office of International Affairs, at Desiree.Hanssen@fcc.gov or 202-418-0887.

V. ORDERING CLAUSES

245. IT IS FURTHER ORDERED that, pursuant to sections 1, 4(i), 4(j), 201-255, 303(r), 403, 413 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 201-255, 303(r), 403, 413, and the Cable Landing License Act of 1921, 47 U.S.C. §§ 34-39, and Executive Order No. 10530, section 5(a) (May 12, 1954) reprinted as amended in 3 U.S.C. § 301, this Notice of Proposed Rulemaking IS HEREBY ADOPTED.

246. IT IS FURTHER ORDERED that the Commission's Office of the Secretary SHALL SEND a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Proposed Rules

Parts 0, 1, and 43 of the Commission's rules are amended as follows:

PART 0 – COMMISSION ORGANIZATION

1. The authority citation of part 0 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 154(j), 155, 225, 409, and 1754, unless otherwise noted.

2. Amend section 0.457 by adding paragraph (c)(1)(iv) to read as follows:

§ 0.457 Records not routinely available for public inspection.

* * * * *

(c) * * *

(1) * * *

- (iv) The exact addresses and the specific geographic coordinates of cable landing stations, beach manholes, and other location information associated with submarine cables.

* * * * *

PART 1 – PRACTICE AND PROCEDURE

3. The authority citation of part 1 continues to read as follows:

Authority: 47 U.S.C. chs. 2, 5, 9, 13; 28 U.S.C. 2461 note; 47 U.S.C. 1754, unless otherwise noted.

§ 1.767 [Removed]

4. Remove § 1.767.

§ 1.768 [Removed]

5. Remove § 1.768.

6. Add subpart FF to read as follows:

Subpart FF—Submarine Cable Landing Licenses**§ 1.70000 Purpose**

(a) *Purpose.* The provisions contained in this subpart implement the Cable Landing License Act of 1921, codified at 47 U.S.C. 34–39, as amended, and section 5(a) of Executive Order No. 10530, dated May 10, 1954, and provide requirements for initial applications for a submarine cable landing license; certifications; routine conditions; requests for special temporary authority; foreign carrier affiliation notifications; amendment of applications; modification applications; substantial assignment and transfer of control of a submarine cable landing license; *pro forma* assignment and transfer of control

notifications; requests for streamlining of applications; quarterly reports; three-year periodic reports; renewal applications; public viewing of applications; electronic filing; and denial, revocation, and termination of submarine cable landing license applications or licenses.

§ 1.70001 Definitions

- (a) **Affiliated.** The term “affiliated” as used in this subpart is defined as in § 63.09 of this chapter.
- (b) **Country.** The term “country” as used in this subpart refers to the foreign points identified in the U.S. Department of State’s list of Independent States of the World and its list of Dependencies and Areas of Special Sovereignty. See <http://www.state.gov>.
- (c) **Foreign Carrier.** The term “foreign carrier” as used in this subpart is defined as in § 63.09 of this chapter except that the term “foreign carrier” shall also include any entity that owns or controls a cable landing station in a foreign market.
- (d) **Managed Network Service Provider.** For purposes of this subpart, a managed network service provider (MNSP) is defined as any entity other than the applicant(s) or licensee(s) (i.e., third party entity) with whom the applicant(s) or licensee(s) contracts to provide, supplement, or replace certain functions for the U.S. portion of the submarine cable system (including any cable landing station and submarine line terminal equipment (SLTE) located in the United States) that require or may require access to the network, systems, or records of the applicant(s) or licensee(s).

§ 1.70002 General Requirements

- (a) **Submarine Cable Landing License Requirements.** A submarine cable landing license must be obtained prior to landing a submarine cable that connects:
- (1) the continental United States with any foreign country;
 - (2) Alaska, Hawaii or the U.S. territories or possessions with a
 - (i) foreign country;
 - (ii) the continental United States; or
 - (iii) with each other; or
 - (3) points within the continental United States, Alaska, Hawaii, or a territory or possession in which the cable is laid in international waters.
- (b) **Public Interest Standard.** An applicant seeking a submarine cable landing license or modification, assignment, transfer of control, or renewal or extension of a submarine cable landing license shall include in the application information demonstrating how the grant of the application will serve the public interest, convenience, and necessity.
- (c) **Character Qualifications.** An applicant seeking a submarine cable landing license or modification, assignment, transfer of control, or renewal or extension of a submarine cable landing license shall certify in the application that the applicant has the requisite character qualifications, including whether the applicant has violated the Cable Landing License Act of 1921, the Communications Act of 1934, or Commission rules, including making false statements or misrepresentations to the Commission; whether the applicant has been convicted of a felony; and whether there is an adjudicated determination that the applicant has violated U.S. antitrust or other competition laws, has been found to have engaged in fraudulent conduct before another government agency, or has engaged in other non-FCC misconduct the

Commission has found to be relevant in assessing the character qualifications of a licensee or authorization holder.

(d) **State Department Coordination.** Submarine cable licenses shall be granted or revoked by the Commission after obtaining the approval of the Secretary of State and such assistance from any executive department or establishment of the Government as the Commission may deem necessary. See section 5(a) of Executive Order No. 10530, dated May 10, 1954.

§ 1.70003 Applicant/Licensee Requirements

Applicants/Licensees. Except as otherwise required by the Commission, the following entities, at a minimum, shall be applicants for, and licensees on, a cable landing license:

- (a) Any entity that owns or controls a cable landing station in the United States; and
- (b) All other entities owning or controlling a five percent (5%) or greater interest in the cable system and using the U.S. points of the cable system.

§ 1.70004 Presumption of Entities Not Qualified to Become a New Submarine Cable Landing Licensee

The following entities shall be presumed to be unqualified to become a new submarine cable landing licensee.

- (a) Any entity whose application for international section 214 authority was previously denied or whose domestic or international section 214 authority was previously revoked shall be presumed to be unqualified to become a new cable landing licensee as identified in the Report and Order, FCC xx-xx, __ FR __ ([INSERT DATE OF FEDERAL REGISTER PUBLICATION]).
- (b) Any entity whose application (including an application for any authorization or license) is or was previously denied or whose authorization or license is or was previously revoked and/or terminated on national security and/or law enforcement grounds shall be presumed to be unqualified to become a new cable landing licensee.
- (c) Current and future affiliates and subsidiaries, as defined in § 2.903(c), of identified entities pursuant to paragraphs (a)(1) and (a)(2).

§ 1.70005 Initial Application for a Submarine Cable Landing License

An applicant must demonstrate in the initial application for a submarine cable landing license that they meet the requirements under § 1.70002(b) through (c), and the initial application must contain:

- (a) The name, address, e-mail address(es), and telephone number(s) of each applicant.
- (b) The Government, State, or Territory under the laws of which each corporate or partnership applicant is organized.
- (c) The name, title, address, e-mail address(es), and telephone number of the officer and any other contact point, such as legal counsel, of each applicant to whom correspondence concerning the application is to be addressed.
- (d) The name of the submarine cable system.
- (e) A description of the submarine cable, including:

-
- (1) The states, territories, or possessions in the United States and the foreign countries where the cable will land;
 - (2) The number of segments in the submarine cable system and the designation of each (e.g. Segment A, Main Trunk, A-B segment);
 - (3) The length of the submarine cable by segment and in total;
 - (4) The location, by segment, of any branching units;
 - (5) The address and county or county equivalent of each U.S. and non-U.S. cable landing station;
 - (6) The number of optical fiber pairs, by segment, of the submarine cable;
 - (7) The design capacity, by segment, of the submarine cable; and
 - (8) Anticipated time frame when the applicant(s) intends to place the submarine cable system into -service).
- (f) A specific description of the submarine cable system, including a map and geographic data in generally accepted GIS formats or other formats. OIA, in coordination with OEA, shall determine the file formats and specific data fields in which data will ultimately be collected.
- (1) The applicant initially may file a general geographic description of the landing points; however, grant of the application will be conditioned on the Commission's final approval of a more specific description of the landing points, including all information required by this paragraph, to be filed by the applicant no later than ninety (90) days prior to construction. The Commission will give public notice of the filing of this description, and grant of the license will be considered final if the Commission does not notify the applicant otherwise in writing no later than sixty (60) days after receipt of the specific description of the landing points, unless the Commission designates a different time period;
- (g) A statement disclosing whether the applicant uses and/or will use foreign-owned managed network service providers (MNSPs) in the cable system. Such functions may include, but are not limited to: operations and management support; network operations and service monitoring, including intrusion testing; network performance, optimization, and reporting; installation and testing; network audits, provisioning and development; and the implementation of changes and upgrades.
- (h) (1) A statement as to whether the cable will be operated on a common carrier or non-common carrier basis;
- (i) Applicants for common carrier cable landing licenses shall also separately file an application for an international section 214 authorization for overseas cable construction under § 63.18 of this chapter.
- (i) (1) A list of all of the proposed owners of the cable system including those owners that are not applicants, their respective equity and/or voting interests in the cable system as a whole, their respective equity and/or voting interests in each U.S. cable landing station including submarine line terminal equipment, and their respective equity and/or voting interests by segment of the cable;
- (j) For each applicant:
- (1) The information and certifications required in § 63.18(h), (o), and (q) of this chapter.
 - (2) A certification as to whether or not the applicant is, or is affiliated with, a foreign carrier, including an entity that owns or controls a cable landing station, in any foreign country. The certification shall state with specificity each such country;

- (3) A certification as to whether or not the applicant seeks to land and operate a submarine cable connecting the United States to any country for which any of the following is true. The certification shall state with specificity the foreign carriers and each country:
- (i) The applicant is a foreign carrier in that country; or
 - (ii) The applicant controls a foreign carrier in that country; or
 - (iii) There exists any entity that owns more than 25 percent of the applicant, or controls the applicant, or controls a foreign carrier in that country.
 - (iv) Two or more foreign carriers (or parties that control foreign carriers) own, in the aggregate, more than 25 percent of the applicant and are parties to, or the beneficiaries of, a contractual relation (e.g., a joint venture or market alliance) affecting the provision or marketing of arrangements for the terms of acquisition, sale, lease, transfer and use of capacity on the cable in the United States; and
- (4) For any country that the applicant has listed in response to paragraph (j)(3) that is not a member of the World Trade Organization, a demonstration as to whether the foreign carrier lacks market power with reference to the criteria in § 63.10(a) of this chapter.
- (5) Under § 63.10(a) of this chapter, the Commission presumes, subject to rebuttal, that a foreign carrier lacks market power in a particular foreign country if the applicant demonstrates that the foreign carrier lacks 50 percent market share in international transport facilities or services, including cable landing station access and backhaul facilities, intercity facilities or services, and local access facilities or services on the foreign end of a particular route.
- (k) The certifications in § 1.70006, including a certification that the applicant accepts and will abide by the routine conditions specified in § 1.70007(a);
- (l) Each applicant shall provide the following information with respect to services it expects to provide through the submarine cable system:
- (1) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity, by selling, leasing, or swapping;
 - (2) Identify the types of customers that will be served, including those with whom the applicant will lease, sell, share, or swap fiber, spectrum, or capacity;
 - (3) Identify whether the applicant will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;
 - (4) Identify where the applicant expects to market, offer, and/or provide services; and
 - (5) Identify the general terms and conditions that will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreements (SLA) requirements, dispute resolution, and other applicable provisions.
- (m) Each applicant shall demonstrate that it has successfully implemented an established set of cybersecurity best practices consistent with § 1.70006(c). The information provided under this subsection shall be treated as presumptively confidential. Applicants and licensees shall submit cybersecurity risk management plans to the Commission upon request. OIA, in coordination with the Public Safety and Homeland Security Bureau, may request, at its discretion, submission of such cybersecurity risk management plans and to evaluate them for compliance with the Commission's rules in this subpart.
- (n) Any other information that may be necessary to enable the Commission to act on the application.
- (o) Applicants for cable landing licenses may be subject to the consistency certification requirements of

the Coastal Zone Management Act (CZMA), 16 U.S.C. 1456, if they propose to conduct activities, in or outside of a coastal zone of a state with a federally-approved management plan, affecting any land or water use or natural resource of that state's coastal zone.

(1) Before filing their applications for a license to construct and operate a submarine cable system or to modify the construction of a previously approved submarine cable system, applicants must determine whether they are required to certify that their proposed activities will comply with the enforceable policies of a coastal state's approved management program. In order to make this determination, applicants should consult National Oceanic Atmospheric Administration (NOAA) regulations, 15 CFR part 930, Subpart D, and review the approved management programs of coastal states in the vicinity of the proposed landing station to verify that this type of application is not a listed federal license activity requiring review.

(2) After the application is filed, applicants should follow the procedures specified in 15 CFR § 930.54 to determine whether any potentially affected state has sought or received NOAA approval to review the application as an unlisted activity. If it is determined that any certification is required, applicants shall consult the affected coastal state(s) (or designated state agency(ies)) in determining the contents of any required consistency certification(s). Applicants may also consult the Office of Ocean and Coastal Management (OCRM) within NOAA for guidance.

(3) The cable landing license application filed with the Commission shall include any consistency certification required by 16 U.S.C. 1456(c)(3)(A) for any affected coastal state(s) that lists this type of application in its NOAA-approved coastal management program and shall be updated pursuant to § 1.65 of the Commission's rules, 47 CFR § 1.65, to include any subsequently required consistency certification with respect to any state that has received NOAA approval to review the application as an unlisted federal license activity. Upon documentation from the applicant—or notification from each coastal state entitled to review the license application for consistency with a federally approved coastal management program—that the state has either concurred, or by its inaction, is conclusively presumed to have concurred with the applicant's consistency certification, the Commission may take action on the application.

§ 1.70006 Certifications

All applicants for a submarine cable landing license, all licensees seeking modification of their license under § 1.70011, all licensees seeking renewal or extension of their license under § 1.70017, all assignees or transferees in transactions under § 1.70012 or § 1.70013, and all licensees providing periodic reporting under § 1.70016 must certify to the following:

- (a) that the applicant/licensee accepts and will abide by the routine conditions specified in 1.70007;
- (b) that the applicant/licensee has the requisite character qualifications, including whether or not the applicant/licensee has violated the Cable Landing License Act of 1921, the Communications Act of 1934, or Commission rules, including making false statements or misrepresentations to the Commission; whether the applicant/licensee has been convicted of a felony; and whether there is an adjudicated determination that the applicant/licensee has violated U.S. antitrust or other competition laws, has been found to have engaged in fraudulent conduct before another government agency, or has engaged in other non-FCC misconduct the Commission has found to be relevant in assessing the character qualifications of a licensee or authorization holder;
- (c) that the applicant/licensee has created, updated, and implemented cybersecurity risk management plans, and
 - (1) that these plans identify the cybersecurity risks they face, the controls they use or plan to use to mitigate those risks, and how to ensure these controls are applied effectively to their organizations;

- (2) that they will take reasonable measures to protect the confidentiality, integrity, and availability of their systems and services that could affect the provision of communications services, describing in the cybersecurity risk management plan how they will employ their organizational resources and processes to ensure this.
 - (3) that the cybersecurity risk management plan has been signed by the entity's Chief Executive Officer, Chief Financial Officer, Chief Technology Officer, or similarly situated senior officer responsible for governance of the organization's security practices;
 - (4) that they will submit cybersecurity risk management plans to the Commission upon request; and
 - (5) that they will preserve data and records related to their cybersecurity risk management plans for two years from submission of the risk management plan certification.
- (d) that the applicant/licensee will not use covered equipment or services identified on the Commission's "Covered List" that the Commission maintains pursuant to the Secure and Trusted Communications Networks Act of 2019, 47 U.S.C. §§ 1601-1609.

§ 1.70007 Routine Conditions

Except as otherwise ordered by the Commission, the following rules apply to each licensee of a cable landing license.

(a) Grant of the cable landing license is subject to:

- (1) All rules and regulations of the Federal Communications Commission;
- (2) Any treaties or conventions relating to communications to which the United States is or may hereafter become a party; and
- (3) Any action by the Commission or the Congress of the United States rescinding, changing, modifying or amending any rights accruing to any person by grant of the license;

(b) The location of the cable system within the territorial waters of the United States of America, its territories and possessions, and upon its shores shall be in conformity with plans approved by the Secretary of the Army. The cable shall be moved or shifted by the licensee at its expense upon request of the Secretary of the Army, whenever he or she considers such course necessary in the public interest, for reasons of national defense, or for the maintenance and improvement of harbors for navigational purposes;

(c) The licensee shall at all times comply with any requirements of United States government authorities regarding the location and concealment of the cable facilities, buildings, and apparatus for the purpose of protecting and safeguarding the cables from injury or destruction by enemies of the United States of America;

(d) The licensee, or any person or company controlling it, controlled by it, or under direct or indirect common control with it, does not enjoy and shall not acquire any right to handle traffic to or from the United States, its territories or its possessions unless such service is authorized by the Commission pursuant to section 214 of the Communications Act, as amended;

(e) Prohibition on Special Concessions

- (1) The licensee shall be prohibited from agreeing to accept special concessions directly or indirectly from any foreign carrier, including any entity that owns or controls a foreign cable landing station, where the foreign carrier possesses sufficient market power on the foreign end of

the route to affect competition adversely in the U.S. market, and from agreeing to accept special concessions in the future.

(2) For purposes of this section, a special concession is defined as an exclusive arrangement involving services, facilities, or functions on the foreign end of a U.S. international route that are necessary to land, connect, or operate submarine cables, where the arrangement is not offered to similarly situated U.S. submarine cable owners, indefeasible-right-of-user holders, or lessors, and includes arrangements for the terms for acquisition, resale, lease, transfer and use of capacity on the cable; access to collocation space; the opportunity to provide or obtain backhaul capacity; access to technical network information; and interconnection to the public switched telecommunications network.

(f) The cable landing license and rights granted in the license shall not be transferred, assigned, or disposed of, or disposed of indirectly by transfer of control of the licensee, except in compliance with the requirements set out in §§ 1.70012 and 1.70013;

(g) Entities that are parties to a pro forma assignment or transfer of control notification must notify the Commission no later than thirty (30) days after the assignment or transfer of control is consummated, and the notification must include information and certifications required under § 1.70013;

(h) Unless the licensee has notified the Commission in the application of the precise locations at which the cable will land, as required by § 1.70005(f), the licensee shall notify the Commission no later than ninety (90) days prior to commencing construction at that landing location. The Commission will give public notice of the filing of each description, and grant of the cable landing license will be considered final with respect to that landing location unless the Commission issues a notice to the contrary no later than sixty (60) days after receipt of the specific description. See § 1.70005(f);

(i) The Commission reserves the right to require the licensee to file an environmental assessment should it determine that the landing of the cable at the specific locations and construction of necessary cable landing stations may significantly affect the environment within the meaning of § 1.1307 implementing the National Environmental Policy Act of 1969. See § 1.1307(a) and (b). The cable landing license is subject to modification by the Commission under its review of any environmental assessment or environmental impact statement that it may require pursuant to its rules. See also § 1.1306 note 1 and § 1.1307(c) and (d);

(j) The Commission reserves the right, pursuant to section 2 of the Cable Landing License Act, 47 U.S.C. 35, Executive Order No. 10530 as amended, and section 214 of the Communications Act of 1934, as amended, 47 U.S.C. 214, to impose common carrier regulation or other regulation consistent with the Cable Landing License Act on the operations of the cable system if it finds that the public interest so requires;

(k) The licensee, or in the case of multiple licensees, the licensees collectively, shall maintain de jure and de facto control of the U.S. portion of the cable system, including the cable landing stations in the United States, sufficient to comply with the requirements of the Commission's rules and any specific conditions of the license;

(l) The licensee shall comply with the requirements of § 1.70009;

(m) The licensee shall file annual international circuit capacity reports as required by § 43.82 of this chapter.

(n) The cable landing license is revocable or subject to termination by the Commission after due notice and opportunity for hearing for reasons set forth in section 2 of the Cable Landing License Act, 47 U.S.C. 35, or for failure to comply with the terms of the license or with the Commission's rules; and

- (o) The cable landing license shall expire twenty-five (25) years from the in-service date, unless renewed or extended upon proper application. Upon expiration, all rights granted under the license shall be terminated;
- (p) The licensee(s) must commence service provided under its license within three years following the grant of its license.
- (1) The licensee must notify the Commission within thirty (30) days of the date the cable is placed into service.
 - (2) Failure to notify the Commission of commencement of service within three years following the grant of the license shall result in automatic cancellation of the license, unless the licensee can show good cause why it is unable to commence commercial service on the cable.
- (q) Licensees shall file submarine cable outage reports as required in 47 CFR part 4;
- (r) Each licensee shall notify the Commission of any changes to the following within thirty (30) days:
- (1) the contact information of the licensee provided under § 1.70005(a), (c); and,
 - (2) the name of the licensee (including the name under which the licensee is doing business) (a change in the form of the business, e.g., from a corporation to limited liability company, is a *pro forma* assignment and the Commission should be notified of such change pursuant to § 1.70013).
- (r) The licensee(s) shall notify the Commission of any changes to the following within thirty (30) days the name of the licensed submarine cable system. Joint licensees may appoint one party to act as proxy for purposes of complying with this requirement;
- (s) The licensee(s) will not use covered equipment or services identified on the Commission's "Covered List" that the Commission maintains pursuant to the Secure and Trusted Communications Networks Act of 2019, 47 U.S.C. §§ 1601-1609; and
- (t) The licensee(s) shall submit periodic reports every three years consistent with the requirements under § 1.70016. Joint licensees may appoint one party to act as proxy for purposes of complying with this requirement.

§ 1.70008 Requests for Special Temporary Authority

- (a) Special temporary authority may be used for construction, testing, or operation of a submarine cable service for a term up to and including 180 days.
- (b) Applicants seeking special temporary authority must file all requisite applications related to the request for special temporary authority. Applicants must identify the file number(s) of any pending application(s) associated with the request for special temporary authority.
- (c) An application for special temporary authority must include:
- (1) A narrative describing the request for a special temporary authority including the type of request (e.g. new request, extension or renewal of previous request, or other), purpose for the special temporary authority (construction, testing, operating, or other), and the justification for such request;
 - (2) Information required by § 1.70005(a) through (c), (d), (g) of this subpart;
 - (3) Whether or not the request for special temporary authority is associated with an application(s) pending with the Commission, and if so, identification of the related file number(s);
 - (4) The date by which applicants seek grant of the request for special temporary authority; and

(5) Any other information that may be necessary to enable the Commission to act on the application.

§ 1.70009 – Notification by and prior approval for submarine cable landing licensees that are or propose to become affiliated with a foreign carrier

Any entity that is licensed by the Commission (“licensee”) to land or operate a submarine cable landing in a particular foreign destination market that becomes, or seeks to become, affiliated with a foreign carrier that is authorized to operate in that market, including an entity that owns or controls a cable landing station in that market, shall notify the Commission of that affiliation.

(a) ***Affiliations requiring prior notification.*** Except as provided in paragraph (b) of this section, the licensee must notify the Commission, pursuant to this section, forty-five (45) days before consummation of either of the following types of transactions:

- (1) Acquisition by the licensee, or by any entity that controls the licensee, or by any entity that directly or indirectly owns more than twenty-five percent (25%) of the capital stock of the licensee, of a controlling interest in a foreign carrier that is authorized to operate in a market where the cable lands; or
- (2) Acquisition of a direct or indirect interest greater than twenty-five percent (25%), or of a controlling interest, in the capital stock of the licensee by a foreign carrier that is authorized to operate in a market where the cable lands, or by an entity that controls such a foreign carrier.

(b) ***Exceptions.***

(1) Notwithstanding paragraph (a) of this section, the notification required by this section need not be filed before consummation, and may instead be filed pursuant to paragraph (c) of this section, if either of the following is true with respect to the named foreign carrier, regardless of whether the destination market where the cable lands is a World Trade Organization (WTO) or non-WTO Member:

- (i) The Commission has previously determined in an adjudication that the foreign carrier lacks market power in that destination market (for example, in an international section 214 application or a declaratory ruling proceeding); or
- (ii) The foreign carrier owns no facilities in that destination market. For this purpose, a carrier is said to own facilities if it holds an ownership, indefeasible-right-of-user, or leasehold interest in a cable landing station or in bare capacity in international or domestic telecommunications facilities (excluding switches).

(2) In the event paragraph (b)(1) of this section cannot be satisfied, notwithstanding paragraph (a) of this section, the notification required by this section need not be filed before consummation, and may instead be filed pursuant to paragraph (c) of this section, if the licensee certifies that the destination market where the cable lands is a WTO Member and provides certification to satisfy either of the following:

- (i) The licensee demonstrates that its foreign carrier affiliate lacks market power in the cable's destination market pursuant to § 63.10(a)(3) of this chapter (see § 63.10(a)(3) of this chapter); or
- (ii) The licensee agrees to comply with the reporting requirements contained in § 1.70015 effective upon the acquisition of the affiliation. See § 1.70015.

(c) ***Notification after consummation.*** Any licensee that becomes affiliated with a foreign carrier and has not previously notified the Commission pursuant to the requirements of this section shall notify the Commission within thirty (30) days after consummation of the acquisition.

Example 1 to paragraph (c). Acquisition by a licensee (or by any entity that directly or indirectly controls, is controlled by, or is under direct or indirect common control with the licensee) of a direct or indirect interest in a foreign carrier that is greater than twenty-five percent (25%) but not controlling is subject to paragraph (c) of this section but not to paragraph (a) of this section.

Example 2 to paragraph (c). Notification of an acquisition by a licensee of a hundred percent (100%) interest in a foreign carrier may be made after consummation, pursuant to paragraph (c) of this section, if the foreign carrier operates only as a resale carrier.

Example 3 to paragraph (c). Notification of an acquisition by a foreign carrier from a WTO Member of a greater than twenty-five percent (25%) interest in the capital stock of the licensee may be made after consummation, pursuant to paragraph (c) of this section, if the licensee demonstrates in the post-notification that the foreign carrier lacks market power in the cable's destination market or the licensee agrees to comply with the reporting requirements contained in § 1.767(l) effective upon the acquisition of the affiliation.

(d) **Cross-reference.** In the event a transaction requiring a foreign carrier notification pursuant to this section also requires a transfer of control or assignment application pursuant to the requirements of the license granted under §§ 1.70007(f) through (g), 1.70012, or 1.70013, the foreign carrier notification shall reference in the notification the transfer of control or assignment application and the date of its filing. See § 1.70007.

(e) **Contents of notification.** The notification shall certify the following information:

- (1) The name of the newly affiliated foreign carrier and the country or countries at the foreign end of the cable in which it is authorized to provide telecommunications services to the public or where it owns or controls a cable landing station;
- (2) Which, if any, of those countries is a Member of the World Trade Organization;
- (3) The name of the cable system that is the subject of the notification, and the FCC file number(s) under which the license was granted;
- (4) The name, address, citizenship, and principal business of any person or entity that directly or indirectly owns ten percent or more of the equity interests and/or voting interests, or a controlling interest, of the licensee, and the percentage of equity and/or voting interest owned by each of those entities (to the nearest one percent). Where no individual or entity directly or indirectly owns ten percent or more of the equity interests and/or voting interests, or a controlling interest, of the licensee, a statement to that effect.

(i) **Calculation of equity interests held indirectly in the licensee.** Equity interests that are held by an individual or entity indirectly through one or more intervening entities shall be calculated by successive multiplication of the equity percentages for each link in the vertical ownership chain, regardless of whether any particular link in the chain represents a controlling interest in the company positioned in the next lower tier. Example: An entity holds a non-controlling 30 percent equity and voting interest in Corporation A which, in turn, holds a non-controlling 40 percent equity and voting interest in the licensee. The entity's equity interest in the licensee would be calculated by multiplying the individual's equity interest in Corporation A by that entity's equity interest in the licensee. The entity's equity interest in the licensee would be calculated as 12 percent ($30\% \times 40\% = 12\%$). The result would be the same even if Corporation A held a de facto controlling interest in the licensee.

(ii) **Calculation of voting interests held indirectly in the licensee.** Voting interests that are held through one or more intervening entities shall be calculated by successive multiplication of the voting percentages for each link in the vertical ownership chain, except that wherever the voting interest for any link in the chain is equal to or exceeds 50

percent or represents actual control, it shall be treated as if it were a 100 percent interest. A general partner shall be deemed to hold the same voting interest as the partnership holds in the company situated in the next lower tier of the vertical ownership chain. A partner of a limited partnership (other than a general partner) shall be deemed to hold a voting interest in the partnership that is equal to the partner's equity interest. Example: An entity holds a non-controlling 30 percent equity and voting interest in Corporation A which, in turn, holds a controlling 70 percent equity and voting interest in the licensee. Because Corporation A's 70 percent voting interest in the licensee constitutes a controlling interest, it is treated as a 100 percent interest. The entity's 30 percent voting interest in Corporation A would flow through in its entirety to the licensee and thus be calculated as 30 percent ($30\% \times 100\% = 30\%$).

(5) An ownership diagram that illustrates the licensee's vertical ownership structure, including the direct and indirect ownership (equity and voting) interests held by the individuals and entities named in response to paragraph (e)(4) of this section. Every individual or entity with ownership shall be depicted and all controlling interests must be identified.

(6) Interlocking directorates. The name of any interlocking directorates, as defined in § 63.09(g) of this chapter, with each foreign carrier named in the notification. See § 63.09(g) of this chapter.

(7) With respect to each foreign carrier named in the notification, a statement as to whether the notification is subject to paragraph (a) or (c) of this section. In the case of a notification subject to paragraph (a) of this section, the licensee shall include the projected date of closing. In the case of a notification subject to paragraph (c) of this section, the licensee shall include the actual date of closing.

(8) If a licensee relies on an exception in paragraph (b) of this section, then a certification as to which exception the foreign carrier satisfies and a citation to any adjudication upon which the licensee is relying. Licensees relying upon the exceptions in paragraph (b)(2) of this section must make the required certified demonstration in paragraph (b)(2)(i) of this section or the certified commitment to comply with the reporting requirements in paragraph (b)(2)(ii) of this section in the notification required by paragraph (c) of this section.

(f) If the licensee seeks exemption from the reporting requirements contained in § 1.70015, the licensee should demonstrate that each foreign carrier affiliate named in the notification lacks market power pursuant to § 63.10(a)(3) of this chapter. See § 63.10(a)(3) of this chapter.

(g) **Procedure.** After the Commission issues a public notice of the submissions made under this section, interested parties may file comments within fourteen (14) days of the public notice.

(1) If the Commission deems it necessary at any time before or after the deadline for submission of public comments, the Commission may impose reporting requirements on the licensee based on the provisions of § 1.70015. See § 1.70015.

(2) In the case of a prior notification filed pursuant to paragraph (a) of this section, the authorized U.S. licensee must demonstrate that it continues to serve the public interest for it to retain its interest in the cable landing license for that segment of the cable that lands in the non-WTO destination market. Such a showing shall include a demonstration as to whether the foreign carrier lacks market power in the non-WTO destination market with reference to the criteria in § 63.10(a) of this chapter. In addition, upon request of the Commission, the licensee shall provide the information specified in § 1.70005(j). If the licensee is unable to make the required showing or is notified by the Commission that the affiliation may otherwise harm the public interest pursuant to the Commission's policies and rules under 47 U.S.C. 34 through 39 and Executive Order No. 10530, dated May 10, 1954, then the Commission may impose conditions necessary to address any public interest harms or may proceed to an immediate authorization revocation hearing.

(3) Under § 63.10(a) of this chapter, the Commission presumes, subject to rebuttal, that a foreign carrier lacks market power in a particular foreign country if the applicant demonstrates that the foreign carrier lacks 50 percent market share in international transport facilities or services, including cable landing station access and backhaul facilities, intercity facilities or services, and local access facilities or services on the foreign end of a particular route.

(h) All licensees are responsible for the continuing accuracy of information provided pursuant to this section for a period of forty-five (45) days after filing. During this period if the information furnished is no longer accurate, the licensee shall as promptly as possible, and in any event within ten (10) days, unless good cause is shown, file with the Commission a corrected notification referencing the FCC file numbers under which the original notification was provided.

(i) A licensee that files a prior notification pursuant to paragraph (a) of this section may request confidential treatment of its filing, pursuant to § 0.459 of this chapter, for the first twenty (20) days after filing.

(j) Subject to the availability of electronic forms, all notifications described in this section must be filed electronically through the International Communications Filing System (ICFS). A list of forms that are available for electronic filing can be found on the ICFS homepage. For information on electronic filing requirements, see §§ 1.1000 through 1.10018 and the ICFS homepage at <https://www.fcc.gov/icfs>. See also §§ 63.20 and 63.53 of this chapter.

§ 1.70010 Amendment of Applications.

Any application may be amended as a matter of right prior to the date of any final action taken by the Commission or designation for hearing. Amendments to applications shall be signed and submitted in the same manner as was the original application. If a petition to deny or other formal objection has been filed in response to the application, the amendment shall be served on the parties.

§ 1.70011 Modification Applications

A separate application shall be filed with respect to each individual cable system for which a licensee(s) seeks to modify the cable landing license. Each modification application shall include a narrative description of the proposed modification including relevant facts and circumstances leading to the request. Each modification application must contain a demonstration that the applicant meets the requirements under § 1.70002(b) through (c). Requirements for specific types of modification requests are set out below. For other situations, the licensee(s) should contact Commission staff regarding the required information for the modification application.

(a) A modification application to add a landing station(s), segment(s), or other like material changes to a submarine cable system must also include the following:

- (1) Information as required by § 1.70005(a) through (i), (k), and (m), as it relates to the modified portion of the cable system.
- (2) Each applicant shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:
 - (i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;
 - (ii) Identify the types of customers that currently are and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;
 - (iii) Identify whether the applicant currently owns or controls and/or will own or control the U.S.

portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;

(iv) Identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and

(v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.

(3) Certifications set forth under § 1.70006.

(4) Any other information that may be necessary to enable the Commission to act on the application.

(5) Signatures by each licensee. Joint licensees may appoint one party to act as proxy for purposes of complying with this requirement.

(b) A modification application to remove a landing station(s), segment(s), or other like material changes to a submarine cable system must also include the following:

(1) A description of which elements will be removed from the cable system and the timing for the removal or that element(s).

(2) Information as required by § 1.70005(a) through (i), (k), and (m).

(3) Each applicant shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:

(i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;

(ii) Identify the types of customers that currently are and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;

(iii) Identify whether the applicant currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;

(iv) Identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and

(v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.

(4) Certifications set forth under § 1.70006.

(5) Any other information that may be necessary to enable the Commission to act on the application.

(6) Signatures by each licensee. Joint licensees may appoint one party to act as proxy for purposes of complying with this requirement.

(c) A modification application to add an applicant as a licensee for an existing cable landing license must also include the following:

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- (1) Information required by § 1.70005(a) through (c), (g), (j) through (k), and (m) for the proposed new licensee.
 - (2) Information required by § 1.70005(d) through (f).
 - (3) The proposed new licensee shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:
 - (i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;
 - (ii) Identify the types of customers that currently are and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;
 - (iii) Identify whether the applicant currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;
 - (iv) Identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and
 - (v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.
 - (2) Certifications set forth under § 1.70006 for the proposed new licensee.
 - (3) Any other information that may be necessary to enable the Commission to act on the application.
 - (4) Signatures by the proposed licensee and each current licensee. Joint licensees may appoint one party to act as proxy for purposes of complying with this requirement.
- (d) A modification application for a licensee that seeks to relinquish its interest in a cable landing license must also include:
- (1) Information required by § 1.70005(a) through (c) for the licensee that seeks to relinquish its interest;
 - (2) A demonstration that the entity is not required to be a licensee under § 1.70003 and that the remaining licensee(s) will retain collectively *de jure* and *de facto* control of the U.S. portion of the cable system sufficient to comply with the requirements of the Commission's rules and any specific conditions of the license;
 - (3) A signature from the licensee that seeks to relinquish its interest;
 - (4) Any other information that may be necessary to enable the Commission to act on the application; and
 - (5) Such application must be served on each other licensee of the cable system.
- (e) A modification application to add, remove, or change a condition on an existing cable landing license must also include the following:
- (1) Information required by § 1.70005(a) through (c), (g), (j) through (k), and (m) for the licensee(s) that seeks to add, remove, or change a condition.
 - (2) Information required by § 1.70005(d) through (f).

(3) Each applicant shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:

- (i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;
- (ii) Identify the types of customers that currently are and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;
- (iii) Identify whether the applicant currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;
- (iv) Identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and
- (v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.

(4) Certifications set forth under § 1.70006.

(5) A signature from the licensee that seeks to add, remove, or change a condition.

(6) Any other information that may be necessary to enable the Commission to act on the application.

§ 1.70012 Substantial Assignment or Transfer of Control Applications

(a) Each application for authority to assign or transfer control of an interest in a cable system shall contain a demonstration that the requirements under § 1.70002(b) through (c) are met.

(b) An application for authority to assign or transfer control of an interest in a cable system shall contain a narrative description of the proposed transaction, including relevant facts and circumstances, and that the applicant meets the requirements of § 1.70002(b) through (c). The application shall also include the following information:

- (1) The information requested in paragraphs (a) through (c) of § 1.70005 for both the assignor/transferor and the assignee/transferee.
- (2) The information requested in paragraphs (j) and (k) of § 1.70005 for the assignee/transferee.
- (3) The pre-transaction and post-transaction ownership diagram of the licensee as required under paragraph (j)(1) of § 1.70005.
- (4) A narrative describing the means by which the assignment or transfer of control will take place.
- (5) The information required in § 1.70005(e) through (f).
- (6) The application shall also specify, on a segment specific basis, the percentage of voting and ownership interests being assigned or transferred in the cable system, including in the U.S. portion of the cable system (which includes all U.S. cable landing station(s)).
- (7) Each assignee or licensee that is the subject of a transfer of control shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:

- (i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;
 - (ii) Identify the types of customers that currently are and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;
 - (iii) Identify whether the applicant currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;
 - (iv) Identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and
 - (v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.
- (8) Information as required by paragraphs (g) and (m) of § 1.70005 for each assignee or licensee that is the subject of a transfer of control.
- (9) In the event the transaction requiring an assignment or transfer of control application also requires the filing of a foreign carrier affiliation notification pursuant to § 1.70009, the application shall reference the foreign carrier affiliation notification and the date of its filing. See § 1.70009.
- (10) The Commission reserves the right to request additional information concerning the transaction to aid it in making its public interest determination.
- (11) An assignee or transferee must notify the Commission no later than thirty (30) days after either consummation of the assignment or transfer or a decision not to consummate the assignment or transfer. The notification shall identify the file numbers under which the initial license and the authorization of the assignment or transfer were granted.
- (12) Certifications set forth under § 1.70006.

§ 1.70013 Pro Forma Assignment and Transfer of Control Notifications

- (a) A *pro forma* assignee or a licensee that is the subject of a *pro forma* transfer of control of a cable landing license is not required to seek prior approval for the *pro forma* transaction. A *pro forma* assignee or licensee that is the subject of a *pro forma* transfer of control must notify the Commission no later than thirty (30) days after the assignment or transfer of control is consummated.
- (b) Assignments or transfers of control that do not result in a change in the actual controlling party are considered non-substantial or *pro forma*. Whether there has been a change in the actual controlling party must be determined on a case-by-case basis with reference to the factors listed in Note 1 to § 63.24(d) of this chapter. The types of transactions listed in Note 2 to § 63.24(d) of this chapter shall be considered presumptively *pro forma* and prior approval from the Commission need not be sought. A notification of a *pro forma* assignment or transfer of control shall include the following information:
- (1) The information requested in paragraphs (a) through (c) of § 1.70005 for both the assignor/transferor and the assignee/transferee.
 - (2) The information requested in paragraphs (j) and (k) of § 1.70005 for the assignee/transferee.
 - (3) The pre-transaction and post-transaction ownership diagram of the licensee as required under paragraph (j) of § 1.70005.

- (4) A narrative describing the means by which the assignment or transfer of control occurred.
- (5) The information required in § 1.70005(e) through (f).
- (7) The application shall also specify, on a segment specific basis, the percentage of voting and ownership interests being assigned or transferred in the cable system, including in the U.S. portion of the cable system (which includes all U.S. cable landing station(s)).
- (8) The notification must certify that the assignment or transfer of control was *pro forma*, as defined in paragraph (a) of this section, and, together with all previous *pro forma* transactions, does not result in a change of the licensee's ultimate control.
- (9) Each assignee or licensee that is the subject of a transfer of control shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:
 - (i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;
 - (ii) Identify the types of customers that currently are and/or will be served, including those with whom the applicant leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;
 - (iii) Identify whether the applicant currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;
 - (iv) Identify where the applicant currently markets, offers, and provides services and/or expects to market, offer, and provide services; and
 - (v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.
- (10) Information as required by paragraphs (g) and (m) of § 1.70005 for each assignee or licensee that is the subject of a transfer of control.
- (11) The licensee may file a single notification for an assignment or transfer of control of multiple licenses issued in the name of the licensee if each license is identified by the file number under which it was granted.
- (12) The Commission reserves the right to request additional information concerning the transaction to aid it in making its public interest determination.
- (13) Certifications set forth under § 1.70006.

§ 1.70014 Processing of Applications and Requests for Streamlining

(a) ***Processing of submarine cable applications.*** The Commission will take action upon an application eligible for streamlined processing, as specified in paragraph (c) of this section, within forty-five (45) days after release of the public notice announcing the application as acceptable for filing and eligible for streamlined processing. If the Commission deems an application seeking streamlined processing acceptable for filing but ineligible for streamlined processing, or if an applicant does not seek streamlined processing, the Commission will issue public notice indicating that the application is ineligible for streamlined processing. Within ninety (90) days of the public notice, the Commission will take action upon the application or provide public notice that, because the application raises questions of

extraordinary complexity, an additional 90-day period for review is needed. Each successive 90-day period may be so extended.

(b) ***Submission of application to Executive Branch agencies.*** On the date of filing with the Commission, the applicant shall also send a complete copy of the application, or any major amendments or other material filings regarding the application, to: U.S. Coordinator, EB/CIP, U.S. Department of State, 2201 C Street NW, Washington, DC 20520-5818; Office of Chief Counsel/NTIA, U.S. Department of Commerce, 14th St. and Constitution Ave. NW, Washington, DC 20230; and Defense Information Systems Agency, ATTN: GC/DO1, 6910 Cooper Avenue, Fort Meade, MD 20755-7088, and shall certify such service on a service list attached to the application or other filing.

(c) ***Eligibility for streamlining.*** Each applicant must demonstrate eligibility for streamlining by:

- (1) Certifying that it is not a foreign carrier and it is not affiliated with a foreign carrier in any of the cable's destination markets;
- (2) Demonstrating pursuant to § 63.12(c)(1)(i) through (iii) of this chapter that any such foreign carrier or affiliated foreign carrier lacks market power; or
- (3) Certifying that the destination market where the applicant is, or has an affiliation with, a foreign carrier is a World Trade Organization (WTO) Member and the applicant agrees to accept and abide by the reporting requirements set out in paragraph (1) of this section. An application that includes an applicant that is, or is affiliated with, a carrier with market power in a cable's non-WTO Member destination country is not eligible for streamlining.
- (4) Certifying that for applications for a license to construct and operate a submarine cable system or to modify the construction of a previously approved submarine cable system the applicant is not required to submit a consistency certification to any state pursuant to section 1456(c)(3)(A) of the Coastal Zone Management Act (CZMA), 16 U.S.C. 1456.
- (5) Certifying that all individuals or entities that hold a five percent or greater direct or indirect equity and/or voting interests, or a controlling interest, in the applicant are U.S. citizens or entities organized in the United States.

(d) Streamlining of cable landing license applications will be limited to those applications where all potentially affected states, having constructive notice that the application was filed with the Commission, have waived, or are deemed to have waived, any section 1456(c)(3)(A) right to review the application within the thirty-day period prescribed by 15 CFR 930.54.

§ 1.70015 Quarterly Reports

Reporting requirements applicable to licensees affiliated with a carrier with market power in a cable's destination market. Any licensee that is, or is affiliated with, a carrier with market power in any of the cable's destination countries must comply with the following requirements:

- (a) File quarterly reports summarizing the provisioning and maintenance of all network facilities and services procured from the licensee's affiliate in that destination market, within ninety (90) days from the end of each calendar quarter. These reports shall contain the following:
 - (1) The types of facilities and services provided (for example, a lease of wet link capacity in the cable, collocation of licensee's equipment in the cable station with the ability to provide backhaul, or cable station and backhaul services provided to the licensee);
 - (2) For provisioned facilities and services, the volume or quantity provisioned, and the time interval between order and delivery; and

- (3) The number of outages and intervals between fault report and facility or service restoration; and
- (b) File quarterly, within 90 days from the end of each calendar quarter, a report of its active and idle 64 kbps or equivalent circuits by facility (terrestrial, satellite and submarine cable).

§ 1.70016 Three-Year Periodic Reporting

(a) **Periodic Reporting.** Licensees shall file every three years a periodic report in the relevant File Number in the Commission's International Communications Filing System (ICFS), or any successor system. Joint licensees of a particular submarine cable system must submit one joint periodic reporting filing per submarine cable system.

(b) **Contents.** The periodic report shall include all information that has changed since an application for the cable landing license or any modification, assignment, transfer of control, or renewal or extension of the license or the last periodic report, whichever is most recent, filed with the Commission. Licensees shall include information that is current as of thirty (30) days prior to the filing deadline, as follows:

- (1) The information as required by in § 1.70005(a) through (g) and (m).
- (2) Each licensee shall provide the following information with respect to services it currently provides and/or expects to provide through the submarine cable system:
 - (i) Identify and describe the capacity services and capacity management services, including the amount of fiber, spectrum, or capacity by selling, leasing, or swapping;
 - (ii) Identify the types of customers that currently are and/or will be served, including those with whom the licensee leases, sells, shares, or swaps fiber, spectrum, or capacity and/or plans to lease, sell, share, or swap fiber, spectrum, or capacity;
 - (iii) Identify whether the licensee currently owns or controls and/or will own or control the U.S. portion of the submarine cable system, including the cable landing station(s), through an Indefeasible Right of Use (IRU) or leasehold interest;
 - (iv) Identify where the licensee currently markets, offers, and provides services and/or expects to market, offer, and provide services; and
 - (v) Identify the general terms and conditions that currently apply and/or will apply to the services, such as contact duration, minimum capacity/bandwidth requirements, IRU requirements, termination clauses, security requirements, delivery or Service Level Agreement (SLA) requirements, dispute resolution, and other applicable provisions.
- (3) Certifications as set forth under § 1.70006.

(c) **Filing Schedule.** Authority is delegated to the Office of International Affairs (OIA) to establish and modify, as appropriate, the filing categories and associated deadlines for the periodic reports. OIA may, if needed, consult with the relevant Executive Branch agencies concerning the filing categories and associated deadlines for the periodic reports. Licensees shall file the periodic reports pursuant to the deadlines.

(d) **Filing with the Committee.** Licensees that have reportable foreign ownership as defined in § 1.40001(d) as of thirty (30) days prior to the date of the submission or that have a mitigation agreement with the Committee or other Executive Branch agencies shall also file a copy of the report directly with the Committee.

§ 1.70017 Renewal Applications

(a) Licensees seeking to renew or extend a cable landing license shall file an application six months prior to the expiration of the license. The application must include the information and certifications required in §§ 1.70002(b) through (c), 1.70005, and 1.70006.

(b) Licensees that timely file an application to renew or extend a cable landing license may continue operating the submarine cable system while the application is pending before the Commission.

§ 1.70018 Electronic Filing

(a) With the exception of submarine cable outage reports, and subject to the availability of electronic forms, all applications and notifications described in this subpart must be filed electronically through the International Communications Filing System (ICFS). A list of forms that are available for electronic filing can be found on the ICFS homepage. For information on electronic filing requirements, see subpart Y of this part, and the ICFS homepage at <https://www.fcc.gov/icfs>.

(b) Submarine cable outage reports must be filed as set forth in part 4 of this Title.

§ 1.70019 Denial, Revocation, and Termination

The Office of International Affairs shall implement procedures for denial of an application or revocation and/or termination of a cable landing license in light of the relevant facts and circumstances.

PART 43—REPORTS OF COMMUNICATION COMMON CARRIERS, PROVIDERS OF INTERNATIONAL SERVICES AND CERTAIN AFFILIATES

7. The authority citation of part 43 continues to read as follows:
Authority: 47 U.S.C. 35-39, 154, 211, 219, 220; sec. 402(b)(2)(B), (c), Pub. L. 104-104, 110 Stat. 129.

8. Revise section 43.82 to read as follows:

§ 43.82 Circuit Capacity Reports

(a) **International submarine cable capacity.** Not later than March 31 of each year:

(1) **Cable Operator Report.** The licensee(s) of a submarine cable between the United States and any foreign point shall file a report showing the capacity of the submarine cable as of December 31 of the preceding calendar year. The licensee(s) shall also file a report showing the planned capacity of the submarine cable (the intended capacity of the submarine cable two years from December 31 of the preceding calendar year).

(2) **Capacity Holder Report.** Each cable landing licensee and common carrier shall file a report showing its capacity on submarine cables between the United States and any foreign point as of December 31 of the preceding calendar year.

(3) **United States.** United States is defined in Section 3 of the Communications Act of 1934, as amended, 47 U.S.C. 153.

(b) **Registration Form.** A Registration Form, containing information about the filer, such as address, phone number, email address, etc., shall be filed with each report. The Registration Form shall include a certification enabling the filer to check a box to indicate that the filer requests that its circuit capacity data be treated as confidential consistent with Section 0.459(a)(4) of the Commission's rules.

(c) **Filing Manual.** Authority is delegated to the Chief of the Office of International Affairs to prepare instructions and reporting requirements for the filing of these reports prepared and published as a Filing Manual. The information required under this Section shall be filed electronically in conformance with the instructions and reporting requirements in the Filing Manual.

(d) **Compliance.** Submission of false or inaccurate certifications or failure to file timely and complete annual circuit capacity reports in accordance with the Commission's rules and the Filing Manual shall constitute grounds for enforcement action, including but not limited to a forfeiture or cancellation of the cable landing license or international section 214 authorization, pursuant to the Communications Act of 1934, as amended, and any other applicable law.

APPENDIX B

Technical Appendix

1. This technical appendix provides additional information about submarine cable systems, including definitions and an image that depicts the key parts of a submarine cable system.

2. *Submarine Cable System.* A submarine cable is an electrically powered cable that is laid beneath water and establishes communication transmission links between two or more land-based terminal cable landing stations. The cable consists of a wet (underwater) segment, a dry (not submerged under water) segment, and ancillary equipment required to support the operation and maintenance of the cable.

3. *Wet Segment.* The wet (underwater) segment of a submarine cable system typically extends from a beach manhole on one landmass to a beach manhole on another landmass. The underwater portion of the cable can consist of one or several segments, and is equipped with amplification devices (repeaters, etc.) and branching units built into the cable that allow interconnection to more than one destination country.

4. *Wet Segment Ancillary Components.* The repeaters (technically amplifiers), which are tied into the cable, amplify the optical signal to ensure it remains powerful enough for detection at the receiving or terminal landing station. The branching unit (BU) is used to split off the optical signal from the main cable segment(s) and send traffic to another location or country via a cable that connects the BU to a cable landing station.

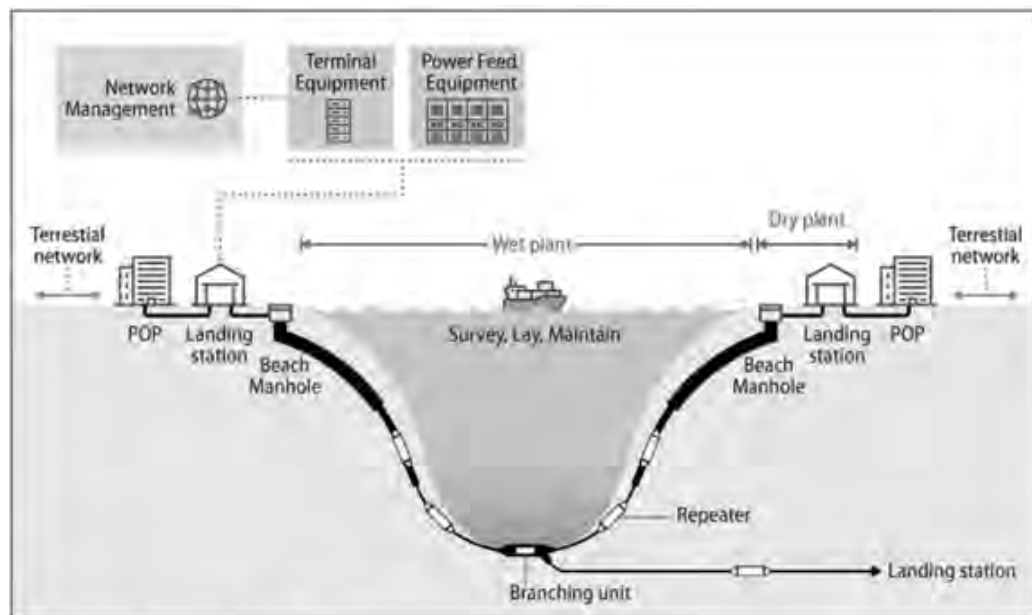
5. *Dry Segment.* The dry (not submerged under water) segment of a submarine cable system typically extends from the beach manhole to cable landing station(s) that contain the Power Feed Equipment (PFE) and equipment (such as the Submarine Line Terminal Equipment (SLTE)) to convert submarine signals to terrestrial signals, and may include ancillary equipment or infrastructure such as equipment to operate or maintain the cable system.

6. *Dry Segment Ancillary Components.* The dry segment includes the optical fiber and power land cables that are separated at and extend from the beach manhole, a structure buried on the beach where the submarine cable first lands, and are then routed to the terminal cable landing station that may be located near the coast where the submarine cable reaches the shore, or may be located further inland.¹ The submarine cable landing station houses equipment to terminate cable traffic and equipment to power the submarine cable. The equipment used to convert submarine signals to terrestrial signals and interconnect with the U.S. terrestrial network is the SLTE, and the equipment used to power the cable, the PFE, is either located in or close to the terminal landing station. There might be multiple SLTEs within a

¹ Traditionally, cable landing stations “have been historically close to network hubs to facilitate efficient connectivity to population centers, but now the focus is on being close to hyperscale data centers” that might be located farther inland and require substantial backhaul facilities to interconnect to the data station. See generally NivaYadav, *What is a Cable Landing Station?*, DataCenterDynamics (Sept. 2, 2024), <https://www.datacenterdynamics.com/en/analysis/what-is-a-cable-landing-station/>. PoPs and/or Internet Exchange Points (IXPs) can be, and are typically located in data centers or other facilities with the necessary infrastructure to support Internet traffic exchange. This infrastructure may include routers, switches, and other networking equipment, as well as power and cooling systems. See *Data Centers, PoPs, and Peering*, Bizety, <https://www.bizety.com/what-are-data-center-pop-peering-and-ixp/> (last visited, Oct. 23, 2024).

cable landing station for a given submarine cable system.² A data center can serve as a cable landing station, and POPs and IXPs³ can be located within a cable landing station or data center.

7. For illustrative purposes, the image below depicts the key parts of a submarine cable system and depicts, in a basic manner, a submarine cable system.⁴ We understand that not every submarine cable system may replicate the image below. For example, there may be numerous cable landing stations located further inland from the coastal landing submarine cable station.⁵



² Over the last decade, technological changes and the manner in which the dry segment submarine cable components are sold has permitted “multiple cable systems owners to use different SLTE on their own fiber pairs.” See generally Ciena, *Open Submarine Cables Handbook*, https://www.ciena.com/data/assets/pdf_file/0013/29011/Open_Submarine_Cables_Ebook.pdf.

³ What is an Internet exchange point? | How do IXPs work?, Cloudflare, <https://www.cloudflare.com/learning/cdn/glossary/internet-exchange-point-ixp/> (last visited, Oct. 4, 2024), (“An Internet exchange point (IXP) is a physical location through which Internet infrastructure companies such as Internet Service Providers (ISPs) and [Content Delivery Networks or] CDNs connect with each other.”).

⁴ Jill C. Gallagher, Cong. Research Serv., R47237, *Undersea Telecommunication Cables: Technology Overview and Issues for Congress* (Sept. 13, 2022), https://www.everycrsreport.com/files/2022-09-13_R47237_a284971dfa65fa65bc26fe860ed7d5d2985d242.pdf. The graphic of the submarine cable system was prepared in a report by Congressional Research Service (CRS Report) for members and committees of Congress and is a work of the United States.

⁵ See *id.* at 5-6. Although not reflected in the graphic, the CRS Report recognizes that submarine terminal facilities could be “hundreds of miles from the seashore” with cable operators often using a longer fiber link with repeaters to connect to the cable landing station. *Id.*

APPENDIX C

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Federal Communications Commission (Commission) has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Notice of Proposed Rulemaking (*Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments specified on the first page of the *Notice*. The Commission will send a copy of the *Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objective of, the Proposed Rules

2. In the *Notice*, the Commission undertakes the first major comprehensive review of its submarine cable rules since it last adopted submarine cable rules in 2001.⁴ Over the last two decades, there have been substantial changes in technology, consumer expectations, international submarine cable traffic patterns, and investment in and construction of submarine cable infrastructure as well as significant evolution in national security and law enforcement threat environments. The proposed rules on which Commission seeks comment in this proceeding are intended for the Commission to determine how best to improve and streamline the submarine cable rules to facilitate deployment of submarine cables while at the same time ensuring the security, resilience, and protection of this critical infrastructure.

3. Specifically, in the *Notice*, the Commission takes a number of actions to (1) codify the Commission's legal jurisdiction and other legal requirements in the Commission's rules to provide regulatory certainty to submarine cable owners and operators; (2) improve the Commission's oversight of submarine cable landing licensees and information regarding a submarine cable system and its licensees during the 25-year license term; (3) update application requirements for national security purposes and ensuring the Commission has targeted and granular information regarding the ownership, control, and use of a submarine cable system; (4) adopt new compliance certifications to protect against national security, law enforcement, and other risks; (5) protect submarine cable infrastructure, including activities in coordination with its federal partners; (6) update submarine cable rules and certain targeted requirements to protect submarine cable systems from national security and law enforcement risks; (7) streamline procedures to expedite the submarine cable review processes; and (8) improve the quality of the Circuit Capacity data and facilitating the sharing of such information with other federal agencies. The Commission believes our proposed actions in this proceeding will improve Commission review and oversight of submarine cable landing licenses and ensure each licensee continues to serve the public interest in an evolving national security and law enforcement landscape.

B. Legal Basis

4. The proposed action is authorized pursuant to sections 1, 4(i), 4(j), 201-255, 303(r), 403, and 413 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 201-255, 303(r), 403, and 413, and the Cable Landing License Act of 1921, 47 U.S.C. §§ 34-39, and Executive Order No. 10530, section 5(a), (May 12, 1954) reprinted as amended in 3 U.S.C. § 301.

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. § 601 *et seq.*, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

² *Id.*

³ *Id.*

⁴ *See supra* at note 1.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

5. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁵ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁶ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁷ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁸

6. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as establishments “primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks.”⁹ Transmission facilities may be based on a single technology or a combination of technologies.¹⁰ Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as “wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services.”¹¹ By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.¹² Wired Telecommunications Carriers are also referred to as wireline carriers or fixed local service providers.¹³

7. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.¹⁴ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.¹⁵ Of this number, 2,964 firms operated

⁵ 5 U.S.C. § 603(b)(3).

⁶ 5 U.S.C. § 601(6).

⁷ 5 U.S.C. § 601(3). (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁸ 15 U.S.C. § 632.

⁹ See U.S. Census Bureau, *2017 NAICS Definition, “517311 Wired Telecommunications Carriers,”* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ Fixed Local Service Providers include the following types of providers: Incumbent Local Exchange Carriers (ILECs), Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs), Cable/Coax CLECs, Interconnected VOIP Providers, Non-Interconnected VOIP Providers, Shared-Tenant Service Providers, Audio Bridge Service Providers, and Other Local Service Providers. Local Resellers fall into another U.S. Census Bureau industry group and therefore data for these providers is not included in this industry.

¹⁴ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111)..

¹⁵ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIIRM, NAICS Code 517311,

(continued....)

with fewer than 250 employees.¹⁶ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 4,590 providers that reported they were engaged in the provision of fixed local services.¹⁷ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

8. *Competitive Local Exchange Carriers (CLECs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. Providers of these services include several types of competitive local exchange service providers.¹⁸ Wired Telecommunications Carriers¹⁹ is the closest industry with a SBA small business size standard. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.²⁰ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.²¹ Of this number, 2,964 firms operated with fewer than 250 employees.²² Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 3,378 providers that reported they were competitive local service providers.²³ Of these providers, the Commission estimates that 3,230 providers have 1,500 or fewer employees.²⁴ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

9. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA have developed a small business size standard specifically for Interexchange Carriers. Wired Telecommunications Carriers²⁵ is the closest industry with a SBA small business size standard.²⁶ The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as

<https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

¹⁶ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

¹⁷ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>. <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

¹⁸ Competitive Local Exchange Service Providers include the following types of providers: Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs), Cable/Coax CLECs, Interconnected VOIP Providers, Non-Interconnected VOIP Providers, Shared-Tenant Service Providers, Audio Bridge Service Providers, Local Resellers, and Other Local Service Providers.

¹⁹ See U.S. Census Bureau, *2017 NAICS Definition*, “517311 Wired Telecommunications Carriers,” <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

²⁰ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

²¹ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIRM, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIRM&hidePreview=false>.

²² *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

²³ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

²⁴ *Id.*

²⁵ See U.S. Census Bureau, *2017 NAICS Definition*, “517311 Wired Telecommunications Carriers,” <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

²⁶ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

small.²⁷ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.²⁸ Of this number, 2,964 firms operated with fewer than 250 employees.²⁹ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 127 providers that reported they were engaged in the provision of interexchange services. Of these providers, the Commission estimates that 109 providers have 1,500 or fewer employees.³⁰ Consequently, using the SBA's small business size standard, the Commission estimates that the majority of providers in this industry can be considered small entities.

10. *Wired Broadband Internet Access Service Providers (Wired ISPs).*³¹ Providers of wired broadband Internet access service include various types of providers except dial-up Internet access providers. Wireline service that terminates at an end user location or mobile device and enables the end user to receive information from and/or send information to the Internet at information transfer rates exceeding 200 kilobits per second (kbps) in at least one direction is classified as a broadband connection under the Commission's rules.³² Wired broadband Internet services fall in the Wired Telecommunications Carriers industry.³³ The SBA small business size standard for this industry classifies firms having 1,500 or fewer employees as small.³⁴ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.³⁵ Of this number, 2,964 firms operated with fewer than 250 employees.³⁶

11. *Internet Service Providers (Non-Broadband).* Internet access service providers using client-supplied telecommunications connections (e.g., dial-up ISPs) as well as VoIP service providers using client-supplied telecommunications connections fall in the industry classification of All Other Telecommunications.³⁷ The SBA small business size standard for this industry classifies firms with annual receipts of \$40 million or less as small.³⁸ For this industry, U.S. Census Bureau data for 2017

²⁷ *Id.*

²⁸ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePreview=false>.

²⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

³⁰ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

³¹ Formerly included in the scope of the Internet Service Providers (Broadband), Wired Telecommunications Carriers and All Other Telecommunications small entity industry descriptions.

³² See 47 CFR § 1.7001(a)(1).

³³ See U.S. Census Bureau, *2017 NAICS Definition, "517311 Wired Telecommunications Carriers,"* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

³⁴ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

³⁵ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

³⁶ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

³⁷ See U.S. Census Bureau, *2017 NAICS Definition, "517919 All Other Telecommunications,"* <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

³⁸ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

show that there were 1,079 firms in this industry that operated for the entire year.³⁹ Of those firms, 1,039 had revenue of less than \$25 million.⁴⁰ Consequently, under the SBA size standard a majority of firms in this industry can be considered small.

12. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe, at the outset, three broad groups of small entities that could be directly affected herein.⁴¹ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration's (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.⁴² These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.⁴³

13. Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."⁴⁴ The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.⁴⁵ Nationwide, for tax year 2022, there were approximately 530,109 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.⁴⁶

14. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."⁴⁷ U.S. Census Bureau data from the 2022 Census

³⁹ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, <https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁴⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

⁴¹ 5 U.S.C. § 601(3)-(6).

⁴² See SBA, Office of Advocacy, "What's New With Small Business?," <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf> (Mar. 2023).

⁴³ *Id.*

⁴⁴ 5 U.S.C. § 601(4).

⁴⁵ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations – Form 990-N (e-Postcard), "Who must file," <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

⁴⁶ See Exempt Organizations Business Master File Extract (EO BMF), "CSV Files by Region," <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2022 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (71,897), Region 2-Mid-Atlantic and Great Lakes Areas (197,296), and Region 3-Gulf Coast and Pacific Coast Areas (260,447) that includes the continental U.S., Alaska, and Hawaii. This data includes information for Puerto Rico (469).

⁴⁷ 5 U.S.C. § 601(5).

of Governments⁴⁸ indicate there were 90,837 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.⁴⁹ Of this number, there were 36,845 general purpose governments (county,⁵⁰ municipal, and town or township⁵¹) with populations of less than 50,000 and 11,879 special purpose governments (independent school districts⁵²) with enrollment populations of less than 50,000.⁵³ Accordingly, based on the 2022 U.S. Census of Governments data, we estimate that at least 48,724 entities fall into the category of “small governmental jurisdictions.”⁵⁴

15. Additionally, according to Commission data on Internet access services as of June 30, 2019, nationwide there were approximately 2,747 providers of connections over 200 kbps in at least one direction using various wireline technologies.⁵⁵ The Commission does not collect data on the number of employees for providers of these services, therefore, at this time we are not able to estimate the number of providers that would qualify as small under the SBA’s small business size standard. However, in light of the general data on fixed technology service providers in the Commission’s 2022 *Communications*

⁴⁸ 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/economic-census/year/2022/about.html>.

⁴⁹ See U.S. Census Bureau, 2022 Census of Governments – Organization Table 2. Local Governments by Type and State: 2022 [CG2200ORG02], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG2200ORG02 Table Notes_Local Governments by Type and State_2022.

⁵⁰ See *id.* at tbl. 5. County Governments by Population-Size Group and State: 2022 [CG2200ORG05], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 2,097 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

⁵¹ See *id.* at tbl. 6. Subcounty General-Purpose Governments by Population-Size Group and State: 2022 [CG2200ORG06], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 18,693 municipal and 16,055 town and township governments with populations less than 50,000.

⁵² See *id.* at tbl. 10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2022 [CG2200ORG10], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 11,879 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2022 [CG2200ORG04], CG2200ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2022.

⁵³ While the special purpose governments category also includes local special district governments, the 2022 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

⁵⁴ This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,845) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (11,879), from the 2022 Census of Governments - Organizations tbls. 5, 6 & 10.

⁵⁵ See Federal Communications Commission, Internet Access Services: Status as of June 30, 2019 at 27, Fig. 30 (*IAS Status 2019*), Industry Analysis Division, Office of Economics & Analytics (March 2022). The report can be accessed at <https://www.fcc.gov/economics-analytics/industry-analysis-division/iad-data-statistical-reports>. The technologies used by providers include aDSL, sDSL, Other Wireline, Cable Modem and FTTP). Other wireline includes: all copper-wire based technologies other than xDSL (such as Ethernet over copper, T-1/DS-1 and T3/DS-1) as well as power line technologies which are included in this category to maintain the confidentiality of the providers.

Marketplace Report,⁵⁶ we believe that the majority of wireline Internet access service providers can be considered small entities.

16. *All Other Telecommunications.* This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.⁵⁷ This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.⁵⁸ Providers of Internet services (e.g. dial-up ISPs) or Voice over Internet Protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry.⁵⁹ The SBA small business size standard for this industry classifies firms with annual receipts of \$40 million or less as small.⁶⁰ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.⁶¹ Of those firms, 1,039 had revenue of less than \$25 million.⁶² Based on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

17. *Internet Publishing and Broadcasting and Web Search Portals.* This industry comprises establishments primarily engaged in 1) publishing and/or broadcasting content on the Internet exclusively or 2) operating Web sites that use a search engine to generate and maintain extensive databases of Internet addresses and content in an easily searchable format (and known as Web search portals).⁶³ The publishing and broadcasting establishments in this industry do not provide traditional (non-Internet) versions of the content that they publish or broadcast.⁶⁴ They provide textual, audio, and/or video content of general or specific interest on the Internet exclusively.⁶⁵ Establishments known as web search portals often provide additional Internet services, such as e-mail, connections to other web sites, auctions, news, and other limited content, and serve as a home base for Internet users.⁶⁶ The SBA small business size standard for this industry classifies firms having 1,000 or fewer employees as small.⁶⁷ U.S. Census

⁵⁶ See *Communications Marketplace Report*, GN Docket No. 22-203, 2022 WL 18110553 at 10, paras. 26-27, Figs. II.A.5-7. (2022) (2022 *Communications Marketplace Report*).

⁵⁷ See U.S. Census Bureau, 2017 NAICS Definition, “517919 All Other Telecommunications,” <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

⁶¹ See U.S. Census Bureau, 2017 *Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, <https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

⁶² *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

⁶³ See U.S. Census Bureau, 2017 NAICS Definition, “519130 Internet Publishing and Broadcasting and Web Search Portals,” <https://www.census.gov/naics/?input=519130&year=2017&details=519130>.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ See 13 CFR § 121.201, NAICS Code 519130 (as of 10/1/22, NAICS Codes 516210 and 519290).

Bureau data for 2017 show that there were firms that 5,117 operated for the entire year.⁶⁸ Of this total, 5,002 firms operated with fewer than 250 employees.⁶⁹ Thus, under this size standard the majority of firms in this industry can be considered small.

18. *Computer Infrastructure Providers, Data Processing, Web Hosting, and Related Services.* This industry comprises establishments primarily engaged in providing computing infrastructure, data processing services, Web hosting services (except software publishing), and related services, including streaming support services (except streaming distribution services).⁷⁰ Cloud storage services, computer data storage services, computing platform infrastructure provision, Infrastructure as a service (IaaS), optical scanning services, and Platform as a service (PaaS) are included in this industry.⁷¹ Data processing establishments provide complete processing and specialized reports from data supplied by clients or provide automated data processing and data entry services.⁷² The SBA small business size standard for this industry classifies firms with annual receipts of \$40 million or less as small.⁷³ U.S. Census Bureau data for 2017 indicate that 9,058 firms in this industry were operational for the entire year.⁷⁴ Of this total, 8,345 firms had revenue of less than \$25 million.⁷⁵ Thus, under the SBA size standard the majority of firms in this industry are small.

19. Neither the Commission nor the SBA has developed a size standard specifically for applicants or licensees of submarine cable systems under the Cable Landing License Act. The proposals outlined in the *Notice* apply to entities applying for an initial cable landing license; applicants/cable landing licensees for modification, assignment, transfer of control, and renewal or extension of such license; cable landing licensees that will be required to submit periodic reports; and cable landing licensees and common carriers that are required to annually report their capacity on international cables pursuant to section 43.82 of the rules. The proposals, however, may affect other entities as well, including users of submarine cable service such as Internet Service Providers (ISPs) that lease capacity or purchase infeasible rights of use (IRUs) on submarine cable systems. The Commission, therefore, encourages these entities to comment on the proposals in the *Notice*.

⁶⁸ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 519130, <https://data.census.gov/cedsci/table?y=2017&n=519130&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁶⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁷⁰ See U.S. Census Bureau, *2022 NAICS Definition, "Computer Infrastructure Providers, Data Processing, Web Hosting, and Related Services,"* <https://www.census.gov/naics/?input=518210&year=2022&details=518210>, formerly "518210 Data Processing, Hosting, and Related Services," <https://www.census.gov/naics/?input=518210&year=2017&details=518210>.

⁷¹ *Id.*

⁷² *Id.*

⁷³ See 13 CFR § 121.201, NAICS Code 518210.

⁷⁴ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREFVFI, NAICS Code 518210, <https://data.census.gov/cedsci/table?y=2017&n=518210&tid=ECNSIZE2017.EC1700SIZEREFVFI&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁷⁵ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

20. The proposals are intended to improve and streamline the submarine cable rules to facilitate efficient deployment of submarine cables while at the same time ensuring the security, resilience, and protection of this critical infrastructure. The Commission is not certain, however, as to the number of small entities that will be affected by the proposals. We base our cost estimate on the Commission's records, as described below, that indicate there are currently 84 submarine cable systems owned by approximately 145 licensees. In 2022, of all entities that filed Section 43.82 Circuit Capacity Reports, 43 were Submarine Cable Operator Reports and 102 were Submarine Cable Capacity Holder Reports. Based on this information, we estimate that there could be 50 or fewer applicants that might be a small entity.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements for Small Entities

21. In the *Notice*, the rules that the Commission proposes would impose new and/or additional reporting, recordkeeping, and other compliance obligations on small and other entities. The Commission's comprehensive review of its submarine cable rules identified a need to update the existing rules to advance U.S. national security, law enforcement, foreign policy, and trade policy interests. These proposals are designed to update and formalize the submarine cable rules to better protect submarine cables and provide the Commission with important information on a more regular and timely basis for the Commission to better identify and address national security, law enforcement, and other risks.

22. The scope of the proposals in the *Notice* is broad and wide ranging. We propose to codify in the rules the Commission's longstanding practices and legal requirements under the Cable Landing License Act that are applicable to small and other applicants seeking a submarine cable landing license or modification, assignment, transfer of control, or renewal or extension of their license, including proposed rules that would require these applicants, among other things, to comply with a general license requirement, to demonstrate how grant of an application will serve the public interest, convenience and necessity, and to certify whether or not they are in compliance with the Cable Landing License Act, the Communications Act, the Commission's rules, and other laws. We propose and seek comment on adopting a procedural framework that the Commission may use to consider whether withholding a grant of a cable landing license or revocation of a cable landing license is warranted. We also propose to adopt a three-year periodic reporting requirement for cable landing licenses, which would require small and other licensees to provide certain information to the Commission every three years. The Commission seeks comment on shortening the current 25-year submarine cable license term or adopting a shorter license term in combination with periodic reporting.⁷⁶

23. Our proposed three-year periodic reporting requirement would require licensees to provide updated information, including (1) information that is current as of thirty (30) days prior to the date of the submission of the report; (2) information concerning the submarine cable infrastructure; (3) information about the capacity services they currently offer or plan to offer through the submarine cable system; (4) certification as to whether or not they are in compliance with the Cable Landing License Act, the Communications Act, the Commission's rules, and other laws; (5) cybersecurity certifications, including a certification that they have created, updated, and implemented cybersecurity risk management plans; (6) certification that they have not purchased and/or used, and will not purchase and/or use, equipment or services produced or provided by entities (and their subsidiaries and affiliates) identified on the Commission's "Covered List"; (7) whether or not they use and/or will use foreign-owned MNSPs in the operation of the submarine cable; and (8) updated licensee information and points of contact. The Commission seeks comment on whether, as part of the periodic reporting requirement, cable landing licensees should provide (1) information identifying any individuals or entities that hold an ownership interest in the submarine cable system that does not meet the threshold eligibility requirements requiring them to be licensees of the cable; (2) updated ownership information; and (3) other information.

⁷⁶ See *supra* at para. 1.

24. As part of the licensing application process, the Commission proposes several new compliance certifications for small and other applicants that would trigger reporting and recordkeeping requirements, including (1) certification that an applicant is in compliance with the Commission's rules and regulations, the Communications Act of 1934, as amended (the Act),⁷⁷ and all other applicable laws; (2) certification that an applicant has created, updated, and implemented cybersecurity risk management plans as well as certification that the applicant take reasonable measures to protect the confidentiality, integrity, and availability of their systems and services that could affect their provision of communications services; and (3) as a condition of the potential grant of their application, a certification that the submarine cable system will not use covered equipment or services identified on the Commission's "Covered List" that the Commission maintains pursuant to the Secure and Trusted Communications Networks Act. The Commission also proposes that all submarine cable landing licensees certify as to whether or not they use, for the relevant submarine cable system, equipment or services identified on the "Covered List" within 60 days of the release of any Report and Order in this proceeding. Additionally, the Commission proposes to amend its rules by adding a new routine condition and a certification requirement in the proposed periodic reports prohibiting licensees from using, for the relevant submarine cable system, equipment or services identified on the "Covered List." The Commission also seeks comment on whether to require a certification by all applicants/licensees that they have the ability to promptly and effectively interrupt, in whole or in part, traffic to and from the United States on the submarine cable system. The Commission proposes to require applicants and licensees to certify in the applications and the periodic reports whether or not they are in compliance with the Cable Landing License Act, the Communications Act, the Commission's rules, and other laws.

25. The cybersecurity certification will require small and other applicants and licensees to describe how the applicant or licensee employs its organizational resources and processes to ensure the confidentiality, integrity, and availability of its systems and services, and must be signed by an applicant's Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Technology Officer (CTO), or a similarly situated senior officer responsible for governance of the organization's security practices.⁷⁸ Small and other applicants and licensees will be allowed to structure their cybersecurity risk management plan in a manner that best fits its organization, as long as the plan demonstrates that the applicant and licensee is taking affirmative steps to analyze security risks and improve its security posture. Further, small and other applicants and licensees will not be required to submit their cybersecurity risk management plans but instead, if adopted, must maintain data and records related to their cybersecurity risk management plans for two years from the submission of the related risk management plan certification to the Commission, including any information that is necessary to show how the cybersecurity risk management plan is implemented. However, upon Commission request, small and other licensees must file their cybersecurity risk management plan with the Commission.

26. Other reporting requirements in the *Notice* the Commission targets to protect submarine cable systems from national security and law enforcement risks includes our (1) proposal whether to require applicants to disclose their use of foreign-owned MNSPs and if so, it will answer the Standard Questions and those applications would be routinely referred to the relevant Executive Branch agencies;⁷⁹ (2) proposal to require all applicants to provide a list of the anticipated addresses or physical locations for the Network Operations Center (NOC) on a presumptively confidential basis in their applications and periodic reports; and (3) our request for comments on whether to require applicants to submit basic information about an applicant's lessors of submarine cable landing stations and/or data centers housing hardware. We also propose to adopt a presumption that any entity whose application for international section 214 authority that was previously denied or whose domestic or international section 214 authority

⁷⁷ 47 U.S.C. § 151 *et seq.*

⁷⁸ See *supra* at para. 111.

⁷⁹ See *supra* para. 1.

was previously revoked in view of national security and law enforcement concerns, and its current and future affiliates and subsidiaries, shall not be qualified to become a new submarine cable landing licensee. Additionally, the Commission proposes to expand the information reporting requirements under section 1.767(a)(4) of our rules to require small and other applicants for a cable landing license or modification, assignment, transfer of control, or renewal or extension of a license to provide additional detailed information concerning the submarine cable infrastructure.

27. One of the Commission's goal in this proceeding is also to improve the collection of circuit capacity data which includes data from cable landing licensees and common carriers who must report their capacity on submarine cables between the United States and any foreign point as of December 31 of the current reporting period.⁸⁰ The Commission's annual capacity holder data indicates that there is substantial capacity leased or purchased from cable landing licensees and common carriers that is not accounted for in the circuit capacity data collected by the Commission,⁸¹ because entities that hold capacity on a particular cable in such arrangements are not required to report their capacity. To address this information gap, the Commission seeks comments on whether to require all entities that hold capacity on cables landing in the United States to file capacity holder reports, and in the alternative, or additionally, should cable landing licensees and common carriers be required to include in their annual capacity holder reports a list of customers to whom they sold or leased capacity as of December 31 of the reporting period. Given that all Title II common carriers are required to file annual circuit capacity reports under section 43.82(a)(2) of the rules, the Commission seeks comment generally on whether the Commission should consider retaining or removing the waiver of section 43.82 of the rules as applied to BIAS providers, subject to judicial review of that *2024 Open Internet Order*.⁸²

28. The Commission includes cost estimates in the *Notice* that estimate of all of the expected ongoing costs the industry would incur if the proposed rules were adopted. Annually, the Commission estimates the annual aggregate cost of implementation of the proposed rules should not exceed approximately \$1.32 million for the 84 submarine cable systems currently owned by approximately 145 licensees.⁸³ At this time however, the record does not include sufficient cost information to allow the Commission to quantify the costs of compliance for small entities, including whether it will be necessary for small entities to hire professionals to comply with the proposed rules if adopted.

29. The Commission also estimates that every year, there are approximately 8 cable landing license applications for new cables, and 23 applications every year for modification, assignment, transfer, or control.⁸⁴ We therefore estimate that 35 applications are submitted annually.⁸⁵ Our cost estimate assumes that approximately 105 licensees will undergo the application process each year for the estimated 35 cable systems. We base this on the conservative assumption that each submarine cable landing license application will have an average of three licensees. We calculate that the costs to applicants related to applying for licenses would include, among other tasks, providing responses to standard questions, reports on current and future service offerings, reports on foreign-owned MNSPs and information pertaining to reportable foreign ownership. Additionally, the Commission calculates applicants will incur additional costs associated with our proposal for them to certify compliance to baseline cybersecurity standards, including implementing the cybersecurity risk management plans. We anticipate the amount of work associated with preparing a new license application likely will be similar to the work associated

⁸⁰ See *supra* section III.D.

⁸¹ *Id.*

⁸² See *supra* section III.D.

⁸³ See *supra* section III.E.

⁸⁴ See *id.*

⁸⁵ *Id.*

with preparing a renewal application. Licensees would also be required to provide updated information to the Commission every three years.

30. Preparation of a new or renewal application for each submarine cable system by an average of three licensees will require 80 hours of work by attorneys and 80 hours of work by support staff, at a total cost of \$27,200 per application.⁸⁶ To this cost we add the cost of the cybersecurity certification required for all new and renewal application, and which we estimate to be \$9,100. We also estimate that the 3-year periodic reporting will require twelve hours of attorney and twelve hours of support staff time, at a cost of \$4,100, which we multiply by one-third to calculate the annual estimated cost of \$1,370. We then multiply the sum of these costs by 35 resulting in a total estimate of approximately \$1.32 million per year for the 25-year licensing period, as a baseline estimate of the annual application and license review costs. We anticipate that later rounds of the three-year periodic reporting review will cause significantly lower costs, since much of the information will not have changed between reviews. The Commission seeks comment on these cost estimates in the *Notice*, and in particular on the costs (and burdens) that may be incurred by small entities. Small entities are encouraged to bring to the Commission's attention any specific concerns they may have with the cost estimate and the proposals outlined in the *Notice*. In addition, we seek comment on our tentative conclusion that the benefits of the proposed update and modernization of the submarine cable licensing and oversight process which includes the safety and reliability of the submarine cable infrastructure, and the protection of national security and law enforcement interests – will far exceed these estimated costs.

31. We are especially interested in estimates that address alternative means to provide the same benefits, in terms of advancing national security, law enforcement, foreign policy, and trade policy interests, at lower costs. The Commission expects the information we receive in comments including, where requested, cost and benefit analyses, to help identify and evaluate relevant compliance matters for small entities, including compliance costs and other burdens that may result if the proposals and associated requirements discussed in the *Notice* are adopted.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities and Significant Alternatives Considered

32. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”⁸⁷

33. As described in the *Notice*, we consider and seek comment on the potential impact and burdens our proposed rules would generally have on submarine cable applicants, licensees, and common carriers that hold capacity on U.S.-international cables, some of whom may be small entities. As part of our proposals, we discuss alternative options that could potentially reduce the impacts and burdens with respect to small entities and more generally for entities subject to the Commission's submarine cable rules.

34. Notably, we propose to require licensees to provide in periodic reports certain information to the Commission every three years. In discussing this proposal, we expressly solicit information on the impact of our proposed three-year periodic reporting requirement on small entities, and we consider and discuss alternatives. To decrease some of the administrative burden of this requirement for such entities, we propose that any new periodic report would reflect only updated

⁸⁶ *Id.*

⁸⁷ 5 U.S.C. § 603(c)(1)-(c)(4).

information since the last report three years prior or other substantive filing, which may be the initial license application, a modification, a transfer of control, or an assignment. If there have not been any changes since a licensee's last periodic report or other substantive filing, we ask whether we should only require a licensee provide a periodic statement that its license remains in compliance with the Commission's rules and with its most recent periodic report, or other substantive filing. We also propose that each periodic report would be submitted through a filing in the Commission's existing International Communications Filing System (ICFS), or any successor system, minimizing administrative burdens associated with paper filings. Along these lines, we propose to adopt a schedule that prioritizes the filing and review of reports based on whether the cable's licensee(s) currently have reportable foreign ownership and the length of the time since the Commission's most recent review of the authorization. The proposal structures the timing of the submission of periodic reports to minimize burdens on licensees, the Commission and the Executive branch staff while ensuring that the Commission receives the information it needs to protect this critical infrastructure. Submarine cable systems would be assigned to one of four categories with each category having a different submission deadline – submission deadlines for each category would be separated by six months.

35. We also consider the burdens on small entities in seeking comment on whether shortening the current 25-year submarine cable license term or adopting a shorter license term in combination with periodic reporting would similarly account for evolving national security, law enforcement, and other risks. In this regard, to ensure we address burdens on licensees, including small entities, we seek comment on an appropriate time frame to better account for evolving risks while minimizing burdens on licensees, recognizing the significant capital expenditures and long lead times in planning and constructing submarine cable systems. We also seek comment on the economic impact of shortening the 25-year license term. We ask whether a 5-year or 10-year license term would alter investment incentives in new submarine cable infrastructure and if a shortened license terms would impact the upgradation and maintenance of existing submarine cable systems. We identify various licensing term alternatives based on approaches the Commission has adopted for other industry licensees. For example, for Miscellaneous Wireless Communications Services (WCS), the license term varies according to spectrum band, resulting in different license periods such as 10, 12, or 15 years.⁸⁸ In the satellite industry our licensing terms likewise vary. Space stations licensed under Part 25 of the Commission's rules have a 15-year license term, small satellites have a 6-year license term, and certain SDARS and DBS space stations have an 8-year license term.⁸⁹ In the broadcasting industry, each license granted for the operation of a broadcasting station is limited to a term not to exceed eight years.⁹⁰ Additionally, more recently in the *Evolving Risks NPRM*, the Commission tentatively concluded that a 10-year timeframe is reasonable under the proposed renewal framework for structuring a formalized and systemic reassessment of carriers' international section 214 authority.⁹¹ We specifically request that commenters address the burdens that will be placed on the licensees based on the length of the license term and identify the costs/benefits overall and impact, if any, on small businesses.

36. We also discussed the potential impact on small entities with regard to our consideration of who must become a submarine cable applicant and licensee. In the *Notice*, we seek comment on whether we should retain the requirement that an entity that owns or controls a 5% or greater interest in the cable and uses the U.S. points of the cable system must become an applicant and licensee should be

⁸⁸ See 47 CFR § 27.13.

⁸⁹ 47 CFR § 25.121(a). For geostationary space stations issued an initial license term for a period of 15 years, licensees may apply for a modification to extend the license term in increments of five years or less. 47 CFR § 25.121(f)(1).

⁹⁰ 47 U.S.C. § 307(c); see, e.g., 47 CFR §§ 73.733, 73.1020(a), 74.15(d), 74.15(e); see generally *Broadcast License Terms*; 1997 *Broadcast License Terms Order*.

⁹¹ See *Evolving Risks NPRM*, 38 FCC Rcd at 4369-70, para. 45.

retained or changed. We explained that the 5% ownership threshold was created in part to not unduly burden small carriers or investors that lacked the ability to significantly affect the operation of a cable system, among others. In this regard, we ask whether the 5% threshold is reasonable in today's national security environment. We further seek comment on whether we should instead require any entity that owns any interest in the cable to become a licensee. We also consider and seek comment generally on whether to include any entity that has capacity on the submarine cable as an applicant/licensee, and how such a requirement would affect small entities. Relatedly, we seek comment on whether holding capacity on the cable system should be defined to include the leasing, purchasing, selling, buying, or swapping of a fiber (spectrum, capacity, partial fiber pair, or a full fiber pair, among others) for transmission of voice, data, and Internet over the cable system to interconnect with a U.S. terrestrial network.

37. Consistent with our overarching goal to promote and protect the security of the submarine cable network and infrastructure, we propose to require all applicants for cable landing licenses and modification, assignment, transfer of control, renewal, and licensees filing their three-year periodic reports to certify in the application or report that they have created, updated, and implemented cybersecurity risk management plans. Recognizing the importance of cybersecurity generally and the potential impact of cybersecurity related requirements on small entities, we propose that each applicant or licensee have flexibility to structure their cybersecurity risk management plan that is tailored to its organization, provided that the plan demonstrates that the applicant or licensee is taking affirmative steps to analyze security risks and improve its security posture. This flexibility should reduce costs for small entities. Further, we state that while we believe there are many ways that an applicant or licensee may satisfy this requirement, we propose that they could successfully demonstrate compliance with this proposed requirement by following an established risk management framework, such as the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF).³⁰⁶ The NIST CSF is designed to be scalable and adaptable to the needs and capabilities of companies both large and small, is well understood by industry, and is flexible.

38. The Commission also proposes not to require small and other entities to submit or file their cybersecurity risk management plans at a designated time each year. Instead, we propose that applicants and licensees submit cybersecurity management plans to the Commission upon request. Additionally, we propose that applicants and licensees must preserve data and records related to their cybersecurity risk management plans, including any information that is necessary to show how the cybersecurity risk management plan is implemented, for two years from the submission of the related risk management plan certification to the Commission.

39. In addition, we highlight the availability of many free and low-cost resources to help small entities identify and implement best practices and improve their security over time without requiring small entities to hire outside experts. NIST publishes guidance that could assist organizations with measuring their safeguards, including how to address ransomware, malware, malicious code, spyware, distributed denial of service (DDoS) attacks, phishing, securing networks, and threats to mobile phones.⁹² CISA offers vulnerability scanning at no cost for critical infrastructure, which includes communications providers, and also provides CPG Assessment Training with regional cybersecurity experts that will help communications providers better understand CPGs and the cybersecurity risk assessment process.⁹³ We assume that these resources, along with any number of other publicly available resources that we have not specifically identified or that may arise in the future, will assist applicants' and licensees' employees and their existing technical contractors in identifying and implementing appropriate security controls without needing specialized cybersecurity expertise. Thus, the Commission believes our

⁹² See NIST, *Cybersecurity Risks* (Nov. 3, 2023), <https://www.nist.gov/itl/smallbusinesscyber/cybersecurity-basics/cybersecurity-risks>.

⁹³ CISA, *Cybersecurity Performance Goals (CPG) Assessment Training*, <https://www.cisa.gov/resources-tools/training/cybersecurity-performance-goals-cpg-assessment-training> (last visited Oct. 22, 2024).

proposals to the submarine cable rules to protect national security and law enforcement interests as well as our streamlining proposals can be implemented by small entities without being overly burdensome.

40. To assist in the Commission's evaluation of the economic impact on small entities, as a result of actions that have been proposed in the *Notice*, and to better explore options and alternatives, the Commission has sought comment from all interested parties. In particular, the Commission seeks comment on whether, and how, any of the burdens associated the filing, recordkeeping and reporting requirements described above and in the *Notice* can be minimized for small entities. Additionally, the Commission seeks comment on whether the costs associated with our proposed requirements can be alleviated for small entities. The Commission expects to more fully consider the economic impact and alternatives for small entities following the review of comments filed in response to the *Notice*.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

41. None.

APPENDIX D

Three-Year Periodic Reporting Prioritization Schedule

Category	Submarine Cable Name	Current License Number
1	Americas-1 Cable System	SCL-LIC-20190326-00009
1	Asia America Gateway (AAG)	SCL-LIC-20070824-00015
1	FASTER Cable System	SCL-LIC-20150626-00015
1	Japan-U.S. Cable Network	SCL-MOD-20130227-00002
1	JUPITER	SCL-LIC-20180517-00012
1	New Cross-Pacific (NCP)	SCL-LIC-20151104-00029
1	PPC-1	SCL-MOD-20180803-00030
1	Trans-Pacific Express (TPE) Cable Network	SCL-MOD-20080714-00012
2	AmeriCan-1	SCL-MOD-19990901-00016
2	Apollo Cable	SCL-MOD-20020412-00031
2	Atisa	SCL-LIC-20160314-00008
2	Australia-Japan Cable	SCL-MOD-20020415-00050
2	Bahamas Internet Cable System (BICS)	SCL-MOD-20020925-00094
2	CFX-1 Cable System (CFX-1)	SCL-LIC-20070516-00008
2	Crosslake Fibre	SCL-LIC-20180216-00002
2	Gemini Bermuda System	SCL-LIC-20070925-00017
2	Global Caribbean Network (GCN)	SCL-MOD-20140923-00009
2	Japan-Guam-Australia (JGA) North System (JGA North)	SCL-LIC-20181106-00035
2	Japan-Guam-Australia (JGA) South System (JGA South)	SCL-LIC-20190502-00016
2	Honotua Cable System	SCL-MOD-20180410-00007
2	Monet Cable System	SCL-LIC-20150408-00008
2	Samoa American Samoa Cable System	SCL-LIC-20080814-00016
2	Seabras-1	SCL-LIC-20160115-00002
2	SMPR-1	SCL-LIC-20031209-00033
2	Southern Cross NEXT	SCL-LIC-20190809-00026
2	Telstra Endeavour	SCL-LIC-20070621-00009
2	TGN Atlantic	SCL-MOD-20060111-00001
2	TGN Pacific	SCL-MOD-20060111-00002
2	Unity Cable System	SCL-LIC-20080516-00010
3	AEConnect-1 Cable System	SCL-MOD-20210105-00001
3	América Móvil Submarine Cable System (AMX1)	SCL-LIC-20120330-00002
3	Americas II	SCL-MOD-20191202-00038
3	Amitié	SCL-LIC-20200807-00036
3	Antilles Crossing	SCL-LIC-20031125-00032
3	ARCOS-1	SCL-MOD-20020701-00056
3	Atlantic Crossing 1 (AC-1)	SCL-LIC-20230222-00005
3	BAHAMAS II	SCL-LIC-20220422-00016
3	BRUSA	SCL-LIC-20160330-00011
3	Columbus II	SCL-MOD-20210702-00030

Category	Submarine Cable Name	Current License Number
3	Carnival Submarine Networks-1 (CSN-1)	SCL-LIC-20230921-00026
3	FLAG Atlantic-1	SCL-MOD-20040211-00006
3	GlobeNet	SCL-MOD-20121003-00012
3	GTT Atlantic Cable System	SCL-MOD-20020412-00023
3	Gulf of Mexico	SCL-LIC-20061115-00010
3	Havfrue	SCL-LIC-20180511-00010
3	Hawaii Interisland Cable System (HICS)	SCL-LIC-20240320-00009
3	Hawaii Island Fiber Network (HIFN)	SCL-LIC-20220111-00003
3	Hawaiki Cable System	SCL-LIC-20160906-00019
3	JUNO	SCL-LIC-20221208-00037
3	MAREA	SCL-LIC-20160525-00012
3	Maya-1	SCL-MOD-20110928-00028
3	Mid-Atlantic Crossing (MAC)	SCL-MOD-20020415-00035
3	MTC Interisland (MICS)	SCL-LIC-20211013-00048
3	Neutral Networks Laredo Cable	SCL-LIC-20210930-00042
3	Pacific Caribbean Cable System (PCCS)	SCL-LIC-20130122-00001
3	Pacific Crossing-1 (PC-1)	SCL-MOD-20020807-00086
3	Pan American Crossing (PAC)	SCL-MOD-20110524-00020
3	Paniolo Cable System	SCL-LIC-20070223-00003
3	Quintillion	SCL-LIC-20160325-00009
3	South America-1 (SA-1)	SCL-MOD-20190826-00028
3	South American Crossing (SAC)	SCL-MOD-20150129-00002
3	Southeast Asia-US (SEA-US)	SCL-LIC-20150626-00016
3	Southern Cross 1&2	SCL-LIC-20231117-00038
3	Taino-Carib Cable System	SCL-LIC-20180702-00019
3	Yellow	SCL-MOD-20020415-00026
4	AKORN	SCL-LIC-20071025-00018
4	Airraq	SCL-MOD-20240515-00013
4	Alaska United Southeast (AU-SE)	SCL-MOD-20200708-00025
4	Alaska United West	SCL-LIC-20020522-00047
4	AU-Aleutian	SCL-MOD-20230803-00022
4	Cook Inlet Segment of TERRA-SW	SCL-LIC-20100914-00021
4	Curie	SCL-MOD-20191223-00039
4	Dunant	SCL-LIC-20190410-00015
4	Echo	SCL-LIC-20210329-00020
4	Firmina	SCL-LIC-20220422-00015
4	GOKI Cable Network	SCL-LIC-20110329-00009
4	Grace Hopper	SCL-LIC-20210225-00014
4	HANTRUI	SCL-LIC-20090302-00005
4	Ketchikan Submarine Fiber Cable System	SCL-LIC-20190718-00020
4	Kodiak-Kenai Fiber Link	SCL-LIC-20060413-00004
4	Pacific Light Cable Network (PLCN)	SCL-LIC-20200827-00038
4	St. Thomas-St. Croix	SCL-LIC-20220114-00004

Category	Submarine Cable Name	Current License Number
4	St. Thomas-St. Croix Submarine Cable System	SCL-LIC-20121221-00015
4	VILink Cable	SCL-LIC-20180417-00008

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Review of Submarine Cable Landing License Rules and Procedures to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks*, OI Docket No. 24-523; *Amendment of the Schedule of Application Fees Set Forth in Sections 1.1102 through 1.1109 of the Commission's Rules*, MD Docket No. 24-524, Notice of Proposed Rulemaking (November 21, 2024)

You may not realize it, but modern life depends on submarine cables. They are buried in the deep, dark, depths of the ocean. They are so easy to miss. But more than 95 percent of international internet traffic travels over these facilities, including financial transactions that add up to more than a trillion dollars a day. With the expansion of data centers, rise of cloud computing, and increasing bandwidth demands of new large language models, these facilities are poised to grow even more critical.

There are 84 submarine cables licensed in the United States. They are now a vital part of our national and economic security. But despite the increase in their importance and advancements in technology, our practices overseeing these facilities have not changed much during the last two decades.

At the Federal Communications Commission, I believe it's time to fix this. I am not the only one who feels this way. Last month, Senators Murphy, Young, Kaine, Rubio, Shaheen, Ricketts, Shatz, and Sullivan, all members of the Foreign Relations Committee, wrote the President expressing concern about the security of the global network of undersea communications.

They are right. Last year, Taiwan accused two Chinese vessels of cutting the only two cables that support internet access on the Matsu Islands. More than 14,000 people were stuck in digital darkness for six weeks. Cables in the Baltic Sea used by Germany, Sweden, Estonia, Lithuania, and Finland have been tampered with multiple times, including as recently as this week. An investigation of an earlier incident suggested Russian ships in the area. This year, Houthi attacks in the Red Sea may have been responsible for the cut of three cables that provide internet service to Europe and Asia. While the details of these incidents remain in dispute, what is clear is that these facilities—with locations that are openly published to prevent damage—are becoming a target. Add to this vulnerabilities that come from trawling anchors, aquatic life, and climate disturbances and it is clear we need to do more to protect these facilities.

Efforts are already underway. The Quad partnership of Australia, India, Japan, and the United States has a joint initiative to bolster the security and resilience of undersea communications. It includes sharing information, increasing repair capability, and developing common standards to protect against physical threats and cyber disturbances. At the gathering of the United Nations General Assembly in September, over 30 countries joined the United States in support of the New York Principles on Undersea Cables, which detail shared approaches for the security, interoperability, sustainability and maintenance of submarine cable infrastructure.

Now it is time for the FCC to step up because we have a role, too. Under the Cable Landing License Act, all submarine cable operators need a license from this agency. Integrating these facilities with communications networks requires review under the Communications Act. In addition, foreign ownership interests may lead us to refer a license application to the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector.

With this legal framework in the background, for the first time in more than two decades we propose a comprehensive review of our submarine cable policies. It is designed to improve and

streamline our rules to encourage the deployment of these facilities while at the same time supporting the security, resilience, and protection of this infrastructure in a modern way.

As an example, consider that under our current practice a cable landing license is granted for 25 years without requiring any update about who owns and controls the facility. That is a quarter of a century during which information about foreign investment and interconnection essential for the secure flow of data traffic is not updated. That is too long. We propose an update every three years. We do this so that this agency has the information it needs to timely monitor and continually assess any risks to our national and economic security.

We also propose to keep foreign companies that have been denied licenses under the Communications Act on national security grounds from obtaining submarine cable landing licenses. At the same time, we propose to bar the use of equipment or services from the FCC Covered List in these licensed facilities.

As this effort proceeds, we need to recognize that a global challenge like this needs global solutions. We will need to take our approach to multistakeholder communities and engage others. For this reason, I am gratified that we have the Office of International Affairs. Since it was launched a little over a year and a half ago, it has been working hard on security matters and forging global partnerships that are essential. I want to thank them and their colleagues across the agency for their input here, including Stacey Ashton, Denise Coca, Kate Collins, Jodi Cooper, Francis Gutierrez, Desiree Hanssen, Jacqueline Jedrych, Gabrielle Kim, David Krech, Joseph Meyer, Janice Shields, Thomas Sullivan, Svantje Swider, Troy Tanner, and Lisa Williams from the Office of International Affairs; Mohammad Ahmad, Alec MacDonell, Giulia McHenry, Lester Roberts, Steven Rosenberg, Michelle Schaefer, Daniel Shiman, Emily Talaga, and Aleks Yankelevich from the Office of Economics and Analytics; Susan Aaron, Michelle Ellison, Andrea Kelly, Douglas Klein, David Konczal, Wade Lindsay, Erika Olsen, Joel Rabinovitz, Royce Sherlock, Anjali Singh, Elliot Tarloff, and Chin Yoo from the Office of General Counsel; Michael Antonino, Kenneth Carlberg, Deb Jordan, Leon Kenworthy, Nicole McGinnis, Zenji Nakazawa, Austin Randazzo, Jim Schlichting, and James Wiley from the Public Safety and Homeland Security Bureau; Ira Keltz and Dana Shaffer from the Office of Engineering and Technology; Trent Harkrader, Jodie May, and Terri Natoli from the Wireline Competition Bureau; Hunter Deeley, Loyaan Egal, Peter Hyun, and William Knowles-Kellett from the Enforcement Bureau; Adrienne McNeil and Merissa Velez from the Space Bureau; Jeffrey Tignor and Chana Wilkerson from the Office of Communications Business Opportunities; and Dan Daily, Roland Helvajian, and Dylan Johnson from the Office of the Managing Director.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Review of Submarine Cable Landing License Rules and Procedures to Assess Evolving National Security, Law Enforcement, Foreign Policy, and Trade Policy Risks*, OI Docket No. 24-523; *Amendment of the Schedule of Application Fees Set Forth in Sections 1.1102 through 1.1109 of the Commission's Rules*, MD Docket No. 24-524, Notice of Proposed Rulemaking (November 21, 2024)

184 years ago, in 1840, Samuel Morse was the first to suggest linking the United States and Europe via underwater cable. It took another 18 years before his vision was realized, and the first message was successfully transmitted under the Atlantic. People were elated—Tiffany & Co, the famed jeweler, purchased the remaining cable and sold souvenirs to a jubilant public.

In our modern world, the public rarely pays attention to submarine cable deployments and landings. But the Commission regulates this closely, and for good reason. These cables, crisscrossing under our oceans and seas, are essential. They carry nearly all global internet traffic, over 98% to be more precise.¹ They tie together computers and networks that make up the Internet, facilitate cloud computing, and deliver data on demand. These cables are vital, supporting American innovation and fueling significant aspects of our economy.

For these same reasons, submarine cables face security threats. In 2020, I first called out the need for additional work and attention on undersea cables, and laid out the case for us to better secure these cables from bad actors who seek to block, intercept, or re-route internet traffic, or sabotage the cables altogether.² This risk isn't theoretical. This past Sunday, a subsea cable between Lithuania and Sweden was cut, and just this Tuesday a submarine cable connecting Finland and Germany was also severed.³ As reported, these actions appear to be purposeful as part of a "hybrid" campaign that combines attacks on physical infrastructure along with cyberattacks.⁴

Beyond physical submarine cable security, I've long called for the Commission to take a closer look at who owns these cables and what equipment powers them.⁵ I'm pleased that we will do so. While many of the world's companies that build submarine cables are based in the United States and likeminded nations, others are owned and operated by entities located in or controlled by adversarial countries, such as China. China has made no secret of its goal to control the market, and therefore the data that flows throughout the world as part of its Digital Silk Road initiative.⁶ We cannot let that happen.

Four years ago I wrote: "Given that the issues surrounding [undersea] cables will only become more complex and important to our national security, we must take a close look at whether our regulatory

¹ Daniel Runde, Erin Murphy, and Thomas Bryja, *Safeguarding Subsea Cables*, Center for Strategic and International Studies, August 2024, available at https://csis-website-prod.s3.amazonaws.com/s3fs-public/2024-08/240816_Runde_Subsea_Cables.pdf?VersionId=hn4OBavGOF.c3WSZD9uJo6mGJviXZJWh&ref=broadbandbr eakfast.com (*Safeguarding Subsea Cables*).

² *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, IB Docket No. 16-155, Report and Order, 35 FCC Rcd 10927, Starks Statement at 1 (2020) (*Starks 2020 Statement*).

³ Kate Brady, Leo Sands, Ellen Francis, *Germany suspects sabotage after undersea internet cables are severed*, Washington Post, Nov. 19, 2024, available at <https://www.washingtonpost.com/world/2024/11/19/germany-undersea-internet-cables-cut-baltic/>.

⁴ *Id.*

⁵ *Starks 2020 Statement* at 2.

⁶ See *Safeguarding Subsea Cables*.

authority is sufficient to meet the moment.”⁷ I’m glad we answer that call today. I strongly support the Commission’s *Notice* to update and modernize our submarine cable rules for the first time since 2001.

By codifying our jurisdiction and legal requirements, improving Commission oversight of submarine cables, and collecting targeted information about the cables for national security purposes, we address critical challenges. The ultimate goal here will be deployment of faster, more advanced, and more secure cables to power our world, including next-generation technologies such as AI.

I thank the Chairwoman for her leadership, and for agreeing to work with me to ensure that we develop a record that I hope will support both the deployment and security of submarine cables. To that end, we now ask whether we should streamline domestic cable deployment with no nexus to a country of concern. We ask for information about both the capital investment and lifespan of subsea cable fiber optic technology to help inform how we will conduct reviews of licenses, and their length. We seek comment on limiting submarine cables licenses to entities that are not on our Covered List or other federal lists such as the Department of Commerce’s Consolidated Screening List, and on ensuring that licensees do not deploy equipment or services from entities on the Covered List as part of their cable infrastructure. We ask whether we should identify classes of risk to help focus the review of risk factors associated with cables. And, we seek comment on whether the Commission should work with applicants and stakeholders to share risk information and threat alerts, consistent with National Security Memorandum 22.⁸

This is a dense item with many strong proposals to modernize our submarine cable rules to align with the economic and national security realities of 2024, rather than those of 2001. I look forward to reviewing the record and thank the Commission staff for their fantastic work. I approve.

⁷ *Starks 2020 Statement* at 3.

⁸ National Security Memorandum on Critical Infrastructure Security and Resilience, The White House, Apr. 30, 2024, *available at* <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/04/30/national-security-memorandum-on-critical-infrastructure-security-and-resilience/>.

In the Matter of)
)
Call Authentication Trust Anchor) WC Docket No. 17-97
)

Released: November 22, 2024

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reduce the harm these unwanted calls pose to the public, and we are committed to continuing this fight, and to marshalling every tool at the Commission's disposal to protect American consumers from the threat posed by illegal robocalls.⁴

2. One of the most significant tools in this effort is the STIR/SHAKEN caller ID authentication framework, which allows service providers to verify that the caller ID information transmitted with a particular call matches the caller's number.⁵ As the Commission has found, STIR/SHAKEN provides critical information to service providers and call blocking and labeling applications, and supports law enforcement efforts to stop illegal robocallers.⁶ Therefore, over the past four years, the Commission has steadily expanded its STIR/SHAKEN implementation requirements in order to pursue ubiquitous deployment of the framework.⁷ To realize the benefits of STIR/SHAKEN, however, providers must do their part. They must properly apply the technical standards that constitute the framework and establish a system of trust and accountability among all providers participating in the STIR/SHAKEN ecosystem.⁸

3. While efforts to expand STIR/SHAKEN implementation have steadily improved in recent years, some providers rely on third parties to fulfill their STIR/SHAKEN implementation obligations under the Commission's rules. These practices range from those in which a provider utilizes a third party to perform certain technological acts under the STIR/SHAKEN standards to those in which a provider relies on a downstream intermediate provider to perform all authentication-related obligations on its behalf.⁹ While some stakeholders have argued that third-party arrangements can be beneficial, particularly for small providers,¹⁰ others have raised concerns that the involvement of third parties is

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According to YouMail Robocall Index (July 9, 2024), <https://www.prnewswire.com/news-releases/us-consumers-received-just-over-4-1-billion-robocalls-in-june-according-to-youmail-robocall-index-302191518.html>.

⁴ *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1861, para. 3.

⁵ *Call Authentication Trust Anchor*, WC Docket No. 17-97, Sixth Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 2573, 2576, para. 5 (2023) (*Sixth Caller ID Authentication Report and Order* or *Sixth Caller ID Authentication Further Notice*).

⁶ *See Advanced Methods to Target and Eliminate Unlawful Robocalls*, *Call Authentication Trust Anchor*, CG Docket No. 17-59, WC Docket No. 17-97, Sixth Report and Order in CG Docket No. 17-59, Fifth Report and Order in WC Docket No. 17-97, Order on Reconsideration in WC Docket No. 17-97, Order, Seventh Further Notice of Proposed Rulemaking in CG Docket No. 17-59, Fifth Further Notice of Proposed Rulemaking in WC Docket No. 17-97, 37 FCC Rcd 6865, 6886, para. 51 (2022) (*Gateway Provider Order* or *Fifth Caller ID Authentication Further Notice*).

⁷ *See Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2580, paras. 15-16.

⁸ *See* FCC, Triennial Report on the Efficacy of the Technologies Used in the STIR/SHAKEN Caller ID Authentication Framework at 3 (2022), <https://docs.fcc.gov/public/attachments/DOC-390474A1.pdf> (finding that the STIR/SHAKEN framework is effective as designed, but that its benefits depend on providers properly applying the STIR/SHAKEN technical standards); *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1863, para. 8.

⁹ *See* North American Numbering Council, Call Authentication Trust Anchor Working Group, Deployment of STIR/SHAKEN by Small Voice Service Providers at 6-8 (2021) (NANC Small Providers Report), <https://docs.fcc.gov/public/attachments/DOC-377426A1.pdf>; USTelecom Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 10 (rec. Aug. 17, 2022) (USTelecom Aug. 17, 2022 Comments) (raising concern about providers relying on a downstream provider to sign the traffic they originate using the downstream provider's token); Comcast Corporation Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 12 (rec. Aug. 17, 2022) (Comcast Aug. 17, 2022 Comments) ("Third party authentication tools are already relatively common in the voice services marketplace."); ZipDX Reply, CG Docket No. 17-59, WC Docket No. 17-97, at 2 (rec. Sept. 19, 2022) (ZipDX Sept. 19, 2022 Reply) (explaining that providers can "can outsource the signing [of calls] to a third party"); TransNexus Comments at 4 (discussing "situation[s] where a downstream transit provider authenticates calls using its own STI certificate and . . . determine[s] the attestation level").

resulting in improperly authenticated calls and diminished accountability, and thus is undermining confidence in the STIR/SHAKEN framework.¹¹

4. In this *Eighth Report and Order*, we continue to strengthen our caller ID authentication requirements by establishing clear rules of the road for the use of third parties in the caller ID authentication process and placing limits to ensure that the party with the implementation obligation under our rules remains responsible and accountable for meeting the requirements of the STIR/SHAKEN standards.¹² By so doing, we allow providers to realize the economic benefits and efficiencies of working with third parties on the technical aspects of STIR/SHAKEN authentication while maintaining the integrity of the framework for the protection of consumers.

II. BACKGROUND

A. The STIR/SHAKEN Caller ID Authentication Framework

5. The STIR/SHAKEN caller ID authentication framework is a set of industry-developed standards and protocols designed to combat unlawfully spoofed robocalls by allowing authenticated caller ID information to securely travel with the call itself throughout the entire call path.¹³ Consistent with Congressional direction in the 2019 Telephone Robocall Abuse Criminal Enforcement and Deterrence (TRACED) Act,¹⁴ the Commission required voice service providers¹⁵ to implement STIR/SHAKEN in the IP portions of their voice networks by June 30, 2021,¹⁶ subject to certain exceptions.¹⁷

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¹⁰ See NANC Small Providers Report.

¹¹ See, e.g., TransNexus Comments, WC Docket No. 17-97, at 2-4 (filed Nov. 12, 2021) (TransNexus Small Provider Extension Comments) (arguing that an intermediate provider's use of an originating service provider's SHAKEN certificate represents "a legitimate outsourcing arrangement" while, conversely, use of an "intermediate provider's SHAKEN certificate" to sign for calls of an upstream provider undermines the STIR/SHAKEN framework).

¹² See *infra* Sections III.A, III.B.

¹³ More specifically, the Secure Telephony Identity Revisited (STIR) working group of the Internet Engineering Task Force (IETF) developed several protocols for authenticating caller ID information. *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1862-63, paras. 6-7. The Alliance for Telecommunications Industry Solutions (ATIS), in conjunction with the SIP Forum, produced the Signature-based Handling of Asserted information using toKENs (SHAKEN) specification, which standardizes how the protocols produced by STIR are implemented across the industry. *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1859, 1862-63, para. 7.

¹⁴ Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, Pub. L. No. 116-105 (2019) (codified in 47 U.S.C. § 227b) (TRACED Act).

¹⁵ Because the TRACED Act defines "voice service" in a manner that excludes intermediate providers, our authentication and Robocall Mitigation Database rules use "voice service provider" in this manner. See 47 U.S.C. § 227b(a)(2)(A); 47 CFR § 64.6300(o) (defining "voice service" as "any service that is interconnected with the public switched telephone network and that furnishes voice communications to an end-user using resources from the North American Numbering Plan or any successor"). For purposes of this item, we use the term "voice service provider" consistent with the TRACED Act definition. In all other instances, we use "provider" and specify the type of provider as appropriate. Unless otherwise specified, we mean any provider, regardless of its position in the call path.

¹⁶ 47 CFR § 64.6301; *Call Authentication Trust Anchor; Implementation of TRACED Act Section 6(a)—Knowledge of Customers by Entities with Access to Numbering Resources*, WC Docket Nos. 17-97 and 20-67, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3241, 3252, para. 24 (2020) (*First Caller ID Authentication Report and Order* or *First Caller ID Authentication Further Notice*).

¹⁷ 47 CFR §§ 64.6304, 64.6306; see also *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1876-83, paras. 36-51.

6. The STIR/SHAKEN framework consists of two components: (1) the technical process of authenticating and verifying caller ID information; and (2) the certificate governance process that maintains trust in the caller ID authentication information transmitted along with a call.¹⁸ The first component relies on public key cryptography to securely transmit the information that an authenticating provider knows about the caller and its relationship to the phone number it is using along with the call itself, allowing the terminating voice service provider to verify the information on the other end.¹⁹ This encrypted information is contained in a unique part of the network-level message used to initiate a Session Initiation Protocol (SIP) call, the SIP INVITE.²⁰ After a provider authenticates the caller ID information for a particular call, it adds this information to the “Identity” header field of the SIP INVITE, which travels along with the call from the authenticating provider, through any intermediate providers, and then to the terminating voice service provider.²¹ When the terminating voice service provider receives the call with the Identity header attached, it can decrypt it, and then use that information, along with other information, to protect its subscribers from unwanted and illegal calls.²²

7. The second component relies on digital certificates issued to a provider through a neutral governance system to maintain trust and accountability among providers.²³ The provider first obtains a Service Provider Code (SPC) token from the STIR/SHAKEN Policy Administrator and then presents that token to a STIR/SHAKEN Certificate Authority to obtain a certificate, which states, in essence, that the provider is the entity it claims to be and that it has the right to authenticate the caller ID information.²⁴ Under the STIR/SHAKEN standards, this certificate is used to populate the Identity header with encrypted information which can be decrypted by a downstream provider to verify the identity of the authenticating provider—a process sometimes referred to as “signing” a call.²⁵ This system is overseen by a Governance Authority—a role filled by an entity called the Secure Telephone Identity Governance

¹⁸ *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1862-63, para. 7; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 5.

¹⁹ *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1863, para. 8; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 5.

²⁰ *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3244, para. 6.

²¹ *See Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1863, para. 8; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 5.

²² *See First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3244-45, para. 6. For example, caller ID authentication information may be incorporated with other analytics to determine whether a call should be blocked under our existing safe harbors for call blocking. *See* 47 CFR § 64.1200(k)(3), (11).

²³ *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3246, para. 9; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 6.

²⁴ *See Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1864, para. 11; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 6.

²⁵ *See* ATIS-1000074 at 11-12; *id.* at 3 (defining the “Secure Telephone Identity (STI) Certificate” as a “public key certificate, based on a service provider public and private key pair, used to sign and verify” a Personal Assertion Token (PASSporT)). Under this system, the “authorized owner of the certificate used to generate the signature can be validated and traced back to the known trust anchor” and “the associated public certificate is used to verify the digital signature and the claims included in the PASSporT.” *Id.* at 6. For the purposes of this item, we use the phrase “the technological act of signing a call” to refer to the process of populating the Identity header with attestation-level information and the certificate of the originating service provider. *Id.* at 10-13; *see also* IETF, Authenticated Identity Management in the Session Initiation Protocol (SIP), RFC 8224 at 13-14, 16 (Dec. 19, 2018), <https://www.rfc-editor.org/rfc/pdf/rfc8224.txt.pdf>. We make clear that this act does not involve making discretionary choices (e.g., choosing an attestation level).

Authority²⁶—which establishes the policies and procedures regarding how providers may acquire and maintain certificates.²⁷ The Policy Administrator applies the rules set by the Governance Authority,²⁸ and third-party Certification Authorities (themselves subject to Policy Administrator approval)²⁹ issue the digital certificates to providers.³⁰ This robust system of checks and balances ensures that providers can trust one another based on the certificates transmitted along with STIR/SHAKEN-authenticated calls.

8. Currently, all voice service providers, all gateway providers,³¹ and certain non-gateway intermediate providers³² are required to implement STIR/SHAKEN in the IP portions of their networks unless subject to an implementation extension.³³ Providers that lack control over the network

²⁶ See *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1864, para. 11; see also Secure Telephone Identity Governance Authority (STI-GA), *STI Governance Authority*, <https://sti-ga.atis.org> (last visited Nov. 18, 2024).

²⁷ *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1864, para. 11; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 6.

²⁸ *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3246, para. 10. The role of Policy Administrator is currently held by iconectiv. See iconectiv, *Industry Players*, <https://authenticate.iconectiv.com/industry-players> (last visited Nov. 18, 2024).

²⁹ See *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3246, para. 10; *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1864, para. 11; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2576, para. 6. The Policy Administrator has approved 11 certification authorities. See iconectiv, *Approved Certification Authorities*, <https://authenticate.iconectiv.com/approved-certification-authorities> (last visited Nov. 18, 2024).

³⁰ *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1864, para. 11. Under the current Governance Authority rules, a provider must meet certain requirements to receive a certificate. See STI-GA, Policy Decision Binder, Version 6.0 at 6 (May 22, 2024), Policy Decision 001: SPC Token Access Policy Version 1.2 (May 18, 2021), <https://cdn.atis.org/sti-ga.atis.org/2024/05/22175841/240522-STIGA-Board-Policy-Decision-Binder-FINAL.pdf>. To obtain a token, the Governance Authority policy requires that a provider must “(1) [h]ave a current form 499A on file with the FCC . . . ; (2) [h]ave been assigned an Operating Company Number (OCN) . . . ; [and] (3) [h]ave certified with the FCC that [it] ha[s] implemented STIR/SHAKEN or compl[ies] with the [Commission’s] Robocall Mitigation Program requirements and [is] listed in the FCC [Robocall Mitigation Database], or . . . has direct access to telephone numbers from the Toll-Free Number Administrator (TFNA).” *Id.*

³¹ In 2022, among other requirements, the Commission required gateway providers to authenticate unauthenticated SIP traffic carrying a U.S. North American Numbering Plan number in the caller ID field by June 30, 2023. See *Gateway Provider Order*, 37 FCC Rcd at 6886-87, para. 51; 47 CFR §§ 6302(c) (requiring gateway providers to “authenticate caller identification information for all calls it receives that use North American Numbering Plan resources that pertain to the United States in the caller ID field and for which the caller identification information has not been authenticated and which it will exchange with another provider as a SIP call”), 64.6300(d) (defining “gateway provider” as “a U.S.-based intermediate provider that receives a call directly from a foreign originating provider or foreign intermediate provider at its U.S.-based facilities before transmitting the call downstream to another U.S.-based provider” and further defining for the purpose of the rule “U.S.-based” and “receives a call directly”).

³² In 2023, the Commission required a non-gateway intermediate provider to authenticate caller identification information for all SIP calls it receives directly from an originating provider and for which the caller identification information has not been authenticated by December 31, 2023. See *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2587-88, para. 27; 47 CFR §§ 64.6302(d) (detailing caller ID authentication requirements for non-gateway intermediate providers), 64.6300(i) (defining “non-gateway intermediate provider” as “any entity that is an intermediate provider as that term is defined by paragraph (g) of this section that is not a gateway provider as that term is defined by paragraph (d) of this section”), 64.6300(g) (defining “intermediate provider” as “any entity that carries or processes traffic that traverses or will traverse the public switched telephone network at any point insofar as that entity neither originates nor terminates that traffic”); see also *id.* § 64.6302(a) (requiring intermediate providers to “pass unaltered to the subsequent intermediate provider or voice service provider in the call path any authenticated caller identification information it receives with a SIP call”).

infrastructure necessary to implement STIR/SHAKEN, such as switches for voice service in the IP portion of their network,³⁴ are exempt from STIR/SHAKEN implementation requirements.³⁵ All providers, regardless of whether they are required to implement STIR/SHAKEN and the status of that implementation, are required to file certifications in the Robocall Mitigation Database (Database) stating, among other points, whether they have fully, partially, or not implemented STIR/SHAKEN in their networks,³⁶ and if they have not, whether that is because they are exempt from having to do so or subject to an implementation extension under the Commission's rules.³⁷

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³³ Pursuant to the TRACED Act, the Commission has adopted limited extensions to its STIR/SHAKEN implementation requirements. Because STIR/SHAKEN only works on IP-based voice networks, the TRACED Act granted providers that “materially rel[y]” on non-IP infrastructure an ongoing implementation extension. 47 U.S.C. § 227b(b)(5)(B). The Commission has also granted certain limited implementation extensions on the basis of “undue hardship.” *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1882-83, paras. 49-50. These extensions are reviewed annually, and the Commission has generally declined to extend them. *Wireline Competition Bureau Performs Required Evaluation Pursuant to Section 64.6304(f) of the Commission's Rules*, WC Docket No. 17-97, Public Notice, 36 FCC Rcd 17748, 17749 (WCB 2021) (*First Reevaluation of STIR/SHAKEN Extensions Public Notice*) (declining to extend the small voice service provider STIR/SHAKEN implementation extension). As of June 30, 2023, the only remaining “undue hardship” extensions are for the few providers that cannot obtain the SPC token required to implement STIR/SHAKEN, and for small voice service providers that originate calls via satellite using U.S. North American Numbering Plan telephone numbers. *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1882-83, paras. 49-50; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2612-13, paras. 76-77; *Wireline Competition Bureau Performs Required Evaluation Pursuant to Section 64.6304(f) of the Commission's Rules*, WC Docket No. 17-97, Public Notice, 37 FCC Rcd 14876, 14876 (WCB 2022) (*Second Reevaluation of STIR/SHAKEN Extensions Public Notice*) (noting that the June 30, 2023 expiration of the implementation extension for small voice service providers would constitute “a significant step toward the Commission's goal of achieving ubiquitous STIR/SHAKEN implementation”).

³⁴ See ACA Connects Comments at 3-4 (describing the relationship between a wholesaler and “facilities-based small broadband providers,” including those “that originated as cable operators and later added voice service to their offerings” wherein the reseller “sells voice service to residences and businesses in the community and supplies the last-mile connection” and the wholesaler controls the infrastructure necessary to implement STIR/SHAKEN because it “manages the voice service and handles core functionalities, including switching and interconnection”).

³⁵ See *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3260, para. 40 (“Finally, we clarify that the rules we adopt today do not apply to providers that lack the network infrastructure necessary to implement STIR/SHAKEN.”). This exemption is distinct from the Commission's continuous extension for non-IP portions of a provider's network. See *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2584-85, para. 19 (“We therefore decline to impose an authentication obligation on all intermediate providers to address circumstances where a call traverses a non-IP network, but may revisit the subject after the Commission concludes its inquiry into whether non-IP authentication or IP interconnection solutions are feasible and can be timely implemented.”). The Commission has launched an inquiry into solutions to enable caller ID authentication over non-IP networks, amongst other issues concerning the IP transition. See *generally Call Authentication Trust Anchor*, WC Docket No. 17-97, Notice of Inquiry, 37 FCC Rcd 13451 (2022) (*Non-IP Caller ID Authentication Notice of Inquiry*). The Commission also recently sought comment on how issues regarding IP interconnection impact other tools that may be used to combat scam calls, including artificial intelligence (AI) technologies used to conduct real-time call monitoring. See *Implications of Artificial Intelligence Technologies on Protecting Consumers from Unwanted Robocalls and Robotexts*, CG Docket No. 23-362, Notice of Proposed Rulemaking and Notice of Inquiry, FCC 24-84, at 15, para. 37 (Aug. 8, 2024).

³⁶ See *Improving the Effectiveness of the Robocall Mitigation Database; Amendment of Part 1 of the Commission's Rules, Concerning Practice and Procedure, Amendment of CORES Registration System*, WC Docket No. 24-213, MD Docket No. 10-234, Notice of Proposed Rulemaking, FCC 24-85, at 5-8, paras. 6-9 (Aug. 7, 2024) (*Robocall Mitigation Database NPRM*). The consequences for failing to file in the Database, or for filing certifications and robocall mitigation plans that do not comply with the Commission's rules are significant, and may include the imposition of a Commission forfeiture and/or the removal of a deficient filing from the Database. See *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1903, para. 83; *Gateway Provider Order*, 37 FCC Rcd at 6882, para. 40; *Sixth Caller ID Authentication Order*, 38 FCC Rcd at 2603, para. 57. The latter remedy “effectively

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B. The STIR/SHAKEN Technical Standards

9. The technical standards and protocols that comprise STIR/SHAKEN are published on the websites of the independent standards-setting bodies that developed the framework.³⁸ Of those standards and protocols, the Commission's rules require providers with a STIR/SHAKEN implementation obligation to comply with, *at a minimum*, ATIS-1000074, ATIS-1000080, and ATIS-1000084, and all of the documents referenced therein.³⁹ These documents, which are periodically amended by the Alliance for Telecommunications Industry Solutions (ATIS),⁴⁰ establish both the technical requirements for authenticating calls and the governance system underlying the STIR/SHAKEN framework.⁴¹

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precludes the provider from operating as a provider of voice services in the United States, as the Commission's rules prohibit intermediate and terminating providers from accepting traffic directly from any provider that does not appear in the Database." *Robocall Mitigation Database NPRM* at 4-5, para. 5; *see also Global UC Inc.*, Removal Order, 37 FCC Rcd 13376 (EB 2022) (removing a provider's certification because it included a facially deficient robocall mitigation plan); *TELECLUB fka 2054235 Alberta Ltd.*, Removal Order, DA 24-153 (EB Feb. 22, 2024) (same); *Viettel Business Solutions Company et al.*, Removal Order, DA 24-152 (EB Feb. 22, 2024) (removing 12 providers from the Robocall Mitigation Database because their certifications included facially deficient robocall mitigation plans); *BPO Innovate*, Order, DA 24-283 (EB Mar. 27, 2024) (removing a provider's certification because of two deficiencies, including a facially deficient robocall mitigation plan).

³⁷ *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2596-97, para. 45 (stating that a filer asserting it does not have an obligation to implement STIR/SHAKEN because of an ongoing extension, or because it lacks control over the network infrastructure necessary to implement STIR/SHAKEN, must both explicitly state the rule that exempts it from compliance and explain in detail why that exemption applies to the filer). All providers are also required to adopt robocall mitigation programs that comply with the Commission's rules and submit written descriptions of those programs in the Robocall Mitigation Database. *See Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1902, para. 82 (requiring voice service providers to file, and those that did not fully implement STIR/SHAKEN to submit a robocall mitigation plan by June 20, 2021); *Gateway Provider Order*, 37 FCC Rcd at 6880, para. 34 (requiring gateway providers to file and submit a robocall mitigation plan); *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2588, para. 28 (requiring all voice service providers and intermediate providers to file and submit a robocall mitigation plan); *Wireline Competition Bureau Announces Robocall Mitigation Database Filing Deadlines and Instructions and Additional Compliance Dates*, WC Docket No. 17-97, Public Notice, DA 24-73 at 1 (WCB Jan. 25, 2024) (*Robocall Mitigation Database Filing Deadline Public Notice*); 47 CFR §§ 64.6304, 64.6305.

³⁸ *See* SIP Forum, *IP-NNI Task Force Introduction*, <https://www.sipforum.org/activities/nni-task-force-introduction/#about-nni-tf> (last visited Nov. 18, 2024); IETF Datatracker, *Secure Telephone Identity Revisited (stir)*, <https://datatracker.ietf.org/group/stir/about> (last visited Nov. 18, 2024); ATIS, *Public Documents*, <https://access.atis.org/higherlogic/ws/public/documents?view=> (last visited Nov. 18, 2024).

³⁹ *First Caller ID Authentication Report and Order and Further Notice*, 35 FCC Rcd at 3258-59, para. 36; *see also Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2586, para. 22; *Gateway Provider Order*, 37 FCC Rcd at 6887-88, para. 53. Prior and current versions of the standards are available on the ATIS website. *See, e.g.,* ATIS & SIP Forum, *Signature-based Handling of Asserted information using toKENs (SHAKEN)*, ATIS-1000074.v003 (2022), <https://access.atis.org/higherlogic/ws/public/download/67436/ATIS-1000074.v003.pdf/latestATIS-1000074> (ATIS-1000074); ATIS, *Signature-based Handling of Asserted information using toKENs (SHAKEN): Governance Model and Certificate Management*, ATIS-1000080.v005 (2022), https://access.atis.org/apps/group_public/download.php/69428/ATIS-1000080.v005.pdf (ATIS-1000080); ATIS & SIP Forum, *Technical Report on Operational and Management Considerations for SHAKEN STI Certification Authorities and Policy Administrators*, ATIS-1000084.v002 (2020), https://access.atis.org/apps/group_public/download.php/55473/ATIS-1000084.v002.pdf (ATIS-1000084).

⁴⁰ Providers are required to comply with the versions of those standards that were in effect at the time of their respective compliance deadlines, including any errata as of those dates or earlier. *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3258-59, para. 36; *Gateway Provider Order*, 37 FCC Rcd at 6887-88, para. 53; *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2585-56, para. 21. Requirements in the standards and protocols referenced in this *Eighth Report and Order* have not materially changed since the first

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10. Consistent with these standards, providers can authenticate caller ID information with one of three attestation levels: A-level, B-level, or C-level attestation.⁴² Pursuant to ATIS-1000074, an A-level, or “full,” attestation signifies the highest level of trust, and requires the authenticating provider to demonstrate that it: (1) is responsible for the origination of the call onto the network; (2) “[h]as a direct authenticated relationship with the customer and can identify the customer”; and (3) “[h]as established a verified association with the telephone number used for the call.”⁴³ A B-level, or “partial,” attestation requires the authenticating provider to meet only the first two requirements of A-level attestation. Therefore, a provider can apply a B-level attestation where it has originated the call and has a direct authenticated relationship with the customer but has not established a verified association with the telephone number appearing in the caller ID field.⁴⁴ Finally, C-level, or “gateway,” attestation requires only that the authenticating provider both be “the entry point of the call into its VoIP network” and have “no relationship with the initiator of the call,” as is typically the case for gateway providers processing traffic originated abroad.⁴⁵

11. In addition to the three “core” standards documents referenced above, ATIS has also published a number of other documents related to the STIR/SHAKEN call authentication framework. For example, ATIS-1000088 is a Technical Report that is listed as an “informative reference” in the current version of ATIS-1000074.⁴⁶ ATIS-1000088 defines several terms used in ATIS-1000074 and provides guidance on how providers may authenticate calls, consistent with the standards, in more complex call paths in which an authenticating service provider’s customer is not the ultimate end user of a voice

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STIR/SHAKEN implementation obligation went into effect in June 2021. *Compare* ATIS, Signature-based Handling of Asserted information using toKENs (SHAKEN), ATIS-1000074-E19E (2019), ATIS, Errata to Signature-based Handling of Asserted information using toKENs (SHAKEN): Governance Model and Certificate Management, ATIS-1000080-E19 (2019), *and* ATIS, Errata to Technical Report on Operational and Management Considerations for SHAKEN STI Certification Authorities and Policy Administrators, ATIS-1000084-E19 (2019), *with* ATIS-1000074, ATIS-1000080, *and* ATIS-1000084. For ease of reference, we cite herein to the current version of the standards and protocols. *See supra* note 39.

⁴¹ ATIS-1000074 “defines the framework for telephone service providers to create signatures in [SIP] and validate initiators of signatures” as well as “the various classes of signers and how the verification of a signature can be used towards the mitigation and identification of illegitimate use of national telecommunications infrastructure.” ATIS-1000074 at 1. ATIS-1000080 and 1000084 focus on various operational and governance concerns related to the issuance and management of certificates. *See* ATIS-1000080 at 1; ATIS-1000084 at 1.

⁴² ATIS-1000074 at 12-13.

⁴³ *Id.* at 12 (noting that establishing a verified association with the telephone number used for the call requires “[t]he service provider . . . [to] assert[] that their customer can ‘legitimately’ use the [telephone number] that appears as the calling party (i.e., the Caller ID)” and providing examples of how the service provider can do so); Lingo Telecom, LLC, File No. EB-TCD-24-00036425, Notice of Apparent Liability for Forfeiture, FCC 24-60, at 10-11, para. 19 (May 28, 2024) (*Lingo Telecom NAL*) (describing calls signed by Lingo with A-Level attestations and proposing a penalty of \$2,000,000 for apparent violations of section 64.6301(a) of the Commission’s rules); *see also* Lingo Telecom, LLC, File No. EB-TCD-24-00036425, Order, DA 24-790 (EB Aug. 21, 2024) (*Lingo Consent Decree*).

⁴⁴ ATIS-1000074 at 12 (stating that partial attestation requires “the signing service provider [to] attest[] that it can trace the origination of the call to a customer for traceback or policy enforcement purposes”).

⁴⁵ *Id.* at 13 (“The [signing] service provider should be able to trace a call to an interconnecting service provider and/or peer node for traceback or policy enforcement purposes. Gateway attestation may also be used when the STI-AS does not have sufficient information for determining that an ‘A’ or ‘B’ attestation level applies even when the call was received at a customer interface.”).

⁴⁶ *Id.* at 2.

service, such as where an originating service provider authenticates calls initiated by a reseller that itself maintains a direct relationship with the calling party.⁴⁷

C. Third-Party Authentication and the Fifth and Sixth Further Notices of Proposed Rulemaking

12. The Commission's rules do not currently address providers with a STIR/SHAKEN implementation obligation using a third-party authentication solution. In 2021, the North American Numbering Council's (NANC) Call Authentication Trust Anchor Working Group submitted the 2021 Small Providers Report, which detailed small voice service provider's deployment of STIR/SHAKEN throughout their networks.⁴⁸ In that report, the NANC explained that small providers could reduce their costs of authenticating SIP traffic by leveraging authentication solutions offered by third parties.⁴⁹ In so doing, the Small Providers Report described three categories of solutions: (1) Hosted SHAKEN;⁵⁰ (2) Carrier SHAKEN;⁵¹ and (3) SHAKEN Software.⁵² The report describes "SHAKEN Software" as commercially licensed software solutions deployed by an originating service provider or terminating service provider in its networks to perform caller ID authentication.⁵³ Providers using a SHAKEN Software solution perform all acts to authenticate caller ID information themselves. Hosted SHAKEN and Carrier SHAKEN, however, each involve a third-party performing the technological act of signing a call. More specifically, as described by the NANC, Hosted SHAKEN is "a turn-key SHAKEN authentication and verification solution offered in a public or private cloud that includes all the required SHAKEN components for offering a comprehensive standards-compliant solution[.]"⁵⁴ According to the NANC, Hosted SHAKEN can offer value-added features,⁵⁵ and providers also have flexibility in how they integrate the solution into their network infrastructure using either HTTP or SIP protocols.⁵⁶ The NANC describes Carrier SHAKEN as "another category of turn-key SHAKEN services offered by a growing number of Direct Inward Dialing (DID) or wholesale providers that also provide SIP termination to the PSTN" that "combines SHAKEN authentication service with SIP termination to the PSTN (transit service)."⁵⁷ While these solutions allow a third party to handle the technological act of signing a call, as described by the NANC Small Providers Report, for both Hosted SHAKEN and Carrier SHAKEN: (1) the originating service provider determines the correct attestation level for a call; and (2) the third party signs the call using the originating provider's SPC token.⁵⁸

⁴⁷ ATIS & SIP Forum, A Framework for SHAKEN Attestation and Origination Identified, ATIS-1000088 (2020), <https://access.atis.org/higherlogic/ws/public/download/51435/ATIS-1000088.pdf> (ATIS-1000088 or "ATIS-1000088 Technical Report"). ATIS-1000088 has not been revised since the first STIR/SHAKEN implementation obligation went into effect in June 2021.

⁴⁸ NANC Small Providers Report.

⁴⁹ *Id.* at 6.

⁵⁰ *Id.* at 7.

⁵¹ *Id.* at 7-8.

⁵² *Id.* at 8.

⁵³ *Id.* These commercially available SHAKEN Software solutions are deployed in a provider's data centers. *Id.*

⁵⁴ *Id.* at 7.

⁵⁵ *Id.* (providing "call analytics, call treatment, call blocking or diversion along with other consumer enabling features" as examples for value-added features).

⁵⁶ *Id.* (including a diagram that provides an example of how a provider might integrate a Hosted SHAKEN solution into its network using SIP protocol).

⁵⁷ *Id.* at 7-8 (describing a use case of how a provider may use a Hosted Shaken solution).

⁵⁸ *Id.*

13. Following the 2021 Small Providers Report, the Commission adopted the *Fifth Caller ID Authentication Further Notice* in May 2022, which, among other things, sought comment on STIR/SHAKEN authentication by third parties.⁵⁹ In particular, the Commission asked whether it should allow third-party authentication to meet the originating service provider's STIR/SHAKEN implementation obligation, whether to require all domestic providers to authenticate caller ID information using their own SPC tokens, under what circumstances third-party authentication is appropriate or improper, and whether third-party authentication undercuts the STIR/SHAKEN framework.⁶⁰ The resulting record confirmed that third-party authentication is occurring, but is insufficient to understand the full scope of practices being used, whether such practices comply with the Commission's rules, and their impact on the STIR/SHAKEN ecosystem. In particular, while some commenters suggested that explicitly authorizing third-party authentication would benefit the STIR/SHAKEN ecosystem by expanding access to the framework, lowering implementation costs, and improving trust and accountability amongst parties with a STIR/SHAKEN implementation obligation,⁶¹ others cautioned that some third-party authentication arrangements undermine STIR/SHAKEN.⁶² Consequently, the Commission released the *Sixth Caller ID Authentication Further Notice* to seek further, focused comment on the types of third-party authentication solutions providers are using, how third-party authentication impacts attestation level determinations under the ATIS standards, the benefits and pitfalls of third-party authentication, and whether the Commission should explicitly authorize, prohibit, or limit third-party authentication to ensure the reliability of the STIR/SHAKEN framework.⁶³

III. DISCUSSION

14. In this *Report and Order*, we take a number of steps to support the STIR/SHAKEN framework and promote trust in our country's voice networks. We do so by authorizing providers with a

⁵⁹ *Fifth Caller ID Authentication Further Notice*, 37 FCC Rcd at 6927-6951, paras. 157-225.

⁶⁰ *Id.* at 6951, para. 224.

⁶¹ See, e.g., ACA Connects Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 3-4 (rec. Aug. 17, 2022) (ACA Connects Aug. 17, 2022 Comments) (arguing that arrangements with wholesalers "ha[ve] proven to be a cost-effective way for small, facilities-based broadband providers to add voice service to their lineup" and that resellers, particularly small resellers, partnering with wholesalers has "allow[ed] these companies and their customers to enjoy the benefits of call authentication" two years before the implementation deadline for small voice service providers); Comcast Aug. 17, 2022 Comments at 12 (arguing that having providers obtain their own token and sign calls with their digital certificate when using a Hosted SHAKEN solution "appropriately incentivizes providers that can obtain a token to do so and thereby increases transparency and improves the traceback process"); INCOMPAS Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 17-18 (rec. Aug. 17, 2022) (INCOMPAS Aug. 17, 2022 Comments) ("For those that cannot maintain the framework natively, third party authentication has been a way for these providers to adequately meet the Commission's current requirements to transmit authenticated caller ID information to the next voice service provider."); RingCentral Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 10-11 (rec. Aug. 17, 2022) (RingCentral Aug. 17, 2022 Comments) (asserting that "[t]hird-party authentication is critical to innovation and competition[]" because it "removes barriers to entry and enables integration of communications into a wide variety of services and applications").

⁶² See, e.g., TransNexus Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 1-4 (rec. Aug. 17, 2022) (TransNexus Aug. 17, 2022 Comments) (arguing that improper third-party signing practices "undermin[e] the accountability designed into the STIR/SHAKEN framework" and "efforts to protect consumers from illegal calls"); USTelecom Aug. 17, 2022 Comments at 10 (asserting that improper third-party attestation practices "undermine the accountability the STIR/SHAKEN framework is intended to impose" and "water down the reliability of attestation levels, thereby also reducing the potential analytical value of authentication information across the ecosystem."); ZipDX Comments, CG Docket No. 17-59, WC Docket No. 17-97, at 15-16 (rec. Aug. 17, 2022) (ZipDX Aug. 17, 2022 Comments) (arguing that the practice of signing calls without the originating provider's token is harmful because then "providers cannot be identified and held accountable for their calls").

⁶³ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2619-23, paras. 97-106.

STIR/SHAKEN implementation obligation⁶⁴ to work with third parties to perform the technological act of signing calls to fulfill their compliance obligations under the Commission's rules, but establishing clear limits to ensure that such third-party arrangements neither undermine adherence to the requirements of the STIR/SHAKEN technical standards nor allow providers to avoid accountability for noncompliance. First, we define "third-party authentication" for the purposes of the rules we adopt today. Next, we limit the third-party authentication arrangements authorized under the Commission's rules to those in which the provider with the STIR/SHAKEN implementation obligation: (1) makes all attestation level decisions, consistent with the STIR/SHAKEN technical standards; and (2) ensures that all calls are signed using its own certificate obtained from a STIR/SHAKEN Certificate Authority—not the certificate of a third party. Utilizing a third party to sign traffic without complying with the requirements we adopt today will constitute a violation of the Commission's caller ID authentication rules. We further require that any provider certifying to partial or complete STIR/SHAKEN implementation in the Robocall Mitigation Database must be registered with the STIR/SHAKEN Policy Administrator, obtain its own SPC token from the Policy Administrator, use that token to generate a certificate with the Certificate Authority, and authenticate all its calls with that certificate, whether directly or through a third party. We also adopt recordkeeping requirements regarding third-party authentication arrangements to ensure compliance with the rules we adopt today and promote accountability in the event that any such arrangement leads to abuse of the voice network. Based on our review of the record, we find that taking these steps will enable providers to obtain the economic and other benefits of utilizing third-party technical solutions for STIR/SHAKEN implementation without compromising the integrity of the STIR/SHAKEN technical standards and governance model. This, in turn, will protect consumers by promoting more ubiquitous and accurate caller ID authentication.

A. Authorizing Third-Party Authentication Subject to Limitations to Prevent Abuse

1. Defining the Scope of Third-Party Authentication

15. We first define "third-party authentication" for the purposes of the rules we adopt today, and also delineate the types of providers that are covered by the rules. In the *Sixth Caller ID Authentication Further Notice*, we sought comment on the types of third-party arrangements being used by providers, including whether providers are entering into agreements with third parties to perform all or part of their authentication responsibilities.⁶⁵ We sought specific comment on the solutions detailed in the 2021 Small Providers Report produced by the NANC, which described third-party solutions that providers could engage to perform the technological act of signing calls, including "hosted SHAKEN" services offered in a public or private cloud and "carrier SHAKEN" services in which calls are signed by an intermediate provider.⁶⁶ As described in the NANC Report, in both of these scenarios, the provider with the STIR/SHAKEN implementation obligation determines the appropriate attestation level for a call and the third-party solution signs the call using the obligated provider's token.⁶⁷ We also sought comment on several scenarios addressed in the ATIS-1000088 Technical Report in which a provider with a STIR/SHAKEN implementation obligation lacks a direct relationship with the end user of the voice

⁶⁴ By "STIR/SHAKEN implementation obligation," we mean the applicable requirement under the Commission's rules that a provider implement STIR/SHAKEN in the IP portions of their networks by a date certain, subject to certain exceptions. *Id.* at 2592, para. 36 n.137 (citing 47 CFR §§ 64.6301, 64.6302). When referencing those providers "without" a STIR/SHAKEN implementation obligation, we mean those providers that are subject to an implementation extension, such as a provider with an entirely non-IP network or one that is unable to obtain the necessary SPC token to authenticate caller ID information, or that are exempted from our caller ID authentication requirements because they lack control over the network infrastructure necessary to implement STIR/SHAKEN. *Id.* (citing 47 CFR § 64.6304; *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3260, para. 40).

⁶⁵ *Id.* at 2619, paras. 98-106.

⁶⁶ *Id.* at 2621, para. 101; see NANC Small Providers Report at 7-8.

⁶⁷ See NANC Small Providers Report at 7-8.

service.⁶⁸ These scenarios involve circumstances where the end user of the voice service is not the same as the “customer,” as defined by the ATIS -1000088 Technical Report,⁶⁹ such as when a wholesale provider originates a call onto the public network for its reseller customer that initiated the call on behalf of an end user.⁷⁰ We additionally sought comment on whether we should limit any rule authorizing third-party authentication to the scenarios discussed by the Small Providers Report or those in the ATIS-1000088 Technical Report, or take a broader approach.⁷¹

16. Based on our review of the record, and for the purposes of the rules we adopt today, we define “third-party authentication” to refer to scenarios in which a provider with a STIR/SHAKEN implementation obligation under the Commission’s rules enters into an agreement with another party—a “third party”—to perform the technological act of signing calls on the provider’s behalf. This definition of third-party authentication includes, for example, the “hosted SHAKEN” and “carrier SHAKEN” solutions that are described in the Small Providers Report.⁷² It excludes instances in which a provider with a STIR/SHAKEN implementation obligation authenticates its own traffic, and simply has a customer that is not the end user that initiated the call.⁷³ We find that this definition is consistent with the caller ID authentication roles defined by the Commission’s rules and the ATIS standards, and will establish a clear scope for the third-party authentication practices we authorize herein.

17. The Commission’s rules establish three categories of providers with STIR/SHAKEN caller ID authentication obligations: (1) voice service providers that originate calls;⁷⁴ (2) non-gateway intermediate providers that carry or process the calls without originating or terminating them;⁷⁵ and (3) gateway providers that receive calls from foreign originating or intermediate providers at their US facilities and transmit them downstream.⁷⁶ The Commission’s rules further state that the STIR/SHAKEN

⁶⁸ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2619-20, para. 98 & n.337.

⁶⁹ ATIS-1000088 defines “customer” as “[t]ypically a service provider’s subscriber, which may or may not be the ultimate end-user of the telecommunications service.” ATIS-1000088 at 10. Under this definition, a customer “may be a person, enterprise, reseller, or value-added service provider.” *Id.* at 5.

⁷⁰ An “end-user” is defined as “[t]he entity ultimately consuming the VoIP-based telecommunications service,” which may be “the direct customer of [an originating] service provider or may indirectly use the VoIP-based telecommunications service through another entity such as a reseller or value-added service provider.” *Id.* ATIS-1000088, therefore, makes clear that, in some cases, the “customer” and “end user” are not the same. *Id.* at 10-11 (“[I]n a number of cases the end user is not the same entity as the ‘customer,’ so the customer identity is not directly tied to the end user. In these cases an end user identity is not needed for . . . authentication procedures As might be required in certain attestation scenarios, there may be a need for the [service provider] to establish (directly or indirectly through the customer) that the customer . . . is servicing a particular end user entity for [telephone number] authorization purposes.”); *id.* at 5 (defining “customer” as “[t]ypically a service provider’s subscriber, which may or not be the ultimate end-user of the telecommunications service,” and which “may be a person, enterprise, reseller, or value added service provider,” and defining “end user” as “[t]he entity ultimately consuming the VoIP-based telecommunications service”); *see also* ATIS-1000074 at 12 (stating that, for full attestation, the “signing service provider is asserting that their customer can ‘legitimately’ use the [telephone number] that appears as the calling party (i.e., the Caller ID)” and that determining the “legitimacy of the [telephone numbers] the originator of the call can use is subject to signer-specific policy”).

⁷¹ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2622, para. 103.

⁷² *See supra* para. 12 (describing these solutions in greater detail).

⁷³ *See supra* note 70.

⁷⁴ 47 CFR § 64.6301(a)(1)-(2); *see also id.* § 64.6305(d)(4)(vi) (requiring voice service providers to state whether they directly serve end users, serve as wholesale providers originating calls on behalf of another provider or providers, or lack a STIR/SHAKEN implementation obligation).

⁷⁵ *Id.* § 64.6302(d).

⁷⁶ *Id.* § 64.6302(c).

implementation obligation applies to providers with control over the network infrastructure necessary to implement STIR/SHAKEN.⁷⁷ Providers that meet these criteria are obligated to implement STIR/SHAKEN and are thus the entities that would be the “first parties” in any third-party authentication arrangement authorized by our rules, i.e., they are the parties with the ultimate compliance obligation. That compliance obligation does not change simply because the provider has an upstream customer (e.g., a reseller or a value-added service provider) that is not the ultimate end user of the voice service and does not itself have a STIR/SHAKEN implementation obligation, e.g., a reseller that qualifies for the STIR/SHAKEN exemption or a value-added service provider (VASP)⁷⁸ that provides communications services that are ancillary to the voice service.⁷⁹ For instance, in the context of voice service providers,⁸⁰ we agree with CCA that “[w]here, consistent with ATIS standards, an originating service provider provides an attestation for calls from its own reseller or [VASP] customer, it is not engaging in third party authentication[; i]t is instead using its certificate to provide an appropriate attestation to traffic from its own customers.”⁸¹ Stated differently, the originating service provider in that example is performing its

⁷⁷ See *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3260, para. 40 (“Finally, we clarify that the rules we adopt today do not apply to providers that lack control of the network infrastructure necessary to implement STIR/SHAKEN.”).

⁷⁸ A VASP may provide services such as arranging for telephone number assignments from a service provider to a particular customer of the VASP or for the VASP’s use irrespective of customer. ATIS-1000088, Appx. A at 18. As is often true with respect to resellers, an “originating [service provider] typically knows the VASP customer and does not have direct knowledge” of the VASP’s end users. *Id.*

⁷⁹ In these scenarios, the Technical Report provides guidance on the steps a provider with STIR/SHAKEN implementation obligation must take to verify its customer’s identity and right to use a number, as required to provide an A- or B-level attestation. *Id.* at 13 (“Where the originating [service provider] has assigned the calling [telephone number] or the customer has provided evidence that it has authorization to use the calling [telephone number] itself, the originating [service provider] can mark an ‘A’ attestation without reference to authorizations of any indirect end users (e.g., in a reseller or VASP scenario).”), Appx. A at 18-19 (discussing various ways originating service providers can meet their due diligence obligations to establish their customer’s right to use a telephone number); *see also id.*, Appx. A at 18 (providing use cases for resellers and value added service providers and explaining that “[i]n most reseller use cases, an originating [service provider] does not know the identity of the ultimate end users and only identifies and authenticates the reseller customer[,]” and “[a]s with reseller scenarios, the originating [service provider] typically knows the [value added service provider] customer and does not have direct knowledge of users of the [value added service provider] call centers or platforms. Any determination of the identity of end-users and their [telephone number] authorizations would need to be traced through the [value added service provider]”).

⁸⁰ Our framework authorizes all providers with a STIR/SHAKEN implementation obligation, regardless of their position in the call path, and subject to the limitations we set in place, to engage a third party for the technological act of signing calls. Therefore, where an intermediate provider (either a non-gateway intermediate provider or gateway provider) has a STIR/SHAKEN implementation obligation, it may fulfill that obligation through a third party subject to these same rules.

⁸¹ CCA Comments at 1-2; *see also* ACA Connects Comments at 3-5 (requesting that we exclude from our consideration arrangements in which “voice resellers . . . receive call authentication from a third party” such as a wholesale provider); NCTA Comments at 1; *see also* ATIS-1000088 at 9-11 (explaining that an originating service provider’s customer may or may not be the ultimate source of the call, or “the end-user entity,” and that where it is not, “an end user identity is not needed for [user-to-network interface (UNI)] authentication procedures (only the originating [service provider’s] customer needs to be identified as the principal gaining access to the [service provider’s] resources),” though “in certain attestation scenarios, there may be a need for the [service provider] to establish (directly or indirectly) that the customer UNI is servicing a particular end user entity for [telephone number] authorization purposes”).

own STIR/SHAKEN implementation obligation and is not acting as a third party for its upstream customer.⁸²

18. We find that any other interpretation would be inconsistent with the requirements for making attestation-level decisions when authenticating calls in the ATIS standards and reference documents. ATIS-1000074 only permits A- and B-level attestations to be made by providers that originate calls onto the IP-based service provider network.⁸³ Although not defined in ATIS-1000074, that standard uses the term originating service provider, or OSP, consistent with related standards documents, such as ATIS-1000089, which defines originating service provider as: “[t]he service provider that handles the outgoing calls from a customer *at the point at which they are entering the public network*. The OSP performs the SHAKEN Authentication function.”⁸⁴ Thus, when an originating service provider authenticates a call based on what it knows about its customer and its customer’s right to use a telephone number, it is performing its own STIR/SHAKEN implementation obligation, not that of its upstream customer in a third-party capacity.⁸⁵ In these circumstances, it is the responsibility of the originating

⁸² Thus, if a wholesale provider originates a call onto the public network on behalf of a reseller customer that lacks control over the network infrastructure necessary to implement STIR/SHAKEN, it is the wholesale provider that has the STIR/SHAKEN implementation obligation, not the reseller. See ACA Connects Comments at 2, 4; CCA Comments at 4. In this scenario, the wholesale provider is obligated to use STIR/SHAKEN to authenticate the caller ID pursuant to its own obligation under the Commission’s rules, not as a third party for the reseller that is exempt from STIR/SHAKEN implementation requirements. See ATIS-1000088, Appx. A at 18 (providing STIR/SHAKEN authentication use cases involving resellers and value added service providers and explaining that “[i]n most reseller use cases, an originating [service provider] does not know the identity of the ultimate end users and only identifies and authenticates the reseller customer”).

⁸³ ATIS-1000074 at 12-13.

⁸⁴ ATIS-1000089 at 4 (emphasis added); *id.* (noting that the “OSP may also serve in the role as [Telephone Number Service Provider], Resp Org, [a reseller of telephone numbers to other entities], and other roles”).

⁸⁵ USTelecom, CTIA, and Numeracle urge us to adopt a definition of the term “customer” that is narrower than the one employed by the ATIS standards and reference documents. Specifically, they ask that we define “customer” to mean solely the end user that initiated the voice service, whether an individual or organizational entity. See USTelecom Comments at 3; CTIA Reply at 10; Numeracle Comments at 9. We decline to do so at this time because it is not necessary for the purposes of the third-party authentication rules we adopt today. We make clear above that the “first party” within any third-party arrangement is the entity with a STIR/SHAKEN implementation obligation, which under our existing rules and precedent, will necessarily be a voice service provider, intermediate provider, or gateway provider with control over the network infrastructure necessary to implement STIR/SHAKEN. As explained herein, whether the provider’s customer is the ultimate end user of the voice service or another upstream entity is not dispositive of whether the provider has a STIR/SHAKEN implementation obligation and whether it may enter into an agreement with a third-party to perform the technological act of signing calls in fulfillment of that obligation subject to the requirements we adopt today. Further, we agree with NCTA, CCA, INCOMPAS, and ACA Connects that narrowing the definition of “customer” to mean solely the entity that initiates the voice service would be a significant departure from a plain reading of the ATIS standards and reference documents, ATIS-1000088 at 5 (defining “customer”); *id.* at 13, and could be disruptive to the use cases that those standards and reference documents clearly contemplate as functioning within the STIR/SHAKEN ecosystem. NCTA Reply at 2-3 (agreeing that narrowing the definition of “customer” to mean “end user” would “conflict[] with ATIS standards, which acknowledge that an originating service provider’s customer may be another provider, such as a reseller or a [VASP]. . . . [The Commission] should not interfere now and permit the parties seeking this change to end-run this well-functioning standards development process”); CCA Comments at 3 (contending that a “service provider may be considered an originating service provider . . . for customers that include other types of service providers such as resellers or [VASPs] that subscribe directly to the OSP’s services”); INCOMPAS Comments at 13-14 (noting that a variety of “business models and enterprise calling use cases . . . rely on the current interpretation of the standard, [such as] over-the-top hosted or cloud service providers”); ACA Connects Comments at 2 (arguing that “disrupt[ing] these arrangements[] . . . would be taking a step backward in [our] efforts to promote ubiquitous access to STIR/SHAKEN”). ZipDX asks us to provide clarification as to the operation of our rules, including applicable KYC requirements, in a variety of hypothetical caller ID authentication arrangements. See Letter from (continued....)

service provider to utilize reasonable “Know Your Customer” (KYC) protocols to establish a credible evidentiary basis for a “direct authenticated relationship with [its] customer” and/or verification of its customer’s right to use the telephone number appearing in the caller ID field, sufficient to apply an A- or B-level attestation under the ATIS standards.⁸⁶

19. We thus decline ZipDX’s suggestion that we incorporate providers that lack control over the network infrastructure necessary to implement STIR/SHAKEN as first parties under this framework when they “hold [themselves] out as the originating service provider (even though [they] do[] not actually ‘touch’ the call)” and “arrange for somebody (the infamous third party) to sign the calls” for them.⁸⁷ For the reasons discussed above, such a fluid conception of “originating service provider” would conflict with the text of the Commission’s rules establishing the scope of providers subject to a STIR/SHAKEN implementation obligation and would be inconsistent with how the ATIS standards and technical reports use that term.⁸⁸

2. Authorized Third-Party Authentication Practices

20. We next authorize providers with a STIR/SHAKEN implementation obligation to enlist the help of a third-party subject to certain conditions. In the *Sixth Caller ID Authentication Further Notice*, we sought comment on whether we should amend the Commission’s rules to explicitly authorize

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David Frankel, CEO, ZipDX, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97, at 1 (filed Nov. 11, 2024) (ZipDX *Ex Parte*). We decline to do so at this time, and find that commenting further on any given permutation of an authentication arrangement absent a more focused record on these matters would be unproductive. As we have explained above, the guidance we provide in this Order aligns with the text of the ATIS standards, including those which contemplate more complex calling arrangements between resellers and wholesalers such as those ZipDX describes. See ATIS-1000088, Appx. A at 18.

⁸⁶ ATIS 1000074 at 12; 47 CFR § 64.1200(n)(4) (requiring voice service providers to “take affirmative, effective measures to prevent new and renewing customers from using its network to originate illegal calls, including knowing its customers and exercising due diligence”); see also *Lingo Telecom NAL* at 12, para. 25 (proposing a penalty of \$2,000,000 for apparent violations of section 64.6301(a) of the Commission’s rules).

⁸⁷ ZipDX Comments at 3. We similarly reject other commenters’ understanding of “third-party authentication” that describe scenarios in which a provider without a STIR/SHAKEN implementation obligation, such as a provider that lacks control over the network infrastructure necessary to implement STIR/SHAKEN, would be considered the “first party.” See, e.g., INCOMPAS Comments at 7 (labeling a provider that signs calls on behalf of a provider “that [is] unable to obtain a[n] SPC token” a third party); ACA Connects Comments at 2.

⁸⁸ See, e.g., ATIS-1000089 at 4 (defining “Originating Service Provider” as “[t]he service provider that handles the outgoing calls from a customer at the point at which they are entering the public network. The OSP performs the SHAKEN Authentication function”). We understand that there are currently voice service resellers that are voluntarily attempting to authenticate caller ID information despite not having control over the network infrastructure necessary to implement STIR/SHAKEN and, thus, lacking a STIR/SHAKEN implementation obligation under the Commission’s rules. See ACA Connects Comments at 3. We understand that they often do so by relying on their wholesale providers to sign their calls. See *id.* at 3-4. As explained above, such arrangements do not fall within the definition of third-party authentication that we adopt today, except insofar as the wholesale provider with the STIR/SHAKEN implementation obligation opts to use a third party to perform the technological act of signing calls on its behalf. We nevertheless encourage voice service resellers engaged in any form of authentication arrangement with wholesalers to provide such wholesalers with enough information to enable them to determine the appropriate attestation level of the calls initiated by the resellers’ end users, pursuant to the wholesaler’s obligations under the Commission’s rules and the STIR/SHAKEN standards. See ATIS-1000088 at 13 (“In those cases [in which a service provider’s (SP) customer is a reseller,] the SP’s customer should provide assurances that they can trace the identity of an indirect end user and that user’s authorization to utilize a calling TN. The customer should be able to certify that only the authorized party (or calls originated on their behalf) will use the particular set of authorized TNs, and any traceback to the ultimate source will rely on the cooperation of the SP’s customer.”); see also ATIS-1000074 at 12 n.1 (describing various mechanisms by which an originating service provider may assert that its customer can legitimately use the telephone number that appears as the calling party).

third-party authentication and what, if any, limitations we should place on that authorization to ensure compliance with authentication requirements and the reliability of the STIR/SHAKEN framework.⁸⁹ Based on the evidence in the record, we permit providers with a STIR/SHAKEN implementation obligation under the Commission's rules to engage third parties to perform the technological act of signing calls as required by the STIR/SHAKEN standards,⁹⁰ subject to two conditions: (1) the provider with the implementation obligation must make all attestation-level decisions, consistent with the requirements of the technical standards; and (2) all calls must be signed using the certificate of the provider with the implementation obligation. Relying on third parties to sign traffic without complying with these requirements will constitute a violation of the Commission's caller ID authentication rules. As explained below, we find that this approach will ensure the accountability necessary to maintain trust in the STIR/SHAKEN framework and will promote accurate and reliable A- and B-level attestations.

21. Commenters broadly agree that there are benefits to third-party authentication. Numeracle notes that third-party authentication is "necessary and beneficial for the timely and efficient implementation of STIR/SHAKEN."⁹¹ INCOMPAS adds that, "[e]ngaging in third-party caller ID authentication benefits the STIR/SHAKEN ecosystem by increasing the number of calls that are signed with a SHAKEN signature and by expanding the variety of signing options available to voice service providers and their customers."⁹² According to USTelecom, "for some providers, including smaller providers with limited resources, relying on third parties is essential to deploy STIR/SHAKEN in a cost-effective way. In addition, for certain equipment, including legacy IP equipment, third-party signing can be an effective and efficient means to deploy signing capabilities that otherwise would be cost-prohibitive."⁹³ USTelecom's assertion accords with the NANC Small Providers Report, which concludes that third-party authentication may benefit small providers by reducing the costs associated with STIR/SHAKEN implementation.⁹⁴

22. The record also indicates, however, that certain types of third-party authentication practices can undermine confidence in the STIR/SHAKEN framework, and that guardrails are

⁸⁹ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2622, para. 103.

⁹⁰ The rules we adopt today are not limited to arrangements based on a "Hosted SHAKEN" model or the "Carrier SHAKEN" model, or any other particular technological solution. See NANC Small Providers Report at 7-8 (explaining the different arrangements); TransNexus Comments at 3-4 (same). We agree with TransNexus that limiting third-party authentication to currently existing technical solutions is unnecessary and may even inadvertently prevent innovation should new solutions be developed in the future. See TransNexus Comments at 11. We will monitor any new solutions that may develop and may revisit this subject should action to address new risks be warranted.

⁹¹ Numeracle Comments at 3; see also CTIA Reply at 2 ("[I]nnovative third-party caller ID authentication services[] can help to promote the widespread implementation of the STIR/SHAKEN framework."); NCTA Reply at 1; INCOMPAS Reply at 2.

⁹² INCOMPAS Reply at 2; see also CTIA Reply at 3 ("The record makes clear that the use of third-party solutions to authenticate caller ID information can . . . facilitate call authentication and robocall mitigation innovation."); VON Reply at 2.

⁹³ USTelecom Comments at 2; see also, e.g., INCOMPAS Comments at 5, 10-11; CCA Comments at 12; NYPSC Comments at 2 (agreeing that "allowing providers to utilize third-parties to perform caller ID authentication will aid robocall mitigation efforts by enabling providers who are otherwise unable to implement the FCC's STIR/SHAKEN protocols to authenticate call[er ID]" and also arguing that third-party authentication aids New York providers in complying with New York law regarding STIR/SHAKEN).

⁹⁴ NANC Small Providers Report at 6 ("[S]ervice providers can avoid complicated and costly STIR/SHAKEN implementations on their networks by sending their traffic to a vendor that provides access to a STIR/SHAKEN solution on the vendor's network, or through cloud computing services.").

necessary.⁹⁵ TransNexus argues that arrangements in which a “downstream transit provider authenticates calls using its own STI certificate and its specific means to determine the attestation level” present serious problems by “undermin[ing] STIR/SHAKEN and robocall prevention,” and “enabl[ing] bad actors . . . to hide illegal robocalls amidst other calls authenticated by the transit provider.”⁹⁶ ACA Connects adds that “[t]hird-party call authentication could raise serious concerns in some contexts, including in situations where a provider employs a third-party for call authentication as a ploy to avoid scrutiny and accountability.”⁹⁷ NTCA similarly argues that, “[w]hile [third-party services] are a valuable option for providers’ compliance with the Commission’s caller-ID authentication rules, the potential for bad actors to utilize certain variations of these arrangements in a way that could undermine the integrity of the STIR/SHAKEN ecosystem cannot be overlooked.”⁹⁸ NTCA and USTelecom agree that safeguards “are necessary to maintain trust in the STIR/SHAKEN ecosystem and allow these arrangements to function as intended for legitimate providers.”⁹⁹

23. We thus balance the benefits and concerns associated with third-party authentication by adopting a rule¹⁰⁰ that allows the practice subject to the two conditions specified above: (1) the provider with the STIR/SHAKEN implementation obligation must make all attestation-level decisions, consistent with the requirements of the technical standards; and (2) all calls must be signed using the certificate of the provider with the implementation obligation. These key guardrails will allow providers to realize the benefits of third-party authentication without compromising the integrity of the trust and governance structure upon which STIR/SHAKEN relies.¹⁰¹ They will ensure that responsibility for properly authenticating a call’s caller ID information—including complying with the attestation requirements of the ATIS standards—remains with the party assigned the STIR/SHAKEN implementation obligation under the Commission’s rules,¹⁰² and will prevent providers from shirking their due-diligence duties by

⁹⁵ See, e.g., TransNexus Comments at 5 (arguing that improper third-party signing scenarios “enable[] bad actors, including persons that initiate illegal robocalls and OSPs that originate such robocalls, to hide illegal robocalls amidst other calls authenticated by the transit provider. Accountability is thwarted. Call Validation Treatment is undermined. It becomes more difficult to identify and prevent illegal robocalls.”); CTIA Reply at 5-6 (“Beyond raising significant transparency concerns, such inappropriate signing also undermines effective robocall mitigation efforts, while also impeding equally valuable traceback and enforcement efforts”); NTCA Comments at 2 (raising a similar point as CTIA).

⁹⁶ TransNexus Comments at 4-5. While CCA contests some of TransNexus’s assumptions in its evidence purporting to show attestation abuse on the part of transit providers, CCA nevertheless does support Commission action where “a third party may bestow an A or B level attestation without complying with the requisite conditions,” such as those listed in ATIS-1000088. CCA Comments at 8-11.

⁹⁷ ACA Connects Comments at 4.

⁹⁸ NTCA Comments at 1.

⁹⁹ *Id.* at 1-2; accord USTelecom Reply at 3.

¹⁰⁰ We disagree with TransNexus’s argument that we should simply issue a declaratory ruling to clarify that the Commission’s rules already require voice service providers and intermediate providers to ensure that calls that they initiate onto the voice network are signed with their certificate, and to make all attestation-level decisions, regardless of which entity actually performs the act of signing. See TransNexus Comments at 5, 8-9; see also USTelecom Comments at 3 n.9. We instead find that codifying the rules through this *Eighth Report and Order* will not only ensure that all parties are on the same page regarding their STIR/SHAKEN implementation obligations moving forward, but will also give us additional enforcement tools in the event a bad actor originating service provider attempts to hide behind a third party to obscure its identity.

¹⁰¹ See *supra* para. 7 (describing the STIR/SHAKEN governance model).

¹⁰² Under this approach, originating service providers that rely on delegate certificates to establish a customer’s right to use a telephone number, as required for an A-level attestation, may continue to do so to the extent permitted by the ATIS standards. ATIS-1000092 at 1; ATIS-1000080 at 1, 30 (referencing ATIS-1000092). These delegate certificates “provid[e] an end user or other VoIP entity with the ability to create and sign a PASSporT on its calls

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shifting STIR/SHAKEN authentication procedures to third parties.¹⁰³ By requiring calls to be signed using the certificate of the provider with the implementation obligation,¹⁰⁴ the STIR/SHAKEN governance model will be able to function as intended by making it easier to identify providers responsible for any authentication information transmitted with a call and facilitating enforcement remedies that may be needed for failures to comply with authentication requirements, including, for example, revocation of a provider's SPC token by the Secure Telephone Identity Governance Authority (STI-GA).¹⁰⁵

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using a set of credentials . . . associated with [the] delegate certificate that is specific to the telephone number resources [which] that end user or other VoIP entity is authorized to use," ATIS-1000092 at 2, though originating service providers may choose to "ignor[e] all PASSporTs signed with delegate certificate credentials." *Id.* at 10. Because the originating service provider is ultimately responsible for making all attestation-level decisions and providing that information to a third-party performing the technological act of signing a call, the originating service provider remains responsible for vetting their customers and the criteria for applying A-level attestations, whether or not a delegate certificate is accepted. *See* SOMOS Comments at 2 (noting that, in the toll-free context, Resp Orgs "currently use delegate certificates to authenticate customers' [telephone numbers]"). We decline SOMOS' suggestion that we should mandate acceptance of delegate certificates by providers in this *Eighth Report and Order*, as such a mandate is beyond the scope of the third-party authentication rules that we adopt today and the record in this proceeding is insufficient to weigh the benefits and burdens of imposing such a requirement. SOMOS Comments at 3 (arguing that the Commission should "mandate the universal acceptance of delegate certificates from Resp Orgs across the entire STIR/SHAKEN ecosystem").

¹⁰³ *See, e.g.*, TransNexus Comments at 12; USTelecom Comments at 2-3.

¹⁰⁴ We agree with commenters that the sharing of a provider's certificate with a third-party authenticator for the purpose of populating the identity header of a call does not create a security risk or undermine the STIR/SHAKEN trust model. As TransNexus states, STIR/SHAKEN certificates are similar to other secure certificates used extensively on the Internet: "Most certificate holders provision their certificates and private keys to be hosted by third parties. These companies are experts in securing digital assets, and they use technology best practices and systems to minimize risks." TransNexus Comments at 12-13. Further, we conclude that a provider's direction to a third-party authenticator as to which attestation level to apply to a given call does not raise concerns about privacy or confidentiality. As Numeracle confirms, "the service provider should be able to pass its direction for attestation on to systems maintained by vendors used for technical support to apply the appropriate attestation level to the service provider's own calls without having to also supply its [third-party authenticator] with contextual data related to its decision." Numeracle Comments at 7. NCTA states that any information that may need to be shared "is typically no more information than would be shared in connection with other robocall mitigation efforts, such as traceback or other initiatives to combat abusive calling practices" NCTA Comments at 4. No commenter argues third-party authentication practices, or specifically the sharing of information and certificates with third parties to perform the technological act of signing calls, presents security, privacy, or confidentiality concerns.

¹⁰⁵ *See* STI-GA, Policy Decision Binder, Version 6.0 at 64 (May 24, 2024) Policy Decision 003: SPC Token Revocation Policy Version 2.2 (Apr. 16, 2024), <https://cdn.atis.org/sti-ga.atis.org/2024/05/22175841/240522-STIGA-Board-Policy-Decision-Binder-FINAL.pdf> (enabling the STI-GA to engage in a managed revocation process if it finds that the provider with the STIR/SHAKEN implementation obligation "failed to adhere to one or more of the policy and/or technical requirements," including "SPC token Access Policy[or] SHAKEN specifications[.]" or "[w]hen directed by a court, the FCC, or another body with relevant legal authority due to a violation of Federal law related to caller ID authentication"). A few commenters note that the STI-GA is working on ways to address "improper attestations," and last year published a document providing guidance regarding what it considers to be "improper attestation," to "support STI GA processes and policies," including its token revocation process. STI-GA, *Improper Attestation*, <https://sti-ga.atis.org/wp-content/uploads/2023/05/Improper-Attestation-Final.pdf>; *see* TransNexus Reply at 20 (citing the STI-GA guidance document); CTIA Reply at 11 (same). Commenters agree that improper attestation is a prevalent issue. *See, e.g.*, TNS Comments at 3; USTelecom Reply at 2. By adopting guardrails on third-party authentication practices and ensuring that all calls are signed with the token of the provider with the STIR/SHAKEN implementation obligation, rather than a third party that may perform the technological functions of signing a call for that provider, we assist in the STI-GA's effort to address improper attestation by increasing transparency. *See, e.g.*, USTelecom Reply at 3; NCTA Comments at 2; Numeracle Comments at 1; *see also* TNS Comments at 6 (arguing that the Commission "could . . . use its authority to empower (continued....)

24. We find that this approach will also guard against improper A- and B-level attestations by parties that are not originating service providers. Under the ATIS standards, an A- or B-level attestation can only be applied if the provider authenticating the call originates it onto the public network.¹⁰⁶ That ATIS criterion can be satisfied in the context of a third-party arrangement where the originating service provider either: (1) arranges with a third party to perform the technological act of signing a call before the provider originates the call onto the public network; or (2) originates the call onto the public network with an agreement in place for a downstream intermediate provider to perform the technological act of signing the call. The second requirement of A- and B-level attestation, i.e., confirmation that an originating service provider has a “direct authenticated relationship” with its customer and can identify the customer,¹⁰⁷ is a determination that cannot be made by a third party with no relationship to that customer. The last requirement for an A-level attestation, i.e., confirmation that the originating service provider has established that the customer has a legitimate right to use the telephone number that appears in the caller ID,¹⁰⁸ also necessarily requires due diligence by the originating service provider. We thus agree with commenters in the record that it is inconsistent with the Commission’s rules and the ATIS standards to allow third parties to make such determinations.¹⁰⁹ Since, as discussed above, the calls will need to be signed using the originating service provider’s certificate, the rules we adopt today will ensure that such originating service providers are held accountable for improper attestation-level decisions for the calls they originate onto the public network, even if the technological act of signing the calls is performed by a third party.

25. Commenters generally support our adoption of these guardrails.¹¹⁰ CTIA and Numeracle argue that this approach “is consistent with the existing [ATIS] standards and the FCC’s regulatory framework for STIR/SHAKEN implementation.”¹¹¹ CTIA also notes that requiring the use of “an originating [service] provider’s [certificate] will better achieve the goals of the STIR/SHAKEN framework to promote a trusted voice ecosystem and increase transparency and integrity of caller ID information.”¹¹² USTelecom contends that, “when calls are signed with the originating [service] provider’s token, the Commission, the provider community, and analytics providers will have the information they need to take action should an originating [service] provider prove to routinely originate and authenticate illegal robocalls”¹¹³ TransNexus argues that such limitations will, *inter alia*,

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the industry to self-police improper attestations. Industry focused mechanisms can help identify and remedy improper attestations earlier in the process and may be preferred when improper attestations are the result of honest mistakes”).

¹⁰⁶ See *supra* para. 10.

¹⁰⁷ ATIS-1000088 at 8; ATIS-1000074 at 12. ATIS-1000088 suggests that the originating service provider “authenticate the customer’s identity through an authentication transaction, protected network path, or other means.” ATIS-1000088 at 13. ATIS-1000088 provides further detail regarding three methods of achieving this customer authentication (i.e., via device-, account-, and network-based authentication). See ATIS-1000088, Appx. at 18-19.

¹⁰⁸ See ATIS-1000088 at 8.

¹⁰⁹ See, e.g., Letter from Alec Fenichel, Chief Technology Officer, TransNexus, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97, at 1 (filed May 22, 2023) (TransNexus May 22, 2023 *Ex Parte*) (“Third-party signing, using the third-party’s own STI certificate, undermines STIR/SHAKEN and robocall prevention.”).

¹¹⁰ See, e.g., TransNexus May 22, 2023 *Ex Parte* at 4-5; TransNexus Comments at 12; CTIA Reply at 3-7; Neustar Comments at 2; Numeracle Comments at 3; USTelecom Comments at 2; NTCA Comments at 3-4; ZipDX Comments at 3.

¹¹¹ CTIA Reply at 4; see also Numeracle Comments at 5-7.

¹¹² CTIA Reply at 5.

¹¹³ USTelecom Comments at 2; see also NTCA Comments at 2 (arguing that the use of the originating service provider’s token will support traceback efforts).

“improve the quality of caller [ID] authentication information available to terminating providers,” and thereby improve their call analytics.¹¹⁴

26. We are not persuaded, however, by the arguments advanced by the few commenters that oppose the guardrails we adopt today. INCOMPAS argues that we should not adopt any rules governing third-party authentication,¹¹⁵ and specifically opposes requiring providers to ensure that third-party authenticators sign calls using the provider’s certificate.¹¹⁶ INCOMPAS argues that instead we should “rely on the authority of the Enforcement Bureau to address those instances when an illegal robocaller is attempting to evade accountability through third-party authentication[, and] . . . rely on the [STI-GA] to address any ongoing issues or gaps in the standards that lead to attestation abuse.”¹¹⁷ We are committed to enforcing the Commission’s rules against illegal robocallers and agree that the STI-GA should exercise its authority to hold providers accountable for non-compliance with the ATIS standards.¹¹⁸ That does not mean, however, that we should not proactively adopt common-sense guardrails to prevent abuse of third-party authentication arrangements. By codifying these new rules, we give more certainty to providers seeking to comply with our caller ID authentication framework, establish clear standards that the Enforcement Bureau can apply when investigating misconduct,¹¹⁹ and enable the STIR/SHAKEN ecosystem to realize additional benefits, such as making authentication information more valuable for call analytics.¹²⁰ INCOMPAS and VON also argue that changes to the Commission’s rules may risk creating regulatory conflict with foreign jurisdictions, but provide no detail as to why imposing guardrails on

¹¹⁴ TransNexus Comments at 13; *see also id.* at 11 (“The purported benefit [of third-party authentication] is that more calls might be signed. However, signing more calls with an improper attestation, without proper identification of the OSP, and with no accountability for bad actors does not benefit subscribers or voice service providers that are trying to use the STIR/SHAKEN ecosystem properly and in good faith.”).

¹¹⁵ INCOMPAS Reply at 6.

¹¹⁶ *See* INCOMPAS Comments at 12. INCOMPAS implies that third-party authentication arrangements using the third party’s certificate, rather than the originating service provider’s, do not impede traceback efforts because “domestic originating providers . . . typically are identified to the Industry Traceback Group (‘ITG’) by the signing company” in such arrangements, and use of an origination identifier or “origID” by third-party signing providers would be sufficient to “ensure that the Commission or ITG can identify the source of any illegal robocalls.” INCOMPAS Reply at 4-5. We disagree. The origID field is an “opaque identifier” that “does not convey any [service provider] or customer information in and of itself.” ATIS 1000088 at 15. Moreover, use of the origID field is permitted, but not required, by the ATIS standards, which do not establish detailed specifications regarding its use by providers. *See* ATIS 1000074 at 13. The approach described by INCOMPAS requires the ITG to obtain the cooperation of a third-party signing provider before it can identify the originator of an illegal call. In contrast, requiring third-party signers to use the originating service provider’s token will allow the ITG to directly identify the originating service provider, thereby improving the efficiency of the traceback process and accountability within the STIR/SHAKEN ecosystem. *See* NTCA Comments at 2 (“One of the virtues of providers’ use of STIR/SHAKEN is to identify the OSP—‘traceback’ efforts that get to the source of the illegally spoofed calls are bolstered by every operator in a call chain passing STIR/SHAKEN identity headers end-to-end.”).

¹¹⁷ INCOMPAS Reply at 6.

¹¹⁸ *See supra* note 105 (describing the STI-GA’s authority to revoke the SPC token of a provider that does not comply with the requirements for authenticating calls under the ATIS standards).

¹¹⁹ *See* TNS Comments at 6 (arguing that the Commission should increase enforcement against improper attestations); USTelecom Reply at 3 (same).

¹²⁰ *See supra* para. 25 (citing record support for the conclusion that these guardrails will improve the value of call analytics). We thus reject INCOMPAS’s inference that it is sufficient to simply rely on providers to voluntarily establish appropriate parameters for the application of STIR/SHAKEN technical standards in commercial arrangements with third parties. INCOMPAS Reply at 4-5. As discussed below, we require all third-party authentication arrangements to be memorialized in written agreements that comport with the rules we adopt today.

third-party authentication would cause such an issue.¹²¹ While we acknowledge that maintaining “interoperability among SHAKEN systems internationally” is certainly important in protecting domestic consumers from illegal robocalls originating abroad, our action today eliminates the risk of such regulatory conflict by remaining consistent with the ATIS standards.¹²²

B. Implementation and Compliance Requirements

27. In this section, we adopt several implementation requirements for providers that utilize third-party authentication and amend certain rules to comport with those requirements.¹²³ Specifically, and as described below, we require all providers with a STIR/SHAKEN implementation obligation to: (1) obtain an SPC Token and digital certificate; (2) certify to complete or partial implementation in the Robocall Mitigation Database *only* if they have obtained an SPC token and digital certificate and sign calls with their certificate; and (3) memorialize and maintain records of any third-party authentication agreement(s) they have entered into, subject to certain limitations.

28. *Requirement to Obtain a Token and Digital Certificate.* Consistent with the third-party authentication rule we adopt today, all providers with a STIR/SHAKEN implementation obligation under the Commission’s rules will now be explicitly required to obtain an SPC token from the Policy Administrator and present that token to a STIR/SHAKEN Certificate Authority to obtain a digital certificate. This requirement is necessary now that all calls, whether technologically signed directly by the provider with the STIR/SHAKEN implementation obligation or by a third party, must be signed with the former’s certificate,¹²⁴ thereby ensuring that accountability for compliance with our caller ID authentication rules remains with the party required to implement STIR/SHAKEN under the Commission’s rules.¹²⁵ The record indicates that requiring all providers with a STIR/SHAKEN

¹²¹ See INCOMPAS Reply at 7 (“[A]s other countries implement STIR/SHAKEN, it will be important not to implement rules that alter the standard in significant ways resulting in varied implementations that can impair interoperability among SHAKEN systems internationally.”); VON Reply at 3 (“If the Commission were to impose third-party authentication restrictions, it would create a variance from the technical standard and from other national implementations of that standard, thereby complicating eventual efforts to enable interoperability of the U.S. STIR/SHAKEN mechanism with those of other countries. This would, in turn, undermine or complicate the effort to enable more internationally originated traffic to be SHAKEN-signed and recognized by U.S. terminating providers.”).

¹²² INCOMPAS Reply at 7.

¹²³ In the *Sixth Caller ID Authentication Further Notice*, the Commission sought comment on whether any other rules would need to be amended if it explicitly authorized third-party authentication. *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2623, para. 104.

¹²⁴ NTCA Comments at 2 (arguing that the Commission should require “all [Originating Service Providers] using ‘third-party signing’ arrangements [to] themselves register with the STI-PA and a STI-CA to procure their own tokens and certificates, and that their own certificates are then used to sign each originating call”); see also ZipDX Comments at 2-3 (arguing that an “originating voice service provider can apply that signature itself, or it can use another party—but the signature must be that of the originating voice service provider”); TransNexus Comments at 8 (asserting that the Commission’s rules already “require voice service providers to implement and use STIR/SHAKEN as described in the ATIS standards, including ATIS-1000080. Therefore, OSPs that do not register for STIR/SHAKEN with the [] Policy Administrator, get a SHAKEN certificate from an STI Certification Authority, and authenticate their calls, either directly itself or using a Hosted or Carrier service with its STI certificate are not compliant with the Commission’s rules”).

¹²⁵ NTCA Comments at 3-4 (explaining that this solution would prevent harm to consumers and practices that undermine industry’s investment in the STIR/SHAKEN framework); USTelecom Comments at 2-3 (“When calls are signed with the originating provider’s token, the Commission, the provider community, and analytics providers will have the information they need to take action should an originating provider prove to routinely originate and authenticate illegal robocalls, thus providing the accountability the STIR/SHAKEN framework is designed to facilitate. The same applies when a gateway provider relies on a third party to sign calls on its behalf to meet the Commission’s emerging gateway provider signing requirement.”).

implementation obligation to obtain their own SPC tokens and digital certificates will also result in other benefits,¹²⁶ such as “encourag[ing] continued innovation” within the existing STIR/SHAKEN framework¹²⁷ and ensuring that providers with STIR/SHAKEN implementation obligations under the Commission’s rules “have a fair and proportionate financial stake in the STIR/SHAKEN ecosystem.”¹²⁸ We believe the positive effects of this requirement will be far-reaching, as the record indicates that many providers claiming to have implemented STIR/SHAKEN have not obtained their own tokens and certificates.¹²⁹ Indeed, TransNexus estimates “that about 64% of providers” in the Robocall Mitigation Database that claim STIR/SHAKEN implementation are not registered with the Policy Administrator.¹³⁰

29. We disagree with INCOMPAS that “requiring all providers to obtain a token that could be used by a third-party authenticator would necessitate changes with both the industry’s token access policies and the Commission’s current administration of voice service providers.”¹³¹ In support of its arguments, INCOMPAS merely lists the STI-GA’s SPC token access standards, including the requirement to obtain an Operating Company Number (OCN),¹³² and states that many providers “do not operate a business model that allows them to get an OCN.”¹³³ INCOMPAS does not, however, explain why this would be the case for any provider with a STIR/SHAKEN implementation obligation, much less “many” providers with STIR/SHAKEN implementation obligations. In fact, in recent years, the Wireline Competition Bureau has repeatedly found that few providers are currently unable to obtain an SPC token due to revisions made to the STI-GA token access policy in May 2021.¹³⁴ Consistent with this finding, the record in this proceeding evidences that the barriers to and costs associated with obtaining and

¹²⁶ See *infra* Section III.C.

¹²⁷ CTIA Reply at 6 & n.14 (pointing to current innovation in the areas of call analytics and robocall mitigation and the development of new tools and capabilities).

¹²⁸ NCTA Comments at 3 (continuing that requiring providers with STIR/SHAKEN implementation obligations to obtain SPC tokens will “prevent OSPs from dodging token access fees by hiding behind a third party”).

¹²⁹ See, e.g., ZipDX Reply at 4 (noting that provider certifications in the Robocall Mitigation Database show that many have not obtained a token per the STI-PA list).

¹³⁰ TransNexus May 22, 2023 *Ex Parte* at 3.

¹³¹ INCOMPAS Reply at 6.

¹³² See STI-GA, Policy Decision Binder, Version 6.0 at 6 (May 22, 2024), Policy Decision 001: SPC Token Access Policy Version 2.1 (May 18, 2021), <https://cdn.atis.org/sti-ga.atis.org/2024/05/22175841/240522-STIGA-Board-Policy-Decision-Binder-FINAL.pdf> (requiring providers to “[h]ave been assigned an Operating Company Number (OCN), or a Resp Org ID”).

¹³³ INCOMPAS Reply at 6 n.11 (listing the current STI-GA token access policy that requires “a provider to have (1) a current FCC Form 499A on file with the Commission, (2) been assigned an Operating Company Number (“OCN”), and (3) certified that they have implemented STIR/SHAKEN or comply with the Robocall Mitigation Program requirements and are listed in the FCC Robocall Mitigation Database”). While INCOMPAS states that some providers are unable to get an OCN “from the Commission,” OCNs are assigned by the National Exchange Carrier Association (NECA). See NECA, Company Codes (OCNs), <https://www.neca.org/business-solutions/company-codes> (last visited Nov. 18, 2024).

¹³⁴ *First Reevaluation of STIR/SHAKEN Extensions Public Notice*, 36 FCC Rcd at 17751 & n.26 (finding that the extension remains necessary because “an entity that meets the definition of a provider of ‘voice service’ cannot comply with the STIR/SHAKEN rules if it is unable to receive a token” but explaining how the Governance Authority had revised its policies to account for the main concerns underlying this extension); *Second Reevaluation of STIR/SHAKEN Extensions Public Notice*, 37 FCC Rcd at 14880-81; *Wireline Competition Bureau Performs Required Evaluation Pursuant to Section 64.6304(F) of the Commission’s Rules*, WC Docket No. 17-97, Public Notice, DA 23-1157, 4-6 (WCB Dec. 15, 2023) (explaining that we “continue to believe that the Governance Authority’s revised policy has resolved the main practical concern that originally created a need for the SPC token extension and that token access does not stand as a significant barrier to full participation in STIR/SHAKEN”).

maintaining SPC tokens and digital certificates are low,¹³⁵ including for small providers.¹³⁶ Moreover, the compliance deadline we adopt below provides ample time for all sizes of providers to come into compliance with our newly adopted rules, thereby minimizing any compliance burdens.¹³⁷

30. *Robocall Mitigation Database Certifications.* Consistent with the foregoing requirements, we update the Commission’s rules to prohibit any provider with a STIR/SHAKEN implementation obligation from certifying to complete or partial implementation in the Robocall Mitigation Database unless they have obtained an SPC token and digital certificate and sign calls with their certificate, either themselves or when working with a third party to perform the technological act of signing calls having met the necessary conditions we impose in this Order.¹³⁸ For all of the reasons

¹³⁵ INCOMPAS states that “voice service providers are required to provide the STI Policy Administrator with all-associated IP addresses as part of acquiring a Service Provider Code token,” and claims that this is a highly burdensome step. INCOMPAS Reply at 6 n.12. INCOMPAS does not explain why supplying IP addresses to the Policy Administrator is highly burdensome, however, or why any burden of submitting the information would outweigh the benefits of requiring providers with a STIR/SHAKEN implementation obligation to register with the Policy Administrator. We note that the Policy Administrator states that it collects IP addresses from providers for the purpose of whitelisting. *See, e.g.*, STI-PA, Secure Telephone Identity (STI) Service Provider Methods and Procedures, STI-PA-US-METHODPROCSP-001 Issue 6, at 4 (Oct. 2021), https://authenticate.icnectiv.com/sites/authenticate/files/2021-10/Service_Provider_Guidelines_Issue_6.pdf. According to the National Institute of Standards and Technology’s Computer Security Resource Center (CSRC), a whitelist can be defined as “[a]n approved list or register of entities that are provided a particular privilege, service, mobility, access or recognition.” NIST, *CSRC Glossary*, <https://csrc.nist.gov/glossary/term/whitelist> (last visited Nov. 18, 2024).

¹³⁶ *See* STI-GA, Policy Decision Binder, Version 6.0 at 78 (May 22, 2024), Policy Decision 005: Funding Policy Version 5.1 (Dec. 15, 2023), <https://cdn.atiss.org/sti-ga.atiss.org/2024/05/22175841/240522-STIGA-Board-Policy-Decision-Binder-FINAL.pdf> (setting a provider’s annual fee for token access in 2024 equal to the provider’s assessable Form 499-A revenues (the greater of revenue lines 432 or 514) times .00002722, with a minimum annual fee of \$500); NCTA Comments at 3 n.3; NTCA Comments at 3-4; NYPSC Comments at 3 (agreeing that “access to a [token] is no longer a significant barrier to the implementation of STIR/SHAKEN . . . because of the allowed use of third-party authentication methods”); TransNexus Comments at 12 (asserting that “[t]he ability to obtain SPC tokens is not likely to present a barrier to providers’ compliance with the Commission’s rules and STIR/SHAKEN standards” and citing to the NANC Small Providers Report’s assertion that “VoIP providers generally, are SIP connected networks. These service providers should have no significant barriers preventing the implementation of SHAKEN, irrespective of size. The market for SHAKEN solutions is robust and competitive and Section 2.2 discusses the general options available for any providers in this category”); USTelecom Comments at 1 n.5; TransNexus Reply at 17-18; ZipDX Reply at 4.

¹³⁷ *See infra* paras. 34-35. We note that providers that cannot obtain an SPC token after diligently pursuing one from the Policy Administrator may still claim an implementation extension under the Commission’s existing rules. While the Commission sought comment on whether to eliminate the SPC token extension in the *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2623, paras. 107, 108, we decline to do so at this time. In March 2023, the Commission updated its requirements for submissions to the Robocall Mitigation Database, including a new requirement that providers claiming a STIR/SHAKEN implementation extension or exemption explicitly state the rule that excepts it from compliance and why the provider qualifies for the extension or exemption. *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2596-97, para. 45. All providers were required to file submissions to the Robocall Mitigation Database that comply with this and additional content requirements by February 26, 2024. *Robocall Mitigation Database Filing Deadline Public Notice* at 2. These filings are currently under review. As part of that assessment, the Wireline Competition Bureau will determine the number of providers still relying on the SPC token extension and the merit of the justifications submitted by those claiming the extension. We will be better able to determine whether to retain or eliminate the SPC token extension at that time.

¹³⁸ In the *Sixth Caller ID Authentication Further Notice*, the Commission sought comment on whether it should “prohibit providers from certifying to having implemented STIR/SHAKEN in the Robocall Mitigation Database unless their calls are signed with their own SPC token, whether directly or through a third party.” *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2622, para. 103.

discussed above, we agree with TransNexus that providers that have a STIR/SHAKEN implementation obligation but rely on third-party authentication arrangements using the third party's certificate are not in compliance with the governance model established by STIR/SHAKEN technical standards, which require providers to obtain an SPC token and digital certificate to authenticate calls.¹³⁹ Such providers should not, therefore, claim to have implemented STIR/SHAKEN pursuant to the technical standards required by the Commission's rules in the Robocall Mitigation Database.¹⁴⁰ While we recognize that some of these providers may have relied on third-party SPC tokens and certificates out of a good faith belief that such arrangements are permissible under the Commission's rules in the past, such practices will now be expressly prohibited by our rules, and providers that have relied on third-party tokens and digital certificates in the past will now need to obtain their own SPC tokens and certificates and use them to sign calls, consistent with the requirements of the STIR/SHAKEN standards and the compliance deadlines we set below. Providers that do not obtain and use an SPC token and certificate must update their Robocall Mitigation Database certifications to state that they have not fully or partially implemented STIR/SHAKEN¹⁴¹ to avoid being referred to the Enforcement Bureau for violations of the Commission's rules, including the rules governing certifications submitted to the Robocall Mitigation Database and the obligation to submit information to the Commission that is true, accurate, and up-to-date.¹⁴²

31. We decline to adopt new content requirements for Robocall Mitigation Database certifications at this time. In the *Sixth Caller ID Authentication Further Notice*, the Commission sought comment on requiring providers to submit additional information to the Robocall Mitigation Database, "including the identity of the third party providing [their authentication] solution, any requirements the provider has imposed on the third party to ensure compliance with the requirements of the ATIS technical standards and the Commission's rules, and what the provider itself does to ensure compliance with those requirements under the third-party arrangement[.]"¹⁴³ In response to the *Further Notice*, commenters suggest that we should require providers to submit a variety of additional information to the Robocall Mitigation Database, including evidence of registration with the Policy Administrator,¹⁴⁴ the identity of

¹³⁹ See *supra* para. 28 (describing the STIR/SHAKEN governance model and need to obtain an SPC token and digital certificate to authenticate calls); TransNexus May 22, 2023 *Ex Parte* at 3-4 (arguing that STIR/SHAKEN standards are not being followed properly and that "[w]ith third-party signing, OSPs are not STI Participants. They operate outside the STIR/SHAKEN governance model. Therefore, they cannot claim a STIR/SHAKEN implementation").

¹⁴⁰ TransNexus May 22, 2023 *Ex Parte* at 3; Numeracle Comments at 9 ("The Commission should require all providers to sign calls with their own SPC token to certify [in the Database] that they have implemented STIR/SHAKEN"); see also NTCA Comments at 2 (agreeing with TransNexus that a third party signing on behalf of an OSP "that is neither registered with the [STI-PA] nor registered with a [STI-CA] . . . runs counter to the STIR/SHAKEN standards"); ZipDX Reply at 4 (arguing that Commission rules "already require originating providers to sign their own calls, but many do not" and "are explicitly flouting the [Commission's] regulations"); see also 47 CFR § 64.6305(d)(1), (e)(1), (f)(1) (requiring providers to certify in the Robocall Mitigation Database whether they have implemented the STIR/SHAKEN authentication framework); *id.* § 64.6300(m) (defining "STIR/SHAKEN authentication framework" as the STIR/SHAKEN standards).

¹⁴¹ Providers that qualify for a STIR/SHAKEN implementation extension because they cannot satisfy the requirements to obtain an SPC token can claim the extension in their Robocall Mitigation Database submissions at this time.

¹⁴² 47 CFR § 64.6305(d)(1)-(4), (e)(1)-(4), (f)(1)-(4) (requiring voice service providers, gateway providers, and non-gateway intermediate providers to certify to its STIR/SHAKEN implementation status in the Database), (d)(5), (e)(5), (f)(5) (requiring a provider to update its filings in the Database within 10 business days if there is any change information), (d)(3)(ii), (e)(3)(ii), (f)(3)(ii) (requiring that filings in the Database be signed by an officer in conformity with Commission rules that require filings to include true and correct information, under penalty of perjury).

¹⁴³ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2622-23, para. 104.

any third-party authentication solutions they use,¹⁴⁵ and information that details their Know Your Customer standards.¹⁴⁶

32. We conclude that any value of requiring providers to submit this information at this time is minimal, and does not warrant the additional operational and administrative burdens of requiring providers to update their Robocall Mitigation Database submissions. For instance, now that we require all providers with a STIR/SHAKEN implementation obligation to obtain their own SPC token from the Policy Administrator and a digital certificate from a Certification Authority, we conclude it unnecessary for providers to make a further showing at this time that they are registered with the Policy Administrator, as TransNexus suggests. Moreover, as Numeracle points out, the Policy Administrator's list of providers authorized to participate in STIR/SHAKEN is publicly available, allowing Commission staff to easily verify a provider's registration status without further expanding the Robocall Mitigation filing requirements.¹⁴⁷ We also believe it is unnecessary to require providers to identify any third-party authentication solutions they use in their Robocall Mitigation Database submissions, as NCTA suggests.¹⁴⁸ Under the rules we adopt today, which require calls to be signed using the digital certificate of the provider with the STIR/SHAKEN implementation obligation, responsibility and accountability for compliance with the STIR/SHAKEN standards will be traced back to that provider, not a third-party entity that technologically signs the call. Further, we agree with INCOMPAS that requiring providers to identify the specific third-party solutions that they may employ to perform the technological act of signing calls could require providers to update their Robocall Mitigation Database submissions more frequently if such solutions change, thereby increasing administrative burdens for providers with minimal benefit.¹⁴⁹ Lastly, providers are already required to describe in their robocall mitigation plans how they comply with their existing obligation to know their customers under the Commission's rules.¹⁵⁰ We, thus, decline to further amend our requirements for Robocall Mitigation Database certifications at this time.¹⁵¹

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¹⁴⁴ TransNexus Comments at 14 & n.15 ("For example, the [Database] filer might provide the OCN they used to register with the STI-PA. This might require the STI-PA to modify their webpage listing of Authorized Providers, <https://authenticate.iconectiv.com/authorized-service-providers-authenticate>, to include the primary registration OCN of each authorized provider. This would be beneficial, as there are already duplicate names listed, with no way to identify which provider using that name is authorized.").

¹⁴⁵ NCTA Comments at 3 (arguing that disclosure of this information "will further increase transparency and enable the Commission to monitor compliance without requiring public disclosure of more sensitive details that bad actors could seek to exploit").

¹⁴⁶ Numeracle Comments at 8 n.5 (arguing that "[t]he Commission should mandate that a provider must explicitly state its KYC standards in its robocall mitigation plan").

¹⁴⁷ iconectiv Authenticate, *authorized providers*, <https://authenticate.iconectiv.com/authorized-service-providers-authenticate> (last visited Nov. 18, 2024); *see also* Numeracle Comments at 9.

¹⁴⁸ NCTA Comments at 3.

¹⁴⁹ *See* INCOMPAS Comments at 14 (arguing that we should not require providers to identify any third-party authentication solutions they rely on in the Robocall Mitigation Database because providers would "constantly" have to update their filings and certification, "deter[ing] interest in trying out a variety of different solutions across one's network" and innovation).

¹⁵⁰ 47 CFR § 64.6305(d)(2)(ii) (requiring a voice service provider to describe how it complies with its obligation to know its customers pursuant to section 64.1200(n)(4) in its Robocall Mitigation Database certification), (e)(2) (requiring a gateway provider to describe how it complies with its obligation to know now its upstream providers pursuant to § 64.1200(n)(5) in its Robocall Mitigation Database certification), (f)(2) (requiring a non-gateway intermediate provider to include a description of any procedures in place to know its upstream providers in its certification).

¹⁵¹ ZipDX proposes that "[n]ew [Robocall Mitigation Database] registrations should not immediately become active. Instead, FCC staff should vet the registration to ensure that the applicant has a token from the STI-PA and if not, that the filed RMP contain a thorough, credible explanation as to why not." ZipDX Reply at 4. In August 2024, we (continued....)

but we will closely observe how providers comply with the requirements we adopt today to determine whether additional information would assist our compliance reviews and enforcement activities in the future.¹⁵²

33. *Recordkeeping.* To ensure compliance with the requirements we adopt herein for third-party authentication, and to enable the Commission to monitor such compliance and enforce its rules, we require that providers that choose to work with a third party to perform technological act of signing calls do so pursuant to a written agreement.¹⁵³ The agreement must specify the specific tasks that the third party will perform on the provider's behalf and confirm that provider will: (1) make all attestation-level decisions for calls signed pursuant to the agreement, and (2) ensure that all calls will be signed using the provider's certificate. Providers may be required to submit a copy of the agreement to the Commission in connection with a review of the provider's compliance with the Commission's rules or an investigation by the Enforcement Bureau.¹⁵⁴ We require that a current agreement be in place for as long as any third-party authentication arrangement exists, and that all copies of third-party agreements be maintained for a period of two years from the end or termination of the agreement.¹⁵⁵

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launched a separate proceeding to consider procedural measures for improving the overall quality of information submitted to the Robocall Mitigation Database. *See Robocall Mitigation Database NPRM.* We believe that addressing ZipDX's procedural proposal would be more appropriate in the context of that proceeding, and thus decline to do so here.

¹⁵² ACA Connects argues that the "Commission could further require reseller providers to disclose to the Commission (on a confidential basis), the identity of any wholesale provider that authenticates some or all of their calls." ACA Connects Comments at 5-6 & n.9 (suggesting this could enhance current accountability mechanisms for "white-label voice providers relying on wholesale providers for call authentication"). As discussed above, however, in the context of a wholesale provider originating a call onto the public network for a reseller which lacks control over the network infrastructure necessary to implement STIR/SHAKEN, it is the wholesale provider that has the STIR/SHAKEN implementation obligation, that must authenticate the calls using its own digital certificate. *See supra* para. 17.

¹⁵³ In the *Sixth Caller ID Authentication Further Notice*, the Commission sought comment on the measures it would "need to implement to monitor compliance with its rules if third-party authentication arrangements are employed." *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2622-23, para. 104. No commenter raises arguments for or against recordkeeping requirements.

¹⁵⁴ To the extent that an agreement between a provider with the STIR/SHAKEN implementation obligation and a third party contains confidential information, providers may seek confidential treatment for that information. 47 CFR § 0.459.

¹⁵⁵ We emphasize that there must be a memorialized agreement between the provider with the STIR/SHAKEN implementation obligation and the third party performing the technological act of signing a call for the arrangement to be considered third-party authentication under the rules we adopt today. For example, the Commission's rules require voice service providers to authenticate the traffic that they originate, and, if they fail to do so, non-gateway intermediate providers must themselves authenticate any unauthenticated calls they receive directly from originating providers. Consequently, an intermediate provider that receives an unauthenticated call from an originating provider does not engage in third-party authentication simply because it is the entity that uses STIR/SHAKEN to authenticate the call. In such an instance, the intermediate provider is discharging its own authentication obligation under the Commission's rules by signing the unsigned traffic. For this reason, we do not share ZipDX's concern about a lack of accountability for calls in the event that a wholesale provider might claim that it should be "deemed an intermediate provider" in relation to a reseller customer. ZipDX *Ex Parte* at 1. If, however, the originating service provider has executed an agreement for its immediate downstream intermediate provider to perform the technological act of signing a call on the originating provider's behalf, subject to the conditions adopted in this *Eighth Report and Order*, that would qualify as a third-party authentication arrangement. We thus reject INCOMPAS's argument that our definition of third-party authentication should apply when downstream providers are merely "signing calls that were not signed up-stream," even if the downstream provider "may not be offering signing service *per se*." INCOMPAS Comments at 6.

34. *Compliance Deadline.* The new third-party authentication guardrails we adopt in this *Report and Order* include recordkeeping and Robocall Mitigation Database certification requirements under 47 CFR §§ 64.6301(b)(3)-(b)(5), 64.6302(f)(3)-(f)(5), and 64.6305(d)-(f), which may contain new or modified information collections subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA).¹⁵⁶ While the remaining amendments to sections 64.6301-64.6305 adopted in this *Report and Order* do not themselves require OMB approval, in practice, compliance with the requirements of these provisions will likely entail compliance with the provisions of 64.6301(b)(3) through (5), 64.6302(f)(3) through (5), and 64.6305(d) through (f), respectively. Therefore, we set a compliance deadline for all our newly adopted requirements of 30 days after publication of this *Report and Order* in the Federal Register following OMB approval, or 210 days after release of this *Report and Order*, whichever is later.

35. We expect that requiring providers to comply with all of the obligations we adopt in the *Report and Order* on the same date will facilitate compliance with our rules, and consequently we elect to delay the effectiveness of the entirety of the modifications to sections 64.6301 through 64.6305 pending OMB approval of sections 64.6301(b)(3) through (5), 64.6302(f)(3) through (5), and 64.6305(d) through (f). Consistent with the Commission's approach in prior rulemakings,¹⁵⁷ we direct the Wireline Competition Bureau to announce effective dates for 47 CFR §§ 64.6301-64.6305 through Public Notice. Any provider with a STIR/SHAKEN implementation obligation that has failed to both: (1) obtain an SPC token from the Policy Administrator and a digital certificate from a Certificate Authority; and (2) ensure that all calls that it is required to authenticate are signed using its own digital certificate, will be required to update their certifications in the Robocall Mitigation Database to state that they have not fully or partially implemented STIR/SHAKEN by the effective date of the rules listed in this paragraph as announced by Public Notice.

36. The record reflects support for our adoption of a single compliance deadline for our third-party authentication obligations based on the schedule above.¹⁵⁸ Commenters explain that providers using third-party authentication solutions may have to make a number of commercial and network changes to comply with the newly adopted authentication and robocall mitigation requirements, such as creating new commercial arrangements with customers or third-party vendors,¹⁵⁹ taking the steps needed to obtain a token and certificate,¹⁶⁰ determining the process for assigning an attestation level,¹⁶¹ and making changes to their network to sign calls with their own token.¹⁶² We agree with NCTA that adopting a transition period would "promote fairness and avoid exposing providers relying on good faith on non-conforming third-party solutions to the threat of immediate liability."¹⁶³ We also agree with INCOMPAS that "[w]hile the evolution toward broad token access should be encouraged, expecting a flash-cut" to such a change would not be practical.¹⁶⁴ Therefore, we grant providers a reasonable amount of time to adjust their third-party call authentication practices to comply with the rules we adopt today, and will not require compliance with these rules sooner than 210 days after release of this *Report and Order*. Although we

¹⁵⁶ See *infra* para. 54 (delaying the amendments to 47 CFR §§ 64.6301- 64.6305).

¹⁵⁷ See *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2627, para. 125; *Robocall Mitigation Database Filing Deadline Public Notice* at 2.

¹⁵⁸ NCTA Comments at 3; INCOMPAS Comments at 7; INCOMPAS Reply at 6; TransNexus Reply at 17.

¹⁵⁹ INCOMPAS Reply at 6; NCTA Comments at 3.

¹⁶⁰ INCOMPAS Reply at 6; TransNexus Reply at 17.

¹⁶¹ TransNexus Reply at 17.

¹⁶² NCTA Comments at 3; TransNexus Reply at 17; *see also* CCA Comments at 13.

¹⁶³ NCTA Comments at 3; *see also* TransNexus Reply at 17; INCOMPAS Comments at 7.

¹⁶⁴ INCOMPAS Comments at 7.

find that this approach will allow sufficient time for providers to adjust their third-party authentication practices,¹⁶⁵ providers should comply with our new rules as soon as reasonably practicable.

C. Summary of Cost-Benefit Analysis

37. We find that the benefits of the third-party authentication rules we adopt today will greatly exceed the costs they will impose on providers. In the *Sixth Caller ID Authentication Report and Order*, the Commission confirmed the conclusion that “our STIR/SHAKEN rules are likely to result in, at a minimum, \$13.5 billion in annual benefits,” and that the benefits associated with the rules will greatly outweigh the costs imposed on providers.¹⁶⁶ We again affirm this conclusion, and find that “[l]imiting the ability of illegal robocallers to evade existing rules will preserve and extend the benefits of STIR/SHAKEN.”¹⁶⁷

38. *Benefit: Preserving the Structural Integrity of the STIR/SHAKEN Regime.* Establishing clear rules of the road for providers using third parties to authenticate voice service calls will increase the STIR/SHAKEN framework’s benefits. Our new third-party authentication requirements will increase compliance with the Commission’s caller ID authentication rules, promote accountability and trust within the STIR/SHAKEN framework, and improve the accuracy of A- and B- level attestations. As a result, more illegal robocalls will be identified and stopped before they can reach American consumers, helping increase confidence in the U.S. telephone network. In adopting these requirements, we strike a balance that allows providers to realize the benefits of third-party authentication while preventing abuses that could undermine the STIR/SHAKEN standards. The new rules will increase the number of calls signed with a SHAKEN signature, give providers and their customers more signing options, and make it more cost-effective for all providers to implement STIR/SHAKEN. Indeed, the record reflects that third-party authentication may “confer[] substantial benefits,”¹⁶⁸ particularly for small providers, as deploying STIR/SHAKEN in the IP portion of their voice service network may otherwise be cost-prohibitive.¹⁶⁹ The cost savings that make third-party authentication a worthwhile, cost-effective investment for small providers is an added benefit.

39. *Benefit: Ensuring Reliable Access to Emergency and Healthcare Communications.* In the *First Caller ID Authentication Report and Order*, the Commission noted that “hospitals and 911 dispatch centers have reported that robocall surges have disabled or disrupted their communications network, and such disruptions have the potential to impede communications in life-or-death emergency situations. In one instance, Tufts Medical Center in Boston received more than 4,500 robocalls in a two-hour period. In another, the phone lines of several 911 dispatch centers in Tarrant County, Texas, were

¹⁶⁵ See *Rural Call Completion*, WC Docket No. 13-39, Third Report and Order, 33 FCC Rcd 8400, 8416, para. 42 (2018) (*Rural Call Completion Third Report and Order*) (finding, “based upon [Commission] experience, that 45 days will provide covered providers with sufficient time to adjust their call routing practices” and that “a 90-day phase-in period . . . will permit covered providers adequate time to make adjustments to existing contractual arrangements”). In this instance, we agree with INCOMPAS and CCA that a period of at least 210 days following the release of this *Report and Order* will ensure that providers have sufficient time to achieve compliance with our new rules. See Letter from Christopher L. Shipley, Executive Director of Public Policy, INCOMPAS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97, at 1-2 (filed Nov. 15, 2024) (INCOMPAS & CCA *Ex Parte*) (noting, *inter alia*, that many companies “experience a development hiatus during the holidays when this transition would begin, and many customers will require specialized solutions, education, and training to bring them into compliance”).

¹⁶⁶ *Sixth Caller ID Authentication Report and Order*, 38 FCC Rcd at 2616, para. 86 (citing to the reasoning provided in the *First Caller ID Authentication Report and Order* and *Further Notice* and explaining that the Commission sought comment on this conclusion in the *Fifth Caller ID Authentication Further Notice*).

¹⁶⁷ *Id.* at 2616, para. 87.

¹⁶⁸ CCA Comments at 13.

¹⁶⁹ See, e.g., USTelecom Comments at 2 n.5.

disabled because of an hourlong surge in robocalls.¹⁷⁰ Although the Commission declined then to estimate the considerable public safety benefits of reduced robocalling, in the wake of subsequent Commission orders estimating the public safety benefits of reduced emergency response delays, we elect to do so now. In the *Location-Based Routing Report and Order*, we estimated that a one-minute reduction in average emergency response times would save 13,837 lives, a mortality risk reduction worth \$173 billion annually.¹⁷¹ Based on that figure, any reduction in emergency response delays caused by robocalls could confer large benefits. For example, if unwanted and illegally spoofed robocalls caused only a one-second delay in average emergency response times, the potential mortality risk-reduction benefit would be worth \$2.88 billion annually (i.e., $173/60=2.88$). Assuming a linear relationship between prevalence of robocalling and possible emergency response delays, a one-tenth reduction in robocalling and the accompanying tenth-of-a-second reduction in emergency response time, which could be achieved by better third-party authentication, would be worth \$288 million annually. A more modest one-twentieth reduction in robocalling and one-twentieth-of-a-second reduction emergency response times would be worth \$144 million annually.¹⁷²

40. *Benefit: Reducing Network Congestion and Consumer Complaints.* The Commission has noted previously that unwanted and illegal robocalls increase network congestion and the labor costs of handling numerous customer complaints.¹⁷³ Third-party-authenticated traffic that does not currently meet STIR/SHAKEN technical standards and results in illegal or unwanted robocalls terminates on the networks of unwitting carriers, forcing them to bear the costs of unwanted call traffic in the form of increased customer complaints and network congestion. Tightening third-party authentication requirements will generate savings for voice service providers, which may pass them on to consumers in the form of lower rates.

41. *Costs.* While some argue that limitations on third-party authentication may be costly without concomitant benefits,¹⁷⁴ the record more broadly reflects that the costs of requiring providers that use third-party solutions to authenticate calls with their own token and applying their attestation level to their calls will be minimal for all providers, including small providers.¹⁷⁵ As explained above, by adopting a minimum compliance period for our third-party authentication requirements of 210 days following release of this *Report and Order*, we take a balanced approach that maximizes the benefits to providers using third-party authentication solutions while minimizing its costs. And, though we

¹⁷⁰ See *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3264, para. 50.

¹⁷¹ See *Location-Based Routing for Wireless 911 Calls*, PS Docket No. 18-64, Report and Order, FCC 24-4, at 52, para. 118 (Jan. 26, 2024).

¹⁷² To achieve \$100 million in annual public safety benefits, our third-party authentication rules would only have to reduce unwanted and illegal robocalls such that average emergency response times were improved by a mere 0.035 seconds, or about one-thirtieth of a second. Given the prevalence of robocalls and their ability to disrupt communications and cause network congestion, it is highly likely that implementing third-party authentication rules to strengthen the STIR/SHAKEN ecosystem will reduce robocalls by at least this much, resulting in life-saving benefits.

¹⁷³ *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3264-45, para. 52.

¹⁷⁴ See, e.g., CCA Comments at 12, 13 (arguing that “the alleged harms from third party authentication have not been substantiated” if flexible third party signing is not permitted, “[r]esellers, VASPs or other entities will incur the costs of developing or outsourcing the platform required to sign calls. . . . Although CCA is unable at this time to assign cost estimates to such changes, they surely are not trivial. Apart from costs, the changes will take time to implement and operationalize”).

¹⁷⁵ See, e.g., NCTA Comments at 3 n.3 (explaining that since token access fees are based on 499 revenues, they will not be unreasonably burdensome for small providers and for those providers “that do not file Form 499s, some small, flat fee may still be appropriate to avoid free riding”); ZipDX Reply at 4 (arguing that that the cost to obtain and maintain a token is revenue-based and will be small for a small reseller); *supra* note 136 (describing calculation of token access fees).

acknowledge that our adopted third-party authentication requirements will have implementation and recordkeeping costs, we conclude that explicitly authorizing third-party authentication with our adopted limitations will produce significant benefits, including increased trust in the STIR/SHAKEN framework and the accuracy of A- and B-level attestations.

D. Legal Authority

42. Consistent with our proposals, we adopt the foregoing obligations pursuant to the legal authority that the Commission relied on in prior caller ID authentication and call blocking orders. We note that no commenter questioned our proposed legal authority.

43. *Third-Party Authentication.* We conclude that section 251(e) of the Act and the Truth in Caller ID Act provide us with the authority to authorize providers to engage in third-party authentication practices subject to certain limits.¹⁷⁶ Specifically, we find that our section 251(e) numbering authority and the Truth in Caller ID Act each provide the Commission with independent authority to require providers that use third parties to authenticate calls to adhere to two limitations: (1) the provider with the STIR/SHAKEN implementation obligation under the Commission's rules must be the entity that determines whether A-, B-, or C- level attestation should be applied to the call; and (2) all calls must be signed using the SPC token of the provider with the implementation obligation.

44. As the Commission explained in the *First Caller ID Authentication Report and Order*, section 251 provides the Commission with exclusive, independent jurisdiction over numbering issues in the United States and “enables us to act flexibly and expeditiously with regard to important numbering matters[,]” including “[w]hen bad actors unlawfully spoof the caller ID that appears on a subscriber's phone[.]”¹⁷⁷ Further, the Truth in Caller ID Act provides us with authority to adopt rules that are “necessary to . . . protect voice service subscribers from scammers and bad actors.”¹⁷⁸ As the Commission has found in several caller ID authentication and call blocking orders, we again find that section 251(e) and the Truth in Caller ID Act provide the Commission with the authority “to prescribe rules to prevent the unlawful spoofing of caller ID and abuse of NANP resources by all voice service providers[.]”¹⁷⁹ The record reflects that the limitations on third-party authentication we adopt today are necessary to ensure the integrity of and trust in the STIR/SHAKEN ecosystem and will help shield customers from the scourge of illegal robocalls. Adopting rules for third-party authentication practices will also help prevent the fraudulent exploitation of the NANP by ensuring that the parties responsible for implementing STIR/SHAKEN under the Commission's rules remain accountable for meeting the STIR/SHAKEN standards. We thus find that section 251(e) of the Act and the Truth in Caller ID Act provide us with the authority to adopt the foregoing third-party authentication rules.

45. *Implementation and Compliance Measures.* We conclude that the TRACED Act provides additional, independent authority to require providers to obtain an SPC token and sign their calls with their own certificate in order to satisfy a STIR/SHAKEN implementation obligation under the Commission's rules.¹⁸⁰ Congress expressly required the Commission to require voice service providers to

¹⁷⁶ 47 U.S.C. §§ 227(e), 251(e); *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2623-24, para. 109.

¹⁷⁷ *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3260-61, para. 42; see 47 U.S.C. § 251(e).

¹⁷⁸ *First Caller ID Authentication Report and Order*, 35 FCC Rcd at 3262, para. 44; see 47 U.S.C. § 227(e).

¹⁷⁹ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2617-18, para. 93 (citing the *Gateway Provider Order* at 48, para. 117 (quoting *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Fourth Report and Order, 35 FCC Rcd 15221, 15234, para. 37 (2020))); see *Seventh Caller ID Authentication Report and Order*, 38 FCC Rcd at 52426-47, paras. 66-67; *Second Caller ID Authentication Report and Order*, 36 FCC Rcd at 1909-10, paras. 97-100; *First Caller ID Authentication Report and Order and Further Notice*, 35 FCC Rcd at 3260-61, paras. 42, 44.

¹⁸⁰ *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2624, para. 110; 47 U.S.C. § 227b(b)(1).

implement the STIR/SHAKEN caller ID authentication framework in the TRACED Act.¹⁸¹ Requiring providers to acquire their own SPC token from and register with the Policy Administrator, obtain a digital certificate from a STIR/SHAKEN Certificate Authority, and sign calls with their digital certificate will better ensure that providers are meeting their responsibilities to properly authenticate calls and comply with the requirements of the ATIS standards. Our third-party authentication rules will therefore help maintain the integrity of the trust and governance structure upon which STIR/SHAKEN relies, as these rules will better ensure that providers are held accountable for properly implementing STIR/SHAKEN. Adopting these requirements will thus increase the efficacy and trust of the call authentication framework that the TRACED Act required.

46. We also find that section 251(e) of the Act and the Truth in Caller ID Act also provide us with the authority to adopt the implementation and compliance measures for the third-party authentication rules that we adopt in this *Report and Order*.¹⁸² Specifically, we conclude that section 251(e) of the Act and the Truth in Caller ID Act authorize us to: (1) prohibit any provider from certifying to full or partial implementation in the Robocall Mitigation Database unless they have obtained their own SPC token and sign calls with their own digital certificate; (2) require that any third-party authentication arrangement be memorialized in an agreement between the party with the STIR/SHAKEN implementation obligation under the Commission's rules and the third-party signer; and (3) require the memorialized agreement be in place for as long as any third-party authentication arrangement exists, and that all copies of third-party agreements be maintained for a period of two years from the end or termination of the agreement. As explained above with respect to our third-party authentication rules, these measures will help providers realize the benefits of third-party authentication while providing greater mechanisms for accountability that will ensure that providers are complying with their STIR/SHAKEN implementation obligations. Consequently, we find that these requirements will also prevent the fraudulent abuse of North American Numbering Plan (NANP) resources as directed in section 251(e) of the Act, as well as protect voice service subscribers as directed in the Truth in Caller ID Act by increasing trust in the STIR/SHAKEN standards.

IV. PROCEDURAL MATTERS

47. *Regulatory Flexibility Analysis.* The Regulatory Flexibility Act of 1980, as amended (RFA),¹⁸³ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."¹⁸⁴ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this *Report and Order* on small entities. The FRFA is set forth in Appendix B.

48. *Paperwork Reduction Act.* This document may contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. All such new or modified information collection requirements will be submitted to the Office of Management and Budget (OMB) for review under the PRA. OMB, the general public, and other Federal agencies will be invited to comment on new or substantively modified information collection requirements contained in this proceeding. Any non-substantive modification to a previously approved information collection will be submitted to OMB for review pursuant to OMB's process for non-substantive changes. In addition,

¹⁸¹ 47 U.S.C. § 227b(b)(1)(A). Consistent with the Commission's prior call blocking and caller ID authentication orders, we find that sections 201(b) and 201(a) of the Act, and the Commission's ancillary authority in section 4(i) of the Act, provide us with additional sources of authority to adopt these robocall mitigation requirements. *See, e.g., Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2617-19, paras. 92-95.

¹⁸² 47 U.S.C. §§ 227(e), 251(e); *Sixth Caller ID Authentication Further Notice*, 38 FCC Rcd at 2623-24, para. 109.

¹⁸³ 5 U.S.C. §§ 601-612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹⁸⁴ 5 U.S.C. §§ 605(b).

we note that pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees. In this present document, we have assessed the effects of: (1) requiring that any third-party authentication arrangement be memorialized in an agreement between the party with the STIR/SHAKEN implementation obligation under the Commission's rules and the third-party signer; and (2) allowing providers to certify to complete or partial implementation in the Robocall Mitigation Database *only* if they have obtained an SPC token and digital certificate and sign calls with their certificate. We find that small providers have had ample time to develop processes to allow them to respond within the appropriate time and that providers for which this presents a significant burden, either due to their size or for some other reason, may request a waiver. With respect to any non-substantive modification to a previously approved information collection, such changes are non-substantive and are not give rise to new or substantively modified information collection burdens for small business concerns with fewer than 25 employees pursuant to the Small Business Paperwork Relief Act of 2002.

49. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is "major" under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this *Eighth Report and Order* to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

50. *Accessible Formats.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice).

51. *Additional Information.* For further information about the *Eighth Report and Order*, contact Emily Caditz, Attorney Advisor, Competition Policy Division, Wireline Competition Bureau, at Emily.Caditz@fcc.gov, or (202) 418-2268.

V. ORDERING CLAUSES

52. Accordingly, pursuant to sections 4(i), 4(j), 201, 202, 217, 227, 227b, 251(e), 303(r), 403, 501, 502, and 503 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 201, 202, 214, 217, 227, 227b, 251(e), 303(r), 403, 501, 502, and 503, IT IS ORDERED that this *Eighth Report and Order* IS ADOPTED.

53. IT IS FURTHER ORDERED that part 64 of the Commission's rules IS AMENDED as set forth in Appendix A.

54. IT IS FURTHER ORDERED that, pursuant to sections 1.4(b)(1) and 1.103(a) of the Commission's rules, 47 CFR §§ 1.4(b)(1), 1.103(a), this *Eighth Report and Order*, including the rule revisions and redesignations described in Appendix A, SHALL BE EFFECTIVE 30 days after its publication in the Federal Register following OMB approval. The Commission directs the Wireline Competition Bureau to announce the completion of any review by the Office of Management and Budget that the Wireline Competition Bureau determines is required under the Paperwork Reduction Act and the relevant effective date by subsequent public notice.

55. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance & Program Management, SHALL SEND a copy of this *Eighth Report and Order* in a report to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

56. IT IS FURTHER ORDERED that the Commission's Office of the Secretary, SHALL SEND a copy of this *Eighth Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A**Final Rules**

The Federal Communications Commission amends Part 64 of Title 47 of the Code of Federal Regulations as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS**Subpart HH—Caller ID Authentication**

1. Amend section 64.6301 by revising paragraphs (a) and (b) to read as follows:

§ 64.6301 Caller ID Authentication.

(a) * * *

(1) Obtain an SPC token from the Secure Telephone Identity Policy Administrator and use that token to obtain a Secure Telephone Identity certificate from a Secure Telephone Identity Certificate Authority;

(2) Using the certificate obtained pursuant to paragraph (a)(1) of this section:

(i) Authenticate and verify caller identification information for all SIP calls that exclusively transit its own network;

(ii) Authenticate caller identification information for all SIP calls it originates and that it will exchange with another voice service provider or intermediate provider and, to the extent technically feasible, transmit that call with authenticated caller identification information to the next voice service provider or intermediate provider in the call path; and

(3) * * *

(b) A voice service provider may fulfill its obligations to authenticate caller identification information under paragraph (a)(2) of this section by entering into an agreement with a third-party authentication service, provided that the voice service provider:

(1) Requires the third party to sign all calls using the certificate obtained by the voice service provider in accordance with paragraph (a)(1);

(2) Makes all attestation-level decisions regarding the caller identification information of each SIP call it originates;

(3) Memorializes the agreement between it and the third party for the authentication service in writing, which:

(i) Specifies the specific tasks that the third-party authenticator will perform on the voice service provider's behalf, and

(ii) Confirms that the voice service provider shall make all attestation-level decisions for calls signed pursuant to the agreement, and that all calls shall be signed using the voice service provider's Secure Telephone Identity certificate;

(4) Maintains any agreement entered into pursuant to paragraph (b) of this section for as long as any third-party authentication arrangement exists; and

(5) Retains a copy of any agreement entered into pursuant to paragraph (b) of this section for a period of two (2) years from the end or termination of the agreement.

2. Amend section 64.6302 by redesignating paragraphs (a) as (b), (b) as (c), (c) as (d), and (d) as (e), inserting new paragraphs (a) and (f), and revising paragraphs (c), (d), and (e) to read as follows:

§ 64.6302 Caller ID authentication by intermediate providers.

* * * * *

(a) Obtain an SPC token from the Secure Telephone Identity Policy Administrator and use that token to obtain a Secure Telephone Identity certificate from a Secure Telephone Identity Certificate Authority;

* * * * *

(c) Authenticate caller identification information for all calls it receives for which the caller identification information has not been authenticated and which it will exchange with another provider as a SIP call using the Secure Telephone Identity certificate it received from the Secure Telephone Identity Certificate Authority pursuant to paragraph (a) of this section, except that the intermediate provider is excused from such duty to authenticate if it:

* * * * *

(d) Notwithstanding paragraph (c) of this section, a gateway provider must authenticate caller identification information using the Secure Telephone Identity certificate it received pursuant to paragraph (a) of this section for all calls it receives that use North American Numbering Plan resources that pertain to the United States in the caller ID field and for which the caller identification information has not been authenticated and which it will exchange with another provider as a SIP call, unless that gateway provider is subject to an applicable extension in § 64.6304.

(e) Notwithstanding paragraph (c) of this section, a non-gateway intermediate provider must authenticate caller identification information using the Secure Telephone Identity certificate it received pursuant to paragraph (a) of this section for all calls it receives directly from an originating provider and for which the caller identification information has not been authenticated and which it will exchange with another provider as a SIP call, unless that non-gateway intermediate provider is subject to an applicable extension in § 64.6304.

(f) An intermediate provider may fulfill its obligations to authenticate caller ID information under paragraphs (d) and (e) of this section by entering into an agreement with a third-party authentication service, provided that the intermediate provider:

(1) Requires the third party to sign all calls using the certificate obtained by the intermediate provider in accordance with paragraph (a) of this section;

(2) Makes all attestation-level decisions regarding the caller identification information of each SIP call it originates;

(3) Memorializes the agreement between it and the third party for the authentication service in writing, which:

(i) Specifies the specific tasks that the third-party authenticator will perform on the intermediate provider's behalf, and

(ii) Confirms that the intermediate provider shall make all attestation-level decisions for calls signed pursuant to the agreement, and that all calls shall be signed using the voice service provider's Secure Telephone Identity certificate;

(4) Maintains any agreement entered into pursuant to paragraph (f) of this section for as long as any third-party authentication arrangement exists; and

(5) Retains a copy of any agreement entered into pursuant to paragraph (f) of this section for a period of two (2) years from the end or termination of the agreement.

3. Amend section 64.6303 by revising paragraphs (b)(1) and (c)(1) to read as follows:

§ 64.6303 Caller ID authentication in non-IP networks.

* * * * *

(b) * * *

(1) Upgrade its entire network to allow for the processing and carrying of SIP calls and fully implement the STIR/SHAKEN framework as required in § 64.6302(d) throughout its network; or

* * * * *

(c) * * *

(1) Upgrade its entire network to allow for the processing and carrying of SIP calls and fully implement the STIR/SHAKEN framework as required in § 64.6302(e) throughout its network; or

* * * * *

4. Amend section 64.6304 by revising paragraph (b) to read as follows:

§ 64.6304 Extension of implementation deadline.

* * * * *

(b) *Voice service providers, gateway providers, and non-gateway intermediate providers that cannot obtain an SPC token.* Voice service providers that are incapable of obtaining an SPC token due to Governance Authority policy are exempt from the requirements of § 64.6301 until they are capable of obtaining an SPC token. Gateway providers that are incapable of obtaining an SPC token due to Governance Authority policy are exempt from the requirements of § 64.6302(d) regarding call authentication. Non-gateway intermediate providers that are incapable of obtaining an SPC token due to Governance Authority policy are exempt from the requirements of § 64.6302(e) regarding call authentication.

* * * * *

5. Amend section 64.6305 by revising paragraphs (d)(1)(i), (d)(1)(ii), (e)(1)(i), (e)(1)(ii), (f)(1)(i), and (f)(1)(ii) to read as follows:

§ 64.6305 Robocall Mitigation and Certification.

* * * * *

(d) * * *

(1) * * *

(i) It has fully implemented the STIR/SHAKEN authentication framework across its entire network and all calls it originates are compliant with § 64.6301;

(ii) It has implemented the STIR/SHAKEN authentication framework on a portion of its network and all calls it originates on that portion of its network are compliant with § 64.6301(a) and (b);
or

* * * * *

(e) * * *

(1) * * *

(i) It has fully implemented the STIR/SHAKEN authentication framework across its entire

network and all calls it carries or processes are compliant with § 64.6302;

(ii) It has implemented the STIR/SHAKEN authentication framework on a portion of its network and calls it carries or processes on that portion of its network are compliant with § 64.6302; or

* * * * *

(f) * * *

(1) * * *

(i) It has fully implemented the STIR/SHAKEN authentication framework across its entire network and all calls it carries or processes are compliant with § 64.6302;

(ii) It has implemented the STIR/SHAKEN authentication framework on a portion of its network and calls it carries or processes on that portion of its network are compliant with § 64.6302; or

* * * * *

APPENDIX B

FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹ as amended, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Call Authentication Trust Anchor Further Notice of Proposed Rulemaking* released in March 2023 (*Sixth Caller ID Authentication Further Notice*).² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *Sixth Caller ID Authentication Further Notice*, including comment on the IRFA. The comments received are discussed below. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Order

2. The *Eighth Report and Order* takes important steps in the fight against illegal robocalls by explicitly authorizing providers to use third-party authentication solutions to comply with their existing STIR/SHAKEN implementation obligations and adopting associated implementation and compliance measures.⁴ The decisions we make here protect consumers from unwanted and illegal calls while balancing the legitimate interests of callers placing lawful calls. First, the *Eighth Report and Order* requires a provider that uses a third-party solution for signing calls to satisfy its STIR/SHAKEN implementation obligation under the Commission's rules to make the attestation-level decisions itself, and ensure that its calls are signed with its own certificate, rather than that of a downstream provider or other third party.⁵ Second, it requires all providers with a STIR/SHAKEN implementation obligation to: (1) obtain an SPC Token and digital certificate; (2) certify to complete or partial implementation in the Robocall Mitigation Database only if they have obtained an SPC token and digital certificate and ensure their calls are signed with their own certificate; and (3) memorialize any third-party authentication arrangement in an agreement and maintain a record of such agreement(s) for two years from the end or termination of the agreement, alongside certain additional requirements.⁶ These guardrails for third-party authentication arrangements will help to ensure providers remain accountable for complying with their STIR/SHAKEN implementation requirements and are transparent regarding their caller ID authentication practices.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

3. Though there were no comments raised that specifically addressed the proposed rules and policies presented in the *Sixth Caller ID Authentication Further Notice* IRFA, the Commission did receive comments addressing the burdens on small providers. There is general agreement that the barriers to and costs associated with obtaining and maintaining SPC tokens and digital certificates are low for small providers.⁷ A few commenters argued that a compliance period of at least 210 days following release of this *Report and Order* would give the industry time to comply with any rules limiting third-

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Public Law No. 104-121, 110 Stat. 847 (1996).

² *Call Authentication Trust Anchor*, WC Docket No. 17-97, Sixth Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 2573, Appx. C (2023) (*Sixth Caller ID Authentication Report and Order* or *Sixth Caller ID Authentication Further Notice*).

³ See 5 U.S.C. § 604.

⁴ See *Eighth Report and Order* Section III.

⁵ See *Eighth Report and Order* Section III.A.

⁶ See *Eighth Report and Order* Section III.B.

⁷ *Eighth Report and Order* at Section III.B.

party authentication.⁸ The Commission found that the commenters provided sufficient evidence to support adoption of a minimum 210-day compliance period for purposes of these rules.⁹

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

4. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.¹⁰ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

5. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.¹¹ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹² In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.¹³ A “small-business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.¹⁴

6. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe, at the outset, three broad groups of small entities that could be directly affected herein.¹⁵ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.¹⁶ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹⁷

⁸ INCOMPAS & CCA Ex Parte at 1-2; *see also* CCA Comments at 13 (advocating for a minimum compliance period of six months); TransNexus Reply Comments at 17 n.63 (arguing in favor of a transition period and citing CCA); NTCA Comments at 3(same).

⁹ *Eighth Report and Order* at Section III.B.

¹⁰ 5 U.S.C. § 604(a)(3).

¹¹ *See* 5 U.S.C. § 603(b)(3).

¹² *See* 5 U.S.C. § 601(6).

¹³ *See* 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

¹⁴ *See* 15 U.S.C. § 632.

¹⁵ 5 U.S.C. § 601(3)-(6).

¹⁶ *See* SBA, Office of Advocacy, “What’s New With Small Business?,” <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf> (Mar. 2023).

¹⁷ *Id.*

7. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹⁸ The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.¹⁹ Nationwide, for tax year 2022, there were approximately 530,109 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.²⁰

8. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”²¹ U.S. Census Bureau data from the 2022 Census of Governments²² indicate there were 90,837 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.²³ Of this number, there were 36,845 general purpose governments (county,²⁴ municipal, and town or township²⁵) with populations of less than 50,000 and 11,879 special purpose governments (independent school districts²⁶) with enrollment

¹⁸ 5 U.S.C. § 601(4).

¹⁹ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations – Form 990-N (e-Postcard), “Who must file,” <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

²⁰ See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2022 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (71,897), Region 2-Mid-Atlantic and Great Lakes Areas (197,296), and Region 3-Gulf Coast and Pacific Coast Areas (260,447) that includes the continental U.S., Alaska, and Hawaii. This data includes information for Puerto Rico (469).

²¹ 5 U.S.C. § 601(5).

²² 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/economic-census/year/2022/about.html>.

²³ See U.S. Census Bureau, 2022 Census of Governments – Organization Table 2. Local Governments by Type and State: 2022 [CG2200ORG02], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG2200ORG02 Table Notes_Local Governments by Type and State_2022.

²⁴ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2022 [CG2200ORG05], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 2,097 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

²⁵ See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2022 [CG2200ORG06], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 18,693 municipal and 16,055 town and township governments with populations less than 50,000.

²⁶ See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2022 [CG2200ORG10], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 11,879 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local (continued....)

populations of less than 50,000.²⁷ Accordingly, based on the 2022 U.S. Census of Governments data, we estimate that at least 48,724 entities fall into the category of “small governmental jurisdictions.”²⁸

9. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks.²⁹ Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband Internet services.³⁰ By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.³¹ Wired Telecommunications Carriers are also referred to as wireline carriers or fixed local service providers.³²

10. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.³³ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.³⁴ Of this number, 2,964 firms operated with fewer than 250 employees.³⁵ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 4,590 providers that reported they were engaged in the provision of fixed local services.³⁶ Of these providers, the Commission estimates that 4,146

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Governments by State Census Years 1942 to 2022 [CG2200ORG04], CG2200ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2022.

²⁷ While the special purpose governments category also includes local special district governments, the 2022 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

²⁸ This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,845) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (11,879), from the 2022 Census of Governments - Organizations tbls. 5, 6 & 10.

²⁹ See U.S. Census Bureau, *2017 NAICS Definition*, “517311 Wired Telecommunications Carriers,” <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

³⁰ *Id.*

³¹ *Id.*

³² Fixed Local Service Providers include the following types of providers: Incumbent Local Exchange Carriers (ILECs), Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs), Cable/Coax CLECs, Interconnected VOIP Providers, Non-Interconnected VOIP Providers, Shared-Tenant Service Providers, Audio Bridge Service Providers, and Other Local Service Providers. Local Resellers fall into another U.S. Census Bureau industry group and therefore data for these providers is not included in this industry.

³³ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

³⁴ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePrevious=false>. At this time, the 2022 Economic Census data is not available.

³⁵ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

³⁶ Federal-State Joint Board on Universal Service, *Universal Service Monitoring Report at 26*, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>; <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

providers have 1,500 or fewer employees.³⁷ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

11. *Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. Providers of these services include both incumbent and competitive local exchange service providers. Wired Telecommunications Carriers³⁸ is the closest industry with an SBA small business size standard.³⁹ Wired Telecommunications Carriers are also referred to as wireline carriers or fixed local service providers.⁴⁰ The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.⁴¹ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.⁴² Of this number, 2,964 firms operated with fewer than 250 employees.⁴³ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 4,590 providers that reported they were fixed local exchange service providers.⁴⁴ Of these providers, the Commission estimates that 4,146 providers have 1,500 or fewer employees.⁴⁵ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

12. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA have developed a small business size standard specifically for incumbent local exchange carriers. Wired Telecommunications Carriers⁴⁶ is the closest industry with an SBA small business size standard.⁴⁷ The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.⁴⁸ U.S. Census Bureau data for 2017 show that there were 3,054 firms in this industry that operated for the entire year.⁴⁹ Of this number, 2,964 firms operated with fewer than

³⁷ *Id.*

³⁸ See U.S. Census Bureau, *2017 NAICS Definition, "517311 Wired Telecommunications Carriers,"* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

³⁹ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁴⁰ Fixed Local Exchange Service Providers include the following types of providers: Incumbent Local Exchange Carriers (ILECs), Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs), Cable/Coax CLECs, Interconnected VOIP Providers, Non-Interconnected VOIP Providers, Shared-Tenant Service Providers, Audio Bridge Service Providers, Local Resellers, and Other Local Service Providers.

⁴¹ *Id.*

⁴² See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁴³ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁴⁴ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

⁴⁵ *Id.*

⁴⁶ See U.S. Census Bureau, *2017 NAICS Definition, "517311 Wired Telecommunications Carriers,"* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁴⁷ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁴⁸ *Id.*

⁴⁹ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311,

(continued....)

250 employees.⁵⁰ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 1,227 providers that reported they were incumbent local exchange service providers.⁵¹ Of these providers, the Commission estimates that 929 providers have 1,500 or fewer employees.⁵² Consequently, using the SBA's small business size standard, the Commission estimates that the majority of incumbent local exchange carriers can be considered small entities.

13. *Competitive Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. Providers of these services include several types of competitive local exchange service providers.⁵³ Wired Telecommunications Carriers⁵⁴ is the closest industry with a SBA small business size standard. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.⁵⁵ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.⁵⁶ Of this number, 2,964 firms operated with fewer than 250 employees.⁵⁷ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 3,956 providers that reported they were competitive local exchange service providers.⁵⁸ Of these providers, the Commission estimates that 3,808 providers have 1,500 or fewer employees.⁵⁹ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

14. *Interexchange Carriers (IXCs).* Neither the Commission nor the SBA have developed a small business size standard specifically for Interexchange Carriers. Wired Telecommunications Carriers⁶⁰ is the closest industry with a SBA small business size standard.⁶¹ The SBA small business size

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<https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePrevie w=false>.

⁵⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁵¹ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

⁵² *Id.*

⁵³ Competitive Local Exchange Service Providers include the following types of providers: Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs), Cable/Coax CLECs, Interconnected VOIP Providers, Non-Interconnected VOIP Providers, Shared-Tenant Service Providers, Audio Bridge Service Providers, Local Resellers, and Other Local Service Providers.

⁵⁴ See U.S. Census Bureau, 2017 NAICS Definition, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁵⁵ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁵⁶ See U.S. Census Bureau, 2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePrevie w=false>.

⁵⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁵⁸ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

⁵⁹ *Id.*

⁶⁰ See U.S. Census Bureau, 2017 NAICS Definition, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.⁶² U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.⁶³ Of this number, 2,964 firms operated with fewer than 250 employees.⁶⁴ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 151 providers that reported they were engaged in the provision of interexchange services. Of these providers, the Commission estimates that 131 providers have 1,500 or fewer employees.⁶⁵ Consequently, using the SBA's small business size standard, the Commission estimates that the majority of providers in this industry can be considered small entities.

15. *Cable System Operators (Telecom Act Standard)*. The Communications Act of 1934, as amended, contains a size standard for a "small cable operator," which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."⁶⁶ For purposes of the Telecom Act Standard, the Commission determined that a cable system operator that serves fewer than 677,000 subscribers, either directly or through affiliates, will meet the definition of a small cable operator based on the cable subscriber count established in a 2001 Public Notice.⁶⁷ Based on industry data, only six cable system operators have more than 677,000 subscribers.⁶⁸ Accordingly, the Commission estimates that the majority of cable system operators are small under this size standard. We note however, that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.⁶⁹ Therefore, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

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⁶¹ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁶² *Id.*

⁶³ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=EC1700SIZEEMPFI&hidePreview=false>.

⁶⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁶⁵ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

⁶⁶ 47 U.S.C. § 543(m)(2).

⁶⁷ *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, Public Notice, 16 FCC Rcd 2225 (CSB 2001) (2001 *Subscriber Count PN*). In this Public Notice, the Commission determined that there were approximately 67.7 million cable subscribers in the United States at that time using the most reliable source publicly available. *Id.* We recognize that the number of cable subscribers changed since then and that the Commission has recently estimated the number of cable subscribers to traditional and telco cable operators to be approximately 58.1 million. See *Communications Marketplace Report*, GN Docket No. 20-60, 2020 Communications Marketplace Report, 36 FCC Rcd 2945, 3049, para. 156 (2020) (2020 *Communications Marketplace Report*). However, because the Commission has not issued a public notice subsequent to the 2001 *Subscriber Count PN*, the Commission still relies on the subscriber count threshold established by the 2001 *Subscriber Count PN* for purposes of this rule. See 47 CFR § 76.901(e)(1).

⁶⁸ S&P Global Market Intelligence, S&P Capital IQ Pro, *Top Cable MSOs 12/21Q* (last visited Mar. 14, 2023); S&P Global Market Intelligence, *Multichannel Video Subscriptions*, Top 10 (April 2022).

⁶⁹ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to § 76.901(e) of the Commission's rules. See 47 CFR § 76.910(b).

16. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a definition for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. Wired Telecommunications Carriers⁷⁰ is the closest industry with a SBA small business size standard.⁷¹ The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.⁷² U.S. Census Bureau data for 2017 show that there were 3,054 firms in this industry that operated for the entire year.⁷³ Of this number, 2,964 firms operated with fewer than 250 employees.⁷⁴ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 115 providers that reported they were engaged in the provision of other toll services.⁷⁵ Of these providers, the Commission estimates that 113 providers have 1,500 or fewer employees.⁷⁶ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

17. *Wireless Telecommunications Carriers (except Satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.⁷⁷ Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.⁷⁸ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁷⁹ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁸⁰ Of that number, 2,837 firms employed fewer than 250 employees.⁸¹ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 797 providers that reported they were engaged in the provision of wireless services.⁸² Of these providers, the Commission estimates that 715 providers have 1,500 or fewer

⁷⁰ See U.S. Census Bureau, *2017 NAICS Definition, "517311 Wired Telecommunications Carriers,"* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁷¹ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁷² *Id.*

⁷³ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePrevious=false>.

⁷⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁷⁵ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

⁷⁶ *Id.*

⁷⁷ See U.S. Census Bureau, *2017 NAICS Definition, "517312 Wireless Telecommunications Carriers (except Satellite),"* <https://www.census.gov/naics/?input=517312&year=2017&details=517312>.

⁷⁸ *Id.*

⁷⁹ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁸⁰ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePrevious=false>.

⁸¹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁸² Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), (continued....)

employees.⁸³ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

18. *Satellite Telecommunications.* This industry comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications."⁸⁴ Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$35 million or less in annual receipts as small.⁸⁵ U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year.⁸⁶ Of this number, 242 firms had revenue of less than \$25 million.⁸⁷ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 71 providers that reported they were engaged in the provision of satellite telecommunications services.⁸⁸ Of these providers, the Commission estimates that approximately 48 providers have 1,500 or fewer employees.⁸⁹ Consequently using the SBA's small business size standard, a little more than of these providers can be considered small entities.

19. *Local Resellers.* Neither the Commission nor the SBA have developed a small business size standard specifically for Local Resellers. Telecommunications Resellers is the closest industry with a SBA small business size standard.⁹⁰ The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households.⁹¹ Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure.⁹² Mobile virtual network operators (MVNOs) are included in this industry.⁹³ The SBA small business size standard for Telecommunications Resellers classifies a business as small if it has 1,500 or fewer employees.⁹⁴ U.S. Census Bureau data for 2017

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<https://docs.fcc.gov/publd.lic/attachments/DOC-379181A1.pdf>.

⁸³ *Id.*

⁸⁴ See U.S. Census Bureau, *2017 NAICS Definition, "517410 Satellite Telecommunications,"*
<https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

⁸⁵ See 13 CFR § 121.201, NAICS Code 517410.

⁸⁶ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517410,
<https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePrevious=false>.

⁸⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

⁸⁸ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021),
<https://docs.fcc.gov/publd.lic/attachments/DOC-379181A1.pdf>.

⁸⁹ *Id.*

⁹⁰ See U.S. Census Bureau, *2017 NAICS Definition, "517911 Telecommunications Resellers,"*
<https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

⁹⁴ See 13 CFR § 121.201, NAICS Code 517911 (as of 10/1/22, NAICS Code 517121).

show that 1,386 firms in this industry provided resale services for the entire year.⁹⁵ Of that number, 1,375 firms operated with fewer than 250 employees.⁹⁶ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 293 providers that reported they were engaged in the provision of local resale services.⁹⁷ Of these providers, the Commission estimates that 289 providers have 1,500 or fewer employees.⁹⁸ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

20. *Toll Resellers.* Neither the Commission nor the SBA have developed a small business size standard specifically for Toll Resellers. Telecommunications Resellers⁹⁹ is the closest industry with an SBA small business size standard. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure.¹⁰⁰ Mobile virtual network operators (MVNOs) are included in this industry.¹⁰¹ The SBA small business size standard for Telecommunications Resellers classifies a business as small if it has 1,500 or fewer employees.¹⁰² U.S. Census Bureau data for 2017 show that 1,386 firms in this industry provided resale services for the entire year.¹⁰³ Of that number, 1,375 firms operated with fewer than 250 employees.¹⁰⁴ Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 518 providers that reported they were engaged in the provision of toll services.¹⁰⁵ Of these providers, the Commission estimates that 495 providers have 1,500 or fewer employees.¹⁰⁶ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

21. *Prepaid Calling Card Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. Telecommunications

⁹⁵ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517911, <https://data.census.gov/cedsci/table?y=2017&n=517911&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

⁹⁶ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁹⁷ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

⁹⁸ *Id.*

⁹⁹ See U.S. Census Bureau, *2017 NAICS Definition*, "517911 Telecommunications Resellers," <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² See 13 CFR § 121.201, NAICS Code 517911 (as of 10/1/22, NAICS Code 517121).

¹⁰³ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517911, <https://data.census.gov/cedsci/table?y=2017&n=517911&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

¹⁰⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

¹⁰⁵ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

¹⁰⁶ *Id.*

Resellers¹⁰⁷ is the closest industry with a SBA small business size standard. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure.¹⁰⁸ Mobile virtual network operators (MVNOs) are included in this industry.¹⁰⁹ The SBA small business size standard for Telecommunications Resellers classifies a business as small if it has 1,500 or fewer employees.¹¹⁰ U.S. Census Bureau data for 2017 show that 1,386 firms in this industry provided resale services for the entire year.¹¹¹ Of that number, 1,375 firms operated with fewer than 250 employees.¹¹² Additionally, based on Commission data in the 2021 Universal Service Monitoring Report, as of December 31, 2020, there were 58 providers that reported they were engaged in the provision of payphone services.¹¹³ Of these providers, the Commission estimates that 57 providers have 1,500 or fewer employees.¹¹⁴ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

22. *All Other Telecommunications.* This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.¹¹⁵ This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.¹¹⁶ Providers of Internet services (e.g. dial-up ISPs) or voice over Internet protocol (VoIP) services, via client-supplied telecommunications connections are also included in this industry.¹¹⁷ The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.¹¹⁸ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.¹¹⁹ Of those firms, 1,039 had revenue of less than \$25 million.¹²⁰ Based

¹⁰⁷ See U.S. Census Bureau, *2017 NAICS Definition, "517911 Telecommunications Resellers,"* <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ See 13 CFR § 121.201, NAICS Code 517911 (as of 10/1/22, NAICS Code 517121).

¹¹¹ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517911, <https://data.census.gov/cedsci/table?y=2017&n=517911&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

¹¹² *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

¹¹³ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2021), <https://docs.fcc.gov/public/attachments/DOC-379181A1.pdf>.

¹¹⁴ *Id.*

¹¹⁵ See U.S. Census Bureau, *2017 NAICS Definition, "517919 All Other Telecommunications,"* <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

¹¹⁹ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, (continued....)

on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

23. The *Eighth Report and Order* requires providers that choose to engage in third-party authentication to do so subject to certain limitations. These changes affect small and large companies and apply to all the classes of regulated entities identified above. Specifically, the *Eighth Report and Order* authorizes providers to engage third parties to perform the technological act of signing calls, as required by the STIR/SHAKEN standards, provided that providers with a STIR/SHAKEN implementation obligation make all attestation-level decisions for calls authenticated by third-parties,¹²¹ and ensure that all calls authenticated using third-party solutions are signed using the certificate of the provider with the STIR/SHAKEN implementation obligation under the Commission’s rules.¹²²

24. The *Eighth Report and Order* also adopts implementation and compliance requirements, consistent with the above requirements for third-party authentication. First, providers with a STIR/SHAKEN implementation obligation must acquire their own SPC token and digital certificate. Second, these providers may only certify to complete or partial implementation in the Robocall Mitigation Database if they have obtained an SPC token and digital certificate and sign calls with their certificate, whether by themselves or through a third party.

25. Finally, the *Eighth Report and Order* also adopts a recordkeeping requirement for providers with a STIR/SHAKEN implementation obligation that enter into an arrangement with a third party to authenticate the provider’s calls. It requires that any third-party authentication arrangement be memorialized in an agreement between the party with the STIR/SHAKEN implementation obligation under the Commission’s rules and the third-party signer, and include information that will help the Commission monitor compliance with our third-party authentication rules.¹²³ The agreement must specify the specific tasks that the third party will perform on the behalf of the provider with the STIR/SHAKEN implementation obligation, and confirm that the provider with the STIR/SHAKEN implementation obligation will: (1) make all attestation-level decisions for calls signed pursuant to the agreement, and (2) ensure that all calls will be signed using this provider’s certificate. Providers may be required to submit a copy of the agreement to the Commission in connection with a review of the provider’s compliance with these requirements or an investigation by the Enforcement Bureau. Under this rule, a current agreement must be in place for as long as any third-party authentication arrangement exists, and all copies of third-party agreements must be maintained for a period of two years from the end or termination of the agreement. The record reflects that third-party authentication may particularly benefit small providers that may be burdened by the costs of deploying STIR/SHAKEN in the IP portion of their voice service network. The benefits of the third-party authentication rules adopted in the *Eighth Report and Order* will greatly exceed the minimal costs imposed on small providers.

(Continued from previous page) —————

<https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

¹²⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

¹²¹ *Eighth Report and Order* at Section III.A.2.

¹²² *Eighth Report and Order* at Section III.A.2.

¹²³ *Eighth Report and Order* at Section III.B.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

26. The RFA requires an agency to provide, “a description of the steps the agency has taken to minimize the significant economic impact on small entities . . . including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.”¹²⁴

27. The *Eighth Report and Order* considered alternatives that may minimize the economic impact on small providers. We authorize providers with a STIR/SHAKEN implementation obligation under the Commission’s rules to engage in third-party authentication to comply with that obligation, subject to certain limitations. Our third-party authentication rules thus impose guardrails solely on those providers choosing to make use of a third party to comply with their obligation. Given evidence in the record that third-party authentication may help to reduce costs for small providers, we find that our explicit authorization of the practice, subject to certain guardrails, will enable those providers to accrue those benefits while remaining compliant with the Commission’s STIR/SHAKEN implementation obligations.¹²⁵ We also find that our action explicitly requiring all providers, regardless of whether they choose to engage in third-party authentication, to obtain an SPC token, use that token to obtain a certificate, and ensure that all calls are signed using that certificate, will be minimally burdensome for small providers, as evidenced by the record.

28. We also adopt an approach to authorizing third-party authentication that will ensure that our requirements do not unduly burden all providers, including small providers. Recognizing arguments in the record that providers could be required to make a number of commercial and network changes to comply with the newly adopted authentication requirements, we grant providers a minimum of 210 days following release of this *Report and Order* to comply with our rules.¹²⁶ Finally, we also considered and decline to require providers to submit additional information to the Robocall Mitigation Database, which should thus reduce burdens on all providers.¹²⁷

G. Report to Congress

29. The Commission will send a copy of the *Eighth Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act.¹²⁸ In addition, the Commission will send a copy of the *Eighth Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Eighth Report and Order* (or summaries thereof) will also be published in the Federal Register.¹²⁹

¹²⁴ 5 U.S.C. § 604(a)(6).

¹²⁵ *Eighth Report and Order* at Section III.A.1.

¹²⁶ *Eighth Report and Order* at Section III.B.

¹²⁷ *Eighth Report and Order* at Section III.B.

¹²⁸ 5 U.S.C. § 801(a)(1)(A).

¹²⁹ *Id.* § 604(b).

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Call Authentication Trust Anchor*, Eighth Report and Order, WC Docket No. 17-97 (November 21, 2024).

The scammers behind illegal robocalls are relentless. Whenever we close a loophole they use to send unwanted calls, they look for new ways to flood our networks with this junk. That means the Federal Communications Commission needs to be just as tireless in its efforts to identify these loopholes and stop bad actors from exploiting them. That is true today, tomorrow, and in the future, too.

Here, we take steps to close a loophole that involves STIR/SHAKEN. STIR/SHAKEN is a technology that three years ago we required carriers to use when they originate and terminate calls. It provides call authentication information that helps prove that a caller is really who they say they are and not a scammer using the network for fraud. This is why on your phone today you can see when an incoming call is identified as a “spam risk.” That’s the network using this technology and letting you know that answering is not worth your time. We did that.

Right now, most carriers deploy STIR/SHAKEN technology on their own. Others use third party solutions. Working with a third party can make sense for some carriers because it can keep costs down and help keep junk off the line. But it can also allow carriers to turn the other way and make the mess of unwanted calls someone else’s responsibility. That’s not right.

We shut down this loophole today. In this order, we describe when and how carriers can use third-party solutions to put in place STIR/SHAKEN technology on their networks. In other words, we set the ground rules for how to use a third party for call authentication and make clear that carriers bear ultimate responsibility for compliance. To facilitate this, we make sure that providers that have filed in our Robocall Mitigation Database get a token and digital certification so that other providers in the call path can trust who they say they are. This means you can use a third party to assist with STIR/SHAKEN obligations, but you can’t use this arrangement to look the other way and pass the buck if problems come up.

Closing this loophole matters because every little change helps. But to really stop the flood of illegal robocalls we need some bigger changes. We need Congress to fix the gaping loophole left by the Supreme Court in its decision narrowing the definition of autodialer under the Telephone Consumer Protection Act that substantially reduces our ability to protect consumers from junk robocalls and robotexts. We also need to make sure that when this agency issues big fines for illegal robocalls we can take the bad actors responsible to court and not just rely on the Department of Justice to do so. When coupled with the work of the Industry Traceback Group and the 49 State Attorneys General I now have partnering with this agency to help stop robocalls, these changes would make a real difference.

Back to the here and now. A big thank you to the Robocall Response Team and staff responsible for this order, including Erik Beith, Emily Caditz, Callie Coker, Liz Drogula, Trent Harkrader, Jodie May, Jonathan Lechter, Sue McNeil, Zachary Ross, and Mason Shefa from the Wireline Competition Bureau; Maureen Bizhko, Ken Carlberg, and Deb Jordan from the Public Safety and Homeland Security Bureau; Jerusha Burnett, Aaron Garza, Wes Platt, Alejandro Roark, and Kristi Thornton from the Consumer and Governmental Affairs Bureau; Loyaan Egal, Alexander Hobbs, Rakesh Patel, Daniel Stepanicich, Kristi Thompson, and Jane van Benten from the Enforcement Bureau; Malena Barzilai, Michelle Ellison, Wade Lindsay, Richard Mallen, Erika Olsen, Joel Rabinovitz, Elliot Tarloff, Derek Yeo, and Chin Yoo from the Office of General Counsel; Chelsea Fallon, Stacy Jordan, Eugene Kiselev, and Giulia McHenry from the Office of Economics and Analytics; and Joycelyn James, Michael Gussow, Jeffrey Tignor, and Chana Wilkerson from the Office of Communications Business Opportunities.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of Section 74.1231(i) of the	)	MB Docket No. 20-401
Commission's Rules on FM Broadcast Booster	)	
Stations	)	
	)	
Modernization of Media Initiative	)	MB Docket No. 17-105
	)	
Amendment of Section 74.1231(i) of the	)	RM-11854
Commission's Rules on FM Broadcast Booster	)	
Stations	)	

SECOND REPORT AND ORDER AND ORDER ON RECONSIDERATION

Adopted: November 21, 2024

Released: November 22, 2024

By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements.

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I. INTRODUCTION

1. We adopt this *Second Report and Order and Order on Reconsideration (Second Report and Order)* to establish service rules that will enable FM and low power (LPFM) broadcasters to use FM booster stations to originate program content on a non-experimental basis.¹ This action builds upon an April 2024 *Report and Order and Further Notice of Proposed Rulemaking* in this proceeding.² We also deny two Petitions for Reconsideration that were filed in response to the *Order*.³

2. GeoBroadcast Solutions, LLC (GBS) states that it has developed technology that is designed to allow licensees of primary FM broadcast stations to use boosters to originate programming without raising the potential for harmful co-channel interference to the reception of the primary station's signal outside the coverage of the booster station or to previously authorized secondary stations, thereby allowing broadcasters to air "geo-targeted" content⁴ different from their primary station's signal to specific areas, *i.e.*, "zones," within that station's service contour. In the *Booster Rulemaking*, we concluded that it would serve the public interest to provide broadcasters with a limited option to use program originating boosters⁵ and adopted a general framework of regulations to govern future service. However, we concluded that we also needed to adopt more specific processing, licensing, and service rules before permitting construction and operation of program originating boosters on a permanent basis.⁶ We adopt such rules in this *Second Report and Order* after considering public comment and petitions for reconsideration.⁷ FM and LPFM broadcasters will be able to apply for non-experimental program

¹ Prior to adoption of these rules, the Commission has allowed such use of FM booster stations only on an experimental basis. *See infra*, note 6. Both full-service FM and LPFM stations are authorized to operate booster stations. For convenience, we reference below only FM stations. However, our decision herein applies to both full-service FM and LPFM stations.

² *See Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations*, Report and Order and Further Notice of Proposed Rulemaking, MB Docket Nos. 20-401, 17-105 and RM-11854, FCC 24-35, 2024 WL 1460460 (rel. April 2, 2024) (collectively, *Booster Rulemaking*, and respectively, *Order* and *FNPRM*). This proceeding originated with a Petition for Rulemaking by GeoBroadcast Solutions, LLC (GBS). Petition for Rulemaking of GeoBroadcast Solutions LLC, RM-11854 (filed Mar. 13, 2020) (Petition).

³ REC Networks, Petition for Reconsideration (Apr. 29, 2024) (REC Petition); Press Communications, LLC, Petition for Reconsideration (May 16, 2024) (Press Petition).

⁴ Geo-targeted content, as the term is used herein, is that which can be heard only within a portion of an FM station's total service area covered by the signal of a co-channel FM booster station. We also refer to the technology generally as geo-casting by a program originating booster. The technology can be used to air hyper-local content such as news, weather, and advertising most relevant to a particular community.

⁵ The *Order* added a definition of "program originating booster" to section 74.1201(f)(2) and that rule change became effective on May 16, 2024. *See* 47 CFR § 74.1201(f)(2) (defining "program originating booster" as "an FM broadcast booster station that retransmits the signals of an FM radio broadcast station or a low-power FM broadcast station, and that may replace the content of the incoming signal by originating programming for a period not to exceed three minutes of each broadcast hour," explaining that "[t]his is a strict hourly limit that may not be exceeded by aggregating unused minutes of program origination," and stating that "a program originating FM booster station is subject to the same technical and interference protection requirements as are all FM broadcast booster stations, including but not limited to those set forth in §§ 74.1203 through 74.1262").

⁶ We stated that we would, in the interim, consider requests for experimental authorizations pursuant to Part 5 of our rules. *See FNPRM*, paras. 70-71, citing 47 CFR § 5.71(c). We anticipated that the Media Bureau would grant one-year, renewable experimental authorizations obtained through Part 5 of the Commission's rules. To date we have received requests from one licensee for experimental authority to operate three program originating booster stations. *See Application of Radio Activo 2, LLC*, File Nos 0000255596, 0000255297, 0000255298 (rec. Oct. 4, 2024) (seeking boosters associated with KADD(FM), St. George, UT).

⁷ As noted in the *Booster Rulemaking*, some of these rules implicate all boosters, not only program originating boosters. Rules applicable to all boosters we adopt herein include amending section 74.1204(f) to include a mechanism to address predicted interference while booster construction permit applications remain pending;

(continued....)

originating boosters upon the effective date of the rules adopted herein.

II. BACKGROUND

3. **The FM Booster Service.** FM boosters are low power, secondary stations that operate in the FM broadcast band.⁸ They must be licensed to the same broadcaster and on the same frequency as the booster's primary station, and rebroadcast that primary station's signal within its protected contour.⁹ Until the recent *Booster Rulemaking*, the sole purpose of boosters was to improve signal strength of primary FM stations in areas where reception is poor.¹⁰ The Commission's rules (Rules) had prohibited booster stations from originating content.¹¹

4. **Existing Application Process and Technical Standards.** Historically, a primary station has been able to apply at any time for authorization to build any number of FM booster stations. However, given the limited purpose of traditional FM boosters and the risk that booster stations will cause limited co-channel interference to their primary station, the demand has traditionally been quite limited. As a secondary service, FM booster stations are not permitted to cause adjacent channel interference to other primary services or to previously authorized secondary stations.¹² An FM booster station is allowed to cause "limited interference" to its primary station's co-channel signal, provided it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the primary station's principal community of license.¹³ Although the Rules allow an FM booster to cause some interference to its own primary station outside of its community of license, the Commission has long urged licensees to engineer boosters in a manner that would limit such interference.¹⁴

5. **History of This Proceeding.** In the *Order*, we identified significant potential benefits of program originating boosters. The *Order* found that the technology could enable radio stations, on a voluntary basis, to seek new sources of revenue, provide audiences with more relevant, hyper-local content, and provide advertisers with better opportunities to direct messages to the listeners they most

clarifying in section 74.1231(j) that grandfathered superpowered FM stations are able to implement booster stations only within the standard maximum contour for their class of station; codifying the requirement that booster stations must suspend operations any time their primary stations are not broadcasting and must file notices of suspended operation; and modifying section 74.1232 to clarify that a booster station may not broadcast programming that is not permitted by its FM primary station's authorization.

⁸ The Commission created the FM booster service in 1970. See *Amendment of Part 74 of the Commission's Rules and Regulations to Permit the Operation of Low Power FM Broadcast Translator and Booster Stations*, Report and Order, 20 R.R.2d (P & F) 1538 (1970) (*LPFM Broadcast Translator and Booster Stations*). It amended the booster rules in 1987 to increase power and in 2020 to expand the ability of LPFM stations to operate boosters. See *Amendment of Part 74 of the Commission's Rules Concerning FM Booster Stations and Television Booster Stations*, Report and Order, 2 FCC Rcd 4625 (1987) (*1987 Booster Report*); *Amendments of Parts 73 and 74 to Improve the Low Power FM Radio Service Technical Rules*, Report and Order, 35 FCC Rcd 4115 (2020).

⁹ 47 CFR § 74.1231(i).

¹⁰ Boosters can alleviate reception problems due to terrain shielding or distance from the transmitter. Traditionally, an FM broadcast station transmits its signal from a single, elevated transmission site central to its protected service contour. This results in a stronger signal near the transmitter and a weaker signal as the distance from the transmitter increases. Intervening terrain can also reduce signal strength (*i.e.*, terrain shielding), regardless of the distance from the transmitter. See *Petition at 7-8*.

¹¹ See 47 CFR § 74.1201(f).

¹² *Id.* § 74.1203(a).

¹³ *Id.* § 74.1203(c) ("An FM booster station will be exempted from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, *provided* it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station.").

¹⁴ *LPFM Broadcast Translator and Booster Stations*, 20 R.R.2d 1538 at para. 20.

want to reach.¹⁵ The *Order* identified various technical and non-technical matters that it would need to address but concluded that it could resolve these matters by adopting safeguards and limitations including: limiting program origination to three minutes per hour (five percent of each hour); requiring notification to the Commission before a booster begins to originate programming; requiring program originating boosters to receive and broadcast all emergency alerts in the same manner as their primary station; limiting the number of boosters a station can operate; and actively monitoring the marketplace to ensure that booster stations are not used to disadvantage particular communities or locations.¹⁶ The *Order* also concluded that the Commission could minimize interference by placing conditions on booster authorizations, relying upon proper engineering by broadcasters, and responding, on a case-by-case basis, to any interference that might arise in individual circumstances.¹⁷ Nevertheless, because the record addressed some of these matters quite broadly, we issued the *FNPRM* to propose specific requirements and solicit more detailed input. The *FNPRM* also sought comment on administrative matters not fully discussed in the record, such as processing, licensing, and service rules that the Commission would need in order to authorize program originating boosters and respond to any resulting operational issues.¹⁸ Thus, although the *Order* provided for immediate grant of authorizations to operate program originating boosters on an experimental basis, it determined that permanent authorizations would need to await establishment of more detailed requirements in response to the *FNPRM*.¹⁹

III. DISCUSSION

6. We adopt herein service rules to allow for the use of program originating boosters without the need for an experimental authorization. To facilitate the rollout of this service, we detail below the process for stations to notify the Commission and other stations of the commencement of program origination on booster stations. We also update our Rules to allow the Commission to address concerns about predicted interference from proposed booster stations, and we adopt a cap on the total number of program originating boosters each primary station may operate. We update our political broadcasting rules to account for political advertising on program originating boosters. Next, we adopt a public interest certification for broadcasters operating program originating boosters. Finally, we address pending petitions for reconsideration.

A. Second Report and Order

7. Based on our review of the record, we refine the proposals put forth in the *FNPRM* and adopt operating rules and administrative procedures for program originating FM boosters. The record of this proceeding represents a broad cross-section of interested parties including advocacy groups representing the interests of full service commercial, noncommercial, and LPFM broadcasters, consulting engineers, and a coalition promoting the voices of communities of color and marginalized groups in the broadcasting industry. Some express support for program originating boosters²⁰ and others, while generally opposed to such use of boosters, express support for operational safeguards proposed in the *FNPRM*.²¹

¹⁵ *Order*, paras. 21, 32.

¹⁶ *Id.*, para. 11.

¹⁷ *Id.*, para. 10.

¹⁸ *Id.*

¹⁹ *Id.*, para. 2.

²⁰ *E.g.*, Comments of U.S. Black Chamber, Inc., Multicultural Media, Telecom and Internet Council, National Newspapers Publishers Association, and Roberts Radio Broad. LLC at 1 (Black Chamber Comments) at 1; Reply Comments of Roberts Radio Broad. LLC at 1, 5 (Roberts Reply Comments).

²¹ *E.g.*, Comments of National Public Radio at 2, 5 (NPR Comments) (supporting rules intended to mitigate interference, provide monitoring information, and notify public safety entities); Comments of REC Networks at 3, 6, (continued....)

1. Application Process

8. We will, as proposed in the *FNPRM*, continue to process booster applications on a first come/first served basis using our existing application procedures.²² No commenter suggested or identified a need for opening application filing windows for program originating boosters, nor would we anticipate any resulting benefit from doing so.²³ We believe that continuing the existing first come/first served application process will best enable FM broadcasters to design systems that meet their individual circumstances and to determine whether program origination on boosters meets their needs. This also will allow broadcasters to apply for boosters at any time. Therefore, we will continue to process all booster applications, whether for fill-in stations or for those originating programming, using existing first come/first served application procedures.²⁴

9. First come/first served procedures can potentially result in mutually exclusive booster applications, *i.e.*, those that cannot each be granted because they are in technical conflict with each other. As a practical matter, mutual exclusivity has not been an issue under current rules due to the small amount of applications that have been filed to date, but we discussed in the *FNPRM* a concern that it might occur with an increase in the number of FM booster applications.²⁵ For example, we had sought comment in the *NPRM* about a situation where FM stations that are short-spaced under section 74.1204(g) apply for new boosters on the same day.²⁶ The *FNPRM* asked how we should address any mutually exclusive applications for FM boosters, noting that the Commission had previously sought, but not received, comment on this issue.²⁷ GBS, the only commenter to respond to this issue, says that it is unlikely for such a problem to arise because boosters can only operate within the protected contour of the primary station and, thus, boosters associated with different primary stations should not be mutually exclusive.²⁸

10. We agree with GBS that mutually exclusive booster proposals, while possible in short-spaced situations, would be rare.²⁹ GBS is the only commenter to respond to our question about this potential issue.³⁰ Thus, the record does not indicate that this will be a significant issue. Although we continue to anticipate that the use of boosters for program origination will increase the number of booster applications, we recognize that the voluntary nature of the technology is unlikely to result in so many licensees adopting the technology in a single area as to create potentially conflicting proposals. Moreover, conflicts would arise only between stations that are short-spaced and that filed applications on the same day, further reducing the likelihood of mutually exclusive proposals. Thus, we need not create a rule to address mutually exclusive booster proposals at the present time. In the unlikely event of mutual

9 (REC Comments) (supporting proposals to add a mechanism to address predicted interference and a notification requirement for program originating boosters); Comments of National Association of Broadcasters at 2 (NAB Comments) (supporting a notice requirement for program originating boosters, and a synchronization requirement in certain circumstances).

²² *FNPRM*, para. 73. Compare 47 CFR § 73.3573 (establishing filing windows for applications for full service stations in the non-reserved band).

²³ See NPR Comments at 4 (“NPR does not think the Commission needs to adopt formal filing windows but rather can process applications on a first come/first serve basis...”).

²⁴ See 47 CFR § 74.1233.

²⁵ *FNPRM*, para. 73.

²⁶ *Amendment of Section 74.1231(i) of the Commission’s Rules on FM Broadcast Booster Stations*, Notice of Proposed Rulemaking, 35 FCC Rcd 14213, para. 18 (2020) (*NPRM*).

²⁷ *FNPRM*, para. 73, citing *NPRM*, para. 18.

²⁸ Comments of GeoBroadcast Solutions, LLC, at 11 (GBS Comments).

²⁹ *Id.*

³⁰ *NPRM*, para. 18.

exclusivity of booster proposals, we direct the Media Bureau (Bureau) to first give the applicants an opportunity to adjust their technical proposals to allow for grant of both applications. If applicants determine that a technical solution is not possible, they may present a request for grant of each application on a time-sharing basis, such as with one booster originating programming during a period that includes morning drive time and the other for a period that includes evening drive time, or one during the first half of the hour and the other for the second half of the hour. Such an arrangement should not be difficult given that program origination is limited to three minutes each hour.³¹ Further, we expect that the applicants would have an incentive to reach a solution because neither application could otherwise be granted.

11. To the extent that one commenter advocates for a two-step application process to address its concern that program originating boosters have the potential to cause interference to existing broadcast stations, we find that the approach that we adopt today will suffice to address that concern. Specifically, we decline to adopt a proposal by National Public Radio (NPR) that a broadcaster would file a first come/first served application to construct an FM booster as it does currently but, following grant, would file a separate application specifically for program origination.³² NPR believes that requiring an affirmative grant of program origination authority before a broadcaster can begin using boosters for that purpose would curb any potential interference from increased use of boosters, and best alert the Bureau and the industry of the broadcaster's intent to originate programming.³³ It envisions that the Bureau, while reviewing the application to originate programming, would address any concerns about the specific proposal.³⁴

12. We have considered NPR's suggestion but will not require separate applications for booster construction and program origination. The main purpose of NPR's proposal appears to be creation of an opportunity for interested parties to become aware that a booster will be used for program origination and file interference-based objections, which would allow the Commission to consider such matters before authorizing such boosters. However, the Commission already reviews booster applications when authorizing them initially.³⁵ Thus, even without a separate application to originate programming, interested parties will still have an opportunity to participate in review of booster applications.³⁶ The Commission will continue to place applications for new FM boosters on public notice, triggering a period to file petitions to deny or informal objections. We find it unnecessary to add an additional prior approval process for program origination. As discussed in more detail below, we are adopting a program origination notification requirement from which the Commission and interested parties can learn of a broadcaster's intent to use a specific booster to originate programming. We believe that notification process will provide sufficient information to the public. Moreover, boosters are secondary facilities and would have to cease broadcasting if causing interference.³⁷ We will address any specific concerns about interference on a case-by-case basis.

³¹ *Order*, para. 14. *See also* 47 CFR § 74.1201(f)(2) (defining a "program originating FM booster station" as "[a]n FM broadcast booster station that retransmits the signals of an FM radio broadcast station or a low-power FM broadcast station, and that may replace the content of the incoming signal by originating programming for a period not to exceed three minutes of each broadcast hour").

³² NPR Comments at 4.

³³ *Id.*

³⁴ *Id.* ("Concerns about the specifics of any proposal can be captured and vetted during the application review process.").

³⁵ *See* 47 CFR § 74.1233.

³⁶ *See* 47 U.S.C. § 309(d) (permitting any party in interest to file a petition to deny an application for an FM booster construction permit or license); 47 CFR § 73.3587 (permitting any person to file an objection to any application for an instrument of authorization prior to grant of the application).

³⁷ 47 CFR § 74.1203.

13. Finally, we address how broadcasters that are operating program originating boosters pursuant to experimental authority will transition to permanent operation following adoption of this *Second Report and Order*. Broadcasters currently operating under experimental authorizations that are compliant with the rules adopted herein may file a notification at any time after the effective date of the rules adopted in this *Second Report and Order* and before the existing experimental authority expires so that the program origination can continue uninterrupted.³⁸ The process for notification using a new form is discussed in more detail later in this document.³⁹ The Commission has granted experimental authorizations for program originating boosters for one-year terms.⁴⁰

14. Thus, while we anticipate that some broadcasters will file a notification soon after the effective date, others may choose to continue operating pursuant to experimental authority and file the notification shortly before their experimental authority expires. There appears to be no reason to limit FM booster stations with experimental authorizations to any shorter window in which to transition. Therefore, after the rules adopted herein take effect, a notification form is approved by the Office of Management and Budget, and the Commission publishes an announcement of such approval in the *Federal Register*, any station currently employing program originating boosters compliant with the rules adopted in this *Second Report and Order* may transition to non-experimental operation by filing a notification on the new form at any time prior to expiration of the experimental authorization.

2. Program Origination Notification

15. As proposed in the *FNPRM*,⁴¹ we adopt a requirement that licensees notify the Commission of their intent to originate programming over boosters. In this way, interested parties will be on notice for which stations are using boosters to originate content, and the Bureau will best be able to respond to any complaints that may arise.

16. Several commenters responded to our proposal in the *FNPRM*, all supporting a notification requirement.⁴² We agree with REC Networks' (REC) assertion that notifications will assist listeners, broadcast stations, and those involved with emergency communications to determine the possible source of interference.⁴³ REC suggests that the Commission require notification within ten days of commencing program origination, similar to an existing ten-day notification requirement for hybrid digital operations.⁴⁴ REC suggests a simple process with notifications through the Bureau's Licensing and Management System (LMS) database.⁴⁵ The National Association of Broadcasters (NAB) also believes that a notification requirement is important and notes that a notification requirement is essential to allow listeners, stakeholders, and the Commission to track and monitor which stations are using program originating boosters and whether these stations are causing unwanted interference.⁴⁶ Similarly, NPR anticipates that notifications will allow the Commission and the industry to monitor station use of the new technology.⁴⁷ GBS supports the 15- and 30-day timing of the notification that we proposed in the

³⁸ *NPRM*, 38 FCC Rcd at 7171, para. 30.

³⁹ See *infra*, paras. 15-17.

⁴⁰ As of the adoption date of this document, the Commission has granted experimental authorizations for three boosters licensed to one party. We anticipate that the rules adopted herein will be finalized before the expiration of those experimental authorizations.

⁴¹ *FNPRM*, para. 74.

⁴² REC Comments at 9-10; NPR Comments at 4; NAB Comments at 2-3; GBS Comments at 11.

⁴³ REC Comments at 9-10.

⁴⁴ *Id.* at 9. See 47 CFR § 73.406.

⁴⁵ REC Comments at 9-10.

⁴⁶ NAB Comments at 4.

⁴⁷ NPR Comments at 4.

FNPRM, which it says strikes an appropriate balance between the Commission's need for information and the broadcaster's interest in minimizing regulatory burdens.⁴⁸

17. Based on the record, we add a new section 74.1206 to our Rules.⁴⁹ The rule establishes a notification requirement but rather than specifying in the rule itself the pieces of information a program originating FM booster station must provide (as we proposed in the *FNPRM*), we direct the Bureau to create a new form that identifies that information. We believe that in this case it will be easier for applicants to provide each required element of the notification by responding to requests for that information on a form rather than referring back to the Rules to locate and provide that information. Additionally, in this case, a form will be more convenient for the public because it presents a uniform format for supplying information to the Commission. Accordingly, we direct the Bureau to create a form containing each of the elements proposed in the *FNPRM*, including: (1) the call sign and facility identification number of the program originating FM booster station; (2) if applicable, the date on which the program originating FM booster station will commence or has terminated originating content; (3) the name and telephone number of a technical representative the Commission or the public can contact in the event of interference; (4) a certification that the program originating FM booster station complies with all Emergency Alert System (EAS) requirements in part 11 of our Rules; (5) a certification that the program originating FM booster station will originate programming for no more than three minutes of each broadcast hour; and (6) a certification that the program originating FM booster minimizes interference to the primary station through synchronization or terrain shielding. This information should assist interested parties in raising any program-origination-related concerns as complaints (at any time) or as objections during the license renewal process. Booster licensees will be required to file the notification form in the LMS database 15 days prior to commencing origination and 30 days after permanently terminating origination. We do not see any particular advantage to narrowing the timing of the notification period from 15 days to 10 days as suggested by REC.⁵⁰ We delegate to the Bureau authority to create the new form.

18. In the *FNPRM*, we asked whether there was any reason that information shared with the Commission in the proposed FM Booster Program Origination Notification should not be publicly available under the OPEN Government Data Act.⁵¹ We received no comments on whether the FM Booster Program Origination Notification should be made public subject to the OPEN Government Data Act. We have determined above that this information will be made publicly available in the Commission's LMS database.

3. Synchronization/Self-Interference

19. Although we conclude that boosters work best if broadcasters minimize self-interference by synchronizing the signals of their primary station with those of their boosters, we decline to adopt uniform synchronization standards for program originating boosters at this time. Rather, we will allow each broadcaster to determine what synchronization practices will work best in its own circumstances to minimize self-interference.

⁴⁸ GBS Comments at 11.

⁴⁹ See *FNPRM*, Appendix C.

⁵⁰ See REC Comments at 9-10.

⁵¹ Congress enacted the OPEN Government Data Act as Title II of the Foundations for Evidence-Based Policymaking Act of 2018, Pub. L. No. 115-435 (2019), §§ 201-202. It requires agencies to make "public data assets" available under an open license and as "open Government data assets," *i.e.*, in machine-readable, open format, unencumbered by use restrictions other than intellectual property rights, and based on an open standard that is maintained by a standards organization. 44 U.S.C. §§ 3502(20), (22) (definitions of "open Government data asset" and "public data asset"), 3506(b)(6)(B) (public availability). The OPEN Government Data Act requirements are to be implemented "in accordance with guidance by the Director" of the Office of Management and Budget, 44 U.S.C. § 3506(b)(6), which OMB has not yet issued in final form.

20. The *Order* noted that GBS' proposal was based on "carefully located and synchronized booster transmitters" and that GBS employed synchronization in its tests of the technology.⁵² We, thus, included a general synchronization requirement when we established rules governing self-interference for program originating boosters.⁵³ We did not, however, specify a particular method that a broadcaster would be required to use to implement such synchronization. The *FNPRM* asked whether it would be helpful to adopt a rule establishing uniform synchronization standards for all broadcasters with program originating boosters or if that would be an unnecessary burden given that broadcasters already have strong economic incentives to avoid self-interference.⁵⁴ As we noted therein, it is not a new concern that booster stations operating on the same channel as a primary station within that primary station's service contour will impact the primary station's signal.⁵⁵ The fact that program originating boosters are broadcasting different programming than the primary station has the potential to increase listener perception of an impact to the primary station's signal, *i.e.*, to hear a mix of signals that the listener might perceive as interference.⁵⁶ However, broadcasters have an economic interest in not substantially degrading their own signals, and the Commission has encouraged stations with associated boosters to engineer their systems to ensure that the boosters' impact on the primary station is as limited as possible.⁵⁷ The *FNPRM* also asked any commenters in favor of a Commission-established standard to identify desired specifics such as whether the Commission, in developing and applying a standard, should establish particular synchronization levels, equipment, monitoring, and/or recalibration requirements.

21. Several commenters believe that program originating boosters will increase interference between a broadcaster's boosters and its primary station. Aaron Read (Read) predicts significant self-interference, leading to a degradation of service and general confusion among listeners.⁵⁸ He explains that broadcasters will need to have identical waveforms for both the main and the booster signal(s) to ensure proper masking of any self-interference.⁵⁹ NPR is concerned that if self-interference results in parts of the FM band becoming unlistenable, listeners will increasingly move to other sources of audio news, music and public affairs programming.⁶⁰ NAB predicts that signal disruption is inevitable in transition areas where a station's primary signal meets the signal of a booster that is airing different content.⁶¹ NAB states that such interference would harm the station employing the technology and is

⁵² *Order*, n. 19, citing Petition at 5, 8-9. See *id.*, para. 59 (GBS "test reports demonstrate that boosters can originate programming, without material degradation of the listener's experience, when deployed with optimal system design and successful synchronization.").

⁵³ See 47 CFR § 74.1203 ("A properly synchronized program originating FM booster station transmitting programming different than that broadcast by the primary station, subject to the limits set forth in § 74.1201(f)(2), is not considered to cause interference to its primary station solely because such originated programming differs from that transmitted by the primary station.").

⁵⁴ *FNPRM*, para. 77.

⁵⁵ *Id.*, paras. 38, 45, citing *1987 Booster Report*.

⁵⁶ See, e.g., Comments of Aaron Read (Read Comments) at 1 ("To have two different waveforms drastically expands how much further the 'interference' [from the booster to the main station] will be perceived.").

⁵⁷ See, e.g., *1987 Booster Report*, 2 FCC Rcd at 4629, para. 28 (observing that "careful attention must be devoted to selection of a booster's site, power, antenna height, and directional pattern to avoid undue disruption to service by the primary station" and stating "[i]t is our intention that boosters not disrupt the existing service of the primary stations and in this context we expect licensees to be diligent in their efforts to maintain their stations' existing service when introducing new booster facilities").

⁵⁸ Read Comments at 1.

⁵⁹ *Id.*

⁶⁰ NPR Comments at 3.

⁶¹ NAB Comments at 2.

likely to erode public confidence in FM broadcasting generally.⁶² NAB, thus, believes that it is important to adopt safeguards and suggests that the Commission require licensees of program originating boosters to design systems that prevent unwanted interference, including voluntary self-interference to the station's primary signal.⁶³ GBS, however, argues that the Commission should rely upon broadcasters and their experts because they are best positioned to determine the most effective way to synchronize and have both the ability and economic incentive to minimize any self-interference.⁶⁴

22. Only NPR and NAB support adoption of a specific Commission-devised synchronization requirement. NPR views such a requirement as an additional safeguard but does not identify any desired specifics.⁶⁵ NAB believes that synchronization requirements should apply if the program originating boosters are not serving areas shielded by terrain or if a primary station will operate more than a certain number of program originating booster stations (*e.g.*, four).⁶⁶ NAB observes that synchronization involves several methodologies and proposes standards for each.⁶⁷

23. Other commenters view synchronization as a good practice whose specifics should be left up to each licensee. GBS states that synchronization is essential and that it advises all broadcasters deploying program originating boosters to synchronize their primary and booster signals to the highest degree possible.⁶⁸ It states that such a practice leads to minimal transition periods that are less noticeable to the listener and more consistent with the broadcasters' own strong incentive to provide a quality signal.⁶⁹ Nevertheless, GBS believes that the Commission should not develop or require specific synchronization standards because the broadcasters' own on-site technical experts are in a better position to determine the most effective way to synchronize under each broadcaster's individual conditions.⁷⁰ It states that synchronization is a routine part of existing booster station operations and that GBS'

⁶² *Id.*

⁶³ *Id.*

⁶⁴ GBS Comments at 7.

⁶⁵ NPR Comments at 3.

⁶⁶ NAB Comments at 6.

⁶⁷ With respect to carrier frequency synchronization, NAB proposes that carrier frequencies should be locked together using a common reference, such as GPS. It states that failure to maintain coherence between main and program originating booster carrier frequencies would cause incidental AM modulation or beating, which will manifest as "picket-fence" interference that would frustrate listeners. *Id.* at 7. With respect to synchronization of modulation parameters, NAB proposes that modulation levels, including peak deviation and stereo pilot frequency, should also be identical. It argues that studies show that even a small mismatch in composite baseband modulation levels, such as 0.5 dB, can dramatically increase perceived audio distortion when the signal levels of the booster and main transmitter are similar. *Id.* Concerning synchronization based on program time delay, NAB states that time alignment of programming is particularly critical in transition areas where the main and booster RF signal levels are approximately the same because rapid degradation in audio distortion occurs when the time misalignment exceeds 1 microsecond. *Id.* at 7-8. NAB, therefore, recommends that the alignment should be adjusted so that the program material received from the booster and main transmitters has no time delay in areas where the booster and main signal levels are within 10 dB. *Id.* Finally, NAB submits that stations should be required to verify proper synchronization after a "crash" or when the system reboots for some reason because restarting a system may impact synchronization. NAB suggests that broadcasters have a means for disabling the booster if they are not operating as designed. *Id.* at 8. Because we are providing broadcasters the flexibility to design systems most suited to their individual circumstances and are not adopting a uniform synchronization standard, we do not respond to each of these suggestions. However, we note that NAB's concerns may be useful to individual broadcasters and their consulting engineers in determining what synchronization parameters are most appropriate for the particular issues that may affect individual booster systems.

⁶⁸ GBS Comments at 7-8.

⁶⁹ *Id.*

⁷⁰ *Id.*

technology does not presently require any new or specialized equipment. Therefore, GBS would view Commission-mandated engineering standards for synchronization as unnecessary and time-consuming “micromanagement” of a highly technical and evolving process for no apparent gain.⁷¹ Similarly, REC opposes a synchronization requirement because not all stations are alike.⁷² It contends that synchronization should be left up to the engineer designing the particular system who would best know whether there is a need for synchronization and, if so, what type.⁷³ NAB also states that the Commission, if it adopts a synchronization requirement, should apply it only to program originating boosters and not to traditional boosters which are generally limited to two or three needed to enhance reception and, thus, more limited in the potential for interference.⁷⁴

24. We decline to go beyond the general synchronization requirement in section 74.1203(c) at this time. A specific standard establishing the manner in which each licensee must achieve such synchronization is unnecessary, and hinders flexibility for each station’s particular circumstance. Although synchronization is important to limit self-interference in areas not already shielded by terrain, we are convinced that broadcasters have a strong economic incentive to synchronize in the manner most effective to their own particular location and system design in order to provide the best listener experience. We are persuaded that individually engineered synchronization parameters optimized for each station would be better than a one-size-fits-all Commission-developed synchronization standard. Nevertheless, we may revisit the issue if we find during the rollout of the technology that stations are not minimizing self-interference by implementing proper synchronization on their own.

4. Predicted Interference/Section 74.1204(f)

25. We modify section 74.1204(f) of the Rules to include applications to construct FM booster stations among those subject to objections based on predicted interference to another station. Section 74.1204(f) currently addresses predicted interference only for FM translator stations.⁷⁵ Interference by FM booster stations is resolved under section 74.1203, but only once the booster station is constructed and actual interference is alleged. In the *FNPRM*, we sought comment on whether to modify section 74.1204(f) to include a mechanism to address predicted interference for FM booster stations while their construction permit applications remain pending.⁷⁶ We asserted that such a change could ensure that broadcasters do not invest in developing booster stations that will later cause actual interference that must be resolved under section 74.1203 once the booster commences broadcasts.⁷⁷

26. Commenters addressing this issue generally supported the proposed rule change. NPR,

⁷¹ *Id.* at 8.

⁷² REC Comments at 9.

⁷³ For example, NAB and REC assert that there would be no purpose to requiring synchronization of signals if a Longley-Rice study shows no possible interference due to intervening terrain. NAB Comments at 7; REC Comments at 9. The Longley-Rice method is an irregular terrain model that predicts radio field strength based on the elevation of terrain between the transmitter and specific reception points. *See also* OET Bulletin No. 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference* (2004) available at <https://transition.fcc.gov/oet/info/documents/bulletins/oet69/oet69.pdf>.

⁷⁴ NAB Comments at 6.

⁷⁵ 47 CFR § 74.1204(f). Also, to conform to the publishing conventions of the National Archives and Records Administration’s Office of the Federal Register, we move the Note to paragraph (a)(4) of section 74.1204 into a new paragraph (a)(5), and make minor, non-substantive changes to the language in order for it to be easier for permittees and licensees to understand. *See* Appendix B. *See also FNPRM*, n. 209.

⁷⁶ *FNPRM*, para. 76. We also proposed to apply this new mechanism to any booster applications that are pending at the time the modifications to section 74.1204 are adopted. We further proposed a minor editorial change to the translator rule in section 74.1204(f)(1) to conform to the proposed changes to the booster rules in section 74.1204(f)(2).

⁷⁷ *FNPRM*, para. 76.

which has ongoing concerns about interference to adjacent channel stations, believes that an amendment to section 74.1204(f) may help guard against such occurrences by providing an early mechanism to identify and address potential interference.⁷⁸ GBS states that it does not oppose a modification to section 74.1204(f) to include a procedure to raise concerns of predicted interference.⁷⁹ However, it urges the Commission not to tolerate frivolous filings intended mainly to delay that raise unfounded predictions of interference.⁸⁰

27. We adopt the proposed amendment to section 74.1204(f) to provide a mechanism for complaints of predicted interference against FM booster applications. We will begin to accept such complaints upon the effective date of the revisions to section 74.1204(f). In addition, consistent with the proposal in the *FNPRM*, we will permit such complaints to be filed with respect to any booster applications that are pending at the time the revisions to section 74.1204 take effect.⁸¹ By amending section 74.1204(f) to allow complaints of predicted interference against FM booster applications, we establish a process that will provide the earliest indication that developing booster stations may cause interference that must be resolved under section 74.1203 once the booster commences broadcasts. We find that this early warning is best received prior to investing in the development of booster stations. We also agree with GBS, however, that the Commission will not tolerate frivolous claims of predicted interference filed primarily to delay the authorization of a booster station. The Commission's policy against such "strike petitions" provides for sanctions in order to curb abuses of the Commission's processes.⁸² Although we do not anticipate that our rule change will trigger strike petitions against booster applications, we would enforce that policy should the matter arise.

5. Compatibility with EAS Alerts/Notification to EAS Participants

28. In order to protect public safety, we are adopting an EAS-specific notification requirement to ensure that program originating boosters do not negatively impact the public's receipt of EAS alerts. During earlier stages of this proceeding, the Federal Emergency Management Agency (FEMA) questioned whether program originating boosters would create a three-minute time period each hour when listeners in the booster's zone would not receive emergency messages from the primary station.⁸³ In the *Order*, we concluded that program origination would not cause harmful interference to EAS, primarily because GBS' tests demonstrated that stations can be engineered to allow the EAS signal to override programming from both the primary station and program originating booster.⁸⁴ We authorized the use of program originating boosters based on our amendment to section 11.11 of the Rules to establish that program originating boosters must receive and broadcast all emergency alerts in the same manner as their primary station.⁸⁵ We also stated that the Commission would closely monitor the rollout of program originating boosters and would revisit this issue, in consultation with FEMA, if it receives reports of EAS disruption by program originating boosters.⁸⁶

⁷⁸ NPR Comments at 1-2.

⁷⁹ GBS Comments at 14-15.

⁸⁰ *Id.*

⁸¹ *FNPRM*, para. 76. REC supported this proposal. See REC Comments at 4.

⁸² See *Warren C. Havens*, Third Order on Reconsideration, 26 FCC Rcd 10888, 10892, para. 11 (2011), citing *Radio Carrollton*, 69 FCC Rcd 1138, 1148-55 (1978).

⁸³ 2021 Comments of Federal Emergency Management Agency at 1-2.

⁸⁴ *Order*, para. 58.

⁸⁵ The Rule change adopted in the *Order* explicitly made all EAS requirements that are applicable to full-service AM and FM stations and LPFM stations also applicable to program originating FM booster stations. The *FNPRM* also proposed an administrative update to section 73.801 of the Rules to cross-reference the EAS obligation for LPFM stations contained in section 11.11 of the Rules.

⁸⁶ *Order*, at para. 58.

29. In the accompanying *FNPRM*, we sought comment on FEMA’s 2021 recommendation that FM primary stations using program originating boosters should notify all EAS Participants monitoring that primary station.⁸⁷ FEMA believed that such a notification would put participating stations on notice that they should monitor the primary station rather than the associated booster.⁸⁸ We asked whether the new section 11.11 requirement that all program originating boosters transmit emergency alerts negates the need for FEMA’s proposal.⁸⁹ The *FNPRM* also asked whether to require broadcasters using program originating boosters to report EAS-related problems or interference to the Commission and/or to FEMA and, if so, the best means for broadcasters to provide such information.

30. FEMA did not submit any comments to the *FNPRM*. However, several others express continued concern about whether EAS performance might be negatively affected around booster transition zones and would support additional testing.⁹⁰ REC states that GBS’ technology has not been fully tested to ensure proper switching from program origination to traditional relay upon receipt of a forwarded EAS alert.⁹¹ It is not confident, based on the number of tests performed to date, that the system will work every time. Therefore, REC seeks a three-year moratorium on program origination for FM booster stations that are identified in a State EAS Plan at any level above “participating national.”⁹² Alternatively, REC recommends requiring licensees that use program originating boosters to notify all broadcast facilities that, pursuant to a state plan, must monitor the booster’s primary station for EAS alerts. REC proposes that the licensee also notify the State Emergency Communications Committee(s) (SECC) of the state(s) that require monitoring of that primary station.⁹³ REC states that such requirements will alert EAS recipients to the source of their EAS alerts.

31. NPR supports an EAS-specific notification requirement which would go beyond the general notification discussed in the *FNPRM*.⁹⁴ NPR envisions that stations using the new technology would notify all EAS Participants monitoring a booster’s primary station.⁹⁵ It asserts that the Commission should place an affirmative requirement on booster-using EAS Participants to notify their upstream stations so that stations in an EAS daisy chain will not have to determine on their own whether the stations from which they receive their EAS signals are originating programming.⁹⁶ NPR argues that such

⁸⁷ *FNPRM*, para. 79. See 2021 Comments of FEMA at 2 (“FEMA’s operational concern applies in particular to those radio stations that are designated as an EAS Local Primary (LP), State Primary (SP), State Relay (SR), or are otherwise monitored as an over-the-air source of EAS messages. Should such a station commence operation with booster stations configured for local programming insertion, FEMA recommends that, before such operation may commence, the licensee of the primary must notify any and all EAS Participants monitoring said primary of their intent to transmit unique local programming on one or more boosters. That will be necessary to ensure that any and all monitoring EAS Participants continue to monitor only the primary and not a booster. This must be done to ensure the integrity of EAS over-the-air relay performance during booster local programming breaks.”).

⁸⁸ *Id.*

⁸⁹ *FNPRM*, para. 79.

⁹⁰ See, e.g., Press Comments at 2.

⁹¹ REC Comments at 5.

⁹² *Id.* at 4-6. It envisions that stations positioned at the lowest-level of the EAS alert transmission chain would conduct monthly EAS tests during these three years to determine whether the technology properly switches between the program origination and information relay modes, followed by a Commission evaluation of the test data before authorizing EAS participants higher in the chain to use program originating boosters.

⁹³ SECCs are volunteer non-governmental organizations that develop plans for administering the EAS in each state. Committee members typically represent EAS participants, such as broadcasters and cable companies, and may also include state and local government officials. See <https://www.fcc.gov/SECC-Resources> (accessed Sept. 27, 2024).

⁹⁴ See *supra*, para. 15-17.

⁹⁵ NPR Comments at 4.

⁹⁶ *Id.*

notifications will not be burdensome for the stations with program originating boosters, but will provide an important alert to upstream stations that they should closely monitor their sources of EAS alerts.⁹⁷ NPR also suggests requiring stations employing the technology to test the consistency of alert distribution.⁹⁸

32. NAB submits that it is critical that stations provide public notification of their intent to use program originating boosters to allow FEMA, EAS alert originators, and others to monitor the program originating booster station for EAS alerts, and to watch for problems that could affect public safety.⁹⁹ NAB also questions whether boosters will simulcast or be turned off during periods when a station's main channel and program originating boosters are broadcasting the same content, and notes the possibility that some designs will require the former and others the latter. NAB submits that the Commission should require stations to disclose their system plans in this context because the chosen approach will bear upon the potential interference expected at the boundaries during simulcasting, and in particular, during the broadcast of EAS messages.¹⁰⁰

33. GBS agrees that notifications to the Commission, FEMA, and other EAS Participants in the alert daisy chain are valuable and should be required.¹⁰¹ However, we disagree with GBS' view that the requirement need not be incorporated into a new rule and we find existing rules are not sufficient to provide for such notifications. With respect to notification to the Commission, GBS cites section 11.61(a)(3)(iv)(A) of the Rules, which requires EAS Participants to file with the Commission identifying information in the EAS Test Reporting System (ETRS).¹⁰² GBS states that the existing disclosure requirement would include the make, model, and current software version of each booster's EAS equipment, its place within its State's EAS hierarchy, the EAS sources the booster monitors as well as the geographic zone in which other EAS Participants may be required to monitor the booster (or its primary station).¹⁰³ GBS states that the Commission shares such information with FEMA.¹⁰⁴ With respect to notifications to other stations in the EAS chain, GBS contends that this matter is satisfied by the State EAS Plans filed in the Commission's Alert Reporting System (ARS) by each SECC.¹⁰⁵ GBS believes that stations would learn about a primary station's booster use because monitoring sources must disclose identifying information, including any "additional information" relevant to the efficient operation of the EAS, and a station could disclose in that "additional information" field that it employs a program originating booster.¹⁰⁶

34. We agree that consistent distribution of EAS alerts is a public safety matter that should be a key consideration in launching this new technology. However, given the ability of technology to transmit EAS alerts by overriding signals of both the primary station and the booster, as GBS has tested

⁹⁷ *Id.* at 5.

⁹⁸ *Id.*

⁹⁹ NAB Comments at 4-5.

¹⁰⁰ *Id.* at 9.

¹⁰¹ Reply Comments of GeoBroadcast Solutions, LLC, at 7 (GBS Reply Comments).

¹⁰² *Id.*, citing 47 CFR § 11.61(a)(3)(iv)(A).

¹⁰³ *Id.* See FCC, ETRS Form One Filing Guide, <https://www.fcc.gov/general/eas-test-reporting-system> (last visited Oct. 1, 2024).

¹⁰⁴ GBS says that although ETRS data is confidential to the public, the Commission shares it with FEMA. GBS Reply Comments at 7.

¹⁰⁵ *Id.* at 8. The ARS requires detailed information regarding the State's EAS distribution architecture, including the geographic areas in which EAS participants monitor sources and the identity of the monitoring sources (State Primary, Local Primary, etc.) within each area.

¹⁰⁶ *Id.* GBS states that the Commission allows States to publicly disclose the information contained in their State EAS Plans, which they routinely publish, often on the web site of their respective broadcast associations. *Id.*

successfully, and the limitation of program origination to three minutes per hour, we do not see a need for delaying full deployment as proposed by REC. Nor do we believe that existing reporting currently built into EAS rules, as cited by GBS, is the best method of notification concerning program originating boosters. Specifically, we do not believe that ETRS is an appropriate mechanism for effecting notification of a booster's program-originating status. Identifying information is only required to be submitted in ARS annually.¹⁰⁷ We believe that any delay between the time when a booster begins originating programming and the time when the primary station files in ETRS would reduce visibility into program originating boosters' participation in the EAS daisy chain. GBS is also mistaken as to what information is currently required to be included in the State EAS Plans that are submitted in ARS, which is only used by SECCs and does not support the submission of information by EAS Participants directly.

35. To ensure that EAS Participants are aware of program originating boosters in their EAS chain we modify our Rules to include, in addition to the general notification requirement discussed earlier in this document,¹⁰⁸ an EAS-specific notification requirement. In the *FNPRM*, we sought comment on FEMA's recommendation that we require FM primary stations implementing program originating boosters to notify all EAS participants monitoring that primary station of the booster's program origination.¹⁰⁹ Based on FEMA's recommendation as well as comments submitted by NAB and REC on this issue¹¹⁰ we are convinced that an EAS-specific notification requirement is necessary. Specifically, each primary station adopting program originating boosters must alert the appropriate SECC that it is using program-originating boosters and whether the boosters will simulcast the primary station or remain off-air during periods when they are not originating programming.¹¹¹ We find that SECCs are best situated to receive these notifications. SECCs administer State EAS Plans, which set forth monitoring assignments for all EAS Participants in the covered state or territory.¹¹² SECCs can assess whether the primary station providing the notification is monitored by other EAS Participants, and typically will know the approximate geographic area served by the station. SECC contact information can be found on the Commission's website.¹¹³ We require broadcasters to notify their SECCs at least 30 days prior to employing a program originating booster, or implementing changes to booster status. We also require that stations employing program originating boosters report to the Commission's Operations Center, at FCCOPS@fcc.gov, any problems of which they become aware concerning the EAS and interference. The Commission will coordinate with FEMA to determine under what circumstances and in what format FEMA would find it helpful for the Commission to share that information with them.

36. To ensure that potentially affected EAS Participants are aware that a monitored alert source employs a program originating booster, we amend section 11.21(a)(4) to require State EAS Plans to indicate whether any of the EAS monitoring sources in the monitoring assignment matrix are primary stations adopting program originating boosters and whether the boosters will simulcast the primary station

¹⁰⁷ See, e.g., 47 CFR § 11.61(a)(3)(iv)(A).

¹⁰⁸ See *supra*, para. 15-17 Appendix B, section 74.1206.

¹⁰⁹ *FNPRM*, para. 79, citing FEMA's Comments to the NPRM, at 2.

¹¹⁰ NAB Comments at 4-5; REC Comments at 5.

¹¹¹ While we require each primary station to inform the appropriate SECC as to whether program originating boosters will simulcast the primary station or remain off-air during periods when they are not originating programming, we decline NAB's suggestion to require licensees of program originating boosters to make this information more broadly available to other stations. See NAB Comments at 9. We find this additional information unnecessary to address potential interference concerns in light of the fact that applications for new FM boosters are placed on public notice and that licensees must separately notify the Commission of their intent to originate programming over boosters. See *supra* paras. [12 and 17].

¹¹² See 47 CFR § 11.21.

¹¹³ See FCC, SECC Resources, <https://www.fcc.gov/SECC-Resources> (last visited Oct. 15, 2024).

or remain off-air during periods when they are not originating programming.¹¹⁴ Because EAS Participants are required to adhere to the EAS monitoring assignments in their respective State EAS Plans, we believe that this approach is the most efficient way to inform EAS Participants that a station they monitor is utilizing a program originating booster and the implications thereof. To minimize the scope of any potential problems with respect to the EAS and interference, we urge SECCs to only assign EAS Participants to monitor program originating boosters if reasonable alternatives are unavailable. In connection with this requirement, we will not adopt FEMA¹¹⁵ and REC's¹¹⁶ recommendation that primary stations notify all monitoring EAS Participants that they are adopting program originating boosters. SECCs, not individual EAS Participants, are ultimately responsible for determining EAS monitoring assignments. In addition, we observe that most State EAS Plans assign monitoring obligations to most EAS Participants based on the operational area in which they are located instead of by making assignments to every individual station. For this reason, we believe it would be unduly burdensome to require primary stations to identify and contact, based on operational area alone, every EAS Participant that monitors it. By contrast, we believe it will be far less burdensome for EAS Participants to understand the status of the sources they are monitoring by reviewing their State EAS Plan, which SECCs typically make available via website.

37. The *FNPRM* also proposed an EAS-related administrative update to section 73.801 of the Rules, which currently lists all Part 73 general broadcast rules that are outside of Subpart G that also apply to LPFM stations, so as to include section 11.11, the specific EAS rule from Part 11 that is impacted by this proceeding.¹¹⁷ REC opposes the proposed update as confusing. It notes that, even with the update, the rules cross-referenced in section 73.801 would be incomplete because the rule excludes many non-EAS rules applicable to LPFM stations.¹¹⁸ REC is concerned that less experienced licensees might be led to believe that the other rules do not apply to LPFM stations, even though they do, potentially leading to unintentional violations and enforcement issues.¹¹⁹ REC also suggests that the proposed cross-referencing in section 73.801 is contrary to the lack of such cross-referencing of EAS requirements for low power television (LPTV) and Class A television stations.¹²⁰ REC also opposes a related administrative update of section 73.860 to reference the three-minute-per-hour limit for program originating boosters operated by LPFM stations. It contends that it is unnecessary to add this language to Part 73 because the Commission proposed to add the same language to Part 74.¹²¹

38. We agree with REC that adding a reference to section 11.11 in section 73.801 may cause confusion about the applicability of other Part 11 rules.¹²² Nonetheless, EAS responsibilities of licensees operating program originating boosters was a topic of significant concern in this proceeding. Due to the importance of this issue we believe that an explicit reference to the EAS requirement for LPFM stations is vital. Thus, we amend section 73.860(b)(5), the rule concerning program origination by LPFM-owned boosters. We will cross-reference Part 11 there to emphasize that program originating boosters operated by LPFM stations that are EAS Participants must comply with EAS rules in Part 11. In this manner, we

¹¹⁴ See 47 CFR § 11.21(a)(4). See NAB Comments at 9.

¹¹⁵ See 2021 Comments of Federal Emergency Management Agency at 2.

¹¹⁶ REC Comments at 6.

¹¹⁷ *FNPRM*, n.215.

¹¹⁸ REC Comments at 10.

¹¹⁹ *Id.* at 10-11.

¹²⁰ *Id.* at 10, citing 47 CFR § 74.480 (Low Power TV stations) and § 73.6026 (Class A TV stations). REC also states that rules in Part 73, Subpart C concerning digital broadcasting, as well as some regulations in Parts 1, 2, 5, 11, 17, 73 and 74 that apply to LPFM stations are not listed in section 73.801.

¹²¹ REC Comments at 10-11.

¹²² REC Comments at 10.

will ensure licensees operating program originating boosters will be reminded of their EAS responsibilities without our rules inadvertently suggesting that the only portion important to LPFM stations is section 11.11.

39. We find REC's comments about a different amendment to section 73.860 which implements the three-minute-per-hour limit on program origination by FM boosters to LPFM stations, to be beyond the scope of the *FNPRM*. We adopted that language, which serves as a safeguard addressing potential EAS and non-EAS interference concerns, in the *Order* and it has become effective.¹²³ Although REC filed a separate Petition for Reconsideration of the *Order* which we discuss later in this document, REC did not raise section 73.860 in that filing.¹²⁴

6. Cap on Program Originating FM Boosters and Other LCRA Issues

40. We amend section 74.1232(g),¹²⁵ as proposed in the *FNPRM*, to limit each FM station to 25 program originating booster stations. No commenter suggests an alternative number. We find that this limit, as well as authorization of program originating boosters in general, is consistent with the Local Community Radio Act of 2010 (LCRA).

41. Placing a cap on the number of program originating FM booster stations represents a change from the current Rules, which impose no numerical limit on full power FM booster stations using boosters in a traditional fill-in role.¹²⁶ In the *Order*, we concluded that a limit on the number of program originating FM boosters a station can operate may be needed to ensure that our decision to authorize program originating boosters is consistent with section 5 of the LCRA.¹²⁷ That section requires that the Commission make licenses available for different types of stations that may operate on the same spectrum.¹²⁸ As noted in the *FNPRM*, we do not yet know the extent of demand for program originating FM booster stations, nor the impact that potentially large numbers of such stations in a market could have on spectrum availability on adjacent channels where new FM translators and LPFM stations might conceivably wish to locate.¹²⁹ We also considered whether such a cap would ensure that increased use of FM boosters would not significantly increase the noise floor.¹³⁰ We tentatively concluded that a limit of 25 program originating boosters per full-service FM primary station would be reasonable but sought

¹²³ *Effective Date for FM Broadcast Booster Station Rules*, Public Notice, DA 24-465, 2024 WL 2244733 (MB May 16, 2024).

¹²⁴ *See infra*, paras. 72-74.

¹²⁵ 47 CFR § 74.1232(g).

¹²⁶ FM stations using boosters in the traditional manner rarely need more than three, so the Commission has not previously limited them. The Rules do, however, limit LPFM use of boosters due to the small service contours of those stations. *See* 47 CFR § 73.860(b), (c). Non-Tribal LPFM stations are limited to attributable interests in two FM translators, two FM boosters, or one translator and one booster. *Id.* § 73.860(b). Tribal Applicants may hold attributable interests in up to two LPFM stations and four FM translators. *Id.* § 73.860(c). We are not changing these caps which we believe would be adequate for LPFM stations considering program originating boosters within their relatively small service areas.

¹²⁷ *Order*, para. 66.

¹²⁸ *Order*, paras. 66-69, citing Pub. L. 111-371, 124 Stat. 4072 (2011) (Section 5). That portion of the LCRA requires the Commission to ensure, when licensing new FM translators, FM boosters, or LPFM stations, that: (1) "licenses are available" to FM translator stations, LPFM stations, and FM booster stations; (2) licensing decisions are made "based on the needs of the local community"; and (3) FM translator stations, LPFM stations, and FM booster stations remain "equal in status" and secondary to existing and modified full-service FM stations.

¹²⁹ *FNPRM*, para. 81.

¹³⁰ *Id.* The noise floor refers to unwanted radio frequency (RF) energy from man-made sources. It increases as the number of devices in use that emit radio energy grows. *See generally* Office of Engineering and Technology Announces Technological Advisory Council (TAC) Noise Floor Technical Inquiry, Public Notice, <https://docs.fcc.gov/public/attachments/DA-16-676A1.pdf> (OET June 16, 2016).

comment on that tentative conclusion as well as any alternative number for the cap.¹³¹

42. We also sought comment on whether there are other requirements needed to ensure compliance with the LCRA.¹³² For example, we noted that currently, LPFM stations are permitted to originate programming 100 percent of the time, while FM translators and boosters do not originate programming. We asked what difference, if any, would allowing some FM boosters to originate programming for five percent of each broadcast hour make to the relative status of those secondary services.¹³³

43. REC expresses concern that existing LPFM and FM translator stations not be displaced by program originating boosters and would define displacement to include interference requiring the LPFM or FM translator to take engineering action to retain their service.¹³⁴ Although REC does not specifically object to a 25 booster cap or propose an alternative number, it contends that the number is arbitrary.¹³⁵ REC instead asks the Commission to protect incumbent LPFM stations by amending section 74.1204(i) to require that the signal of pre-existing co-channel and first-adjacent channel stations exceed by 20 dBu that of a booster anywhere within the existing station's protected contour.¹³⁶ REC believes that such a protection would reduce the burden on existing primary and secondary facilities to monitor the potential for interference by each booster application and reduce the potential burden on staff resources by stopping interfering proposals "up front" and, thus, resulting in fewer interference challenges filed pursuant to section 74.1204(f).¹³⁷ It contends that authorization of program originating boosters could otherwise be contrary to "community need" under the LCRA.¹³⁸

44. NAB says that it does not know whether 25 is an appropriate cap but believes that the number of boosters used for program origination will be self-limiting. Specifically, NAB does not believe that licensees will build very large numbers of FM boosters for each primary station because it posits that the incremental advertising revenue created by program origination is unlikely to justify the costs associated with such boosters (*e.g.*, purchase and installation, tower and site leasing fees, maintenance, power, and licensing fees).¹³⁹

45. GBS supports an initial cap of 25 boosters but states that the number of boosters needed in a particular system will vary because different physical, geographic, and other factors require different designs to create the geo-targeted zone. For example, it notes that its test in the San Jose, California market required only three boosters but tests in Jackson, Mississippi used nine boosters.¹⁴⁰ Accordingly, although GBS believes that 25 boosters per station is a reasonable limit for now, it suggests that some systems may need more boosters in the future to ensure effective implementation with minimal interference.¹⁴¹ Thus, GBS views a cap of 25 boosters per station as an appropriate starting point during

¹³¹ *FNPRM*, para. 81.

¹³² *Id.*, para. 82.

¹³³ *Id.*

¹³⁴ REC Comments at 7.

¹³⁵ *Id.*

¹³⁶ *Id.* at 8.

¹³⁷ *Id.* at 4.

¹³⁸ *Id.*

¹³⁹ NAB Comments at 8.

¹⁴⁰ GBS Comments at 5-6.

¹⁴¹ GBS encourages the Commission to consider delegating to the Media Bureau the authority to raise the cap if evidence obtained through the rollout indicates that there is no harm to the public interest from raising or eliminating the cap. *Id.* at 6. GBS believes that technical and administrative safeguards will ensure that program originating

(continued....)

the rollout of the technology, but encourages the Commission to consider raising the limit if evidence demonstrates that this number is artificially low.¹⁴²

46. With respect to concerns that increased numbers of boosters might raise the noise floor, GBS states that administrative safeguards already prevent such an occurrence in a noticeable manner.¹⁴³ For example, GBS contends that because boosters are not permitted to propagate further than the predicted contour of their primary signal or to have wider bandwidths than their main signal, they will not raise the noise floor sufficiently to impact nearby FM broadcast service. GBS further states that the Commission's interference rules protect receivers in adjacent bands that could be close to boosters.

47. GBS agrees with our conclusion in the *Order* that authorization of program originating boosters is consistent with LCRA.¹⁴⁴ Given that FM boosters must remain within the protected contour of the primary signal, GBS does not believe that allowing FM boosters to originate programming for a small portion each hour would have any effect on the relative status of other secondary services. GBS, thus, "cautions the Commission about overcomplicating the deployment of program originating boosters by significantly raising the regulatory burdens to do so, without actual evidence of a harm to be mitigated."¹⁴⁵

48. We affirm our earlier conclusion that authorization of program originating boosters is consistent with LCRA.¹⁴⁶ With respect to the *FNPRM*'s question about secondary status, we agree with GBS that such boosters, accompanied by safeguards that limit the number of boosters and portion of time in which they broadcast would not affect their secondary status or the status of other services. For example, a booster's new ability to originate programming for five percent of each hour would not place it higher in priority than LPFM stations, a secondary service which can originate programming for its entire broadcast day. Concerning the cap on the number of boosters, we believe that 25 boosters per station, as GBS originally proposed, is a generous amount that will allow for design of several zones of program origination within each station's service area. If, however, unusual geography of a particular community makes it impossible for a particular station to originate geo-targeted programming with 25 boosters, it can provide evidence of that issue in a request for waiver of the cap under the Commission's existing waiver standards.¹⁴⁷ We do not see a need to revise section 74.1204(i) in the manner proposed by REC, and discuss that matter in greater detail in the portion of this *Second Report and Order* addressing

boosters do not raise the noise floor and that an artificial cap of 25 may not be necessary to accomplish that goal. *Id.* Below we conclude that 25 is an appropriate cap on program originating boosters per station, and thus we decline to delegate to the Media Bureau the authority to raise the cap.

¹⁴² *Id.* at 5, citing *FNPRM*, para. 81 (the Commission does "not yet know the extent of demand for program originating FM booster stations" and "imposing an artificially low number of program originating boosters could make it harder for licenses to design and deploy boosters in a way that minimizes the risk of interference.").

¹⁴³ GBS Comments at 6-7.

¹⁴⁴ *Id.* at 15.

¹⁴⁵ *Id.*

¹⁴⁶ *See Order*, paras. 66-69.

¹⁴⁷ GBS and Roberts Radio Broadcasting urge the Commission to show flexibility regarding the booster cap, as well as the three-minute per hour program origination limit set forth in section 74.1201(f)(2) of the Rules. *See* GBS, Notice of *Ex Parte* Meeting (Nov. 8, 2024) at 2; GBS, Notice of *Ex Parte* Meeting (Nov. 12, 2024) at 2 (*Nov. 12th Notice*); GBS, Notice of *Ex Parte* Meeting (Nov. 14, 2024) at 2 (*Nov. 14th Notice*); Roberts Radio Broadcasting, Notice of *Ex Parte* Meeting (Nov. 15, 2024). We note that the Commission may waive any rule for good cause shown. 47 CFR § 1.3 (providing for suspension, amendment, or waiver of Commission rules, in whole or in part, for good cause shown). In particular, a waiver is appropriate only if both (1) special circumstances warrant a deviation from the general rule, and (2) such deviation better serves the public interest. *See NetworkIP, LLC v. FCC*, 548 F.3d 116, 125-128 (D.C. Cir. 2008) (citing *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*)). The Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis. *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972); *Northeast Cellular*, 897 F.2d at 1166.

“Other Safeguards.”¹⁴⁸

7. Part 74 Licensing Issues

49. As proposed in the *FNPRM*, we clarify several operational issues for program originating boosters.¹⁴⁹ The only commenter to address any of our licensing proposals was NAB, which supports the proposal to make explicit the requirement that booster stations suspend operations any time their primary stations are not broadcasting and file notices of suspended operations.¹⁵⁰ NAB asks the Commission to clarify that suspension of program origination on booster stations should take place immediately upon cessation of the primary signal.¹⁵¹ GBS states that such a clarification is not necessary because the Rules already address suspension of booster operations.¹⁵²

50. After consideration of the record, we adopt the rule change as originally proposed in the *FNPRM* and conclude it is unnecessary to adopt the clarification NAB requested.¹⁵³ We conclude it is useful to clarify that all FM broadcast booster stations, including both program originating and non-program originating boosters, must suspend operations anytime their primary station is not operating and add a new section 74.1231(k) addressing this issue. The new rule section explicitly codifies existing requirements by requiring booster stations to suspend operations any time their primary stations are not broadcasting and to file notices of suspended operations/requests for special authority to remain silent pursuant to section 73.1740 of the Rules.¹⁵⁴ However, we do not believe it is necessary to adopt NAB’s suggestion of a statement that suspension of booster program origination must occur immediately upon cessation of the primary signal.

51. As proposed in the *FNPRM*,¹⁵⁵ we also reorganize and clarify section 74.1231 by adding new paragraph (j). The provisions of paragraph (j), previously contained in a Note, clarify that grandfathered superpowered FM stations will only be able to implement booster stations within the

¹⁴⁸ See *infra* paras. 68-70.

¹⁴⁹ *FNPRM*, para. 80 (proposing to (1) clarify that grandfathered superpowered FM stations will be allowed to implement booster stations only within the standard, non-superpowered maximum contour for their class of station, (2) add a requirement that booster stations suspend operations any time their primary stations are not broadcasting and file notices of suspended operations pursuant to section 73.1740 of the Rules, and (3) clarify that a booster station may not broadcast programming that is not permitted by its primary station’s authorization).

¹⁵⁰ NAB Comments at 9.

¹⁵¹ *Id.*

¹⁵² GBS Reply Comments at 4, citing 47 CFR § 74.1263.

¹⁵³ The original proposal is sufficiently clear. The new language in 47 CFR § 74.1231(k) is consistent with and to be read in combination with that in 47 CFR § 74.1263(b), which states a booster “shall not be permitted to radiate during extended periods when signals of the primary station are not being retransmitted.” That section of our rules authorizes minor episodes of booster operation without a primary signal due to brief periods of maintenance of the primary station or instances where a station is switching between primary and auxiliary facilities. Similarly, section 74.1231(k) is to be read in combination with existing section 74.1231(i), 47 CFR § 74.1231(i), which permits local generation of signals on a booster “for the purpose of conducting tests and measurements essential to the proper installation and maintenance of the apparatus.”

¹⁵⁴ See 47 CFR §§ 74.1231(i) (an FM booster station shall not retransmit the signals of any other station nor make independent transmissions), 74.1263(b) and (c) (an FM booster is not permitted to radiate during extended periods when signals of the primary station are not being retransmitted and must notify the Commission of its intent to discontinue operations for 30 or more consecutive days. Notification must be made within 10 days of the time the station first discontinues operation and Commission approval must be obtained for such discontinued operation to continue beyond 30 days).

¹⁵⁵ *FNPRM*, para. 80.

standard (*i.e.*, non-superpowered) maximum contour for their class of station.¹⁵⁶ This should help to minimize interference risks by further isolating program originating boosters from adjacent FM broadcast stations.

52. Finally, we modify section 74.1232 to clarify that a booster station may not broadcast programming that is not permitted by its FM primary station's authorization, as proposed in the *FNPRM*.¹⁵⁷ This will ensure that program originating boosters are not used in a manner that is inconsistent with the primary station. For example, licensees of noncommercial FM stations may not use booster stations for commercial broadcasts.

8. Political Broadcasting and Advertising

53. We next adopt safeguards to ensure that stations using program originating boosters comply with political broadcasting and recordkeeping requirements. To the extent an FM booster station originates programming that includes political (*i.e.*, candidate and certain issue-related) programming, it will be subject to the full array of political programming requirements that are applicable to full power broadcast stations.¹⁵⁸

54. The *FNPRM* invited comments on a number of political programming issues including obligations to maintain political files, provide equal opportunities,¹⁵⁹ ensure reasonable access, and charge candidates lowest rates.¹⁶⁰ These obligations ensure that qualified candidates for elective office have access to broadcast facilities and certain other media platforms and foster transparency about entities sponsoring advertisements.¹⁶¹ In its comments addressing these matters, GBS agrees with the general approach of applying existing political programming rules to program originating boosters and recognizes that the Act requires as much.¹⁶² GBS anticipates that broadcasters will sell advertising time on program originating boosters at rates distinct from those on their primary signal and that the program originating booster will not reach every part of a service area.¹⁶³ Accordingly, GBS believes it would be appropriate to treat a program originating booster as its own facility for the limited purposes of applying the equal opportunities, reasonable access, and lowest unit charge rules to program originating booster advertising sales.¹⁶⁴ Similarly, GBS urges the Commission to treat each program originating booster as its own facility with regard to political file requirements. It suggests that the Commission require the licensee to

¹⁵⁶ The current version of section 74.1231 includes a Note following paragraph (i) that reads: "In the case of an FM broadcast station authorized with facilities in excess of those specified by § 73.211 of this chapter, an FM booster station will only be authorized within the protected contour of the class of station being rebroadcast as predicted on the basis of the maximum powers and heights set forth in that section for the applicable class of FM broadcast station concerned." We now move that requirement into new paragraph (j), and clarify that "an FM broadcast station authorized with facilities in excess of those specified by § 73.211 of this chapter" refers to superpowered FM facilities. See Appendix B.

¹⁵⁷ *FNPRM*, para. 80.

¹⁵⁸ See 47 CFR §§ 73.1212 (Sponsorship identification), 73.1940 (Legally qualified candidates for public office), 73.1941 (Equal opportunities), 73.1942 (Candidate rates), 73.1943 (Political file), 73.1944 (Reasonable access); 47 U.S.C. §§ 312(a)(7), 315, and 317.

¹⁵⁹ Under section 73.1941 of the Rules and section 315(a) of the Act, if a licensee permits a legally qualified candidate for any public office to use its station, it must, with some exceptions, permit all other legally qualified candidates for the same office to also use its station. See 47 CFR § 73.1941 and 47 U.S.C. § 315(a).

¹⁶⁰ *FNPRM*, paras. 85-88.

¹⁶¹ *Revisions to Political Programming and Record-Keeping Rules*, Report and Order, MB Docket No. 21-293, 37 FCC Rcd 1359, 1360, para. 2 (2022).

¹⁶² GBS Comments at 13-14. See 47 U.S.C. § 315(e).

¹⁶³ GBS Comments at 13.

¹⁶⁴ *Id.* at 13-14.

denote in its primary station's political file whether an ad was booster originated, and if so, the area in which it was broadcast.¹⁶⁵ GBS states that this information will be essential for candidates seeking to obtain equal opportunities and for the Commission to ensure compliance with the political broadcast Rules.¹⁶⁶

55. In response to GBS' comments, Roberts Radio Broadcasting, LLC (Roberts) agrees that program originating boosters could be useful for political candidates.¹⁶⁷ However, it seeks streamlined political file requirements because small, independent broadcasters like itself have limited resources.¹⁶⁸

56. We amend section 74.1290 of the Rules¹⁶⁹ as proposed, to make all political programming requirements explicitly applicable to program originating FM booster stations. In light of the record, we will treat each booster as a separate facility from its primary station for purposes of compliance with the political programming rules but, for sake of simplicity, will allow broadcasters to include information about their boosters within the political file of their primary stations.¹⁷⁰ Traditional booster stations are not required to maintain a public file,¹⁷¹ but we will require full power broadcasters originating programming on a booster to include information about any political uses of each booster in the online political file of the booster's primary station.¹⁷²

57. As GBS suggests, each program originating booster and primary station would be considered its own, separate facility for purposes of political file obligations. The primary FM station's political file would denote whether material was booster-originated, and if so, the booster station over which it was broadcast. We will implement this requirement by amending sections 73.3526 (online public inspection file of commercial stations)¹⁷³ and 73.3527 (online public inspection file of noncommercial educational stations).¹⁷⁴ The *FNPRM* asked whether we should require licensees to provide a separate political file subfolder for each booster or whether licensees would be free to commingle records of political use of broadcast time on a program originating booster station along with records of requests for the use of broadcast time on the licensee's primary station. Since this question did not elicit any comments on advantages or disadvantages of either approach, we will provide broadcasters with the

¹⁶⁵ *Id.* at 14.

¹⁶⁶ *Id.*

¹⁶⁷ Roberts Reply Comments at 1-2.

¹⁶⁸ *Id.* at 2.

¹⁶⁹ 47 CFR § 74.1290 (currently "Reserved").

¹⁷⁰ Pursuant to sections 315(e) of the Act and 73.1943 of the Rules, licensees must maintain and make available for public inspection a complete record of each request for the purchase of broadcast time that is made: by or on behalf of a legally qualified candidate for public office, or by or on behalf of an issue advertiser whose ad communicates a political matter of national importance. *See* 47 U.S.C. § 315(e); 47 CFR § 73.1943.

¹⁷¹ 47 CFR § 73.3526(a)(2) ("Every permittee or licensee of an AM, FM, TV or Class A TV station in the commercial broadcast services shall maintain a public inspection file. . ."); *Id.* § 73.3527(a)(2) ("Every permittee or licensee of an AM, FM, or TV station in the noncommercial educational broadcast services shall maintain a public inspection file. . .").

¹⁷² LPFM stations do not have an online public file requirement and, thus, an LPFM station operating program originating boosters will need to maintain a physical political file for its booster(s) consistent with existing requirements for political use of the LPFM station.

¹⁷³ *Id.* § 73.3526. For example, commercial licensees must maintain online political files of requests for the purchase of broadcast time by or on behalf of all legally qualified candidates for public office and by or on behalf of issues advertisers whose ads communicate a message relating to any political matter of national importance.

¹⁷⁴ *Id.* § 73.3527. The requirement to maintain a political file applies to full service noncommercial stations and LPFM stations to the extent that they make time available without charge for use by a candidate. 47 CFR §§ 73.3527(e)(5), 73.1943(c).

flexibility to arrange their files in the manner they deem best suited to their operations, provided that they appropriately label the records to identify the station airing the political material. We find this will provide broadcasters flexibility, while also ensuring that qualified candidates have access to information that may trigger their rights, while also providing transparency to the public.

58. Because we are treating program originating boosters as separate facilities from the licensee's primary station for purposes of political broadcasting and advertising requirements, candidates who request equal opportunities in response to an advertisement or noncommercial announcement broadcast on a particular program originating booster station will be entitled to use that booster station but not the primary station (if the primary station did not air the material). Similarly, primary stations and program originating boosters will be treated as separate facilities with respect to requests for reasonable access by Federal candidates. Under section 73.1944 of the Rules and section 312(a)(7) of the Act, commercial broadcast stations must permit candidates for Federal office to purchase reasonable amounts of advertising time.¹⁷⁵ In determining what is "reasonable" for reasonable access purposes, the amount of time that a Federal candidate has purchased on a licensee's primary station will not affect the amount of time which the same candidate is entitled to purchase on one of the licensee's program originating booster stations, and vice versa. With respect to candidate rates, during the 45-day period preceding a primary or primary run-off election, and the 60-day period preceding a general or special election, stations must charge a candidate's campaign no more than the station's lowest unit charge for the same class and amount of time during the same period.¹⁷⁶ As GBS notes, rates charged on a program originating booster may be lower than those charged on the primary station because the booster reaches a smaller zone. Therefore, in determining lowest unit charges, licensees should treat their program originating booster stations and primary stations as separate facilities.

9. Patent Licensing Issues

59. We will not at this time require vendors of program originating technology and patent owners in program origination technology to take any additional steps pursuant to the Commission's patent policy,¹⁷⁷ or to comply with any other guidelines common to open standards, such as requiring that licenses be available to all parties on fair, reasonable and nondiscriminatory terms.¹⁷⁸ The *FNPRM* asked whether such a requirement was necessary and an appropriate exercise of Commission authority given that the *Order* did not endorse a particular technical approach. We requested that parties suggesting patent-related requirements provide detailed information, including how long such requirements should last and our authority to adopt such requirements.¹⁷⁹

60. GBS is the only commenter to address this issue. It argues that the Commission should not get involved in patent matters for three reasons.¹⁸⁰ First, GBS observes that use of program origination technology for boosters is not mandatory and the technology can be supplied by multiple vendors. GBS emphasizes that it does not hold a patent on the concept of program originating boosters, just on its own particular design, and other vendors could, thus, enter the market.¹⁸¹ Second, GBS argues

¹⁷⁵ 47 CFR § 73.1944 and 47 U.S.C. § 312(a)(7).

¹⁷⁶ 47 CFR § 73.1942 and 47 U.S.C. § 315(b).

¹⁷⁷ *Revised Patent Procedures of the Federal Communications Commission*, 3 FCC 2d 26 (1966).

¹⁷⁸ See American National Standards Institute, ANSI Essential Requirements: Due process requirements for American National Standards at section 3.1 (March 2, 2022), https://share.ansi.org/Shared%20Documents/About%20ANSI/Current_Versions_Proc_Docs_for_Website/ER_Pro_current.pdf (essential patents must be made available, "under reasonable terms and conditions that are demonstrably free of any unfair discrimination.").

¹⁷⁹ *FNPRM*, para. 89.

¹⁸⁰ GBS Comments at 8-10.

¹⁸¹ *Id.* at 9.

that free-market forces would address any concerns. GBS highlights its willingness to do business with all parties and lack of any intent to require the licensing of other, extraneous technologies or services for broadcasters to license its program origination technology.¹⁸² Third, GBS contends that the Commission does not have the authority to regulate patents. It argues that the policy cited in the *FNPRM* allows the Commission to study whether patents for new technical developments might interfere with services provided under Commission standards, but contends that the policy is inapplicable in the instant proceeding because GBS' technology works with existing receivers and standards.¹⁸³

61. Based on the record in this rulemaking, we decline at this time to impose any patent-related requirements.¹⁸⁴ We base this decision on our determination that program originating boosters work with existing equipment and standards, the Commission has not endorsed GBS' particular product, and others can enter the market if there is sufficient demand. Therefore, we do not believe that it is necessary at this time for us to adopt regulations governing program origination licensing and usage fees. If we receive information that suggests we need to explore this issue further, such as if it becomes necessary for stations to use a particular proprietary system for program origination to work, we will take appropriate action at that time.

10. Other Safeguards

62. Based on input in the comments, we adopt a new requirement that licensees of program originating boosters certify quarterly that their operations have not diminished their responsiveness to needs and issues of their service areas, especially minority communities. We also consider but do not adopt a suggestion to heighten co-channel interference standards.

63. *Public Interest Certification.* The *FNPRM* sought comment on a "Public Interest Certification" suggestion, *i.e.*, a reporting requirement in which licensees of program originating boosters would self-certify that they are, consistent with the public interest, using the boosters in a manner that is responsive to the needs and issues of their service areas, especially minority communities.¹⁸⁵ That suggestion arose in response to prior commenter concerns that a station's geo-targeted programming or advertising might result in intentional or inadvertent socio-economic "redlining"¹⁸⁶ or exclusion of minorities. Although, we found no evidence that program origination would cause redlining,¹⁸⁷ we sought comment on whether the suggested reporting requirement might be a useful safeguard and, if so, what timing and content of the certification would be best. We, as part of our overall efforts to promote equity,¹⁸⁸ also asked how program originating boosters may promote or inhibit advances in diversity, equity, inclusion, and accessibility.

64. The U.S. Black Chamber, National Newspaper Publishers Association, Roberts, and the

¹⁸² *Id.*

¹⁸³ *Id.* at 9-10.

¹⁸⁴ We therefore decline to address GBS' comments regarding Commission authority to administer its patent policy.

¹⁸⁵ *FNPRM*, para. 90, citing 2022 Comments of Reps. Horsford and Thompson at 1-2 ("While we support the proceeding, we also believe the adoption of a Public Interest Certification should be required by all licensees of FM booster stations under this new authority, requiring the licensee to be responsive to the needs and issues of the people in their service area. This certification will provide an additional layer of oversight for the Commission and provide minority communities with a certainty that geotargeting will be deployed equitably.").

¹⁸⁶ See *FNPRM*, para. 35. Redlining, is a term used when private or public actors limit or deny services to poor or minority communities. It occurred most frequently in the 1970s when banks and financial institutions marked up maps with red lines around neighborhoods that they deemed undeserving of loans and insurance coverage. *Id.*

¹⁸⁷ See *Order*, paras. 35-36.

¹⁸⁸ Section 1 of the Act as amended provides that the Commission "regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex." 47 U.S.C. § 151.

Multicultural Media, Telecom and Internet Council contend, in joint comments, that program originating boosters allow radio stations to reach isolated and minority communities with programming geared towards them – ultimately creating more engaging content for listeners with specific needs and interests – and reorient radio stations with their communities.¹⁸⁹ They also state that in a time when the radio industry is facing falling advertising revenue, program originating boosters provide a new avenue for local businesses to better engage with listeners via hyper-local advertising and help broadcasters reach their target audiences more effectively. They jointly support adoption of a public interest certification as proposed¹⁹⁰ because they believe that such a certification would provide an additional layer of oversight to ensure that program originating boosters are used appropriately and equitably.

65. GBS states that it is eager to work with these groups to unlock the benefits of program originating boosters and has recently chartered a Diversity Advisory Committee to help GBS coordinate, monitor, and facilitate activities that promote localism, diversity, equity, and inclusion.¹⁹¹ GBS further predicts that “[p]rogram originating boosters will be uniquely beneficial to small businesses and minority communities, and concerns about discriminatory practices are baseless and unwarranted.”¹⁹² GBS supports a public interest certification, which it contends will ensure that program originating boosters advance diversity, equity, and inclusion.¹⁹³ GBS agrees with the Commission’s conclusion that program originating boosters will not create redlining but also believes that requiring broadcasters to consider on a regular basis how they are using their program originating boosters and to certify that they have done so, would nullify any diversity concerns raised in prior stages of this proceeding.¹⁹⁴ GBS contends that, if the Commission adopts the proposal, no other safeguards would be needed because current rules, other safeguards established in the *Order*, and market forces are sufficient to ensure that program originating boosters serve the public interest.¹⁹⁵ None of the commenters who address this issue propose any specific language, frequency, or method for the suggested certification.

66. We adopt a self-certification requirement, which will contain the call sign of the relevant booster(s) and state that in originating programming over the booster(s) the licensee has considered the characteristics and needs of the coverage area of the booster station and has not used the booster to exclude or diminish service to other populations within that area or other areas within the service area of the booster’s primary station. Licensees may, but are not required to, include other information about use of the booster. We conclude that this licensee certification of its efforts to deploy its program originating technology in an equitable manner provides some assurance that licensees are mindful of their obligation to make such service available to all the people of the United States, including minority communities within their broader coverage areas, and are not discriminating on the basis of race, color, religion, national origin, or sex. This requirement would pose a very minimal burden on licensees of program originating boosters but serve as a regular reminder to licensees of best practices to use program origination as an enhancement of local messaging intended to target rather than to exclude.

67. As stated above, we consider program originating boosters to be facilities distinct from their primary stations for purposes of political broadcasting and advertising requirements, but the primary station’s publicly available file is a useful mechanism for dissemination of information about booster operations. Therefore, we will require licensees of full power commercial and noncommercial FM stations to place their booster-related certification in the online public file of their primary station

¹⁸⁹ Comments of U.S. Black Chamber at 1.

¹⁹⁰ *Id.*

¹⁹¹ GBS Comments at 12.

¹⁹² GBS Reply Comments at 9.

¹⁹³ GBS Comments at 12-13.

¹⁹⁴ *Id.*

¹⁹⁵ *Id.* at 14.

concurrently with their quarterly issues programs lists for the primary station.¹⁹⁶ We amend the public file rules in sections 73.3526 and 73.3527 to reference the certification. The certification need not be under oath but should be signed by an officer of the licensee. We do not see a need for LPFM stations to make this certification which serves to remind broadcasters operating program originating boosters not to exclude listeners in portions of their service area. First, there is no evidence in the record that LPFM stations are especially at risk of intentionally or inadvertently using program originating boosters to exclude particular segments of the community, given that LPFM stations have limited service areas with far fewer potential zones than full power stations because they may not operate more than two booster stations.¹⁹⁷ Accordingly, we find it is unlikely redlining or any other potential use of boosters by LPFM stations to exclude listeners in certain zones would result. Second, we note that the filing of the certification will coincide with the quarterly filing of issues/programs lists in an online public inspection file but LPFM stations are not required to compile such lists or to maintain an online inspection file. Therefore, we decline to require LPFM stations to prepare the public interest certification.

68. *Co-Channel Interference Standards.* We believe that our existing co-channel interference standards provide sufficient interference protection and, thus, will not adopt a new standard that REC proposes.¹⁹⁸ REC anticipates that new FM boosters could cause co-channel interference to existing LPFM or FM translator stations licensed to a different broadcaster. Specifically, because a booster's 60 dBu service contour covers a smaller area than its 40 dBu interference contour, a booster associated with a primary station that relocates might have a service area that remains within that of the primary station but that nevertheless places an interfering contour over a pre-existing LPFM or FM translator station.¹⁹⁹ REC acknowledges that an affected station could pursue an interference claim against the booster under sections 74.1203 and 73.809 of the Rules, but REC views this remedy as burdensome because the affected station would need to monitor booster application activity, conduct its own contour studies, and compile the information necessary to present a complaint to the Commission.²⁰⁰ Instead, REC recommends that the Commission amend section 74.1204(i) to require that the signal of a co-channel station exceeds by 20 dBu that of a booster anywhere within the co-channel protected contour.²⁰¹ REC states that such revisions to the Rules would prevent interference "up front" and obviate the need for stations and Commission staff to devote time to interference challenges.²⁰²

69. GBS considers REC's co-channel interference concerns as "unfounded" and REC's proposed remedies as beyond the scope of this proceeding.²⁰³ GBS emphasizes that FM boosters remain obligated to operate within the contour of their primary FM station, which has priority over any secondary

¹⁹⁶ We direct the Bureau to create a new "Additional Documents" folder within the online public inspection file template that licensees can use for this purpose.

¹⁹⁷ 47 CFR § 73.860.

¹⁹⁸ REC states that the possibility of co-channel interference has increased due to a massive growth in the number of equal-in-status secondary facilities since the 1990s following an FM translator window and AM revitalization auctions. REC Comments at 2-3.

¹⁹⁹ *Id.* at 3.

²⁰⁰ *Id.* at 4.

²⁰¹ *Id.* REC further suggests in its related Petition for Reconsideration that the Commission require applicants for new or modified boosters (whether originating programming or not) to show that the 40 (or 34 or 37) dBu contour of the proposed station does not overlap with the 60 dBu (or 54 or 57) of any incumbent FM, Class D, LPFM, FM translator, or FM booster. REC Petition at 2. As discussed below, we decline to adopt the changes proposed in REC's Petition and consider existing requirements to sufficiently protect incumbent stations. *See infra*, paras. 72-74.

²⁰² REC Petition at 4.

²⁰³ GeoBroadcast Solutions, LLC, Opposition to Petitions for Reconsideration, at 3 (GBS Opposition).

services such as LPFM stations.²⁰⁴ GBS, therefore, contends interference will not occur.²⁰⁵ GBS also argues that REC's proposed solution is outside the bounds of the original *NPRM* and the *Order* because REC is proposing to alter interference standards for all FM boosters, not only those originating programming.²⁰⁶

70. We decline to adopt REC's suggested revision of co-channel interference standards. Our amendment to section 74.1204(f), as discussed previously, should partially address REC's concern by making boosters subject to predicted interference provisions rather than having to await actual interference. We do not believe that additional rule changes are needed to protect co-channel, secondary stations. REC's proposal is similar to interference protection standards that the Commission considered but declined to adopt in 1987, in favor of less complex and burdensome requirements.²⁰⁷ The record does not support a finding that the landscape has changed so significantly since that time as to establish a need for different standards applicable to FM booster stations. As stated in the *Order*, the Commission's experience with boosters over many years has demonstrated that the framework in section 74.1203 adequately addresses claims of actual interference caused by boosters.²⁰⁸ Our decision to limit program origination to three minutes per hour would further minimize any potential interference. We acknowledge that the LPFM service did not yet exist at the time of the 1987 decision and that the number of FM boosters will likely increase with the option to use them for program origination. However, we do not consider that change to negate the effectiveness of the existing requirement that secondary stations, such as LPFM stations, FM translators, and FM boosters must protect full service stations and also pre-existing secondary stations.²⁰⁹ Because FM boosters can only operate within the protected contour of their primary stations, and the Rules already require primary stations to protect other full service stations, it is unlikely that a booster would cause co-channel interference that its primary station does not.²¹⁰ Nevertheless, as stated in the *Order*, we will continue to monitor concerns about interference as broadcasters adopt program originating boosters and will revisit this issue if we receive reports of widespread interference.

B. Order on Reconsideration

71. In addition to the comments in response to the *FNPRM*, the Commission received petitions for reconsideration of the *Order* from REC and Press Communications, LLC (Press). The Commission will consider a petition for reconsideration in a rulemaking proceeding if, for example, the petitioner shows a material error or raises additional facts not known or existing at the time of the

²⁰⁴ *Id.* at 4.

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ See *1987 Booster Report*, 2 FCC Rcd. at 4626-27, paras. 10, 16, 26 (considering whether to provide interference protection in terms of desired to undesired signal ratios at the protected contour of co-channel and first, second, and third adjacent channels by requiring that the signal of any co-channel station must exceed the signal of the booster station by 20 dB at all points within the protected contour of the co-channel station and the ratio of the signal of any first, second, or third adjacent channel station to the booster's signal must exceed 6, -40, and -40 dB, respectively, at any location within the protected contours of such stations); see also *FNPRM*, para. 38 (discussing history of Commission's adoption of booster interference standards).

²⁰⁸ 47 CFR § 74.1203.

²⁰⁹ See, e.g., 47 CFR § 74.1203(a)(3) (stating that an FM booster or FM translator station will not be permitted to continue operating if it causes actual interference to the direct reception by the public of the off-the-air signals of any full-service station or any previously authorized secondary station).

²¹⁰ See *id.* § 74.1201(h).

petitioner's last opportunity to present such matters.²¹¹ The Commission may dismiss petitions that rely upon arguments that have been fully considered and rejected in the proceeding.²¹² We find that REC has not demonstrated any material error and that Press raises matters already considered and rejected. Nor are there any new facts that would support our alteration of the framework established in the *Order*. For example, because we have only received a few requests for experimental authority to operate program originating boosters and no station has operated for a sufficient time to generate interference complaints, if any, there is no event after the adoption of the *Booster Rulemaking Order*, that would support a need for a different interference standard. Therefore, concerns raised on reconsideration are speculative, and there is nothing in the record that would justify changing the operations authorized in the *Order*.

72. **REC Petition.** REC, in two different contexts, seeks to amend co-channel interference standards, first in comments to the *FNPRM* and also in a Petition for Reconsideration of the *Order*. We have already discussed the merits of this suggestion in considering REC's comments on the *FNPRM* and will not repeat that analysis in the context of the *Order*.²¹³ We will, however, address REC's procedural argument that the Commission erred by mistaking or disregarding the argument that REC raised in its comments about co-channel interference concerns.²¹⁴

73. REC argues that the Commission misunderstood REC's concern about co-channel interference and addressed it in the *Order* as if pertaining to the booster's own primary station although REC's actual concern was interference to stations licensed to other broadcasters.²¹⁵ Accordingly, REC contends that the Commission did not properly and fully consider its views.²¹⁶

74. In discussing potential co-channel interference, the *Order* focused on self-interference from a program originating booster to the signal of the broadcaster's own primary station (or to another co-owned booster rebroadcasting that primary station).²¹⁷ This is because FM boosters can only operate on the same channel and within the same contours as the primary station, making it unlikely that a booster would affect stations outside the contour or licensed to anyone other than the booster's own licensee. We also noted that licensees would have an economic incentive to minimize co-channel interference.²¹⁸ Therefore, the circumstances in which REC believes there could be co-channel interference to secondary stations licensed to others would be exceedingly rare. We find that the *Order*'s consideration of co-channel interference was appropriate. Moreover, we have now thoroughly addressed REC's concerns in this *Second Report and Order*,²¹⁹ and are not persuaded that additional protections are necessary at this time. Accordingly, we deny REC's petition.

75. **Press Petition.** Press' concerns are similar to those expressed and considered at earlier stages of this proceeding. Press is concerned about potential self-interference between a broadcaster's boosters and its primary stations, causing listener confusion. It argues that GBS did not present sufficient evidence that interference will not occur and that its tests were conducted in hand-picked markets, under

²¹¹ See 47 CFR § 1.429(b), (l); see also *WWIZ, Inc.*, Memorandum Opinion and Order, 37 FCC 685, 686, para. 2 (1964), *aff'd sub nom., Lorain Journal Co. v. FCC*, 351 F.2d 824 (D.C. Cir. 1965), *cert. denied*, 383 U.S. 967 (1966). Petitions for reconsideration which rely on facts not previously presented to the Commission may be granted only if the Commission determines that consideration is in the public interest. See 47 CFR § 1.429(b).

²¹² *Id.* § 1.429(b)(3).

²¹³ See *supra*, paras. 68-70.

²¹⁴ REC Petition at 2-4.

²¹⁵ *Id.* at 3.

²¹⁶ *Id.*

²¹⁷ *Order*, paras. 37, 44-52.

²¹⁸ *Id.*, para. 44.

²¹⁹ See *supra*, paras. 68-70.

the most favorable circumstances, with ideal conditions.²²⁰

76. Press also raises competitive concerns about the potential economic impact of program originating boosters, especially what it characterizes as “unfair competition.”²²¹ Press specifically seeks to prohibit the use of program originating boosters in markets with embedded metros as defined by Nielsen, especially those in New Jersey.²²² It further alleges that there is no widespread industry support for program originating boosters and that the *Order* is based on a flawed premise that broadcasters need this technology.²²³ Press contends that broadcasters already have a means of targeting subsections of the market by using existing HD Radio technology capable of creating five separate and distinct channels of programming.²²⁴ Press also expresses concern about compatibility of program originating boosters with EAS, a matter on which the Commission sought further comment in the *FNPRM*.²²⁵

77. GBS responds that Press is merely repeating earlier arguments without showing any error or new facts and is advocating anew for a New Jersey carve-out that would benefit its own situation.²²⁶ GBS contends that the proposed carve-out of embedded metro markets is just an attempt to limit competition.

78. We dismiss the Press Petition on procedural grounds because it repeats arguments that the Commission already addressed in the *Order*.²²⁷ The primary bases on which Press now seeks reconsideration are concerns about the sufficiency of GBS’ tests, the economic impact of program originating boosters on stations in embedded markets like New Jersey, and compatibility with EAS, all of

²²⁰ Press Petition at 2.

²²¹ *Id.* at 3.

²²² *Id.* at 6. Nielsen describes a metro as embedded if it is located within a larger market also reported by the company. For example, Nielsen ranks the New York metro as number one but separately ranks as number 42 a portion of New Jersey (Middlesex-Somerset-Union) that is also included within the New York metro. *See, e.g.*, Nielsen Radio Market Survey Population, Rankings, and Information, Spring 2024, https://www.nielsen.com/wp-content/uploads/sites/2/2024/04/Populations_Rankings.pdf at 8 (accessed Oct. 7, 2024). Press notes that Nielsen further divides the New Jersey portion of the New York market into three component embedded metros and that the New York market also includes the additional embedded metros of Hudson Valley, Nassau-Suffolk, and Fairfield CT. Press Petition at nn. 6-7. It states that it is aware of three other markets with embedded metros: San Jose in the San Francisco market, New Bedford-Fall River MA in the Providence RI market, and Frederick MD in the Washington DC, market. *Id.* at n. 7. Press anticipates that larger, higher powered stations from elsewhere in the New York market will use program originating boosters to sell time to local advertisers in an embedded New Jersey metro at rates far below what a local Class A station can afford to offer. *Id.* at 3. Press characterizes this as an “inequity” contrary to the mandate of section 307(b) of the Act to make “fair and equitable distribution of frequencies and power among the several communities and states.” *Id.* at 5-6, citing 47 U.S.C. § 307(b).

²²³ *Id.* at 3.

²²⁴ *Id.* This is a new argument which Press could have raised earlier. At earlier stages of this proceeding Press’ discussion on HD radio was limited to concern about compatibility with program originating boosters. *See* 2022 Press Comments at 3. Because Press did not present its current argument of HD radio as a substitute for the type of content offered by program originating boosters, we dismiss it pursuant to 47 U.S.C. § 1.429(l)(2). Moreover, while HD radio facilitates broadcast of different content, it does not differentiate the geographic reach of that content.

²²⁵ *FNPRM*, para. 79.

²²⁶ GBS Opposition at 5.

²²⁷ *Order*, paras. 20, 22, 47-51, 53-58. *See* 47 CFR § 1.429(l)(3) (petitions for reconsideration that plainly do not warrant consideration may be dismissed, including those that rely on arguments that have been fully considered and rejected within the same proceeding); *Connect America Fund*, Sixth Order on Reconsideration and Memorandum Opinion and Order, 28 FCC Rcd 2572, 2573, para. 3 (2013) (stating that if a petition for reconsideration simply repeats arguments that were previously fully considered and rejected in the proceeding, it will not likely warrant reconsideration).

which we considered in the *Order*.²²⁸ With respect to GBS' testing, the Commission considered views of opponents, including Press, who argued that GBS' tests of its program originating booster technology were optimized in favor of its proposal, and those of supporters who asserted that the tests demonstrated the ability of program originating boosters to minimize interference.²²⁹ We concluded that predictions of harmful interference were speculative and that properly engineered program originating boosters should not cause undue interference to the primary station or adjacent channel stations.²³⁰ Further, we noted the very limited operation of program originating boosters for three minutes per hour, and the Bureau's ability to address any interference concerns that arise in individual circumstances by placing conditions on licenses as part of the authorization process.²³¹ The Press Petition provides no new arguments or information on GBS' testing that were not addressed in the *Order*.

79. With respect to economic impact on stations in markets like New Jersey, the *Order* recognized commenters' concern that use of program originating boosters by competitors could affect a few markets differently due to geography and size, such as the example of small New Jersey stations located between the larger markets of New York and Philadelphia.²³² However, we declined to prohibit the rollout of a new optional technology solely to address speculative concerns in one market.²³³ The Press Petition provides no new arguments or information on the economic impact of program origination boosters on stations in embedded markets that were not addressed in the *Order*.

80. With respect to compatibility of program originating boosters with EAS signals, the *Order* addressed such issues and amended section 11.11 of the Rules to require that program originating boosters receive and broadcast all emergency alerts in the same manner as their primary station.²³⁴ Press does not allege any problem with such a requirement. Nor does Press demonstrate any error in the *Order*'s conclusion that program origination is unlikely to cause harmful interference to EAS.²³⁵ The Press Petition provides no new arguments or information on EAS compatibility that were not addressed in the *Order*. Accordingly, we dismiss the Press Petition on procedural grounds.

²²⁸ Press Petition at 2-6.

²²⁹ See *Order*, para. 9.

²³⁰ *Id.*, paras. 10, 37.

²³¹ *Id.*, para. 10.

²³² *Id.*, para. 22.

²³³ *Id.*

²³⁴ *Id.*, para. 53. We note that Roberts, in reply comments, argues that requiring EAS equipment for program originating boosters is expensive for small broadcasters and largely unnecessary because it says that boosters do not need separate EAS equipment to deliver an identical, overriding EAS alert from the main station. Roberts Reply Comments at 3. Although we acknowledge Roberts' concern, our determination that program origination is consistent with EAS relies upon GBS' testing of boosters with their own separate EAS equipment. GBS did not to our knowledge conduct tests that relied solely upon EAS equipment of the primary station. Given the importance of emergency communications, the integrity of EAS requires that we adopt the equipment requirement as proposed. Use of program originating boosters is voluntary so no licensee will be required to invest in additional EAS equipment for boosters unless it determines that the potential benefits of voluntarily choosing to originate programming over boosters outweighs the costs.

²³⁵ We also note that, to the extent that the *Order* left open the question of whether there was a need for any additional EAS-related safeguards and sought comment in the *FNPRM*, we adopt herein in the *Second Report and Order* a further EAS safeguard by requiring licensees using program originating boosters to notify their State Emergency Communications Committee(s) to ensure that program origination does not negatively impact the public's receipt of EAS alerts. See *supra*, para. 35.

IV. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

81. The Regulatory Flexibility Act of 1980, as amended (RFA),²³⁶ requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”²³⁷ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this *Second Report and Order*. The FRFA is set forth in Appendix C.

1. Final Paperwork Reduction Act of 1995 Analysis

82. This *Second Report and Order* may contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA).²³⁸ All such new or modified information collections will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA.²³⁹ OMB, the general public, and other Federal agencies are invited to comment on any new or modified information collection requirements contained in this proceeding. In addition, pursuant to the Small Business Paperwork Relief Act of 2002,²⁴⁰ the Commission previously sought specific comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees. In Appendix C, we have assessed the effects of the required collection of information on these small entities.

B. Congressional Review Act

83. The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that these rules are non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of the *Second Report and Order* to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

84. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

85. *Additional Information.* For additional information on this proceeding, contact Albert Shuldiner, Media Bureau, Audio Division, at (202) 418-2721 or Albert.Shuldiner@fcc.gov; or Irene Bleiweiss, Media Bureau, Audio Division, at (202) 418-2785 or Irene.Bleiweiss@fcc.gov.

V. ORDERING CLAUSES

86. Accordingly, **IT IS ORDERED** that pursuant to the authority contained in sections 1,2, 4(i), 7, 301, 302, 303, 307, 308, 309, 316, 319, and 324 of the Communications Act of 1934, 47 U.S.C. §§151, 152, 154(i), 157, 301, 302, 303, 307, 308, 309, 316, 319, and 324, this *Second Report and Order and Order on Reconsideration* **IS ADOPTED**.

87. **IT IS FURTHER ORDERED** that the *Second Report and Order* and the amendments to the Commission’s rules set forth in Appendix B **SHALL BE EFFECTIVE** 30 days after publication of a summary in the Federal Register except that the amendments to sections 73.3526(a), (e); 73.3527(a), (e); 74.1204(f); and 74.1206, which may contain new or modified information collection requirements, will not become effective until OMB completes review of any information collection requirements that the

²³⁶ 5 U.S.C. §§ 601–612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

²³⁷ 5 U.S.C. § 605(b).

²³⁸ Pub. L. No. 104-13, 109 Stat 163 (1995) (codified at 44 U.S.C. §§ 3501-3520).

²³⁹ 44 U.S.C. § 3507(d).

²⁴⁰ Pub. L. No. 107-198, 116 Stat 729 (2002) (codified at 44 U.S.C. § 3506(c)(4)).

Media Bureau determines is required under the Paperwork Reduction Act. The Commission directs the Media Bureau to announce the effective date of the rule changes to sections 73.3526(a), (e); 73.3527(a), (e); 74.1204(f), and 74.1206, by subsequent Public Notice.

88. **IT IS FURTHER ORDERED** that the Commission's Office of the Secretary **SHALL SEND** a copy of this *Second Report and Order and Order on Reconsideration*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

89. **IT IS FURTHER ORDERED** that Office of the Managing Director, Performance Program Management, **SHALL SEND** a copy of this *Second Report and Order and Order on Reconsideration* in a report to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

90. **IT IS FURTHER ORDERED** that the Petition for Reconsideration filed by REC Networks of the Report and Order in MB Docket No. 20-401 **IS DENIED**.

91. **IT IS FURTHER ORDERED** that the Petition for Reconsideration filed by Press Communications, LLC of the Report and Order in MB Docket No. 20-401 **IS DISMISSED**.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

List of Commenters

Aaron Read

GeoBroadcast Solutions, LLC***

National Association of Broadcasters

National Public Radio, Inc.

Press Communications, LLC*

REC Networks**

Roberts Radio Broadcasting, LLC****

U.S. Black Chamber; Multicultural Media, Telecom and Internet Council;
National Newspapers Publishers Association; and Roberts Radio Broadcasting, LLC

* Filed Petition for Reconsideration only

** Petition for Reconsideration, Comments, Reply Comments, and Reply to Opposition

*** Filed Comments, Reply Comments, *Ex Parte* comments, and Opposition to Petition for Reconsideration

**** Filed individual Reply Comments, Comments as part of a group, and *Ex Parte* Comments

APPENDIX B**Final Rules**

For the reasons discussed above, the Federal Communications Commission amends 47 CFR parts 11, 73, and 74 as follows:

PART 11 – EMERGENCY ALERT SYSTEM (EAS)

1. The authority citation for part 11 continues to read as follows:

Authority: 47 U.S.C. 151, 154 (i) and (o), 303(r), 544(g), 606, 1201, 1206.

2. Amend § 11.21 by adding a sentence to the end of paragraph (a)(4) to read as follows:

§ 11.21 State and Local Area plans and FCC Mapbook.

* * * * *

(a) * * *

- (4) * * * State EAS Plans must indicate whether any of the EAS monitoring sources in the monitoring assignment matrix are primary stations adopting program originating boosters and, if so, whether the boosters will simulcast the primary station or remain off-air during periods when they are not originating programming;

* * * * *

PART 73 – RADIO BROADCAST SERVICES

3. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 155, 301, 303, 307, 309, 310, 334, 336, 339.

4. Amend § 73.860 by adding a sentence to the end of paragraph (b)(5) to read as follows:

§ 73.860 Cross-ownership.

* * * * *

(b) * * *

- (5) * * * Any such booster stations must comply with the rules concerning the Emergency Alert System set out in Part 11.

* * * * *

5. Amend § 73.3526 by adding paragraphs (a)(3) and (e)(20) to read as follows:

§ 73.3526 Online public inspection file of commercial stations.

(a) * * *

- (3) Every permittee or licensee of a program originating FM booster station, as defined in § 74.1201(f)(2) of this chapter, shall maintain in the political file of its FM primary station the records required in § 73.1943 of this part for each such program originating FM booster station.

* * * * *

(e) * * *

- (20) *Certification by Licensees of Program Originating FM Boosters.* Every licensee of an FM primary station using a program originating FM booster station, as defined in § 74.1201(f)(2) of this chapter, shall concurrently with its quarterly issues programs lists for the primary station, place a booster public interest certification in the online public file of its FM primary station. The certification must contain the call sign(s) of the relevant booster(s) and certify that in originating

programming over the booster(s) the licensee has considered the characteristics and needs of the coverage area of the booster station and has not used the booster to exclude or diminish service to other populations within that area or any other area served by the booster's primary station.

* * * * *

6. Amend § 73.3527 by adding paragraphs (a)(3) and (e)(16) to read as follows:

§ 73.3527 Online public inspection file of noncommercial educational stations.

(a) * * *

(3) Every permittee or licensee of a program originating FM booster station, as defined in § 74.1201(f)(2) of this chapter, in the noncommercial educational broadcast service shall maintain in the political file of its FM primary station the records required in § 73.1943 of this part for each such program originating FM booster station.

* * * * *

(e) * * *

(16) *Certification by Licensees of Program Originating FM Boosters.* Every licensee of an FM primary station using a program originating FM booster station, as defined in § 74.1201(f)(2) of this chapter, shall concurrently with its quarterly issues programs lists for the primary station, place a booster public interest certification in the online public file of its FM primary station. The certification must contain the call sign(s) of the relevant booster(s) and certify that in originating programming over the booster(s) the licensee has considered the characteristics and needs of the coverage area of the booster station and has not used the booster to exclude or diminish service to other populations within that area or any other area served by the booster's primary station.

* * * * *

PART 74 – EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

7. The authority citation for part 74 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 310, 325, 336, and 554.

8. Amend § 74.1204 by

- a. Removing Note to paragraph (a)(4),
- b. Adding paragraph (a)(5),
- c. Redesignating paragraphs (f) introductory text and (f)(1) through (5) as paragraphs (f)(1) and (f)(3)(i) through (v),
- d. Revising newly redesignated paragraph (f)(1),
- e. Adding new paragraphs (f)(2) and (f)(3) introductory text, and
- f. Revising newly redesignated paragraph (f)(3)(iv) and paragraph (i)

The additions and revisions read as follows:

§ 74.1204 Protection of FM broadcast, FM Translator and LP100 stations.

(a) * * *

(5) For the purposes of determining overlap pursuant to this paragraph, LP100 stations, LPFM applications, and LPFM permits that have not yet been licensed must be considered as operating with the maximum permitted facilities. All LPFM TIS stations must be protected on the basis of a nondirectional antenna.

* * * * *

(f)(1) An application for an FM translator station will not be granted even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (a) of this section, if grant of the authorization will result in interference to the reception of a regularly used, off-the-air signal of any authorized co-channel, first, second or third adjacent channel broadcast station, including previously authorized secondary service stations within the 45 dBμ field strength contour of the desired station.

(2) An application for an FM broadcast booster station will not be granted even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (i) of this section, if grant of the authorization will result in interference to the reception of a regularly used, off-the-air signal of any authorized co-channel, first, second or third adjacent channel broadcast station, other than the booster's primary station, but including previously authorized secondary service stations within the 45 dBμ field strength contour of the desired station.

(3) Interference, with regard to either an FM translator station or an FM broadcast booster station application, is demonstrated by:

* * * * *

(iv) A statement that the complaining station licensee has used commercially reasonable efforts to inform the relevant translator **or booster** licensee of the claimed interference and attempted private resolution; and

* * * * *

(i) FM broadcast booster stations shall be subject to the requirement that the signal of any first adjacent channel station must exceed the signal of the booster station by 6 dB at all points within the protected contour of any first adjacent channel station, except that in the case of FM stations on adjacent channels at spacings that do not meet the minimum distance separations specified in § 73.207 of this chapter, the signal of any first adjacent channel station must exceed the signal of the booster by 6 dB at any point within the predicted interference free contour of the adjacent channel station.

* * * * *

9. Add § 74.1206 to read as follows:

§ 74.1206 Program originating FM booster station notifications.

(a) A program originating FM booster station must electronically file an FM Booster Program Origination Notification with the Commission in LMS using the form provided for this purpose, before commencing or after terminating the broadcast of booster-originated content subject to the provisions of § 74.1201(f)(2) of this part. Such a notification must be filed within 15 days before commencing origination, or within 30 days after terminating origination.

(b) A primary FM station that is designated in a state emergency communications plan as an Emergency Alert Service Local Primary (LP), State Primary (SP), State Relay (SR), or otherwise monitored as an over-the-air source of EAS messages must notify the proper State Emergency Communications Committee(s) of its intent to transmit unique local programming on one or more program originating FM boosters at least 30 days prior to employing a program originating booster, or implementing changes to booster status. The notification should disclose whether the booster(s) will simulcast the primary station or remain off-air during periods when not originating programming and advise continued monitoring of the primary station and not of a booster.

(c) Stations employing program originating boosters must report to the Commission's Operations Center, at FCCOPS@fcc.gov, any problems of which they become aware concerning EAS-related interference.

10. Amend § 74.1231 by removing the Note to paragraph (i) and adding paragraphs (j) and (k) to read as follows:

§ 74.1231 Purpose and permissible service.

* * * * *

(j) In the case of a superpowered FM broadcast station, authorized with facilities in excess of those specified by § 73.211 of this chapter, an FM booster station will only be authorized within the protected contour of the class of station being rebroadcast as predicted based on the maximum facilities set forth in § 73.211 for the applicable class of FM broadcast station being rebroadcast.

(k) An FM broadcast booster station, as defined in § 74.1201(f)(1) or (f)(2) of this part, must suspend operations at any time its primary station is not operating. If a full-service FM broadcast station suspends operations, in addition to giving the notification specified in § 73.1740(a)(4) of this chapter, each FM broadcast booster station and program originating FM booster station must also file a notification under § 73.1740(a)(4) that it has suspended operations.

11. Amend § 74.1232 by revising paragraph (g), redesignating paragraph (h) as paragraph (i), and adding new paragraph (h) to read as follows:

§ 74.1232 Eligibility and licensing requirements.

* * * * *

(g) No numerical limit is placed upon the number of FM booster stations which may be licensed to a single licensee. No more than twenty five (25) program originating FM booster stations may be licensed to a single full-service FM broadcast station. A separate application is required for each FM booster station. FM broadcast booster stations are not counted as FM broadcast stations for the purposes of § 73.5555 of this chapter concerning multiple ownership.

(h) A program originating FM booster station, when originating programming pursuant to the limits set forth in § 74.1201(f)(2) of this part, may not broadcast programming that is not permitted by its primary station's authorization (*e.g.*, a program originating FM booster station licensed to a noncommercial educational primary station may only originate programming consistent with § 73.503 of this chapter).

* * * * *

12. Add § 74.1290 to read as follows:

§ 74.1290 Political programming rules applicable to program originating FM booster stations.

To the extent a program originating FM booster station originates programming different than that broadcast by its FM primary station, pursuant to the limits set forth in § 74.1201(f)(2) of this part, it shall comply with the requirements in §§ 73.1212 (Sponsorship identification), 73.1940 (Legally qualified candidates for public office), 73.1941 (Equal opportunities), 73.1942 (Candidate rates), 73.1943 (Political file), and 73.1944 (Reasonable access) of this chapter.

* * * * *

APPENDIX C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA)¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, Report and Order and Further Notice of Proposed Rulemaking (FNPRM)*, released in April 2024.² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *FNPRM*, including comment on the IRFA. No comments were filed addressing the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Second Report and Order

2. In the *Second Report and Order*, the Commission establishes service rules that will enable FM and low power FM (LPFM) broadcasters to use FM booster stations to originate program content. This action builds upon an April 2024 *Report and Order (Order) and Further Notice of Proposed Rulemaking (FNPRM)* stemming from a Petition for Rulemaking by GeoBroadcast Solutions, LLC (GBS). GBS developed technology designed to allow FM broadcast stations to use boosters as a means of airing “geo-targeted” content different from their primary station’s signal to specific areas, *i.e.*, “zones,” within that station’s service contour. Stations choosing to use this technology might, for example, air advertisements from businesses whose needs or budgets are best focused on small geographic areas, and/or might air hyper-local news and weather reports most relevant to a particular segment of the community. Because FM boosters were traditionally used only as a means to enhance weak signals of a primary station and could not originate programming, GBS asked the Commission to modify the rules to allow program originating boosters.

3. In the *Order*, after considering responsive comments, we identified significant potential benefits of program originating boosters. The technology could enable radio stations to seek new sources of revenue, provide audiences with more relevant, hyper-local content, and provide advertisers with better opportunities to direct messages to the listeners they most want to reach. Nevertheless, because the record addressed some technical and administrative issues quite broadly, we issued the *FNPRM* to propose specific requirements and solicit more detailed input. We, thus, provided for immediate grant of authorizations to operate program originating boosters on an experimental basis pursuant to Part 5 of the Commission’s rules, but determined that permanent authorizations would need to await establishment of more detailed requirements following an opportunity for public comment.

4. Commenters generally support a process that is simple and flexible for booster applicants while including safeguards to ensure that booster operations do not impact emergency communications or signal quality to listeners of the primary station and other co-channel and adjacent channel stations. The *Second Report and Order* thus adopts processing, licensing, and service rules to enable the Commission to authorize broadcasters to originate programming on boosters without the need for an experimental authorization. To facilitate the rollout of this service, we establish that FM licensees will apply for boosters on a first come/first served basis. Before commencing or suspending program origination the licensee will file a notification (FM Booster Program Origination Notification) using an electronic form available in the Media Bureau’s Licensing and Management System (LMS) database. The notification will enable the Commission and interested parties to be aware of which boosters are being used for this purpose. In response to public safety concerns about potential impact on the Emergency Alert System

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 847 (1996).

² *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, Report and Order and Further Notice of Proposed Rulemaking*, MB Docket Nos. 20-401, 17-105 and RM-11854, FCC 24-35, 2024 WL 1460460 (rel. April 2, 2024).

³ 5 U.S.C. § 604.

(EAS), the Commission will require broadcasters whose signals are specified in a state emergency communications plan to notify their State Emergency Communications Committee(s) (SECC) of their use of program originating boosters. We also update our rules to allow the Commission to address concerns about predicted interference from proposed booster stations, and adopt a cap on the total number of program originating boosters each primary station may operate. We update our political broadcasting rules to account for political advertising on program originating boosters. Finally, we adopt a commenter-proposed public interest certification for broadcasters operating program originating boosters.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

5. There were no comments filed that specifically addressed the proposed rules and policies presented in the IRFA. However, Roberts Radio Broadcasting (Roberts), which supports program originating boosters, offered its perspective on several administrative matters as a small, independent broadcaster with limited resources. Specifically, Roberts seeks streamlined political file requirements and opposes separate EAS requirements for program originating boosters, citing concerns regarding the limited resources of small, independent broadcasters.⁴ As discussed in greater detail in section F, the *Second Report and Order* streamlines political file reporting, but maintains certain EAS notification requirements.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

6. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.⁵ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

7. The RFA directs the agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.⁶ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small government jurisdiction.”⁷ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁸ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁹

8. *Radio Stations.* This industry is comprised of “establishments primarily engaged in broadcasting aural programs by radio to the public.”¹⁰ Programming may originate in their own studio,

⁴ Roberts Reply Comments at 2-4.

⁵ 5 U.S.C. § 604(a)(3).

⁶ *Id.* § 604(a)(4).

⁷ *Id.* § 601(6).

⁸ *Id.* § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.” 5 U.S.C. § 601(3).

⁹ 15 U.S.C. § 632.

¹⁰ See U.S. Census Bureau, *2017 NAICS Definition, “515112 Radio Stations,”* <https://www.census.gov/naics/?input=515112&year=2017&details=515112>.

from an affiliated network, or from external sources.¹¹ The SBA small business size standard for this industry classifies firms having \$47 million or less in annual receipts as small.¹² U.S. Census Bureau data for 2017 show that 2,963 firms operated in this industry during that year.¹³ Of this number, 1,879 firms operated with revenue of less than \$25 million per year.¹⁴ Based on this data and the SBA's small business size standard, we estimate a majority of such entities are small entities.

9. The Commission estimates that as of September 30, 2024, there were 4,400 licensed commercial AM radio stations and 6,618 licensed commercial FM radio stations, for a combined total of 11,018 commercial radio stations.¹⁵ Of this total, 11,017 stations (or 99.99 %) had revenues of \$47 million or less in 2023, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Database (BIA) on October 15, 2024, and therefore these licensees qualify as small entities under the SBA definition. In addition, the Commission estimates that as of September 30, 2024, there were 4,377 licensed noncommercial (NCE) FM radio stations, 1,967 low power FM (LPFM) stations, and 8,894 FM translators and boosters.¹⁶ The Commission however does not compile, and otherwise does not have access to financial information for these radio stations that would permit it to determine how many of these stations qualify as small entities under the SBA small business size standard. Nevertheless, given the SBA's large annual receipts threshold for this industry and the nature of radio station licensees, we presume that all of these entities qualify as small entities under the above SBA small business size standard.

10. We note, however, that in assessing whether a business concern qualifies as "small" under the above definition, business (control) affiliations¹⁷ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, another element of the definition of "small business" requires that an entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific radio or television broadcast station is dominant in its field of operation. Accordingly, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the definition of a small business on this basis and is therefore possibly over-inclusive. An additional element of the definition of "small business" is that the entity must be independently owned and operated. Because it is difficult to assess these criteria in the context of media entities, the estimate of small businesses to which the rules may apply does not exclude any radio or television station from the

¹¹ *Id.*

¹² See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

¹³ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 515112, <https://data.census.gov/cedsci/table?y=2017&n=515112&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. We note that the US Census Bureau withheld publication of the number of firms that operated for the entire year. At this time, the 2022 Economic Census data is not available.

¹⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We note that the U.S. Census Bureau withheld publication of the number of firms that operated with sales/value of shipments/revenue in the individual categories for less than \$100,000, and \$100,000 to \$249,999 to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in these categories). Therefore, the number of firms with revenue that meet the SBA size standard would be higher than noted herein. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

¹⁵ *Broadcast Station Totals as of September 30, 2024*, Public Notice, DA 24-1034 (rel. Oct. 7, 2024) (*October 2024 Broadcast Station Totals PN*), <https://docs.fcc.gov/public/attachments/DA-24-1034A1.pdf>.

¹⁶ *Id.*

¹⁷ "[Business concerns] are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has the power to control both." 13 CFR § 21.103(a)(1).

definition of a small business on this basis and similarly may be over-inclusive.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

11. The *Second Report and Order* modifies reporting requirements that may impact compliance requirements for small entities, as described below. These changes will likely result in a modified paperwork obligation for small and other entities. The Commission has considered the benefits and costs of allowing program originating booster licensees to submit certain notifications in LMS. While there is not specific information on the record to quantify the cost of compliance for small entities, or determine whether they will need to hire professionals to comply with its decisions, the Commission has determined that the benefits of allowing small and other broadcasters to operate program originating boosters outweigh any potential costs for small entities. The Commission will seek approval of and submit the corresponding burden estimates to account for this modified reporting requirement.

12. The *Second Report and Order* adopts processing, licensing, and service rules permitting construction and operation of program originating boosters. The Commission adds a new section 74.1206 to the rules, requiring that a program originating booster formally notify the Commission through the Media Bureau's LMS database of the commencement and suspension of operations. FM Booster Program Origination Notifications must be filed 15 days prior to the start of programming and 30 days after permanently terminating programming. It also adopts a separate notification requirement pertaining to the EAS to ensure that EAS participants are aware of program originating boosters in their EAS chain. Broadcasters must alert their SECC that content on their boosters may differ from that on their primary station so that the SECC can take this into account in making EAS monitoring assignments. The *Second Report and Order* also requires that stations employing program originating boosters report to the Commission any problems of which they become aware concerning the EAS and interference. This EAS-related notification requirement is codified in new rule section 74.1206.

13. The *Second Report and Order* clarifies that the programming originated by an FM booster station must conform to that broadcast by the FM primary station, *e.g.*, a booster re-transmitting a noncommercial educational (NCE) FM station may also only broadcast NCE content, and that booster stations must suspend operations when the primary station is not operating. Information collected in the FM Booster Program Origination Notification will be publicly available in the Commission's LMS database.

14. The Commission further amends section 74.1232(g), limiting full-service FM stations to 25 program originating FM booster stations. This cap represents a change from the current rule, which imposes no numerical limit on FM booster stations. The cap is intended to ensure that spectrum remains available for other purposes despite an increase in the overall number of booster stations anticipated from our decision to authorize program originating boosters, consistent with the Local Community Radio Act of 2010 (LCRA).¹⁸

15. The *Second Report and Order* also addresses issues regarding political broadcasting. To the extent that political advertising may be broadcast over a program originating booster, the Commission requires that such a booster station must follow all of the Commission's political broadcasting rules. These would include rules requiring the maintenance of a political file, provision of equal opportunity and reasonable access to political candidates, and limiting the rates charged to political candidates for air time.

16. The Commission adopts a suggestion from commenters that licensees of program originating boosters periodically self-certify that they are, consistent with the public interest, using the boosters in a manner that is responsive to the needs and issues of their service areas, especially minority communities. Although the Commission found no evidence that program origination would inhibit advances in diversity, equity, inclusion, and accessibility, it views this requirement as one posing a very minimal burden on licensees but serving as an important, regular reminder to licensees of best practices to

¹⁸ Pub. L. 111-371, 124 Stat. 4072 (2011).

use program originating boosters as an enhancement of local messaging intended to target rather than to exclude. The Commission amends the online public inspection file rules in sections 73.3526 and 73.3527 to reference this new public interest self-certification requirement, requiring stations to place their booster-related certification in the online public file.

17. Finally, the *Second Report and Order* concludes that it is unnecessary to specify that vendors of program originating technologies must abide by the Commission's patent policy or any other guidelines, which require that licenses be available to all parties on fair, reasonable, and nondiscriminatory terms. There is not a need for such action at present because program originating boosters work with existing equipment and standards, the Commission has not endorsed GBS' particular product, and others can enter the market if there is a sufficient demand.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities and Significant Alternatives Considered

18. The RFA requires an agency to provide, "a description of the steps the agency has taken to minimize the significant economic impact on small entities...including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected."¹⁹ In the *Second Report and Order*, the Commission considered a number of alternatives that may impact small entities when it adopted processing, licensing, and service rules for authorizing program originating boosters. These rules benefit the public by providing small broadcasters with increased options to serve listeners, and provide for more targeted and varied advertising and content that many small stations are not able to currently offer.

19. Many alternatives considered in the *Second Report and Order* seek to avoid imposing additional burdens on small radio stations where practicable. The Commission considered and responded favorably to commenter suggestions to keep administrative processes associated with program originating FM boosters as simple and flexible as possible. For example, the Commission will accept applications to construct program originating boosters on a first come/first served basis, and not add separate applications for program origination as proposed in comments. This will give applicants the flexibility to apply as needed rather than having to await a specific filing window and additional application review. In this way, FM broadcasters will be able to design systems that meet their individual circumstances by applying for many or just a few stations at any point in time. In the unlikely event of mutually exclusive booster proposals filed on the same day, the Commission decided to give the applicants an opportunity to adjust their technical proposals to allow for grant of both applications. The Commission will allow for additional flexibility if applicants are unable to adjust their engineering parameters and will grant each application on a time-sharing basis. Such an arrangement should not be difficult given that program origination is limited to three minutes each hour. In considering alternatives to the proposed political file requirements, the *Second Report and Order* retains filing obligations, however it allows small broadcasters to include information on the program originating booster in the political file of the main station, thereby streamlining recordkeeping obligations for smaller broadcasters with limited resources.

20. The Commission considered whether to codify technical specifications for synchronization of the program originating booster's signal with that of the FM primary station, and agreed with commenters who emphasized the importance of allowing each licensee to design a system that best meets the engineering specifications appropriate in its particular environment, providing small broadcasters further flexibility. Commenters also expressed concerns regarding co-channel interference standards, however we believe the existing standards, are sufficient and less burdensome for small and other broadcasters, and will retain those standards at this time.

21. In considering related recordkeeping and notification requirements, the Commission endeavored to strike an appropriate balance between the Commission's need for information and the

¹⁹ 5 U.S.C. § 604(a)(6).

small broadcaster's interest in minimizing regulatory burdens. For example, in establishing a new section 74.1206 to the rules, which prescribes LMS notification of the commencement or suspension of program originating booster service, the Commission accepted a suggestion that licensees provide the notification in the LMS database. The majority of Commission notifications in the media services are delivered through LMS, which is less burdensome than requiring separate mail or electronic mail notification. Further, the rule also simplifies notification and certification requirements for broadcasters, allowing 15 days for notification that programming will begin, instead of 10 days as proposed in comments, and 30 days to file a notification that it will permanently discontinue originating programming. The Commission delegated to the Media Bureau authority to create the new notification form and to coordinate with any other agencies as needed to obtain all form approvals. We believe that unlike other alternatives for compliance, such as a separate full application filing, this notification-based approach will provide adequate notice to the Commission while minimizing the regulatory burden for small broadcast stations. We anticipate that publicly available notifications will allow the Commission and the industry to monitor station use of the new program origination booster technology. Rather than adopting a suggestion that licensees of program originating boosters identify and contact, based on operational area alone, every EAS Participant that monitors its primary station, we adopt a far less burdensome requirement that they notify their State Emergency Communications Committee (SECC). This will enable EAS Participants to more readily understand the status of the sources they are monitoring by reviewing their State EAS Plan, which SECCs typically make available via website.

G. Report to Congress

22. The Commission will send a copy of the *Second Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.²⁰ In addition, the Commission will send a copy of the *Second Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Second Report and Order* and FRFA (or summaries thereof) will also be published in the *Federal Register*.²¹

²⁰ *Id.* § 801(a)(1)(A).

²¹ *Id.* § 604(b).

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, Second Report and Order and Order on Reconsideration, MB Docket No. 20-401*

There is something special about a voice in the air, and especially one that is truly local. This superpower of radio stations makes them unique in a media landscape that is evolving at a rapid pace.

Our action today—championed by Commissioner Starks and Commissioner Carr—provides FM broadcasters with the expanded opportunity to use boosters to customize hyper-local content to different parts of their service area. This means the potential for more diverse content. It also means a new way to engage small businesses with advertising opportunities. It gives them a chance to innovate and grow their audiences at a time when they face more competition for our attention than ever before.

Thank you to the staff who have worked on this effort, including Irene Bleiweiss, Jim Bradshaw, Heather Dixon, Lisa Scanlan, Gary Schonman, and Al Shuldiner from the Media Bureau; Susan Aaron, Joel Graham, David Konczal, Jin Lee, Royce Sherlock, and Anjali Singh from the Office of General Counsel; Austin Randazzo from the Public Safety and Homeland Security Bureau; and Joycelyn James from the Office of Communications Business Opportunities.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Amendment of Section 74.1231(i) of the Commission's Rules on FM Broadcast Booster Stations, Second Report and Order and Order on Reconsideration, MB Docket No. 20-401*

The media landscape is constantly changing. Earlier this year, the Commission unanimously approved the First Order to allow geo-targeting on an experimental basis, and broadcasters were given the green light. They began innovating business plans and exploring opportunities to leverage this technology that could unlock new revenue streams.

Today's Order finalizes the new tools broadcasters can utilize as they adapt and thrive in a competitive media environment. The ability to offer hyper-localized content means that stations can attract small businesses looking to customize their advertisements to a targeted audience and better reach their local communities. These new advertising streams can make a real difference, especially for the many small or minority broadcasters that are working hard to stay on the air.

I know because I got to witness the potential and excitement of this technology firsthand. Last month, I hit the road and visited KADD, 93.5 FM, "La Mejor" in Las Vegas. La Mejor is one of the largest Spanish-speaking stations in the region and is investing in truly local content, including news, talk, and music. To reach new listeners outside of their current range and target content with greater precision, KADD is deploying FM boosters that will provide the station with access to an estimated 100,000 new listeners. For KADD this is a game-changer -- the opportunity to provide more Spanish speakers in the local area with bespoke content, and establish a crucial link to their community. Geo-targeted content is the dawn of new possibility for radio. From my perspective, we've set the policy and opened up the technology. Now it's up to each business to determine if this opportunity is right for them. I look forward to seeing how this industry continues to harness this technology to better serve and uplift communities.

This Order is many years in the making and the result of the tireless advocacy of broadcasters, civil rights organizations, and leaders in Congress, including Congressional Black Caucus Chairman Steven Horsford, Congressman Bennie Thompson, and Congressman Hank Johnson. But of course, none of this would be possible without the true collaboration of my colleague, Commissioner Carr. He and I have worked side-by-side to bring this proposal to the finish line and I am tremendously proud of this result.

I'd also like to thank Chairwoman Rosenworcel for working with us and for prioritizing this item, and to Commissioner Simington and Commissioner Gomez for their collaboration to see this through the tape. Finally, my thanks to the staff in the Media Bureau for all their great work. This item has my full support.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Eken Group Limited	)	File No.: EB-TCD-24-00036532
	)	NAL/Acct. No.: 202532170001
	)	FRN: 0024002933

NOTICE OF APPARENT LIABILITY FOR FORFEITURE

Adopted: November 21, 2024**Released: November 21, 2024**

By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements;
Commissioner Simington dissenting.

I. INTRODUCTION

1. In this Notice of Apparent Liability for Forfeiture (NAL), the Federal Communications Commission (Commission or FCC) proposes a penalty of \$734,872 against Eken Group Limited (Eken or Company) for apparently violating the laws and rules regarding truthful statements to the Commission in designating an agent for service of process located in the United States and for willfully failing to respond at all to the Enforcement Bureau's (Bureau) Letter of Inquiry (LOI) as directed. Specifically, Eken (1) submitted three applications for equipment authorization to the Commission that contained incorrect factual information as to the address of its agent for service of process, and (2) failed to respond to an LOI requesting information about alleged privacy and security flaws in its products. Accordingly, Eken's submission of incorrect information to the Commission apparently violated sections 1.17 and 2.911(d) of the Commission's rules. In addition, Eken apparently violated a Commission order by failing to respond to the Bureau's LOI as directed. Eken thus is subject to a proposed forfeiture under section 503(b)(1)(B) of the Act.¹

2. The FCC is committed to protecting consumers in the United States in their interactions with foreign entities that import or market radio frequency (RF) equipment. Regulation of RF devices is a key Commission responsibility. Applicants for equipment authorizations are required to conduct due diligence in providing information to the Commission and its designees. To facilitate this process, Commission rules require that all parties, including foreign parties, abide by the Commission's equipment authorization rules and provide full and correct information about the party's place of business and designated agent. Additionally, the Commission has a duty to investigate allegations involving potential statutory and regulatory violations and will not tolerate late or inaccurate responses to authorized investigative inquiries. Instead, investigated parties must reply promptly and fully to Commission inquiries and provide all responsive information in their possession and control so the Commission can ascertain whether consumers are being protected in accordance with statutory requirements and associated Commission rules.

II. BACKGROUND**A. Legal Framework**

3. *Commission's equipment authorization authority.* The Communications Act of 1934, as amended (Act), authorizes the Commission to adopt rules, consistent with the "public interest," governing the interference potential of devices capable of emitting RF energy.² The statute prohibits the

¹ See 47 U.S.C. § 503(b)(1)(B); 47 CFR §§ 1.17, 2.911(d).

² 47 U.S.C. § 302a(a).

manufacture, importation, sale, offer for sale, shipment, or use of RF devices in the United States unless they comply with the Commission's equipment authorization rules.³ This includes "intentional radiators,"⁴ such as Wi-Fi transmitters and Bluetooth radio devices.⁵

4. The Commission recently exercised its equipment authorization authority to address cybersecurity vulnerabilities arising from wireless consumer Internet of Things (IoT) devices.⁶ Because Congress gave the Commission "exclusive jurisdiction" over matters involving radio frequency interference,⁷ the Commission plays a crucial role in protecting the public from potential harms arising from wireless consumer IoT devices. Many wireless devices are manufactured overseas; in the past, if those devices harmed American consumers their foreign suppliers and manufacturers could evade U.S. law if the U.S. government could not readily reach them.⁸ The FCC's authority to prohibit the importation, sale, or marketing of such devices unless they comply with the Commission's equipment authorization rules remains one of the only legal protections available for Americans from foreign-supplied wireless consumer IoT devices that could harm them.⁹

5. *Equipment authorization rules to designate U.S. agent for service of process.* In November 2022, the Commission released a Report and Order adopting new equipment authorization rules—consistent with the public interest, convenience and necessity, and with national security¹⁰—to require each applicant

³ 47 U.S.C. § 302a(b).

⁴ 47 CFR § 15.3(o) (defining an "Intentional Radiator" as a device that "intentionally generates and emits radio frequency energy by radiation or induction).

⁵ Fed. Comm'n's Comm'n, *Equipment Authorization – RF Device*, <https://www.fcc.gov/oet/ea/rfdevice> (last visited Sept. 11, 2024).

⁶ See *Cybersecurity Labeling for Internet of Things*, PS Docket No. 23-239, Report and Order and Further Notice of Proposed Rulemaking, FCC 24-26, 2024 WL 1191979, *7, para. 15 (Mar. 15, 2024) (*IoT Labeling Order*) ("our initial IoT Labeling Program will focus on wireless consumer IoT devices consistent with the core of our section 302 authority governing the interference potential of devices that emit radio frequency energy"); *id.* at para. 20 ("The record thus bears out our view that cybersecurity vulnerabilities in wireless IoT devices could cause harmful interference to radio communications.").

⁷ *IoT Labeling Order* at *66, para. 157 (citing H.R. Rep. No. 97-765, at 32, 1982 U.S.C.C.A.N. at 2276 (1982)).

⁸ See *C.T.S. Tech. Co. Ltd.*, Forfeiture Order, 31 FCC Rcd 6126 (2016) (entering default judgment and imposing \$34.9 million penalty on foreign company that marketed signal jammers that could endanger life and property in violation of FCC equipment authorization rules; noting that despite efforts to serve company in the People's Republic of China (P.R.C.) pursuant to Hague Service Convention, no response to prior notice of apparent liability for forfeiture and no timely certification of service from P.R.C.'s designated authority was received), *forfeiture not paid*; *Shenzhen Tangreat Tech. Co. Ltd.*, Order to Show Cause and Notice of Opportunity for Hearing, 30 FCC Rcd 3501, 3505, paras. 12-14 (2015) (ordering foreign company to show cause why its equipment authorization should not be revoked for apparent misrepresentations in its application to mislead test certification body and ordering a copy of the Order to Show Cause to be sent pursuant to the Hague Convention on Service Abroad of Judicial and Extrajudicial Documents to P.R.C. Ministry of Justice to effect service on foreign company); *Protecting Against Nat'l Sec. Threats to the Commc'ns Supply Chain Through the Equip. Authorization Program*; *Protecting Against Nat'l Sec. Threats to the Commc'ns Supply Chain Through the Competitive Bidding Program*, ET Docket No. 21-232 and EA Docket No. 21-233, 36 FCC Rcd 10578, 10639 (2021) (*EA Security NPRM and NOI*) (statement of Comm'r Starks noting companies such as Shenzhen Tangreat and C.T.S. that apparently violated equipment authorization rules did not have a U.S. agent for service of process and the Commission was unsuccessful to serving process on those entities in the P.R.C. via procedures under the Hague Service Convention on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Matters).

⁹ See also *IoT Labeling Order* at *66, *107.

¹⁰ *Protecting Against Nat'l Sec. Threats to the Commc'ns Supply Chain Through the Equip. Authorization Program*; *Protecting Against Nat'l Sec. Threats to the Commc'ns Supply Chain Through the Competitive Bidding Program*, 37 FCC Rcd 13493, 13512-13, para. 40 (2022) (*EA Security FNPRM*) ("[T]he inclusion of the phrase 'public interest'

(continued...)

for an equipment authorization to designate an agent for service of process located in the United States.¹¹

6. Section 2.911(d)(7) of the Commission's rules requires an applicant for an equipment authorization to "designate an agent located in the United States for the purpose of accepting service of process on behalf of the applicant."¹² The rule, which went into effect on February 6, 2023, requires that the applicant provide a written certification¹³:

- (A) Signed by both the applicant and its designated agent, if different from the applicant;
- (B) Acknowledging the applicant's consent and the designated agent's obligation to accept service of process in the United States . . . at the physical U.S. address and email address of its designated agent; and
- (C) Acknowledging the applicant's acceptance of its obligation to maintain an agent for service of process in the United States for no less than one year after either the grantee has permanently terminated all marketing and importation of the applicable equipment within the U.S., or the conclusion of any Commission-related administrative or judicial proceeding involving the equipment, whichever is later.¹⁴

7. In imposing this new U.S. agent requirement, the Commission explained it was "not always easy to communicate effectively with grantees, *particularly foreign-based grantees*, in order to engage in relevant inquiries, determine compliance, or even enforce our rules[.]"¹⁵ The record in the proceeding shows the Commission previously considered its inability to enforce equipment authorization rules against foreign entities that did not have a U.S. agent or respond to enforcement actions.¹⁶ Companies that choose to do business in the United States must abide by U.S. laws, and accurately identifying a party to accept service of process is an important predicate to ensure such compliance.¹⁷ The Commission's new U.S. agent requirement ensures that foreign companies are accountable for their compliance with the FCC's equipment

in section [302a] provides independent authority to take into account, in our consideration of the public interest, the national defense, and the promotion of safety of life and property, goals which must inform the Commission's exercise of its statutory responsibilities."), *upheld in part and vacated in part on other grounds, Hikvision USA, Inc. v. FCC*, 97 F.4th 938 (D.C. Cir. 2024).

¹¹ *Id.* at paras. 59-64,

¹² 47 CFR § 2.911(d)(7).

¹³ The written certification required by section 2.911(d)(7) is subject to section 1.16 of the Commission's rules, which governs written certifications required to be filed with the Commission under penalty of perjury. Section 1.16 was adopted and modeled after Title 28, United States Code, Section 1746, which makes certain unsworn declarations subject to the penalty of perjury. *Amend. of Part 1 of the Commission's Rules to Provide for the Use of Unsworn Declarations Under Penalty of Perjury*, 93 F.C.C.2d 1, 2 para. 4 (1983) (stating that the "Commission has formulated the amendment described herein [Section 1.16] pursuant to the statutory provisions of 28 U.S.C. § 1746").

¹⁴ 47 CFR § 2.911(d)(7)(i).

¹⁵ *EA Security NPRM*, 37 FCC Rcd at 13520, para. 61 (emphasis added).

¹⁶ *EA Security NPRM and NOI*, 36 FCC Rcd at 10647-48 (statement of Comm'r Starks discussing *Shenzhen Tangreat* and *C.T.S.* enforcement actions and noting that "[y]ears later, these cases have gone nowhere. Both Shenzhen [Tangreat] and C.T.S. are Chinese companies, and because neither firm has a U.S. agent for service of process, the Commission had to attempt service for both companies in China.").

¹⁷ *See also EA Security NPRM and NOI*, 36 FCC Rcd at 10647-48 (statement of Comm'r Starks that "if your equipment harms Americans, the FCC needs to be able to find you, and hold you accountable. These changes will hopefully increase transparency, and prevent future bad actors from using their foreign status to avoid any FCC accountability.").

authorization rules—just as U.S. companies are accountable to the Commission.¹⁸

8. *Truthful and accurate statements to the Commission:* Section 1.17(a)(2) of the Commission’s rules states that in any investigatory or adjudicatory matter within the Commission’s jurisdiction:

no person subject to this rule shall . . .

(2) In any written statement of fact, provide material factual information that is incorrect or omit material information that is necessary to prevent any material factual statement that is made from being incorrect or misleading without a reasonable basis for believing that any such material factual statement is correct and not misleading.¹⁹

9. Even absent an intent to deceive, an incorrect statement may constitute a violation of section 1.17(a)(2) if provided without a reasonable basis for believing it is correct and not misleading.²⁰ As noted, section 1.17 applies to “any adjudicatory matter within the Commission’s jurisdiction”²¹ and persons subject to the rule include “[a]ny applicant for any Commission authorization [and a]ny holder of any Commission authorization.”²² The Commission has explained that these parties must “use due diligence in providing information that is correct and not misleading to the Commission, including taking appropriate affirmative steps to determine the truthfulness of what is being submitted. A failure to exercise such reasonable diligence would mean that the party did not have a reasonable basis for believing in the truthfulness of the information.”²³ As we have stated in the past, “the Commission relies heavily on the truthfulness and accuracy of the information submitted to us. If information submitted to us is incorrect, we cannot properly carry out our statutory responsibilities.”²⁴ This includes even incorrect addresses, the

¹⁸ In recent years, however, legal commentators have noted the trend of foreign defendants using foreign data security laws to evade the reach of U.S. discovery and evade liability in litigation. See Kirk K. Nahra, Lester Ross, Allison Bingxue Que, *Navigating China’s Data Security Laws in US Discovery*, WilmerHale (Apr. 3, 2024), <https://www.wilmerhale.com/insights/client-alerts/20240403-navigating-chinas-data-security-laws-in-us-discovery>. The Commission’s requirement here is consistent with federal district court opinions generally holding foreign parties accountable for responding to U.S. discovery and liability. See, e.g., *In re Valsartan, Losartan, & Irbesartan Prod. Liab. Litig.*, No. MDL 2875 (RBK), 2021 WL 6010575, at *18 (D.N.J. Dec. 20, 2021) (“Any expectation that a [foreign] law will successfully shield discovery in a U.S. litigation needs a tempering of realism. That is, [foreign] defendants must know from the outset they risk serious consequences if and when they fail to obey a U.S. court’s order to compel discovery.”).

¹⁹ 47 CFR § 1.17(a)(2).

²⁰ Compare *id.* § 1.17(a)(1), with *id.* § 1.17(a)(2); *Amendment of Section 1.17 of the Commission’s Rules Concerning Truthful Statements to the Commission*, Report and Order, 18 FCC Rcd 4016, 4017, para. 4 (stating revision to Section 1.17 is intended to “prohibit incorrect statements or omissions that are the result of negligence, as well as an intent to deceive.”); *id.* at 4019, para. 5 (“[T]hese changes achieve . . . our objective of codifying an appropriate standard of care regarding submissions of information to the Commission and ensuring that we may take appropriate enforcement action when regulatees submit incorrect or misleading information to the Commission. The new rule improves upon the old rule by making clear that its obligations extend to all regulatees and not just to applicants, licensees, and permittees.”).

²¹ 47 CFR § 1.17(a).

²² *Id.* § 1.17(b)(1)–(2).

²³ *Amendment of Section 1.17 of the Commission’s Rules Concerning Truthful Statements to the Commission*, Report and Order, 18 FCC Rcd 4016, 4021, para. 12 (2003), *recons. denied*, Memorandum Opinion and Order, 19 FCC Rcd 5790 (2004), *further recons. denied*, Memorandum Opinion and Order, 20 FCC Rcd 1250 (2004) (*1.17 Amendment Order*); *accord Neon Phone Serv., Inc.*, Notice of Apparent Liability for Forfeiture, 32 FCC Rcd 7964, 7968, para. 10 (2017) (quoting portion of statement) (*Neon*).

²⁴ *Amendment of Section 1.17 of the Commission’s Rules Concerning Truthful Statements to the Commission*, Notice of Proposed Rulemaking, 17 FCC Rcd 3296, 3297, para. 3 (2002).

submission of which the Commission has previously found to constitute an apparent violation of section 1.17 of our rules.²⁵

10. *Failure to respond to a Letter of Inquiry.* The Commission’s authority to conduct investigations and to compel entities to provide information and documents sought during investigations is well-established.²⁶ Section 403 gives the Commission full authority to commence an investigation on its own motion and the “power to make and enforce any order or orders in the case” relating to the inquiry.²⁷ An LOI issued by the Bureau constitutes a Commission order directing the recipient to provide the specified information and documents, in the manner directed, within the stated response period.²⁸ The Commission has repeatedly taken enforcement action against entities that disregard orders to provide information related to potential violations.²⁹

11. *National Security Considerations.* Under the Act, Congress directed the Commission to regulate the nation’s communications infrastructure for, among other reasons, the purpose of “the national defense.”³⁰ This includes taking steps to protect the integrity of the nation’s communications networks and equipment supply chain.³¹ Threat actors can exploit access to equipment supply chains in order to conduct a variety of activities that can threaten the nation’s critical infrastructure.³² The Commission similarly recognizes the importance of preventing threat actors from exploiting access to sensitive customer

²⁵ *Tone Commc’n Servs.*, Notice of Apparent Liability for Forfeiture and Order Initiating Removal Proceeding, FCC 24-14, 2024 WL 356934 (Jan. 26, 2024) (counting, among section 1.17 violations, submission of incorrect address in election form to USAC).

²⁶ Section 403 grants the Commission both the authority to institute inquiries and “the power to make and enforce any order or orders” relating to its inquiries into compliance with the Act. 47 U.S.C. § 403. Section 4(i) authorizes the Commission to “issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions.” 47 U.S.C. § 154(i). Section 4(j) states that “[t]he Commission may conduct its proceedings in such manner as will best conduce to the proper dispatch of business and to the ends of justice.” 47 U.S.C. § 154(j). Section 0.111(a)(17) of the Commission’s rules delegates this authority to the Bureau. 47 CFR § 0.111(a)(17) (granting the Enforcement Bureau the authority to “[i]dentify and analyze complaint information, conduct investigations, conduct external audits and collect information, including pursuant to sections 218, 220, 308(b), 403 and 409(e) through (k) of the Communications Act, in connection with complaints, on its own initiative or upon request of another Bureau or Office.”). Furthermore, section 416(c) of the Act provides, “[i]t shall be the duty of every person . . . to observe and comply with such orders so long as the same shall remain in effect.” 47 U.S.C. § 416(c).

²⁷ 47 U.S.C. § 403.

²⁸ See, e.g., *Neon*, 32 FCC Rcd at 7970, para. 16 (2017) (“It is well established that a failure to respond to a Bureau LOI [letter of inquiry] constitutes a violation of a Commission Order.”); *Technical Communication Network, LLC*, Notice of Apparent Liability for Forfeiture and Order, 28 FCC Rcd 1018, 1019, para. 5 (2013) (“The LOI the Bureau directed to TCN served as a legal order of the Commission to produce the requested documents and information.”).

²⁹ *ABC Fulfillment Servs. LLC d/b/a Hobbyking USA LLC & Hobbyking.com*, Forfeiture Order, 35 FCC Rcd 7441 (2020), *aff’d*, Memorandum and Order, 36 FCC Rcd 10688 (2021); *Aura Holdings of Wisconsin, Inc.*, Notice of Apparent Liability for Forfeiture, 33 FCC Rcd 3688, 3696, para. 21 (2018), *forfeiture order issued*, 34 FCC Rcd 2540 (2019); *Kenai Educational Media, Inc.*, 32 FCC Rcd. 6211, 6218 (2017); *SBC Commc’ns, Inc.*, Forfeiture Order, 17 FCC Rcd 7589, 7599-7600, paras. 23-28 (2002) (*SBC Forfeiture Order*); *Cellco Partnership D/B/A Verizon Wireless*, Notice of Apparent Liability for Forfeiture, 37 FCC Rcd 7799, para. 13 (EB 2022); *Net One Int’l, Net One, LLC, Farrahitel Int’l, LLC*, Forfeiture Order, 29 FCC Rcd 264, 267, para. 9 (EB 2014), *recons. denied*, Memorandum Opinion and Order, 30 FCC Rcd 1021 (EB 2015).

³⁰ See 47 U.S.C. § 151.

³¹ See e.g., *EA Security FNPRM*, 37 FCC Rcd at 13510-13, paras. 34-43.

³² National Counterintelligence and Security Center, National Counterintelligence Strategy at 17 (2024), https://www.dni.gov/files/NCSC/documents/features/NCSC_CI_Strategy-pages-20240730.pdf (National Counterintelligence Strategy).

information.³³ Personally identifiable information and other types of sensitive personal data, when in the wrong hands, pose a risk not only to the average consumer, but also to national security.³⁴ For example, foreign threat actors can use this information to target and blackmail U.S. citizens.³⁵ The Commission also enforces prohibitions of unauthorized receipt, transmission, or use of communications under section 705 of the Act and prohibitions on using devices for eavesdropping under section 15.9 of the Commission's rules.³⁶ More broadly, the U.S. Government has taken recent actions to identify and address the national security vulnerabilities arising from the collection of vast amounts of sensitive data on U.S. persons.³⁷ Given the Commission's role in protecting the communications networks from these threats, it is *uniquely* imperative that applicants provide the Commission with accurate information and respond to Commission orders. Failure on either part obstructs the Commission's ability to investigate and, where appropriate, address these risks to consumer privacy and national security.

B. Factual Background

12. *Company and products sold in the United States.* Eken is a manufacturer based in Hong Kong, China, specializing in manufacturing video doorbells and other smart home devices.³⁸ The Eken website provides information about three primary categories of products: (i) portable video "action" cameras; (ii) home security cameras; and (iii) video doorbells.³⁹ These devices were sold in a variety of online marketplaces, including Amazon, Sears, Shein, Walmart, and Temu.⁴⁰ Because Eken did not respond to the Commission's LOI, the Commission does not have access to precise information about the number of Eken products sold in the United States.⁴¹

13. *FCC Equipment Authorizations.* In order to sell RF equipment in the United States, Eken has applied for and received over 20 total FCC authorizations since 2014.⁴² Following the amendment of

³³ See e.g., *China Telecom (Americas) Corporation*, GN Docket No. 20-109, Order on Revocation and Termination, 36 FCC Rcd 15966, 16014-15, paras. 73-74 (2021), *aff'd*, *China Telecom (Americas) Corp. v. FCC*, 57 F.4th 256 (D.C. Cir. 2022).

³⁴ National Counterintelligence Strategy at 13.

³⁵ *Id.*

³⁶ See 47 U.S.C. § 605; 47 CFR § 15.9.

³⁷ See e.g., National Counterintelligence Strategy at 13; Exec. Order 14117, *Executive Order on Preventing Access to Americans' Bulk Sensitive Personal Data and United States Government-Related Data by Countries of Concern*, 89 Fed. Reg. 15780 (Feb. 28, 2024); National Security Division, Department of Justice; *Provisions Regarding Access to Americans' Bulk Sensitive Personal Data and Government-Related Data by Countries of Concern*, 89 Fed. Reg. 15780 (Mar. 5, 2024).

³⁸ Eken, *About Us*, https://www.eken.com/about_us [<https://perma.cc/3UQY-H5UE>] (last visited Aug. 13, 2024).

³⁹ Eken, *Homepage*, <http://eken.com/> [<https://perma.cc/M4MA-XQQE>] (last visited Aug. 29, 2024).

⁴⁰ Stacey Higginbotham, Daniel Wroclawski, *These Video Doorbells Have Terrible Security. Amazon Sells Them Anyway*, (Feb. 29, 2024), <https://www.consumerreports.org/home-garden/home-security-cameras/video-doorbells-sold-by-major-retailers-have-security-flaws-a2579288796/> [<https://perma.cc/55GV-F8Q9>]. See also Lynn Stanton, *Rubio, Starks Raise Concerns About Chinese Video Doorbells* (Mar. 11, 2024), <https://www.vitalaw.com/news/rubio-starks-raise-concerns-about-chinese-video-doorbells/cspd01c5094149efb246f99e190a50f3f315cf>; Press Release, Fed. Comm'n's Comm'n, FCC Commissioner Geoffrey Starks Calls On Online Marketplaces To Stop The Sale Of Insecure And Unauthorized IoT Devices (Mar. 8, 2024), <https://www.fcc.gov/document/starks-letters-amazon-sears-shein-temu-and-walmart>.

⁴¹ The Commission requested sales information from retailers but did not receive complete responses from all.

⁴² See Eken's authorizations on file with OET, available by using the Equipment Authorization Search. *Equipment Authorization Search*, <https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm> (last visited Sept. 8, 2024) (OET EAS). Eken's first application was for 2ADDG-W8, submitted on October 18, 2014.

the Commission's equipment authorization rules, effective February 6, 2023, Eken submitted three applications for equipment authorizations. These include:

- the M50 Smart Wi-Fi Doorbell Camera (FCC ID 2ADDG-M50); application submitted on December 18, 2023;
- the N8 Video Doorbell (FCC ID 2ADDG-DBCAM), application submitted on February 29, 2024; and
- the R6 Security Camera (FCC ID 2ADDG-CAM), application submitted on March 4, 2024.⁴³



Figures 1-3 above: (left-to-right) Users Manuals submitted as exhibits to equipment authorization applications for FCC IDs: 2ADDG-M50, 2ADDG-DBCAM, and 2ADDG-CAM.⁴⁴

14. In February 2024, a Consumer Reports article identified serious privacy and security vulnerabilities in Eken video doorbells.⁴⁵ These security issues were critical because “[p]eople who face threats from a stalker or estranged abusive partner are sometimes spied on through their phones, online platforms and connected smartphone devices.”⁴⁶ These vulnerabilities could allow a dangerous person to take control of the video doorbell on their target’s home, watching when they and their family members come and go.⁴⁷ Consumer Reports found that the devices “expose [consumers’] home IP address and WiFi network name to the internet without encryption” and noted that security experts have concerns about “poor security on the company servers where videos are being stored.”⁴⁸ As one consumer advocate noted,

⁴³ U.S. Agent Designation form for FCC IDs 2ADDG-M50, 2ADDG-DBCAM, and 2ADDG-CAM on file with the FCC’s Office of Engineering and Technology (OET), available by using OET’s Equipment Authorization Search. Since this investigation began, Eken products are no longer listed on any of the online marketplaces identified by Consumer Reports.

⁴⁴ See user manuals for applications 2ADDG-M50, 2ADDG-DBCAM, and 2ADDG-CAM on file with OET, available by using the Equipment Authorization Search.

⁴⁵ Higginbotham, *supra* note 40.

⁴⁶ Higginbotham, *supra* note 40.

⁴⁷ Higginbotham, *supra* note 40.

⁴⁸ Higginbotham, *supra* note 40.

“[p]roducts like these, by failing to prioritize trust and safety, put domestic violence victims at risk. Without question, the one place a victim needs to be safe is in their home[.] . . . Devices designed to make someone feel safe at home, while actually doing the opposite, shouldn’t be allowed on the market.”⁴⁹ Eken later informed Consumer Reports that the Company had released a security patch resolving the vulnerabilities.⁵⁰

15. In its applications for each of these three equipment authorizations, Eken submitted a “U.S. Agent Designation” identifying GSS Service Inc. (GSS Service) as its U.S. agent for service of process; the physical U.S. address of its agent for service of process was at 6547 N Academy Boulevard #2266, Colorado Springs, Colorado; and the email address of its U.S. agent for service of process was MichouxLogan@outlook.com. Each submission was signed by “Michoux Logan” on behalf of GSS Service:

⁴⁹ Higginbotham, *supra* note 40.

⁵⁰ Cyrus Rassool, *Eken Fixes Security Issues in Video Doorbell Cameras after Consumer Reports Investigation* (Apr. 25, 2024), <https://www.consumerreports.org/media-room/press-releases/2024/04/eken-fixes-security-issues-in-video-doorbell-cameras-after-consumer-reports-investigation/> [<https://perma.cc/R6AA-Z7C3>].

EKEN GROUP LIMITED
FLAT/RM 05 12/F EMPRESS PLAZA NO.17-19 CHATHAM ROAD TST KL

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

2023/12/18

U.S. Agent Designation

EKEN GROUP LIMITED acknowledges their consent for the following contact located in the United States to act as their agent for service of process for the equipment for which authorization is sought (FCC ID: **2ADDG-M50**):

Name and company of U.S. agent:	GSS SERVICE INC
Physical U.S. address of agent:	6547 N Academy Blvd #2266 Colorado Springs COLORADO 80918
	United States
FRN of U.S. agent:	0033402082
Email address of U.S. agent:	MichouxLogan@outlook.com

An expiration date for this letter does not exist. In case the U.S. agent changes, the grantee is obligated to notify the FCC within 30 days via the granting TCB.

Sincerely,



Signature

Sales Manager
EKEN GROUP LIMITED



Signature
Michoux Logan
PM
GSS SERVICE INC

Figure 4 above: 47 CFR § 2.911(d)(7) U.S. Agent Designation for FCC ID 2ADDG-M50 (Eken M50 Smart Wi-Fi Doorbell Camera); submitted on December 18, 2023 (excerpted, redacted, and annotated in red)⁵¹

⁵¹ See Eken's authorizations, available by searching its grantee code with OET. Application on file at 2ADDG-M50, submitted on December 18, 2023.

EKEN GROUP LIMITED
FLAT/RM 05 12/F EMPRESS PLAZA NO.17-19 CHATHAM ROAD
TST KL Hongkong, China

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

2024/02/29

U.S. Agent Designation

EKEN GROUP LIMITED acknowledges their consent for the following contact located in the United States to act as their agent for service of process for the equipment for which authorization is sought (FCC ID: **2ADDG-DBCAM**):

Name and company of U.S. agent:	GSS SERVICE INC
Physical U.S. address of agent:	6547 N Academy Blvd #2266 Colorado Springs COLORADO 80918 United States
FRN of U.S. agent:	0033402082
Email address of U.S. agent:	MichouxLogan@outlook.com

An expiration date for this letter does not exist. In case the U.S. agent changes, the grantee is obligated to notify the FCC within 30 days via the granting TCB.

Sincerely,



Signature

Sales Manager
EKEN GROUP LIMITED



Signature
Michoux Logan
PM
GSS SERVICE INC

Figure 5 above: 47 CFR § 2.911(d)(7) U.S. Agent Designation for FCC ID 2ADDG-DBCAM (N8 Video Doorbell); submitted on February 29, 2024 (excerpted, redacted, and annotated in red)⁵²

⁵² See Eken's authorizations, available by searching its grantee code with OET. Application on file at 2ADDG-DBCAM, submitted on February 29, 2024.

EKEN GROUP LIMITED
FLAT/RM 05 12/F EMPRESS PLAZA NO.17-19 CHATHAM ROAD
TST KL Hongkong, China

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

2024/03/04

U.S. Agent Designation

EKEN GROUP LIMITED acknowledges their consent for the following contact located in the United States to act as their agent for service of process for the equipment for which authorization is sought (FCC ID: **2ADDG-CAM**):

Name and company of U.S. agent:	GSS SERVICE INC
Physical U.S. address of agent:	6547 N Academy Blvd #2266 Colorado Springs COLORADO 80918 United States
FRN of U.S. agent:	0033402082
Email address of U.S. agent:	MichouxLogan@outlook.com

An expiration date for this letter does not exist. In case the U.S. agent changes, the grantee is obligated to notify the FCC within 30 days via the granting TCB.

Sincerely,



Signature

Sales Manager
EKEN GROUP LIMITED



Signature
Michoux Logan
PM
GSS SERVICE INC

Figure 6 above: 47 CFR § 2.911(d)(7) U.S. Agent Designation for FCC ID 2ADDG-CAM (R6 Security Camera); submitted on March 4, 2024 (excerpted, redacted, and annotated in red)⁵³

⁵³ See Eken's authorizations, available by searching its grantee code with OET. Application on file at 2ADDG-CAM, submitted on March 4, 2024.

16. Each of the U.S. Agent Designation forms also included the following acknowledgement, (identical for FCC IDs 2ADDG-M50; 2ADDG-CAM; and 2ADDG-DBCAM) acknowledging Eken's acceptance of its continuing obligation to maintain an agent for service:

EKEN GROUP LIMITED with the FRN [0024002933] accepts its obligation to maintain an agent for service of process in the United States for no less than one year after either the grantee has permanently terminated all marketing and importation of the applicable equipment within the U.S., or the conclusion of any Commission-related administrative or judicial proceeding involving the equipment, whichever is later.

Figure 8 above: excerpted from 47 CFR § 2.911(d)(7) U.S. Agent Designation for FCC ID 2ADDG-M50 (Eken M50 Smart Wi-Fi Doorbell Camera); submitted on December 18, 2023⁵⁴

EKEN GROUP LIMITED with the FRN [0024002933] accepts its obligation to maintain an agent for service of process in the United States for no less than one year after either the grantee has permanently terminated all marketing and importation of the applicable equipment within the U.S., or the conclusion of any Commission-related administrative or judicial proceeding involving the equipment, whichever is later.

Figure 9 above: excerpted from 47 CFR § 2.911(d)(7) U.S. Agent Designation for FCC ID 2ADDG-DBCAM (N8 Video Doorbell); submitted on February 29, 2024⁵⁵

EKEN GROUP LIMITED with the FRN [0024002933] accepts its obligation to maintain an agent for service of process in the United States for no less than one year after either the grantee has permanently terminated all marketing and importation of the applicable equipment within the U.S., or the conclusion of any Commission-related administrative or judicial proceeding involving the equipment, whichever is later.

Figure 10 above: excerpted from 47 CFR § 2.911(d)(7) U.S. Agent Designation for FCC ID 2ADDG-CAM (R6 Security Camera); submitted on March 4, 2024⁵⁶

17. GSS Service is a Colorado corporation with its principal business address at 6547 N. Academy Blvd #2266, Colorado Springs, CO 80918, and a second mailing address at 18351 Colima Road Ste 2896, Rowland Heights, CA 91748.⁵⁷

18. Bureau staff has not been able to identify any individual named "Michoux Logan" in any public database or other source of public records. Michoux Logan does not appear to be associated with any credit history, driver's license, Social Security Number, mortgage, apartment or car lease, voter registration, real estate transactions, property tax assessments, marriage records, professional licenses, or

⁵⁴ See Eken's authorizations, available by searching its grantee code with OET. Application on file at 2ADDG-M50, submitted on December 18, 2023.

⁵⁵ See Eken's authorizations, available by searching its grantee code with OET. Application on file at 2ADDG-DBCAM, submitted on February 29, 2024.

⁵⁶ See Eken's authorizations, available by searching its grantee code with OET. Application on file at 2ADDG-CAM, submitted on March 4, 2024.

⁵⁷ See Colorado Secretary of State file for GSS Service, Inc., <https://www.sos.state.co.us/biz/BusinessEntityDetail.do?quitButtonDestination=BusinessEntityResults&nameTyp=ENT&masterFileId=20211500191&entityId2=20211500191&fileId=20211500191&srchTyp=ENTITY> (last visited Sept. 18, 2024) (on file in EB-TCD-23-00036532).

household family members. Michoux Logan appears to exist only in FCC equipment authorization filings after February 2023 as a designated U.S. agent.

19. *Investigative history:* The Bureau opened an investigation and issued the LOI to Eken via GSS Service on April 19, 2024.⁵⁸ On that day, the Bureau served the LOI by certified mail to the physical U.S. address of Eken’s designated agent for service of process in Colorado—an address that Eken had repeatedly submitted to the Commission in its three equipment authorizations cited above. On the same day, the Bureau also served the LOI by email on the same day to the email specified in Eken’s applications for its designated U.S. agent, i.e., MichouxLogan@outlook.com. The Bureau additionally sent courtesy copies of the LOI by email to the Eken employee who submitted each of the three FCC equipment authorization applications listed above, and the primary support email for Eken customers in the United States.⁵⁹ The LOI stated the Bureau was investigating potential violations of 47 U.S.C. § 605 (“Unauthorized publication or use of communications”) and 47 CFR § 15.9 (“Prohibition against eavesdropping”) and requested information about Eken’s compliance with the Act’s privacy and security protections. The LOI stated that Eken had a “continuing obligation to update its responses and document production[.]” and further stated the “**Continuing Nature of Inquiries.** The specific Inquiries made herein are continuing in nature.”⁶⁰ The LOI ordered Eken to provide a response by May 19, 2024.⁶¹

20. On May 8, 2024, the LOI was returned to the Commission by the United States Postal Service after it was unable to deliver it to Eken’s agent’s supposed address on April 26. That same day, Bureau staff called the U.S. phone number for GSS Service listed in the FCC Registration Number (FRN) database.⁶² No one picked up at that number, and there was no voicemail mechanism that allowed the Bureau staff to leave a voice message. On May 9, staff in the Commission’s Office of Engineering and Technology (OET) sent an email to MichouxLogan@outlook.com “verifying agent of service for EKEN GROUP LIMITED[.]” The OET representative received a response from MichouxLogan@outlook.com the following night at 4:50 AM Eastern Daylight Time.

⁵⁸ Letter of Inquiry, from Kristi Thompson, Chief, Telecommunications Consumers Division, FCC Enforcement Bureau, to Eken Group Limited, c/o U.S. Agent for Service of Process GSS Service Inc. (on file in EB-TCD-23-00036532) (Initial LOI).

⁵⁹ Eken, *Contact Us*, <http://test.eken.com/index.php?route=information/contact> (last visited Sept. 18, 2024), [<https://perma.cc/XK8S-MVQA>].

⁶⁰ *Supra* note 58 (emphasis in the original).

⁶¹ *Supra* note 58.

⁶² See FRN entry for GSS Service, Inc., <https://apps.fcc.gov/cores/searchDetail.do?frn=0033402082&csfrToken=> (last visited Aug. 29, 2024) (also accessible by searching for FRN #0033402082 on the FCC Registration site, <https://apps.fcc.gov/cores/advancedSearch.do?csfrToken=>).

From: Michoux Logan
 To: [REDACTED]
 Subject: [EXTERNAL]: 回复: verifying agent of service for
 Date: Friday, May 10, 2024 4:50:22 AM

CAUTION: This email originated from outside of the Federal Communications Commission. Do not open attachments unless you recognize the sender and trust the content to be safe. If you suspect a phishing attempt, please use the 'Report Message' feature in Microsoft Outlook or forward the email to [REDACTED]

yes it's ture

发件人: [REDACTED]@fcc.gov>
 发送时间: 2024年5月10日 0:38
 收件人: MichouxLogan@outlook.com <MichouxLogan@outlook.com>
 主题: verifying agent of service for

verifying agent of service for EKEN GROUP LIMITED email bounceback,

Figure 7 above: May 10, 2024 Email received by OET representative from "Michoux Logan"⁶³

21. On May 9, 2024, Bureau staff arranged for personal service of the LOI on Eken's designated agent for service of process, GSS Service, at two locations: (1) at the Colorado Springs, Colorado address provided by Eken in its equipment authorization applications; and (2) the Rowland Heights, California mailing address listed for GSS Service in corporate registration documents filed with the Colorado Secretary of State.⁶⁴ The Bureau could not effect personal service on the designated U.S. agent's Colorado address because the address was inside a mailbox store (The Mail Center); an employee at the location stated that personal service was not permitted and did not permit physical entry to access the mailbox listed as the designated agent's physical U.S. address.⁶⁵ The Bureau, however, did effect personal service at the designated U.S. agent's California address, where the LOI was hand-delivered to an individual answering to "GSS Service," who tried to reject service by unsuccessfully refusing to take the documents.⁶⁶

22. On June 20, 2024, the Bureau, still having received no response from Eken to the LOI, served a subpoena on The Mail Center, seeking the identity of the renter of box #2266 inside the store, which Eken had identified as the physical U.S. address of its agent GSS Service.⁶⁷ The Bureau received responses from The Mail Center on June 24, 2024, and on September 18, 2024.

⁶³ Information on file in EB-TCD-23-00036532.

⁶⁴ See *supra* note 57.

⁶⁵ *Affidavit of Non-service*, Shauna Williams (dated May 15, 2024) (on file in EB-TCD-23-00036532).

⁶⁶ *Affidavit of Service*, Xiaotian Fan (dated May 13, 2024) (on file in EB-TCD-23-00036532). See 47 CFR § 1.47(d) (providing that "documents may be served upon a party, his attorney, or other duly constituted agent by delivering a copy or by mailing a copy to the last known address," such as the California address on file with the Colorado Secretary of State).

⁶⁷ Subpoena, from Kristi Thompson, Chief, Telecommunications Consumers Division, FCC Enforcement Bureau, to Ryan Martin, The Mail Center (on file in EB-TCD-23-00036532).

23. In its responses, The Mail Center confirmed that it offers both physical and virtual mailboxes.⁶⁸ Its virtual mailbox service allows entities that need a physical mailing address but want to view their mail electronically.⁶⁹ These customers each receive a mailbox number and their mail is received at The Mail Center's physical location, then scanned and emailed to the customer at their request.⁷⁰ Mailbox #2266 was a virtual mailbox registered in 2018 by {[REDACTED]}.⁷¹ However, the mailbox received mail directed at a number of businesses that were apparently registered at the same address.⁷² Because of the volume and variety of the mail that was received, The Mail Center internally flagged the mailbox for fraud, and subsequently closed the mailbox on June 28, 2019, roughly four and a half years before Eken began incorrectly specifying mailbox #2266 as the address of its designated agent in the applications discussed above.⁷³ That mailbox number has not been reassigned to any other customer since that date, and mailbox #2266 remains closed.⁷⁴ GSS Service has not rented any other mailbox at The Mail Center.⁷⁵

24. {[REDACTED]}
[REDACTED]
[REDACTED]
[REDACTED]}⁷⁶

25. {[REDACTED]}
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]}⁷⁸

⁶⁸ Declaration of Brian Roerig (dated Sept. 18, 2024), from Brian Roerig, co-owner, The Mail Center, to Telecommunications Consumers Division, FCC Enforcement Bureau (on file in EB-TCD-23-00036532) (Roerig Declaration).

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.* Material set off by double brackets {[]} is confidential and is redacted from the public version of this document.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ {[REDACTED]}
[REDACTED]}

⁷⁸ {[REDACTED]}
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]}

26. To date, the Bureau still has received no response to the LOI. Indeed, while Michoux Logan's email account appeared to be active on May 9, 2024, the Bureau has received no response from him, Eken, or GSS Service to the Bureau's emails or phone calls concerning the LOI.⁷⁹

III. DISCUSSION

27. We find that Eken apparently willfully or repeatedly: (1) violated sections 1.17(a)(2) and 2.911(d)(7) of the Commission's rules by providing material factual information to the Commission that was incorrect as to the physical U.S. address of its agent for service of process,⁸⁰ and (2) violated a Commission order by failing to respond to the Bureau's LOI. These violations are punishable by forfeiture under section 503(b)(1)(B) of the Act.⁸¹ For the violations at issue here, the Commission proposes a forfeiture of \$734,872.

A. Eken Apparently Violated Sections 1.17(a)(2) and 2.911(d)(7) of the Commission's Rules by Providing False Information Without a Reasonable Basis as to the Physical Address of its U.S. Agent for Service of Process

28. On December 18, 2023; February 29, 2024; and March 4, 2024, Eken submitted three applications to the Commission that contained incorrect material factual information.⁸² These three submissions had nearly identical statements as to: (i) the physical U.S. address of Eken's agent for service of process; (ii) the email address for Eken's agent for service of process; (iii) the name of the person, Michoux Logan, acting on behalf of Eken's agent GSS Service; and (iv) the signature of the person, Michoux Logan, acting on behalf of Eken's agent GSS Service.⁸³

29. Here, Eken apparently violated sections 1.17(a)(2) and 2.911(d)(7) of the Commission's rules by providing material factual information that was incorrect in each of the three written certifications it submitted to the Commission as to the physical U.S. address of its agent for service of process. Eken apparently did so without a reasonable basis for believing that such material factual statement was correct and not misleading.

1. Eken Provided "Material Factual Information" that was "Incorrect" in its Equipment Authorization Applications by Submitting a False Address for its U.S. Agent for Service of Process.

30. Each of Eken's three applications for equipment authorization contained incorrect factual information as to the physical U.S. address of its agent.

31. GSS Service was not physically located at the address listed on Eken's submissions and did not and could not accept service of process at that address.⁸⁴ Moreover, The Mail Center closed Box #2266 in June 2019, years before Eken filed its equipment authorization applications incorrectly stating that Box #2266 was a valid address for its designated agent. And, after The Mail Center closed it, Box #2266 was never registered to a business called GSS Service and could not receive mail or accept service of process. The address of a *virtual* office where a designated agent is incapable of accepting service does not satisfy the letter of the Commission's requirement of the applicant's consent and agent's

⁷⁹ Emails on file in EB-TCD-24-00036532 (Apr. 19, 2024 Email from EB to molly@eken.com; support-us@eken.com; michouxlogan@outlook.com); phone calls to GSS Service number of record (949-299-0192) made on May 8, 2024 and June 11, 2024.

⁸⁰ 47 CFR §§ 1.17(a)(2), 2.911(d)(7).

⁸¹ 47 U.S.C. § 503(b)(1)(B).

⁸² See Eken applications submitted December 18, 2023, February 29, 2024, and March 4, 2024, on file with OET.

⁸³ *Id.*

⁸⁴ Roerig declaration.

obligation to accept service at the agent's "physical U.S. address."⁸⁵ It also does not satisfy the intent of the requirement, which was adopted after the Commission considered its past inability to enforce against foreign entities that violated FCC equipment authorization rules, did not have a U.S. agent, and could not be served timely overseas under Hague Service Convention procedures.⁸⁶

32. Thus, the Commission finds that Eken submitted an incorrect statement of fact as to the physical U.S. address of its agent in each of its three submissions.

33. *Materiality.* Each of these incorrect statements of fact was material. The Commission revised its rules, in the interest of national security, to require that applicants for equipment certification accept service of process within the United States, identify an agent for service of process to do so, and identify that agent's physical location within the United States, along with other related requirements.⁸⁷ The reviewing Telecommunications Certification Body (TCB) would not have accepted Eken's three applications for equipment authorization, and they therefore would not have been granted, had the TCBs been aware that Eken had specified an incorrect physical address for its agent and thus service of process could not be effected there.

2. Eken Did Not Have a "Reasonable Basis for Believing" That the Physical U.S. Address of its Agent was "Correct and Not Misleading."

34. Eken did not have a reasonable basis for believing that GSS Service's physical U.S. address was correct. An applicant has a reasonable basis for believing a statement is "correct and not misleading" if it has taken due diligence in providing information, including "affirmative steps to determine the truthfulness of what is being submitted."⁸⁸ Eken submitted the incorrect physical U.S. address of its agent pursuant to its obligations under section 2.911(d)(7)(1) of the Commission's rules governing equipment authorization applications. Eken expressly stated that all of its exhibits and statements submitted as part of its equipment authorization applications, including the physical U.S. address of its designated agent, were "true and correct."⁸⁹ Yet, they were not.

35. Eken submitted three designations of GSS Service as its agent for process of service in 2023 and 2024. It specified an incorrect physical address for GSS Service, years after The Mail Center had closed Box #2266 (and as a rule did not accept personal service of process), with no evidence that an agent for service of process ever existed at the specified address. In other words, Eken provided a physical U.S. address—a mailbox—that *did not exist and had not existed for years* (a fact that Eken could have easily ascertained with minimal inquiry), yet it still certified the address as accurate in its applications. Moreover, Eken could have easily remedied the difficulties the agency had in reaching Eken and mitigated the harm to the Bureau's investigation by responding to the LOI and providing the Bureau with the correct address for a U.S. registered agent. It did not take the opportunity to do so.

⁸⁵ 47 CFR § 2.911(d)(7)(i)(B).

⁸⁶ See *supra* para. 7, note 16.

⁸⁷ See *EA Security FNPRM*, 37 FCC Rcd at 13506-07, 13520-21, paras. 26, 61-64. See also *supra* para. 5.

⁸⁸ *Amendment of Section 1.17 of the Commission's Rules Concerning Truthful Statements to the Commission*, Report and Order, GC Docket No. 02-37, 18 FCC Rcd 4016, 4021, para. 12 (2003) (*Truthful Statements Order*).

⁸⁹ FCC Form 731 and applications on file at 2ADDG-CAM (submitted on Mar. 4, 2024); 2ADDG-DBCAM (submitted on Feb. 29, 2024); and 2ADDG-M50 (submitted on Dec. 18, 2023). The Commission routinely pursues enforcement actions for violations of 47 CFR § 1.17(a) by entities that have submitted inaccurate or erroneous certifications in connection with applications. See, e.g., *Aura Holdings of Wisconsin*, Notice of Apparent Liability for Forfeiture, 33 FCC Rcd 3688 (2016) (proposing penalty against entity for violating Rule 1.17 by, among other things, submitting false certifications with 10 change-in-ownership applications covered by NAL); *Application of Alabama Media, LLC*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, 34 FCC Rcd 1913, 1920, para. 19 (MB 2019) (admonishing construction permit applicant for failing to disclose material fact covered by certification and "caution[ing]" applicant that a false statement under certification "may constitute an actionable violation of Section 1.17 of the Rules").

36. In sum, Eken was required to exercise due diligence to ensure that GSS Service was capable of acting as its agent for service of process based on the information that Eken was supplying to the Commission.⁹⁰ It plainly did not do so—the record reflects that GSS Service could not accept service at the designated address, and had been unable to do so for years. Eken could have also used the Bureau’s LOI as an opportunity to demonstrate why its belief was reasonable; its failure to do so leads us to conclude that it apparently had no such belief. Accordingly, we find that Eken did not have a reasonable basis for believing the statement of fact as to its agent’s physical U.S. address in its applications was correct and not misleading.

3. Eken is a “Person Subject To” Section 1.17(a) of the Commission’s Rules

37. Section 1.17(a) applies to any “adjudicatory matter” within the Commission’s jurisdiction, including applications for equipment authorizations. Section 1.17(b)(1) also states that section 1.17(a) applies to “[a]ny applicant for any Commission authorization,” which includes applicants for equipment authorizations.⁹¹ Likewise, per section 1.17(b)(2), section 1.17(a) applies to “[a]ny holder of any Commission authorization.”⁹² Eken was subject to section 1.17(a) because it made these incorrect factual statements as an applicant for a Commission equipment authorization.

4. Eken Apparently Violated Section 2.911(d)(7)

38. Eken apparently willfully or repeatedly violated its obligation under section 2.911(d)(7) to designate a U.S. agent to accept service of process at a physical U.S. address. As required by section 2.911(d)(7)(i)(C), applicants must accept that they have continuing obligations to maintain a U.S. agent, even after they have stopped marketing and importing devices.⁹³ Eken’s certifications to the Commission make clear that its obligations under section 2.911(d)(7) were continuing. As shown above in Figures 8-10 above, each of Eken’s three submitted “U.S. Agent Designation” forms included the following statement:

⁹⁰ *Truthful Statements Order* at 4021, para. 12 (“we believe that in preparing written statements in fact-based adjudications and investigations, regulatees are on heightened notice that they must have a reasonable basis to believe that what they say is correct and not misleading. In these circumstances, we consider it justified to require that parties use due diligence in providing information that is correct and not misleading to the Commission, including taking appropriate affirmative steps to determine the truthfulness of what is being submitted. A failure to exercise such reasonable diligence would mean that the party did not have a reasonable basis for believing in the truthfulness of the information.”); *accord Loveday v. FCC*, 707 F.2d 1443, 1449 (D.C. Cir. 1983) (“[T]he ‘reasonable diligence’ required . . . does not mandate a full-scale investigation by a broadcaster and is satisfied by appropriate inquiries . . .”).

⁹¹ See 47 CFR §§ 2.911-2.926 (Application Procedures for Equipment Authorizations).

⁹² *Id.* § 1.17(b)(2). The Commission has previously taken the position that other mandatory compliance certifications—including post-ETC designation certifications in the CAF II program and CPNI certifications by telecommunications carriers and interconnected VoIP providers—must conform to the requirements of Rule 1.17. See, e.g., *Connect America Fund Phase II Auction Support Authorized for New York Winning Bidder*, WC Docket No. 10-90, Public Notice, DA-21-54 (WCB Jan. 14, 2021) (“All post-designation ETC-related filings must be submitted in good faith and include a certification that, to the best of the ETC’s knowledge and belief, the information is complete and accurate.”) (citing FCC Form 481 and 47 CFR § 1.17); cf., e.g., *FCC Enforcement Advisory*, EB Docket No. 06-36, Public Notice, DA 21-106, Att. 2 (EB Feb. 4, 2021) (template CPNI compliance certification that is “consistent with 47 CFR § 1.17”). The Commission also routinely pursues enforcement actions under Rule 1.17 against entities that have submitted inaccurate or erroneous certifications in connection with applications. See, e.g., *Aura Holdings of Wisconsin*, Notice of Apparent Liability for Forfeiture, 33 FCC Rcd 3688 (2016) (proposing penalty against entity for violating Rule 1.17 by, among other things, submitting false certifications with 10 change-in-ownership applications covered by NAL); *Application of Alabama Media, LLC*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, 34 FCC Rcd 1913, 1920, para. 19 (MB 2019) (admonishing construction permit applicant for failing to disclose material fact covered by certification and “caution[ing]” applicant that a false statement under certification “may constitute an actionable violation of Section 1.17 of the Rules”).

⁹³ 47 CFR § 2.911(d)(7)(i)(C).

EKEN GROUP LIMITED with the FRN [0024002933] accepts its obligation to maintain an agent for service of process in the United States for no less than one year after either the grantee has permanently terminated all marketing and importation of the applicable equipment within the U.S., or the conclusion of any Commission-related administrative or judicial proceeding involving the equipment, whichever is later.⁹⁴

39. An obligation to “maintain” an agent is plainly a continuing one, as is the commitment to continue to maintain that agent for one year after terminating marketing and importation. Each form also expressly states that an “expiration date for this letter does not exist. In case the U.S. agent changes, the grantee is obligated to notify the FCC within 30 days via the granting TCB.”⁹⁵

40. Based on the above, we thus find that Eken apparently willfully or repeatedly violated both sections 1.17(a)(2) and 2.911(d)(7) of the Commission’s rules by specifying an incorrect physical U.S. address for GSS Service in each of the three applications to the Commission discussed herein.

B. Eken Apparently Violated Commission Orders by Failing to Respond Timely to a Letter of Inquiry.

41. Section 503(b)(1)(B) of the Act, in part, provides that a person who willfully or repeatedly fails to comply with a Commission rule or order shall be liable for a forfeiture penalty.⁹⁶ A Commission LOI is an “order” under section 503(b)(1)(B).⁹⁷ Accordingly, recipients that fail to respond or fail to provide a complete response to a Commission LOI may be subject to a monetary forfeiture penalty.⁹⁸ Indeed, the public interest implications of failing to respond are significant. The Commission has delegated authority to the Bureau to request information, and the failure to respond or provide a complete response hinders the Bureau’s ability to investigate and therefore fundamentally affects the Bureau’s ability to operate.⁹⁹

42. The Bureau issued the LOI on April 19, 2024, in which it directed Eken to respond in 30 days, i.e., by May 19, 2024. The Commission sent the LOI to both the physical U.S. address and email address Eken had specified as its U.S. agent for service of process, GSS Service. The Bureau also sent courtesy copies of the LOI via email to the Eken employee who submitted the FCC equipment authorization documents and to Eken’s general U.S. support email. The LOI stated the continuing nature of Eken’s obligations to respond.¹⁰⁰ To this day, the Commission has not received from Eken any response to the LOI.

43. The Bureau also independently identified a second physical address in California for GSS Service and effected personal service there on May 9, 2024.¹⁰¹ Separately, Commission staff informally reached out to Eken via the email it had specified for GSS Service in its applications, and received a response, confirming that the email is functional and that the operator of the account is claiming to be

⁹⁴ See *supra* para. 16.

⁹⁵ See *supra* para. 15.

⁹⁶ 47 U.S.C. § 503(b)(1)(B).

⁹⁷ See, e.g., *Neon*, 32 FCC Rcd at 7970, para. 16 (2017) (“It is well established that a failure to respond to a Bureau LOI [letter of inquiry] constitutes a violation of a Commission Order.”); *Technical Communication Network, LLC*, Notice of Apparent Liability for Forfeiture and Order, 28 FCC Rcd 1018, 1019, para. 5 (2013) (“The LOI the Bureau directed to TCN served as a legal order of the Commission to produce the requested documents and information.”).

⁹⁸ See *supra* para. 10.

⁹⁹ See *supra* para. 10.

¹⁰⁰ See *supra* para. 19 (quoting LOI ordering Eken that it had a “continuing obligation to update its responses and document production[.]” and further stating the “*Continuing Nature of Inquiries*. The specific Inquiries made herein are continuing in nature.”).

¹⁰¹ See *supra* note 57.

“Michoux Logan.” Commission staff also called the phone number associated with GSS Service¹⁰² on numerous occasions; no one picked up at that number and staff was unable to leave a voicemail. Again, despite these multiple attempts, the FCC has not received any response from Eken to the LOI.

44. Accordingly, we find that Eken apparently willfully violated a Commission order by failing to respond to the LOI.

C. Proposed Forfeiture

45. Section 503(b) of the Act authorizes the Commission to impose a forfeiture against any entity that “willfully or repeatedly fail[s] to comply with any of the provisions of [the Act] or of any rule, regulation, or order issued by the Commission[.]”¹⁰³ Here, section 503(b)(2)(D), as implemented by section 1.80(b)(10) of the Commission’s rules, authorizes us to assess a forfeiture against Eken of up to \$24,496 for each day of a continuing violation, up to a statutory maximum of \$183,718 for a single act or failure to act.¹⁰⁴ In exercising our forfeiture authority, we must consider the “nature, circumstances, extent, and gravity of the violation and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and such other matters as justice may require.”¹⁰⁵ In addition, the Commission has established forfeiture guidelines that set forth base penalties for certain violations and identify criteria that we consider when determining the appropriate penalty in any given case.¹⁰⁶ Under these guidelines, we may adjust a forfeiture upward for violations that are egregious, intentional, or repeated, or that cause substantial harm or generate substantial economic gain for the violator.¹⁰⁷ We may adjust a forfeiture downward for violations that are minor, good faith or voluntary disclosure of violations, where there is a history of compliance, or where there is an inability to pay.¹⁰⁸

46. *Sections 1.17 and 2.911(d)(7) Violations.* The three apparent violations of section 1.17(a)(2) and 2.911(d)(7) began on December 18, 2023; February 29, 2024; and March 4, 2024, respectively, when Eken submitted the inaccurate statements to the Commission.

47. We find that these apparent violations, in the context in which they occurred, are continuing violations. Section 2.911(d)(7)(i)(C) of the Commission’s rules shows that applicants accept they have continuing obligations to maintain a U.S. agent for service of process, even after they have stopped marketing and importing devices.¹⁰⁹ Eken’s actual submissions to the Commission make clear that its obligations under section 2.911(d)(7) were continuing, and Eken expressly acknowledged that in “case the U.S. agent changes, the grantee is obligated to notify the FCC within 30 days via the granting TCB.”¹¹⁰ As

¹⁰² On file at FCC FRN database, FRN No. 0033500653.

¹⁰³ 47 U.S.C. § 503(b).

¹⁰⁴ See 47 U.S.C. § 503(b)(2)(D); 47 CFR § 1.80(b)(10). See *Amendment of Section 1.80(b) of the Commission’s Rules, Adjustment of Civil Monetary Penalties to Reflect Inflation*, Order, DA 23-1198, 2023 WL 8889597 (EB Dec. 22, 2023); see also *Annual Adjustment of Civil Monetary Penalties to Reflect Inflation*, 89 Fed. Reg. 2148 (Jan. 12, 2024) (setting January 15, 2024 as the effective date for the increases).

¹⁰⁵ 47 U.S.C. § 503(b)(2)(E).

¹⁰⁶ 47 CFR § 1.80(b)(11), Table 3 and Note 2.

¹⁰⁷ *Id.* § 1.80 (b)(11), Table 3 to Paragraph (b)(11)—Adjustment Criteria for Section 503 Forfeitures; *The Commission’s Forfeiture Policy Statement and Amendment of Section 1.80 of the Rules to Incorporate the Forfeiture Guidelines, Report and Order*, 12 FCC Rcd 17087, 17098, para. 22 (1997) (*Forfeiture Policy Statement*), recons. denied, 15 FCC Rcd 303 (1999) (noting that “[a]lthough we have adopted the base forfeiture amounts as guidelines to provide a measure of predictability to the forfeiture process, we retain our discretion to depart from the guidelines and issue forfeitures on a case-by-case basis, under our general forfeiture authority contained in Section 503 of the Act”).

¹⁰⁸ 47 CFR § 1.80 (b)(11), Table 3 to Paragraph (b)(11).

¹⁰⁹ 47 CFR § 2.911(d)(7)(i)(C).

¹¹⁰ See *supra* para. 15.

shown above in Figures 8-10 above, each of Eken's three submitted "U.S. Agent Designation" forms included the following statement: "EKEN GROUP LIMITED with the FRN [0024002933] accepts its obligation to maintain an agent for service of process in the United States for no less than one year after either the grantee has permanently terminated all marketing and importation of the applicable equipment within the U.S., or the conclusion of any Commission-related administrative or judicial proceeding involving the equipment, whichever is later."¹¹¹ Each of these statements shows that Eken was aware of the continuing nature of the obligation and its relationship to section 2.911(d)(7).

48. Here, Eken directly benefited from its misrepresentations by offering for sale products that would not have been authorized but for the agent for service of process designation. The agent for service of process designation is permanent until the Commission is told otherwise, there is a change in designation, or a year after the equipment authorization holder permanently terminates all marketing and importation or any proceedings involving Eken.¹¹² Since the filing of its three equipment authorization applications discussed above, Eken has not sought a new grant of authorization or designated a new agent. In addition, the purpose of the rules is to enable the Commission to be able to reach grantees of equipment certifications, whether for routine communications, compliance matters, or enforcement matters.¹¹³ The U.S. agent requirement was adopted specifically after the Commission considered past examples of foreign entities that violated the equipment authorization rules and evaded enforcement.¹¹⁴ This purpose is materially thwarted if a grantee submits a certification that identifies an incorrect address for its U.S. based agent for service of process, and never corrects the error, notwithstanding readily available information clearly demonstrating that the address was wrong.¹¹⁵ Thus, we treat these violations as continuing for purposes of our forfeiture calculations.¹¹⁶ To put it another way, Eken has been in violation since it provided a false address for GSS Service (its agent for service of process) in each of its December 18, 2023; February 29, 2024; and March 4, 2024 filings, and will remain in violation of our rules until it designates a proper agent for process of service or one year after permanently ceasing all marketing and importation in the United States or the conclusion of any Commission-related proceedings, whichever is later.¹¹⁷

¹¹¹ See *supra* para. 16.

¹¹² 47 CFR § 2.911 (d)(7)(i)(C).

¹¹³ See *EA Security FNPRM*, 37 FCC Rcd at 13520, para. 61 (2022).

¹¹⁴ See *supra* para. 5, note 8; para. 7, notes 16-17.

¹¹⁵ See *supra* paras. 20-23.

¹¹⁶ See *Kyle Traxler & Cleo Commc'ns*, Notice of Apparent Liability for Forfeiture, 37 FCC Rcd 8151, 8169, para. 47 (2022) (finding that broadband provider that made untruthful and inaccurate statements to Commission to gain authorization to participate in Emergency Broadband Benefit (EBB) program, and failed to cure its misrepresentations by withdrawing its submissions, was liable for continuing violations of section 1.17); see also *Purple Communications, Inc.*, Forfeiture Order, 30 FCC Rcd 14892, 14900, para. 25 (2015) ("Purple has not amended any of the submissions to make them accurate, and thus each submission is a continuing apparent violation and remains actionable until corrected"); *Purple Communications, Inc.*, Notice of Apparent Liability for Forfeiture, 29 FCC Rcd 5491, 5506, n.87 (2014) (finding Telecom Relay Service (TRS) provider that submitted inaccurate information to TRS Fund administrator and sought reimbursement for calls that were not compensable, was liable for continuing violations until the TRS provider amended the submissions to make them accurate); *VCI Company*, Notice of Apparent Liability for Forfeiture and Order, 22 FCC Rcd 15933, 15940, para. 20 (2007) (finding that an eligible telecommunications carrier's (ETC's) failure to file an accurate Form 497 was a continuing violation until cured); *Truphone, Inc.*, Notice of Apparent Liability for Forfeiture, 37 FCC Rcd 5393, 5401-5402, paras. 17, 22 (Apr. 21, 2022) (finding that a carrier's failure to obtain prior Commission approval of certain ownership changes constituted a continuing violation until either the carrier unwound the transaction or the Commission approved the changes in the carrier's ownership structure).

¹¹⁷ See *supra* para. 6.

49. Considering all of the enumerated factors and the particular circumstances of this case, and consistent with the *Forfeiture Policy Statement*, we find that the statutory maximum permitted forfeiture is appropriate for each of Eken's three violations of sections 1.17(a)(2) and 2.911(d)(7).¹¹⁸ For applicants such as Eken, the statutory maximum is \$24,496 for each violation or each day of a continuing violation, up to \$183,718 for any single act.¹¹⁹

50. Eken submitted three applications, each containing a single incorrect statement made without a reasonable basis for believing that such statement is correct and not misleading.¹²⁰ Accordingly, we would propose a total base forfeiture for the apparent violations of sections 1.17 and 2.911(d)(7) of \$73,488, or \$24,496 * 3. In the case of a continuing violation, the statutory maximum is \$183,718 for a single act, which each violation reached after approximately eight days of noncompliance (i.e., \$24,496 * 8 days = \$195,968) for each apparent violation of sections 1.17 and 2.911(d)(7). Thus, we propose an aggregate forfeiture of \$551,154 (\$183,718 * 3 apparent violations of sections 1.17 and 2.911(d)(7)).

51. The Commission finds that Eken's violations of 1.17(a)(2) and 2.911(d)(7) were egregious. Over the course of multiple months, Eken failed to correct its patently incorrect certification as to GSS Service's physical address. Indeed, that address had not existed for years. Eken did this on multiple equipment authorization applications, in the process gaining authorization for products that could have significant harm to consumers. All available evidence indicates that, in effect, Eken treated Commission rules as checkboxes to fill out as quickly as possible, rather than as substantive regulations meant to protect U.S. customers and the public interest.

52. Additionally, the Commission has a significant interest in establishing a disincentive to this kind of misconduct, particularly as it relates to the Commission's 2022 amendments to its equipment authorization rules to protect the national security. There, the Commission specifically noted the requirement to designate a U.S. agent for service of process was intended to "enable the Commission to efficiently carry out its enforcement duties[.]"¹²¹ However, we conclude that an upward adjustment, although warranted, is not possible because the proposed base forfeiture amount is at the maximum amount permitted by statute.

53. *Failure to Respond Violation.* For Eken's failure to respond to the LOI, section 1.80(b) of the Commission's rules sets a base forfeiture amount of \$4,000 for each violation for failure to respond to Commission communications.¹²² Under Commission and Bureau precedent, failure to respond to a Commission order is a continuing violation until cured.¹²³

¹¹⁸ *Syntax-Brilliant Corp.*, Forfeiture Order and Notice of Apparent Liability for Forfeiture, 23 FCC Rcd 6323, 6343, paras. 45-46 (2008) (imposing the statutory maximum for violations of 47 CFR § 1.17(a)(2)).

¹¹⁹ See *Forfeiture Policy Statement*, 12 FCC Rcd at 17098, para. 21 ("We have set the base forfeiture amount for misrepresentation at the statutory maximum for the particular type of service provided by the violator. Regardless of the factual circumstances of each case, misrepresentation to the Commission always is an egregious violation. Any entity or individual that engages in this type of behavior should expect to pay the highest forfeiture applicable to the service at issue.").

¹²⁰ See *supra* paras. 15-25.

¹²¹ *EA Security FNPRM*, 37 FCC Rcd at 13520-21, para. 64 (2022).

¹²² 47 CFR § 1.80(b)(11), Table 1.

¹²³ *Onda Mexicana Radio Group, Inc.*, Licensee of AM Station WWFL, Clermont, FL, Notice of Apparent Liability for Forfeiture and Order, 29 FCC Rcd 527, 530, para. 8 (EB 2014) (ongoing failure to respond to an NOV can be a continuing violation); *Message Communications, Inc.*, 29 FCC Rcd 8214, 8217-18, para. 12 (EB 2014) (noting company's willful disregard of its obligation to comply with LOI continued unabated and that such failure to respond to FCC inquiries is misconduct that "exhibits contempt for the Commission's authority, and threatens to compromise the Commission's ability to adequately investigate violations of its rules."); see also *ADMA Telecom, Inc.*, Forfeiture Order, 26 FCC Rcd 4152, 4155, para. 8 (2011) (construing a carrier's failure to file a required document (a Form 499) with the Commission as a continuing violation until cured); *Google Inc.*, Notice of Apparent Liability for Forfeiture and Order, 25 FCC Rcd 12345, 12348, para. 12 (2010) (construing a carrier's failure to file a required document (a Form 499) with the Commission as a continuing violation until cured). (continued...)

54. Given the totality of the circumstances, and consistent with the *Forfeiture Policy Statement*, we conclude that an upward adjustment is warranted for Eken's failure to respond to Commission communications. Eken's failure to respond (thus providing the Commission none of the information requested by the LOI) was egregious and caused the Commission to expend significant resources on an investigation without being able to investigate the serious security and privacy risks described in the LOI, or potential rule violations associated with Eken's equipment. Eken claimed to the press that it resolved these issues,¹²⁴ but its failure to provide any information made it impossible for the Commission to investigate the risks to consumer privacy and national security posed by Eken's devices. It has delayed the Bureau's investigation and caused the Commission to expend significant resources attempting to serve process on Eken, instead of protecting consumer privacy and national security. Eken was ordered to respond to the LOI by May 19, 2024, and has failed to respond at all for a total of 151 days. As such, we propose a forfeiture of \$4,000 * 151 days, which must then be reduced to the statutory maximum of \$183,718 for the apparent violation stemming from Eken's failure to respond to the LOI, resulting in an overall proposed forfeiture of \$734,872 (\$551,154 + \$183,718) for the four apparent violations. Once again, we conclude that an upward adjustment, although warranted, is not possible because the proposed base forfeiture amount is at the maximum amount permitted by statute.

55. In applying the applicable statutory factors, we also consider whether there is any basis for a downward adjustment of the proposed forfeiture.¹²⁵ Here, we find none.

56. Therefore, after applying the statutory factors, section 1.80 of the Commission's rules, and the *Forfeiture Policy Statement*, we propose a total forfeiture of \$734,872, for which Eken is apparently liable.

IV. CONCLUSION

57. We have determined that Eken apparently willfully or repeatedly violated sections 1.17 and 2.911(d)(7) of the Commission's rules and failed to respond to an agency order. As such, Eken is apparently liable for a forfeiture of \$734,872.

V. ORDERING CLAUSES

58. Accordingly, **IT IS ORDERED** that, pursuant to section 503(b) of the Act, 47 U.S.C. § 503(b), and section 1.80 of the Commission's rules, 47 CFR § 1.80, Eken Group Limited is hereby **NOTIFIED** of this **APPARENT LIABILITY FOR A FORFEITURE** in the amount of seven hundred and thirty-four thousand, eight hundred and seventy-two dollars (\$734,872) for willful or repeated violations of sections 1.17(a)(2) and 2.911(d)(7) of the Commission's rules, and of an agency order.

59. **IT IS FURTHER ORDERED** that, pursuant to section 1.80 of the Commission's rules, 47 CFR § 1.80, within thirty (30) calendar days of the release date of this Notice of Apparent Liability for Forfeiture, Eken Group Limited **SHALL PAY** the full amount of the proposed forfeiture or **SHALL FILE** a written statement seeking reduction or cancellation of the proposed forfeiture consistent with paragraph 62 below.

Liability for Forfeiture, 27 FCC Rcd 4012, 4033, para. 50 (EB 2012) (Google's failures to provide information in response to LOI were continuing violations that lasted until cured); *LDC Telecomm., Inc.*, Notice of Apparent Liability for Forfeiture and Order, 27 FCC Rcd 300, 302, para. 8 (EB 2012) (characterizing LDC's failure to respond to the Bureau's LOI as "continuous"); *Net One Int'l*, Notice of Apparent Liability for Forfeiture and Order, 26 FCC Rcd 16493, 16496, para. 9 (EB 2011) (advising Net One that its failure "to respond fully to the LOI within ten days of the date of this NAL may constitute an additional, continuing violation"); *1st Source Info. Specialists, Inc.*, Notice of Apparent Liability for Forfeiture, 21 FCC Rcd 8193, 8196-97, para. 13 (2006) (characterizing a data broker's failure to respond fully to a Bureau subpoena and a citation the Bureau issued based on that failure as a continuing violation), forfeiture issued, Forfeiture Order, 22 FCC Rcd 431 (2007).

¹²⁴ See *supra*, para. 14.

¹²⁵ 47 CFR § 1.80(b)(11), Table 3.

60. In order for Eken Group Limited to pay the proposed forfeiture, Eken Group Limited shall notify Samuel Hanks and Kristi Thompson at EB-TCD-Privacy@fcc.gov of its intent to pay, whereupon an invoice will be posted in the Commission's Registration System (CORES) at <https://apps.fcc.gov/cores/userLogin.do>. Upon payment, Eken Group Limited shall send electronic notification of payment to Kristi Thompson, Enforcement Bureau, Federal Communications Commission, at Kristi.Thompson@fcc.gov on the date said payment is made. Payment of the forfeiture must be made by credit card using CORES at <https://apps.fcc.gov/cores/userLogin.do>, ACH (Automated Clearing House) debit from a bank account, or by wire transfer from a bank account. The Commission no longer accepts forfeiture payments by check or money order. Below are instructions that payors should follow based on the form of payment selected:¹²⁶

- Payment by wire transfer must be made to ABA Number 021030004, receiving bank TREAS/NYC, and Account Number 27000001. In the OBI field, enter the FRN(s) captioned above and the letters "FORF". In addition, a completed Form 159¹²⁷ or printed CORES form¹²⁸ must be faxed to the Federal Communications Commission at 202-418-2843 or e-mailed to RROGWireFaxes@fcc.gov on the same business day the wire transfer is initiated. Failure to provide all required information in Form 159 or CORES may result in payment not being recognized as having been received. When completing FCC Form 159 or CORES, enter the Account Number in block number 23A (call sign/other ID), enter the letters "FORF" in block number 24A (payment type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN).¹²⁹ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.
- Payment by credit card must be made by using CORES at <https://apps.fcc.gov/cores/userLogin.do>. To pay by credit card, log-in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select "Manage Existing FRNs | FRN Financial | Bills & Fees" from the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the "Open Bills" tab and find the bill number associated with the NAL Acct. No. The bill number is the NAL Acct. No. with the first two digits excluded (e.g., NAL 1912345678 would be associated with FCC Bill Number 12345678). After selecting the bill for payment, choose the "Pay by Credit Card" option. Please note that there is a \$24,999.99 limit on credit card transactions.
- Payment by ACH must be made by using CORES at <https://apps.fcc.gov/cores/userLogin.do>. To pay by ACH, log in using the FCC Username associated to the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select "Manage Existing FRNs | FRN Financial | Bills & Fees" on the CORES Menu, then select FRN Financial and the view/make payments option next to the FRN. Select the "Open Bills" tab and find the bill number associated with the NAL Acct. No. The bill number is the NAL Acct. No. with the first two digits excluded (e.g., NAL 1912345678 would be associated with FCC Bill Number 12345678). Finally, choose the "Pay from Bank Account" option. Please contact the appropriate financial institution to confirm the correct Routing Number and the correct account number from which payment will be made and verify with that financial institution that the designated account has authorization to accept ACH transactions.

¹²⁶ For questions regarding payment procedures, please contact the Financial Operations Group Help Desk by phone at 1-877-480-3201 (option #6).

¹²⁷ FCC Form 159 is accessible at <https://www.fcc.gov/licensing-databases/fees/fcc-remittance-advice-form-159>.

¹²⁸ Information completed using the Commission's Registration System (CORES) does not require the submission of an FCC Form 159. CORES is accessible at <https://apps.fcc.gov/cores/userLogin.do>.

¹²⁹ Instructions for completing the form may be obtained at <http://www.fcc.gov/Forms/Form159/159.pdf>.

61. Any request for making full payment over time under an installment plan should be sent to: Chief Financial Officer—Financial Operations, Federal Communications Commission, 45 L Street, NE, Washington, D.C. 20554.¹³⁰ Questions regarding payment procedures should be directed to the Financial Operations Group Help Desk by phone, 1-877-480-3201, or by e-mail, ARINQUIRIES@fcc.gov.

62. The written statement seeking reduction or cancellation of the proposed forfeiture, if any, must include a detailed factual statement supported by appropriate documentation and affidavits pursuant to sections 1.16 and 1.80(g)(3) of the Commission's rules.¹³¹ The written statement must be mailed to the Office of the Secretary, Federal Communications Commission, 45 L Street, NE, Washington, D.C. 20554, ATTN: Enforcement Bureau – Telecommunications Consumers Division, and must include the NAL/Account Number referenced in the caption. The statement must also be e-mailed to Kristi Thompson at Kristi.Thompson@fcc.gov.

63. The Commission will not consider reducing or canceling a forfeiture in response to a claim of inability to pay unless the petitioner submits the following documentation: (1) federal tax returns for the past three years; (2) financial statements for the past three years prepared according to generally accepted accounting practices; or (3) some other reliable and objective documentation that accurately reflects the petitioner's current financial status.¹³² Any claim of inability to pay must specifically identify the basis for the claim by reference to the financial documentation. Inability to pay, however, is only one of several factors that the Commission will consider in determining the appropriate forfeiture, and we retain the discretion to decline reducing or canceling the forfeiture if other prongs of 47 U.S.C. § 503(b)(2)(E) support that result.¹³³

64. **IT IS FURTHER ORDERED** that a copy of this Notice of Apparent Liability for Forfeiture shall be sent by first class mail and certified mail, return receipt requested, to Eken Group Limited c/o GSS Service Inc., 6547 N Academy Blvd #2266, Colorado Springs, CO 80918; and to Eken Group Limited c/o GSS Service Inc., 18351 Colima Road Ste 2896, Rowland Heights, Los Angeles, CA 91748; and by email to MichouxLogan@outlook.com.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

¹³⁰ See 47 CFR § 1.1914.

¹³¹ *Id.* §§ 1.16, 1.80(g)(3).

¹³² 47 U.S.C. § 503(b)(2)(E).

¹³³ See, e.g., *Ocean Adrian Hinson, Surry County, North Carolina*, Forfeiture Order, 34 FCC Rcd 7619, 7621, para. 9 & n.21 (2019); *Vearl Pennington and Michael Williamson*, Forfeiture Order, 34 FCC Rcd 770, paras. 18-21 (2019); *Fabrice Polynice, Harold Sido and Veronise Sido, North Miami, Florida*, Forfeiture Order, 33 FCC Rcd 6852, 6860-62, paras. 21-25 (2018); *Adrian Abramovich, Marketing Strategy Leaders, Inc., and Marketing Leaders, Inc.*, Forfeiture Order, 33 FCC Rcd 4663, 4678-79, paras. 44-45 (2018); *Purple Communications, Inc.*, Forfeiture Order, 30 FCC Rcd 14892, 14903-04, paras. 32-33 (2015); *TV Max, Inc., et al.*, Forfeiture Order, 29 FCC Rcd 8648, 8661, para. 25 (2014).

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Eken Group Limited*, Notice of Apparent Liability for Forfeiture, File No.: EB-TCD-24-00036532
(November 21, 2024)

Last week, I was in Cape Town, at the Africa Tech Festival. It is the premier gathering of public and private sector technology interests on the continent. If you need an object lesson in the power of connection, this is the place to be. Every event, every speech, and every meeting was a testament to the need for connections so we can build a digital future that works for everyone.

It is essential that the United States participate in fora like this. Because we know that when we multiply the communications connections in the world around us—between people, between people and things, and among things themselves—we create transformative opportunities for civic and commercial life. We know something else we need to share with our international counterparts. We understand that when we increase connections, we also expand digital vulnerabilities. That means as we head into this connected future, we need to focus on network security like never before.

At the Federal Communications Commission, I have made sure that network security is no longer an afterthought. It is front and center in everything we do. For the first time in history, we have revoked the authorization of state-affiliated carriers that have been identified as a national security threat. We built a first-of-its-kind program to remove insecure foreign equipment from our Nation's communications networks. We are revamping our policies for assessing the security of undersea cables with an initiative today. We have proposed measures to address the insecurities in Border Gateway Protocol, which can be used by malicious foreign actors to hijack internet traffic. On top of that, we now make public a Covered List of communications equipment and services that pose an unacceptable risk to national security. We exclude this equipment from our universal service support programs—and share this fact globally, as I did in Africa. Plus, we prevent this equipment from using our equipment authorization program. As part of this effort, this year we suspended the approval of a test lab operated by Huawei and flagged for our national security colleagues other labs with possible ties to the government of the People's Republic of China.

There is more to do. In our connected world new vulnerabilities arise all the time. We need to be on guard. And we need to set a global example by prioritizing network security.

We do that here by addressing a vulnerability we identified in our equipment authorization process. This process provides manufacturers with the ability to get the go-ahead to market devices using spectrum in the United States because we have determined they comply with our rules and will not cause harmful interference to others. Our rules require entities seeking this authorization to designate an agent for service in the United States and to provide the FCC with truthful and accurate information. That means if you are a company based here or abroad, if this agency has questions about your compliance, we will know how to reach you and get answers.

Eken is a Hong Kong-based, Chinese manufacturer of video doorbells and other connected devices. It sells its products through online retailers in the United States, including Walmart, Amazon, and Sears. Earlier this year, we became aware of serious allegations of privacy and security flaws in Eken's video doorbell devices. Consumer Reports found these devices exposed home IP addresses and Wi-Fi networks, opening your home to online criminals. The potential for abuse is vast—from theft to domestic violence to state-sanctioned surveillance by malicious state actors.

So we got to work and started an investigation. Very quickly we found a big problem. When our Enforcement Bureau sought to serve a Letter of Inquiry on the company, we discovered that the address for the agent registered in our equipment authorization process was not valid. This violates our rules. It is the foundation of the enforcement action we have voted on today. But we are not stopping here. The agency is also notifying all Telecommunications Certification Bodies that evaluate and certify devices through our equipment authorization process to stop processing any applications with this designated agent. Today we

are also starting an audit of all other filers that used the same agent, giving them 30 days to respond or face consequences.

This is just a start. We need a fuller accounting of how cheap and insecure electronics from China and elsewhere wind up at major retailers without lawful approval from our equipment authorization process. Because as our connections here at home and abroad multiply, we all need to know that the devices we bring into our homes and businesses are safe. If we want to build a digital future that works for everyone, this has to be a priority.

I want to thank Senator Rubio for alerting us to the vulnerabilities in these video doorbell devices and Commissioner Starks for his efforts in this investigation. Thank you also to the staff who worked on this action, including Michael Antonino, Hunter Deeley, Loyaan Egal, Eric Ehrenreich, Jeff Gary, Matthew Gibson, Samuel Hanks, Stephen Hanson, Peter Hyun, Alice Suh Jou, Shannon Lipp, Jeremy Marcus, Lauren Merk, Neal McNeil, Elizabeth Mumaw, Kevin Pittman, and Victoria Randazzo from the Enforcement Bureau; Reza Biazaran, Jamie Coleman, Ira Keltz, Dana Shaffer, and Jim Szeliga from the Office of Engineering and Technology; and David Konczal, Erika Olsen, Robert Primosch, Joel Rabinovitz, Anjali Singh, Elliot Tarloff, Shana Yates, and Chin Yoo from the Office of General Counsel.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Eken Group Limited*, Notice of Apparent Liability for Forfeiture, File No.: EB-TCD-24-00036532 (November 21, 2024)

Insecure Internet of Things (IoT) devices pose a real and tangible threat to Americans. Devices that lack baseline cybersecurity protections, such as Eken’s video doorbells, dramatically increase the entry points for cyberattacks. A compromised device can open a backdoor to personal or enterprise networks. And once a hacker is in, they can wreak mayhem—identity theft, espionage, and fraud—that costs consumers billions of dollars. This is not a theory, this is a fact.¹ Beyond the risk to individual households, this is a larger threat to our national security. These devices may also become part of a botnet, contributing to large scale attacks. Again, this is not a theory, this is a fact. The Flax Typhoon breach, for example, we now know was a Chinese-controlled botnet made up of 260,000 IoT devices and routers used to spy on sensitive organizations in the United States and worldwide.²

Back in 2019, I called for the Commission to use its equipment authorization authority to improve network security. In 2021, as we initiated a proceeding to review our equipment authorization rules, I fought for the Commission to require each applicant for equipment authorization to designate a contact located in the United States to serve as an agent to access service of process.³ I strongly supported our order in 2022 when we did just that.⁴

I have long felt that too many bad actors relied on our service of process rules as a loophole to evade enforcement and flood our markets with equipment that wouldn’t have otherwise passed muster. No more. Bad actors should know that they won’t be able to duck and dodge our rules, and the enforcement action we initiate today backs that up.

Eken apparently illegally marketed and sold insecure Internet of Things devices in the United States that put both American consumers and our communications networks at risk. Once Eken’s equipment was identified as a threat, I wrote letters to 5 of the largest online retailers serving the United States back in March of this year calling for them to stop the sale of these insecure and unauthorized devices.⁵

Those letters led to an important dialogue on protecting consumers. And today, we take the next step—the right step—in pursuing the manufacturer that, as alleged, has disregarded our rules. Any

¹ Stacey Higginbotham, Daniel Wroclawski, *These Video Doorbells Have Terrible Security. Amazon Sells Them Anyway*, Consumer Reports (Feb. 29, 2024), <https://www.consumerreports.org/home-garden/home-security/cameras/video-doorbells-sold-by-major-retailers-have-security-flaws-a2579288796/>; Tatum Hunter, *These camera doorbells from Amazon, Walmart aren’t safe*, The Washington Post (Feb. 29, 2024), <https://www.washingtonpost.com/technology/2024/02/29/doorbell-cameras-aiwit-privacy-amazon-walmart-temu/>.

² *Court-Authorized Operation Disrupts Worldwide Botnet Used by People’s Republic of China State-Sponsored Hackers*, United States Department of Justice, Press Release, Sept. 18, 2024, available at <https://www.justice.gov/opa/pr/court-authorized-operation-disrupts-worldwide-botnet-used-peoples-republic-china-state>.

³ *Protecting Against National Security Threats to the Communications Supply Chain through the Competitive Bidding Program*, EA Docket No. 21-233, Notice of Proposed Rulemaking and Notice of Inquiry, 36 FCC Rcd 10578, Statement of Commissioner Geoffrey Starks at 1 (2021).

⁴ *Protecting Against National Security Threats to the Communications Supply Chain through the Equipment Authorization Program*, ET Docket 21-232; EA Docket 21-233, Report and Order and Further Notice of Proposed Rulemaking, 37 FCC Rcd 13493, Statement of Commissioner Geoffrey Starks at 1 (2022).

⁵ *FCC Commissioner Geoffrey Starks Calls on Online Marketplaces to Stop the Sale of Insecure and Unauthorized IoT Devices*, Press Release, Mar. 8, 2024, available at <https://docs.fcc.gov/public/attachments/DOC-401038A1.pdf>.

manufacturer that seeks to flood our markets with cheap and insecure equipment, while lying about compliance, will similarly hear from our enforcement team as we seek to keep Americans safe.

I thank the Commission staff for their great work on this item and approve.

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Use of the 5.850-5.925 GHz Band) ET Docket No. 19-138

SECOND REPORT AND ORDER

Adopted: November 20, 2024

Released: November 21, 2024

By the Commission:

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I. INTRODUCTION

1. The Intelligent Transportation System (ITS) holds promise to improve transportation safety and mobility by integrating advanced communications technologies into vehicles and infrastructure. The connected vehicle ecosystem of the future will make the nation's transportation system more flexible, resilient, and safe. This ecosystem requires technical and operational rules governing devices using C-V2X (cellular-vehicle-to-everything) based technology. In the *First Report and Order* of this proceeding, the Commission retained the upper 30 megahertz portion (5.895-5.925 GHz) of the 5.850-5.925 GHz (5.9 GHz) band for ITS operations.¹ The Commission also required the

¹ See *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, First Report and Order (*First Report and Order*), Further Notice of Proposed Rulemaking (*FNPRM*), and Order of Proposed Modification, 35 FCC Rcd 13440, (continued....)

ITS service to transition from Dedicated Short Range Communications (DSRC)-based technology to C-V2X-based technology as the connected mobility platform for implementing the future of ITS communications in the United States.² In this *Second Report and Order*, we further address the transition of 5.9 GHz ITS operations from DSRC to C-V2X by codifying C-V2X technical parameters in the Commission's rules, including band usage, message priority, and channel bandwidth.³ We promulgate rules governing equivalent isotropically radiated power (EIRP) and out-of-band emissions (OOBE) limits for C-V2X on-board units (OBUs) and roadside units (RSUs), and antenna height limits for RSUs. In addition, we encourage the development of industry standards and finalize the timeline for sunsetting the use of DSRC-based technology. Finally, we address the issues of additional spectrum allocations for ITS use and reimbursing the transition costs of DSRC incumbents.

II. BACKGROUND

2. The Commission adopted the *First Report and Order* in 2020, wherein it concluded that the most efficient use of the 75 megahertz of spectrum in the 5.9 GHz band would be achieved by expanding unlicensed operations in the lower 45 megahertz of the band (5.850-5.895 GHz),⁴ and designating the upper 30 megahertz of the band (5.895-5.925 GHz) for the ITS service using C-V2X technology.⁵ Among other considerations, the Commission made this decision because (1) the DSRC services once contemplated for operations across the full 5.9 GHz band had not come to fruition in the 20 years since it allocated the spectrum for the ITS service;⁶ (2) those envisioned vehicle-safety features can be or are already being provided using other spectrum bands or alternative technology;⁷ and (3) the significant public interest benefits of adding 45 megahertz of Unlicensed National Information Infrastructure (U-NII) spectrum to enable the next-generation Wi-Fi, which operates on wider channels and allows gigabit connectivity with lower latency, improved coverage, and power efficiency.⁸

13451-61, paras. 29-47 (2020), *corrected by* Erratum (OET Dec. 11, 2020) and Second Erratum, 36 FCC Rcd 1444 (OET 2021), *aff'd* Intelligent Transportation Society of America v. FCC 45 F.4th 406 (D.C. Cir. 2022) (*ITS America v. FCC*). In 1999, the Commission reserved the entire 75 megahertz of the 5.9 GHz band for ITS operations. *See Amendment of Parts 2 and 90 of the Commission's Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short Range Communications of Intelligent Transportation Services*, ET Docket No. 98-95, Report and Order, 14 FCC Rcd 18221 (1999) (*DSRC Report and Order*). Note that the Commission's rules for the "Intelligent Transportation Systems Radio Service" include the Location Monitoring Service in lower frequencies than 5.9 GHz. *See, e.g.*, 47 CFR §§ 90.350-90.365. ET Docket No. 19-138 addresses only ITS operations in the 5.9 GHz band.

² *See First Report and Order*, 35 FCC Rcd at 13483-85, paras. 107-110. Vehicle-to-everything (V2X)-based technology allows vehicles to communicate directly with other vehicles (V2V), infrastructure (V2I), and vulnerable road users such as pedestrians and bicyclists (V2P), via the 5.895-5.925 GHz-band frequencies, *i.e.*, without the participation of a cellular network or other base stations. C-V2X-based technology also has a vehicle-to-network function (V2N) by which vehicles communicate with other vehicles, infrastructure, and vulnerable road users via mobile broadband network providers outside of the 5.895-5.925 GHz band in compliance with the providers' authorization. *See id.* at 13443-44, n.12. In this *Second Report and Order*, we primarily use the term "C-V2X" since the Commission adopted C-V2X-based technology for the provision of ITS services in the 5.895-5.925 GHz band. *See id.* at 13441, 13479, paras. 1, 95.

³ The term "DSRC" refers to dedicated short range communications, the technology being phased out of use to provide ITS in the 5.9 GHz band; the service rules governing the licensing and use of DSRC use the term "Dedicated Short Range Communications Service" (DSRCS). *See, e.g.*, 47 CFR §§ 90.370-90.395; §§ 95.3101-95.3189. For ease of reference, we use the term "DSRC" throughout this document.

⁴ *See First Report and Order*, 35 FCC Rcd at 13441, para. 2.

⁵ *See id.* at 13441-42, para. 3.

⁶ *See id.* at 13452-53, para. 31.

⁷ *See id.* at 13453-54, para. 32.

⁸ *See id.* at 13441, 13449, paras. 2, 20.

3. To protect incumbent 5.9 GHz band services, including federal incumbent operations, from potential harmful interference from unlicensed operations, the Commission imposed stringent power limits and operating requirements on unlicensed devices (i.e., access points, subordinate devices, and client devices) operating in the lower 45 megahertz and restricted unlicensed use of the lower 45 megahertz to indoor locations.⁹ In addition, to protect ITS operations during and after their transition to the upper 30 megahertz, the Commission set indoor U-NII device OOB limits into the upper 30 megahertz based on, but not identical to, the previously-affirmed unlicensed device OOB limits for the 5.725-5.850 GHz (U-NII-3) band.¹⁰ Because the Commission restricted unlicensed use of the lower 45 megahertz to indoor use only, the Commission took advantage of building attenuation, as well as other factors such as path loss, to increase the OOB limits allowed into the upper 30 megahertz from indoor unlicensed devices by 20 dB as compared to the U-NII-3 band OOB limits.¹¹ The Commission also permitted a root mean square (RMS) detector, instead of requiring a peak detector, to be used to conduct all 5.9 GHz band unlicensed device OOB measurements.¹²

4. As the *First Report and Order* determined that the operators in the revised ITS band must use C-V2X technology, the *FNPRM* sought comment on further transition issues and proposed rules to finalize the technical parameters for C-V2X operations and the timing of when operations must transition from the DSRC technology.¹³ The *FNPRM* also sought comment on the possibility for full-power outdoor unlicensed operations across the lower 45 megahertz portion of the 5.9 GHz band.¹⁴ Those unlicensed operations issues are not addressed in this *Second Report and Order*.¹⁵

5. *ITS America v. FCC*. After releasing the *First Report and Order*, the Intelligent Transportation Society of America (ITS America) and the American Association of State Highway and

⁹ *First Report and Order*, 35 FCC Rcd at 13466-76, paras. 61-79; 47 CFR § 15.407(a)(3)(ii)-(v). A U-NII access point operates either as a bridge in a peer-to-peer connection or as a connector between the wired and wireless segments of the network, or as a relay between wireless network segments. A U-NII subordinate device operates in the 5.850-5.895 GHz under the control of an indoor access point. A U-NII client device transmits generally under the control of an access point and is not capable of initiating a network. An indoor access point or subordinate device is supplied power from a wired connection, has an integrated antenna, is not battery powered, and does not have a weatherized enclosure. Access points that operate in the 5.850-5.895 GHz band are restricted to indoor use; subordinate devices and client devices that operate in the 5.850-5.895 GHz band must operate under the control of an indoor access point. 47 CFR §§ 15.403, 15.407(a)(3)(ii)-(v).

¹⁰ See *First Report and Order*, 35 FCC Rcd at 13475-76, para. 83. Under the Commission's current rules, out-of-band emissions from unlicensed transmitters operating in the 5.725-5.850 GHz (U-NII-3) band are limited to -27 dBm/MHz at 75 megahertz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 megahertz above or below the band edge, and from 25 megahertz above or below the band edge increasing linearly to 15.6 dBm/MHz at 5 megahertz above or below the band edge, and from 5 megahertz above or below the band edge increasing linearly to 27 dBm/MHz at the band edge. 47 CFR § 15.407(b)(4)(i). These specifications result in OOB limits of -5 dBm/MHz at 5.895 GHz, decreasing linearly to -27 dBm/MHz at 5.925 GHz.

¹¹ Specifically, for indoor unlicensed access point or subordinate devices operating solely in the 5.850-5.895 GHz (U-NII-4) band or on a channel that spans across 5.725-5.895 GHz (U-NII-3 and U-NII-4), all emissions at or above 5.895 GHz must not exceed an equivalent isotropically radiated power (EIRP) of 15 dBm/MHz at 5.895 GHz, decreasing linearly to -7 dBm/MHz at or above 5.925 GHz. *First Report and Order*, 35 FCC Rcd at 13475-76, para. 83; 47 CFR § 15.407(b)(5)(i). For client devices operating solely in the 5.850-5.895 GHz (U-NII-4) band or on a channel that spans across 5.725-5.895 GHz (U-NII-3 and U-NII-4), all emissions at or above 5.895 GHz must not exceed an EIRP of -5 dBm/MHz and decrease linearly to an EIRP of -27 dBm/MHz at or above 5.925 GHz. 47 CFR § 15.407(b)(5)(ii).

¹² *First Report and Order*, 35 FCC Rcd at 13476-77, paras. 84-85.

¹³ See *FNPRM*, 35 FCC Rcd at 13500-08, paras. 146-168.

¹⁴ See *id.* at 13511, para. 179.

¹⁵ We also do not address C-V2X intellectual property issues in this *Second Report and Order*. See *FNPRM*, 35 FCC Rcd at 13506 n.432.

Transportation Officials (AASHTO) petitioned the United States Court of Appeals for the D.C. Circuit to vacate the part of the *First Report and Order* repurposing the lower 45 megahertz for unlicensed operations.¹⁶ The Amateur Radio Emergency Data Network (AREDN) filed a separate petition asking the court to vacate the entire *First Report and Order*.¹⁷ The D.C. Circuit rejected each of the petitioners' arguments and affirmed the Commission's decisions in the *First Report and Order*.¹⁸

6. *Order on Reconsideration.* In response to the *First Report and Order*, the Alliance for Automotive Innovation (Auto Innovators) and the 5G Automotive Association (5GAA) filed petitions for reconsideration on June 2, 2021.¹⁹ In its Petition for Reconsideration, Auto Innovators asked the Commission to reconsider its decision to designate the lower 45 megahertz for unlicensed use and restore that portion of the 5.9 GHz band for ITS.²⁰ In the *Order on Reconsideration*, the Commission denied the Auto Innovators' request and affirmed its decision to repurpose the lower 45 megahertz for the reasons discussed in the *First Report and Order*, including the cost-benefit analysis therein.²¹ In its Petition for Partial Reconsideration, 5GAA asked the Commission to reduce the OOB limits for indoor unlicensed access points, subordinate devices, and client devices operating in the lower 45 megahertz.²² In the *Order on Reconsideration*, the Commission rejected 5GAA's various arguments regarding indoor unlicensed devices' potential to cause harmful interference to ITS operations in the upper 30 megahertz.²³

7. *Waivers.* Recently, the Office of Engineering and Technology, the Public Safety and Homeland Security Bureau (PSHSB), and the Wireless Telecommunications Bureau (WTB) (hereafter, "the Bureaus") granted rule waivers to parties requesting to deploy C-V2X operations in the upper 30-megahertz portion of the 5.9 GHz band (5.895-5.925 GHz) prior to adopting final C-V2X-based technical rules.²⁴ Specifically, each waiver applicant sought waivers for rule sections that establish the technical

¹⁶ *ITS America v. FCC*, 45 F.4th at 411.

¹⁷ *Id.*

¹⁸ *Id.* at 409, 411, 415. The D.C. Circuit also denied AREDN's emergency motion for a judicial stay. See *Intelligent Transportation Society of America v. FCC*, Case No. 21-1130 (consolidated with 21-1131, 21-1141), Order (July 2, 2021).

¹⁹ See Petition for Partial Reconsideration, ET Docket No. 19-138 (filed June 2, 2021) (5GAA Petition). See also Petition for Reconsideration of the Alliance for Automotive Innovation, ET Docket No. 19-138 (filed June 2, 2021) (Auto Innovators Petition). The Amateur Radio Emergency Data Network (AREDN) also submitted a reconsideration petition, which it subsequently withdrew. See Petition for Reconsideration of AREDN, ET Docket No. 19-138 (filed May 3, 2021). See also Letter from Julian Gehman, Gehman Law PLLC, to Marlene H. Dortch, Secretary, FCC (filed June 21, 2021). 5GAA and AREDN also petitioned the Commission to stay the effective date of the rules set forth in the *First Report and Order*. See Petition for Stay, ET Docket No. 19-138 (filed June 2, 2021). See also Petition for Stay, ET Docket No. 19-138 (filed May 2, 2021). The rules became effective without Commission action.

²⁰ Auto Innovators Petition at 1-2.

²¹ See *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, Order on Reconsideration, FCC 24-32, paras. 9-11 (rel. Mar. 18, 2024) (*Order on Reconsideration*).

²² 5GAA Petition at 2, 7, 11.

²³ See *Order on Reconsideration*, FCC 24-32, paras. 12-22.

²⁴ See *Request for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, ET Docket No. 19-138, Order, 38 FCC Rcd 3986 (PSHSB, OET, WTB 2023) (*Joint Waiver Order*); *Request to Modify April 24, 2023 Waiver Order of the 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, ET Docket No. 19-138, 38 FCC Rcd 6086 (PSHSB, OET, WTB 2023) (*Waiver Modification Order*); *Requests for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, ET Docket No. 19-138, Letter (PSHSB, OET, WTB rel. Aug. 16, 2023) (*Aug 16, 2023 Waiver Letter*) (available at <https://www.fcc.gov/document/pshsb-oet-wtb-waiver-order-permits-c-v2x-operations-59-ghz-band-0>); *Requests for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-* (continued....)

requirements mandating DSRC-based technology in the upper 30 megahertz of the 5.9 GHz band, to allow C-V2X-based operations in the band, and to provide adjustments to the technical parameters where the two technologies differ.²⁵ The Bureau found that waiving those rules was warranted under section 1.925, subject to the waiver applicants' commitments to adhere to the technical parameters and conditions imposed by the *Joint Waiver Order*, as modified by the *Waiver Modification Order*.²⁶ The technical parameters and conditions agreed to were developed to protect DSRC and federal incumbents from potential harmful interference caused by C-V2X operations in the upper 30 megahertz of the 5.9 GHz band.²⁷ These protections include requirements that (1) the waiver grantees' spectrum usage be limited to a 20-megahertz channel at 5.905-5.925 GHz;²⁸ (2) the EIRP for both OBUs and RSUs be limited to 33 dBm, with the EIRP for OBUs reduced to 27 dBm within ± 5 degrees in elevation from the horizontal plane;²⁹ (3) the waiver grantees' RSUs and OBUs operate with OOB limits consistent with the OOB limits specified in IEEE 802.11p-2010, Table I.8³⁰ and (4) the waiver grantees operate on a secondary basis to the Federal radiolocation service operating on a primary basis in the band.³¹ Waiver grantees' RSUs and OBUs may operate without a transmitter output power limit.³² Also, all C-V2X operations pursuant to a waiver are limited to transportation and vehicle-safety related communications.³³ Finally, all waivers granted were conditioned on the requirement that each waiver recipient would ensure that RSU and OBU operations and devices authorized under the waiver would comply with the final rules or other guidance provided by the Commission.³⁴

III. DISCUSSION

8. In this *Second Report and Order*, we finalize rules concerning band usage, message prioritization, channel bandwidth, communications zones, power for RSUs and OBUs, and OOB limits for C-V2X operations, along with other transition issues, including the transition timeline. Additionally, we reach several conclusions related to the incorporation of standards, the allocation of additional

Everything Technology, ET Docket No. 19-138, Letter, 38 FCC Rcd 10401 (PSHSB, OET, WTB 2023) (Nov. 3, 2023 Waiver Letter); *Requests for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, ET Docket No. 19-138, DA 24-363 (PSHSB, OET, WTB rel. April 18, 2024) (Apr. 18, 2024 Waiver Letter); *Requests for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, ET Docket No. 19-138, DA 24-707, Letter (PSHSB, OET, WTB rel. Jul. 19, 2024) (Jul. 19, 2024 Waiver Letter).

²⁵ See *Joint Waiver Order*, 38 FCC Rcd at 3988, para. 5. The involved rule sections include 47 CFR §§ 90.375, 90.377, 90.379, 95.3163, 95.3167, and 95.3189.

²⁶ See *Waiver Modification Order*, 38 FCC Rcd at 6088-89, paras. 8-10 (ordering removal of the 20 dBm transmitter output power limit requirement stipulated in the *Joint Waiver Order*, finding that removal of the transmitter output power limit would not change the interference dynamics among systems sharing the band).

²⁷ See, e.g., *Joint Waiver Order*, 38 FCC Rcd at 3993-95, paras. 17-26.

²⁸ See, e.g., *id.* at 3993, para. 19.

²⁹ See, e.g., *id.* at 3994, para. 23. The maximum 33 dBm EIRP limit for RSUs and OBUs granted in the C-V2X waivers is the same maximum EIRP limit the Commission sought comment on in the *FNPRM*. See *FNPRM*, 35 FCC Rcd at 13503-505, paras. 157-161.

³⁰ See, e.g., *Joint Waiver Order*, 38 FCC Rcd at 3994-95, para. 23 (-16 dBm/100 kHz at the channel edge, -22 dBm/100 kHz at 1 MHz from the channel edge, -30 dBm/100 kHz at 10 MHz from the channel edge, and -40 dBm/100 kHz at 20 MHz from the channel edge). The OOB limits granted for RSUs and OBUs in the C-V2X waivers, based on the then-existing DSRC standards specified in IEEE 802.11p-2010, see *id.*, are more relaxed than the OOB limits the Commission proposed in the *FNPRM*. See *FNPRM*, 35 FCC Rcd at 13506, para. 163.

³¹ See, e.g., *Joint Waiver Order*, 38 FCC Rcd at 3994, para. 22.

³² See, e.g., *Waiver Modification Order*, 38 FCC Rcd at 6088-89, paras. 7-9.

³³ See, e.g., *Joint Waiver Order*, 38 FCC Rcd at 3993, para. 18.

³⁴ See *id.*, 38 FCC Rcd at 3992-93, 3995, paras. 14, 26.

spectrum for ITS, and compensation to incumbents. The decisions in this item will not only promote the efficient use of 30 megahertz of spectrum dedicated to ITS but also the safety benefits this technology promises to deliver to the American public.

9. DSRC is defined in the Commission's rules as the use of radio techniques to transfer data over short distances between roadside and mobile units, between mobile units, and between portable and mobile units to perform operations related to improving traffic flow, traffic safety, and other ITS applications in a variety of environments. DSRC systems may also transmit status and instructional messages related to the units involved.³⁵ Currently, local government entities and entities eligible for Industrial/Business Pool licenses are eligible to operate RSUs using DSRC, while OBUs in vehicles are licensed by rule.³⁶ The existing DSRC rules lay out a hierarchical priority system for messages. Communications involving safety of life have priority access over all other DSRC communications. Communications involving public safety have the next highest priority, with a presumption that RSUs operated by state or local governmental entities are engaged in public safety communications.³⁷ The lowest tier in this communications hierarchy are non-priority communications, which include all other communications not related to safety of life or public safety.³⁸

10. As stated in the *FNPRM*, our goal is to facilitate a smooth transition from DSRC-based operations to C-V2X-based operations. Accordingly, we must address the need, if any, to adopt requirements analogous to existing DSRC requirements that would similarly govern C-V2X operations in the 5.895-5.925 GHz band. We now address the technical issues necessary to ensure efficient and effective use of the band.

A. C-V2X Standards

11. In the *5.9 GHz NPRM*, the Commission proposed to incorporate by reference into the Commission's rules the 3rd Generation Partnership Project (3GPP) C-V2X standard Release 14.³⁹ The Commission did not receive significant comment on this issue. After the release of the *5.9 GHz NPRM*, 3GPP announced the completion of Release 16, which includes enhanced 5G network capabilities. Accordingly, the *FNPRM* sought further comment on how the Commission should handle standards with respect to C-V2X.⁴⁰ Specifically, the Commission asked whether either 3GPP C-V2X standard Release 16 or Release 14, in whole or in part, should be incorporated into its rules; whether Release 14 should be incorporated initially with an eventual transition to Release 16; or whether there is a compelling argument

³⁵ 47 CFR §§ 90.7, 90.73.

³⁶ 47 CFR § 90.373. Among other things, Industrial/Business Pool licenses may be used to provide communications necessary for the operation of a commercial activity. 47 CFR § 90.35(a).

³⁷ 47 CFR § 90.377(d).

³⁸ 47 CFR § 90.377(e).

³⁹ See *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, Notice of Proposed Rulemaking, 34 FCC Rcd 12603, 12618-19, para. 39 (2019) (*5.9 GHz NPRM*). 3GPP unites seven telecommunications standard development organizations, known as "Organizational Partners," providing their members with "a stable environment to produce the Reports and Specifications that define 3GPP technologies." <https://www.3gpp.org/about-us/introducing-3gpp>. 3GPP specifications provide a complete system description for mobile telecommunications technologies. See *id.* The 3GPP technical reports and technical specification have, in themselves, no legal standing; they only become "official" when transposed into corresponding publications of the Organizational Partner. See <https://www.3gpp.org/about-us/partners>. Relevant to C-V2X are 3GPP TR 21.914 V14 (Release 14) for LTE technology and 3GPP TR 21.916 V16 (Release 16) for 5G New Radio technology, as well as 4G (LTE) radio, and improving the cooperation between them. See 3GPP Specifications & Technologies/Releases/Release 14, <https://www.3gpp.org/specifications-technologies/releases/release-14>; 3GPP Specifications & Technologies/Releases/Release 16, <https://www.3gpp.org/specifications-technologies/releases/release-16>.

⁴⁰ *FNPRM*, 35 FCC Rcd at 13505, para 162.

for not incorporating either standard into the rules.⁴¹

12. Comments received in this regard suggest a variety of approaches to the issue. T-Mobile disputes the need for a general incorporation, stating that “referencing specific 3GPP releases in the rules [would] quickly make them outdated and stifle innovation by freezing technologies in place, instead of allowing them to evolve naturally to satisfy customer needs and reflect innovation.”⁴² The Institute of Transportation Engineers (ITE) expresses similar views, suggesting that the Commission refrain from incorporating by reference any one particular standard, instead allowing industry to test and evaluate the technology and applicable standards without imposing a regulatory ceiling.⁴³ Further, ITE asserts that the Commission’s question regarding a phased-in approach where it would adopt Release 14 now and replace it with Release 16 later does not correctly characterize the actual technology implementation process. Rather, ITE indicates that the 5G equipment based on Release 16 would enhance and complement Release 14 Long Term Evolution (LTE) operating equipment and Release 14 equipment would likely remain in use even after Release 16 becomes dominant.⁴⁴ Other commenters find merit in incorporating standard(s) references in some manner. 5G Americas, for example, citing the ongoing technology evolution, asks the Commission to generally refer to 3GPP releases covering C-V2X, instead of “cementing a specific 3GPP release.”⁴⁵ While skeptical that C-V2X can be sufficiently realized on the allocated spectrum, AT&T nonetheless suggests, without further specificity, that “the Commission should incorporate by reference those portions of both Release 14 and Release 16 that are relevant to C-V2X, giving ITS band users sufficient latitude to innovate.”⁴⁶ Autotalks indicates that “Releases 14, 15, and 16 are non-interoperable” and it supports incorporating by reference “explicit” C-V2X releases to assure “wide-scale interoperability.”⁴⁷

13. Based on the record before us, we are not incorporating by reference any one particular standard. We encourage industry to develop a consensus concerning 3GPP releases covering C-V2X. We believe this approach is necessary due to the constantly evolving nature of both 3GPP standards and the functionality of C-V2X. As stated by ITE, new testing will undoubtedly lead to changes or enhancements to the applicable standards—and being held to a regulatory ceiling by imposing a particular standard may cap the potential of future C-V2X applications.⁴⁸ Our focus in this proceeding is to set objective performance expectations for C-V2X technology but let industry come to a consensus on the technology standard that should be applicable to C-V2X moving forward. Given the broad record support for not incorporating any one particular standard, we will thus provide industry the flexibility to develop a technology standard that fits within the technical bounds prescribed in this Order.

14. In making this decision, we reiterate our commitment to vehicle safety and the need for all vehicles that incorporate C-V2X technology to have the capability to successfully communicate with each other. Although we are not mandating a particular standard through incorporation by reference, we expect that the industry will ensure that all equipment, regardless of manufacturer or vehicle integrator, is interoperable and that future iterations of equipment based on evolving standards will be forwards and backwards compatible to ensure that C-V2X technology delivers the expected safety benefits to the American public.

15. Finally, we recognize that safety-related wireless devices and services need to be secure

⁴¹ *Id.*

⁴² T-Mobile FNPRM Reply Comments at 3.

⁴³ ITE FNPRM Comments at 5.

⁴⁴ *Id.*

⁴⁵ 5G Americas FNPRM Comments at 5.

⁴⁶ AT&T FNPRM Comments at 3-4.

⁴⁷ Autotalks FNPRM Comments at 3.

⁴⁸ ITE FNPRM Comments at 5.

to protect user privacy and ensure efficient and timely delivery of the intended safety service.⁴⁹ The Commission prioritizes cybersecurity and privacy of consumer communications through rulemaking and other activities.⁵⁰ In addition, cybersecurity and privacy actions specific to connected vehicles are the focus of ongoing actions at the U.S. Department of Transportation (U.S. DOT) with its C-V2X acceleration plan⁵¹ and at the U.S. Department of Commerce's Bureau of Industry and Security with its proposed ban on the sale or importation of connected vehicles integrating specific pieces of hardware and software, or separately sold components, with a sufficient nexus to the People's Republic of China or Russia.⁵² We expect that equipment manufacturers implementing C-V2X technology will comply with existing standards⁵³ and best practices⁵⁴ and collaborate with the automotive industry to develop new guidance, standards, and best practices that consider cybersecurity and privacy concerns to improve the C-V2X security posture. The FCC will continue to monitor and engage with federal and private sector partners on these vital issues.

B. Band Usage

16. The Commission's existing ITS rules lay out a hierarchical priority system for messages.⁵⁵ In the *FNPRM*, the Commission sought comment on whether to retain the message priority hierarchy for C-V2X deployment⁵⁶ and whether the 5.895-5.925 GHz band should be limited to non-commercial services or safety-of-life applications, and if so, how such a restriction could be implemented.⁵⁷ In this regard, the Commission noted that because the stated purpose of ITS is to promote safety, it was inclined to retain this message prioritization system in the rules to help ensure successful

⁴⁹ See, e.g., Letter from Harold Feld, Senior Vice President, Public Knowledge to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (submitted July 22, 2024).

⁵⁰ See, e.g., *Cybersecurity Labeling for Internet of Things*, PS Docket No. 23-239, Report and Order and Further Notice of Proposed Rulemaking, FCC 24-26 (rel. Mar. 15, 2024) (establishing a voluntary cybersecurity labeling program where qualifying wireless consumer Internet of Things products that meet robust cybersecurity standards will bear a label—including a “U.S. Cyber Trust Mark”); *Protecting Consumers from SIM Swap and Port-Out Fraud*, WC Docket No. 21-341, Report and Order and Further Notice of Proposed Rulemaking, 38 FCC Rcd 11182 (2023) (aimed at strengthening protections related to fraudulent SIM swaps); *Data Breach Reporting Requirements*, WC Docket No. 22-21, Report and Order, 38 FCC Rcd 12523 (2023) (updated data breach notification rules to protect consumers).

⁵¹ See U.S. Department of Transportation, *Saving Lives with Connectivity: A Plan to Accelerate V2X Deployment* (2024), https://www.its.dot.gov/research_areas/emerging_tech/pdf/Accelerate_V2X_Deployment_final.pdf at 8 (Secure Deployment: Cybersecurity and Privacy Principles).

⁵² See Bureau of Industry and Security, Department of Commerce, Notice of Proposed Rulemaking, 89 FR 79088 (Sept. 26, 2024).

⁵³ See 3GPP Specifications & Technologies Release 14 and Release 16, *supra* note 39.

⁵⁴ In an *ex parte* letter filed in PS Docket No. 23-239, Auto Innovators provides a non-exhaustive list of such resources, including The National Highway Traffic Safety Administration (NHTSA) Cyber Best Practices for Motor Vehicles, and states that NHTSA has the authority to promulgate motor vehicle safety regulations on cybersecurity, and has enforcement authority to secure recalls of motor vehicles and motor vehicle equipment with a safety-related defect, including one involving cybersecurity flaws. See Letter from Tara Hairston, Senior Director – Technology Policy, Alliance for Automotive Innovation, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 23-239 at 1 (filed March 8, 2024); <https://www.nhtsa.gov/sites/nhtsa.gov/files/2022-09/cybersecurity-best-practices-safety-modern-vehicles-2022-tag.pdf>. See also National Institute of Standards and Technology, *Cybersecurity Framework*, <https://www.nist.gov/cyberframework> (last visited Oct. 29, 2024).

⁵⁵ See *supra* para. 9; 47 CFR §§ 90.377(d), (e).

⁵⁶ *FNPRM*, 35 FCC Rcd at 13503, para. 156.

⁵⁷ *Id.* at 13507, para. 168.

transmission of the most important messages.⁵⁸ The Commission asked how “safety-of-life” should be defined, how appropriate applications should be delineated, and whether such a limitation could be established via changes to the licensee eligibility requirements.⁵⁹ Additionally, the Commission asked how the priority requirement would work in the C-V2X environment and whether the priority determination should continue to be associated with the type of licensee or a more granular approach that considers the type of message.⁶⁰ As noted above, all C-V2X operations pursuant to the recently granted waivers are limited to transportation and vehicle-safety related communications.⁶¹

17. Several commenters state that the upper 30 megahertz (5.895-5.925 GHz) of the 5.9 GHz band should be limited to safety-of-life or non-commercial applications.⁶² In its comments, Auto Innovators states that safety-of-life messages should always have priority when competing for spectrum with other types of messages and that the Commission should retain its three-tier message priority hierarchy.⁶³ The Motor and Equipment Manufacturers Assoc. (MEMA) also states that the Commission should retain its existing message priority hierarchy, given the need to ensure that the most important messages are successfully transmitted over less critical messages.⁶⁴ Robert Bosch LLC (Bosch) comments that a hierarchical priority system is necessary to ensure safety-of-life messages. Therefore, Bosch states that the FCC should preserve the safety-of-life/public safety/non-priority framework for message prioritization.⁶⁵ Bosch recommends that the Commission allocate a dedicated portion of the 30 megahertz to safety-of-life messages, which would help ensure uninterrupted transmission of related messages.⁶⁶ Bosch claims that the remainder of the band could be used for both safety-of-life messages and/or advanced safety services, thereby reducing the risk of interference, while mitigating high channel load scenarios.⁶⁷ However, Bosch states that advanced safety messages that are not strictly safety-of-life can also provide notable safety benefits as well as improved efficiency. For example, Bosch contends that vehicle platooning or timed vehicle intersection movement can be viewed as beneficial functionalities within the transportation sector. Bosch expressed agreement with the Alliance for Automotive Innovation that the Commission should not overly restrict operations in the upper 30 megahertz to only safety-of-life operations and that it is critical for the Commission to recognize the importance and value of additional functions, such as vehicle platooning, that require use of the spectrum.⁶⁸

18. Responding to the Commission’s request that commenters address the need for granularity in the three-tier message priority hierarchy, MEMA states that, utilizing the existing framework, any messages that could reduce the risk of an accident should receive priority over other messages. For instance, MEMA mentions that public safety messages should defer to safety-of-life messages, while messages that strictly relate to traffic congestion, efficiency, or other non-safety issues should only be transmitted when there is little risk of harmful interference.⁶⁹ On the other hand, MEMA

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ See *supra* para. 7.

⁶² AT&T FNPRM Comments at 5; DSA FNPRM Comments at 12 (no free spectrum for commercial use); OTI/PK FNPRM Comments at 27-28; ITE FNPRM Reply Comments at 4. MEMA Reply Comments at 1.

⁶³ Auto Innovators FNPRM Reply Comments at 13-14.

⁶⁴ MEMA FNPRM Comments at 3.

⁶⁵ Bosch FNPRM Comments at 4.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.* at 4-5.

⁶⁹ MEMA FNPRM Comments at 3.

asserts that commercial operations should be permitted in the ITS band because a prohibition on commercial operations “will further disincentivize continued innovation in V2X applications” and, in any case, the distinction between “commercial” vs. “non-commercial” services is undefined in this context.⁷⁰ AT&T suggests that the Commission should limit the ITS band to non-commercial applications and services that promote road safety, but allow the U.S. DOT to define specific road-safety related applications and services that qualify for use in the 5.895-5.925 GHz band.⁷¹ New America’s Open Technology Institute (OTI) and Public Knowledge (PK) state that prohibiting commercial activity on the upper 30 megahertz would be consistent with the auto industry’s repeated insistence on the critical need for additional spectrum for public safety and collision avoidance purposes.⁷² Similarly, DSA questions the automotive industry’s claims that 30 megahertz is an insufficient amount of spectrum for vehicular safety applications while it also advocates for the ability to use that same 30 megahertz to support commercial, non-safety applications and services.⁷³ OTI/PK also state that if the Commission does not prohibit commercial use, it would be creating an incentive for both the auto and mobile industries to underinvest in potential safety-of-life signaling applications in favor of commercial applications that are quicker to monetize.⁷⁴ OTI/PK “continues to believe that requiring licensees to use public safety spectrum exclusively for public safety best serves the public interest and avoids any potential conflict between maximizing safety and maximizing profit.”⁷⁵

19. The Intelligent Transportation Society of America (ITS America) argues that spectrum use questions have traditionally been decided by groups that construct standards for these technologies – namely, the U.S. DOT, SAE International, or the Institute of Electrical and Electronics Engineers (“IEEE”). ITS America asserts that these groups have appropriately balanced the primacy of safety-of-life applications and the possibility of commercial applications that could incentivize V2X on-board unit deployment in private vehicle fleets. ITS America contends that OTI/PK’s suggestion to limit use of the 5.895-5.925 GHz band to safety-of-life and public safety communications would materially deter V2X investment and deployment, thereby limiting the number of vehicles utilizing V2X safety measures.⁷⁶ NCTA – The Internet & Television Association (NCTA) contends that it is unfair to allow licensees to gain access to valuable spectrum without an auction.⁷⁷ AT&T states that limiting use of the spectrum to non-commercial applications and services would prevent undue commercial gain from those deploying C-V2X and allow the range of operations needed to improve road safety.⁷⁸ ITE and ITS America join MEMA in arguing that it is impractical to try determining which applications are safety-of-life for the purposes of restricting the use of the spectrum.⁷⁹

20. Given that the ITS remains focused on integrating radio-based technologies to enhance the transportation and vehicular-safety related ecosystem, we agree with those commenters that argue C-V2X operations should be governed by a prioritization system that is similar to the hierarchical system currently in place for DSRC. Thus, safety-of-life messages have top priority, followed by public safety

⁷⁰ See MEMA FNPRM Comments at 1-2; MEMA FNPRM Reply Comments at 1-2.

⁷¹ AT&T FNPRM Comments at 1, 5.

⁷² OTI/PK FNPRM Comments at 26.

⁷³ See DSA FNPRM Comments at 12-14.

⁷⁴ See OTI/PK FNPRM Comments at 26.

⁷⁵ See, e.g., Letter from Nat Purser, Government Affairs Policy Advocate, Public Knowledge, and Michael Calabrese, Director, Wireless Future Project, New American’s Open Technology Institute to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138, *et. al.* at 4 (Aug. 19, 2024).

⁷⁶ ITS America FNPRM Reply Comments at 19.

⁷⁷ See NCTA FNPRM Comments at 24-25; NCTA FNPRM Reply Comments at 37-40.

⁷⁸ See AT&T FNPRM Comments at 5.

⁷⁹ See ITE FNPRM Reply Comments at 4; ITS America FNPRM Reply Comments at 18-20.

communications, and then non-priority communications that promote road safety and efficient, effective road use. We disagree with commenters such as OTI/PK who state that allowing non-priority communications in the band could lead to underinvestment in safety-of-life applications.⁸⁰ We also disagree with commenters such as Bosch that the Commission allocate a dedicated portion of the 30 megahertz to safety-of-life messages.⁸¹ Given that we are prioritizing safety-of-life and public safety usage, we expect that C-V2X operators will focus their efforts on applications within this range in order to effectively utilize the 30 megahertz of spectrum made available to them in this proceeding. We adopt C-V2X rules that reflect the existing DSRC message prioritization hierarchy as follows (in order of precedence): safety-of-life, public safety, and non-priority communications.

21. Based on the record in this proceeding, we believe that the communications prioritization hierarchy will ensure that the ITS spectrum is not being used for communications and applications that would impair the timely and reliable use of the spectrum for safety of life and public safety communications. As a practical matter, our decision to adopt a prioritization system for C-V2X communications and the high priority to which safety-of-life and public safety usage messages are entitled will limit the extent to which other type of applications (such as those supporting paid advertising and marketing messages) can be effectively developed and deployed. We note that the distinction between “commercial” and “non-commercial” remains undefined in the C-V2X context,⁸² and find limited information in the record to help us craft a meaningful and readily applicable definition at this time.⁸³ We further note that there is fundamental disagreement in the record as to whether such a distinction would be helpful or harmful to the realization of C-V2X’s fundamental safety-related objectives. Finally, there is no “commercial” component to the definition we adopt for C-V2X, which is limited to operations “related to the improvement of traffic flow, traffic safety, and other Intelligent Transportation System applications.” Given the evolving nature of the C-V2X technology integration, we will continue to assess how the C-V2X technology in the upper 30 megahertz develops and promotes safety-of-life applications and public safety services and whether a further change to the band usage would maximize the spectrum usage without compromising the intended safety purposes to be supported by the 5.9 GHz band.

22. We also see no reason to modify the structure by which C-V2X licenses are licensed under parts 90 and 95 of our rules, notwithstanding NCTA’s contention that the value of the spectrum warrants use of an auction process unless its use is restricted to safety-of-life services.⁸⁴ As an initial matter, RSU/OBU licenses are issued on a non-exclusive basis and we see no need to revise that approach based on the record here.⁸⁵ Because our RSU/OBU licensing process does not contemplate the

⁸⁰ OTI/PK FNPRM Comments at 25-33; OTI/PK FNPRM Reply Comments at 36-39.

⁸¹ See Bosch FNPRM Comments at 4. In that regard, given the reduction of ITS spectrum to 30 megahertz, and our general policy of providing licensees’ flexibility to evolve and modify operations as necessary, we are not adopting an exclusive-use channel for safety-of-life as we did in 2006 when ITS had 75 megahertz of spectrum. See *Amendment of the Commission’s Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band)*, WT Docket No. 01-90, *Amendment of Parts 2 and 90 of the Commission’s Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short-Range Communications of Intelligent Transportation Services*, ET Docket No. 98-95, Memorandum Opinion and Order, 21 FCC Rcd 8961 (2006).

⁸² See MEMA FNPRM Comments at 1-2; MEMA FNPRM Reply Comments at 1-2.

⁸³ The common conception of “commercial” would be for-profit marketing and advertising.

⁸⁴ See NCTA FNPRM Comments at 24-25 (“The only possible justification for licensees to gain access to this extremely valuable spectrum without an auction, and without any obligation to share the spectrum broadly with non-C-V2X users, is to deliver safety-of-life services.”).

⁸⁵ *Amendment of the Commission’s Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band)*, WT Docket No. 01-90, *Amendment of Parts 2 and 90 of the Commission’s Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short Range Communications of*

(continued....)

acceptance of mutually exclusive applications, there is no basis to use an auction process.⁸⁶ We also see no reason to deviate from the history of this band that supported the prior DSRC licensing process. Under the Transportation Equity Act for the 21st Century, Congress directed the Commission to consider the spectrum needs for ITS.⁸⁷ The subsequent allocation of the 5.9 GHz band was made based on a finding that DSRC applications would be a key element in meeting the nation's transportation needs and improving highway safety.⁸⁸ Additionally, in the *DSRC Report and Order*, the Commission decided against an auction requirement for ITS licensees, as users would already be subject to licensing and regulatory fees.⁸⁹

C. Channel Bandwidth

23. In the *FNPRM*, the Commission proposed a “light touch” regarding C-V2X channel bandwidth, essentially retaining the remaining portion of the ITS band plan in place for the legacy DSRC technology beyond the transition to C-V2X-based technology.⁹⁰ In this regard, the Commission described “the existing ITS band plan” in the upper 30 megahertz as containing three, 10-megahertz DSRC channels: channels 180, 182, and 184 corresponding to 5.895-5.905 GHz, 5.905-5.915 GHz, and 5.915-5.925 GHz, respectively. Channels 180 and 182 can be combined into channel 181 (5.895-5.915 GHz) to provide a single 20-megahertz channel.⁹¹ In the *FNPRM*, the Commission sought comment on whether this band plan, specifying three 10-megahertz channels, *inter alia*, should apply to C-V2X operations.⁹² Specifically, the Commission asked whether the band plan should continue to accommodate combining two channels into a single 20-megahertz channel; whether channels 182 and 184 should be permitted to be combined into a single 20-megahertz channel;⁹³ and whether all three channels should be permitted to be combined and used as a single 30-megahertz channel.⁹⁴ The Commission further asked what consequences any of these channel bandwidths would have on C-V2X deployment and adoption and how a completely flexible band plan versus a prescriptive band plan would affect the ability of C-V2X technology to maximize efficient and effective use of the band.⁹⁵ In this regard, the Commission urged commenters to provide sufficient detail regarding their preferred band plan and how such a plan could work with C-V2X and all other operational and technical rules being addressed, such as power limits and

Intelligent Transportation Services, ET Docket No. 98-95, Report and Order, 19 FCC Rcd 2458, 2485, para. 57 & n.196 (2003) (*DSRC Licensing and Service Rules Report and Order*).

⁸⁶ 47 U.S.C. § 309(j)(1).

⁸⁷ See Transportation Equity Act for the 21st Century, Pub. L. 105-178, 112 Stat. 107 § 5206(f) (1998) (TEA-21). The TEA did not require that the Commission allocate the 5.9 GHz band for ITS, only that the Commission consider doing so.

⁸⁸ *DSRC Report and Order*, 14 FCC Rcd at 18225, para. 9.

⁸⁹ *Id.* at B-4.

⁹⁰ *FNPRM*, 35 FCC Rcd at 13502, para. 153.

⁹¹ 47 CFR §§ 90.370, 90.377(b), and 95.3163. Note that the DSRC channelization from 5.850-5.925 GHz currently appears in 47 CFR § 90.377(b). This reflects the decision in the *First Report and Order* that allowed ITS operations to transition from the lower 45 megahertz to the upper 30 megahertz. 47 CFR § 90.370(b), which was adopted in the *First Report and Order*, prohibits ITS use of 5.850-5.985 GHz as of July 5, 2022. As this transition date has passed, the rules that we adopt herein are consistent with ITS operating in the 5.895-5.925 GHz band.

⁹² *FNPRM*, 35 FCC Rcd at 13502, para. 153.

⁹³ The Commission's recently-granted waivers permit C-V2X operations in the 20-megahertz channel at 5.905-5.925 GHz, *i.e.*, DSRC channels 182 and 184 combined (47 CFR § 90.377(b)). See *supra* para.7.

⁹⁴ *FNPRM*, 35 FCC Rcd at 13502, para. 153.

⁹⁵ *Id.*

out-of-band emissions limits.⁹⁶

24. Some commenters state that the Commission should refrain from an overly prescriptive plan and instead allow C-V2X operators to utilize the upper 30 megahertz in a flexible manner.⁹⁷ Other commenters state that C-V2X channelization issues should be determined by the transportation industry.⁹⁸ Arguing for maximum flexibility, AT&T cites the continued evolution of C-V2X and states that the Commission should continue to allow “10 MHz channels and, through their aggregation, wider 20 MHz and 30 MHz channels.”⁹⁹ The Utah Department of Transportation (UDOT) similarly echoes the desire for the band plan to continue to accommodate combining two 10-megahertz channels into a single 20-megahertz channel for C-V2X.¹⁰⁰ The Motor Equipment and Manufacturers Association (MEMA) argues for retaining the existing ITS 30-megahertz band plan following the transition to C-V2X, saying that “by retaining separate channels within the ITS band, licensees can better support safety-of-life use cases which rely on more stringent requirements in terms of safety, security, prioritization, and resource availability.”¹⁰¹

25. Given our preference for a light touch to minimize disruption to ongoing transition activities, we will continue to provide for 10-megahertz channel bandwidths, resulting in three channels : 5.895-5.905 GHz, 5.905-5.915 GHz, and 5.915-5.925 GHz, respectively. We will allow users to combine the 10-megahertz channels into 20 megahertz contiguous channels or a single 30-megahertz channel without restriction, thus accommodating various ITS applications and services. Additionally, because the current channel number designations reflect the original DSRC band plan and related standards,¹⁰² such designations are not relevant to C-V2X and we therefore do not assign channel number designations to the 10-megahertz bandwidths in the C-V2X rules adopted in this Order. This band plan will provide maximum flexibility to enable the ITS industry, which is in the early stages of implementing C-V2X systems, to evolve and modify operations as necessary to use the band in the most efficient way possible to deliver safety applications to the American public.

D. Communications Zones

26. The 5.9 GHz band ITS spectrum is shared and licensed in non-exclusive geographic areas based on geo-political boundaries.¹⁰³ To maximize the use within this shared spectrum, the Commission’s rules require that each registered RSU designate its intended area of operation or “communications zone” and that such communications zones be the smallest necessary. Under the rules, a communications zone is defined as the service area associated with an individual fixed RSU.¹⁰⁴ The communications zone radius is derived from the RSU equipment class specified in section 90.375.¹⁰⁵ In

⁹⁶ *Id.*, 35 FCC Rcd at 13502-03, para. 154.

⁹⁷ See AT&T FNPRM Comments at 2.

⁹⁸ See DENSO FNPRM Comments at 1; Alliance for Automotive Innovation FNPRM Comments at 8; Robert Bosch LLC FNPRM Comments at 5.

⁹⁹ AT&T FNPRM Comments at 2.

¹⁰⁰ UDOT FNPRM Comments at 15.

¹⁰¹ Motor Equipment and Manufacturers Association FNPRM Comments at 3.

¹⁰² See *DSRC Licensing and Service Rules Report and Order*, 19 FCC Rcd at 2475, para. 27 (generally adopting the channels and segmentation contained in the ASTM-DSRC Standard).

¹⁰³ 47 CFR § 90.375(a). For a governmental entity, the license would encompass the area in which it has legal jurisdiction. Other entities propose areas of operation based on county(s) and/or, state(s). Nationwide licenses are permitted.

¹⁰⁴ 47 CFR § 90.7 Definitions. Communications zone.

¹⁰⁵ 47 CFR § 90.375(c). The rules provide for four communications zones designated “A” through “D” for coverage areas ranging from 15 meters to 1000 meters. Correspondingly, each zone is associated with a maximum permitted
(continued....)

the *FNPRM*, the Commission proposed to retain the “communications zone” designations currently in the rules and require RSUs to specify their intended zone, believing this would maximize spectrum use among all users, continue to ensure that stations only cover their intended area, and provide opportunities for other licensees to install RSUs for other nearby areas without mutually interfering. The Commission asked commenters to address whether the current communications zone distance limits should be retained without change, modified, or eliminated. The Commission also sought comment on what effect any proposed changes would have on the ability for C-V2X to deploy new systems and continue operating into the future. The Commission also sought comment on whether it should continue to specify both transmitter output power and radiated power levels for communications zones.¹⁰⁶

27. In response, 5GAA states that, while DSRC technology theoretically was required to utilize RSU communications zones to manage congestion, use of communications zones did not occur in practice, and C-V2X does not require a similar mechanism for congestion control. 5GAA recommends revisions to sections 90.375 and 90.377 of the rules to remove references to communications zones and the associated output power limits.¹⁰⁷ Furthermore, as noted above, the Bureaus recently granted waivers to parties requesting to deploy C-V2X operations in the upper 30-megahertz portion of the 5.9 GHz band (5.895-5.925 GHz) prior to adopting final C-V2X-based rules.¹⁰⁸ Notably, C-V2X waiver applicants did not specify communications zones in their waiver requests and requested waiver of that rule section.¹⁰⁹ Consequently, as part of those grants, the Bureaus permitted C-V2X RSUs and OBUs to operate with a 33 dBm EIRP and without transmitter output power limits. Waiver grant recipients are not required to designate communications zones or limit their transmitter output power or EIRP for designated communications zone sizes in their areas of operation.¹¹⁰

28. We find that retaining the existing communications zone construct is unnecessary as ITS evolves from DSRC to C-V2X technology. Based on information contained in the record indicating that DSRC operations did not utilize communications zones to manage congestion and that C-V2X operations do not require such a mechanism to manage congestion, along with the fact that no C-V2X waiver applicants requested communications zone designations, we conclude that the communications zone definitions, designations, and associated reduced power limits are unnecessary to manage congestion control in C-V2X operations. Thus, the C-V2X rules adopted herein do not include communications zone requirements. See Appendix A, Final Rules, §§ 90.7, 90.375, 90.377 for these rule changes.

E. C-V2X Technical Requirements

1. Power and Antenna Height Limits for C-V2X Roadside Units (RSUs)

29. *Power.* The Commission’s current DSRC rules specify the maximum radiated RSU power permitted on each channel, ranging generally from 23 dBm to 33 dBm, but permitting state and local government entities to radiate at higher levels on the control channel (channel 178) at up to 44.8 dBm and on the public safety priority channel (channel 184) at up to 40 dBm.¹¹¹ In the *FNPRM*, the Commission sought comment on what RSU power levels should be associated with each communications zone, channel, and user under the modified ITS band plan, and whether the rules should continue to

output power (power from the RSU transmitter supplied to the input of the transmitting antenna) ranging from 0 dBm to 28.8 dBm.

¹⁰⁶ *FNPRM*, 35 FCC Rcd at 13504, paras. 157-159.

¹⁰⁷ 5GAA *FNPRM* Comments at 22, A-4.

¹⁰⁸ *See supra* para. 7.

¹⁰⁹ *See, e.g.*, Request for Waiver of 5.9 GHz Band Rules to Permit Initial Deployments of Cellular Vehicle-to-Everything Technology, Ford Motor Company, *et al.*, ET Docket No. 19-138, at 2, 5, n.10 (filed Dec. 13, 2021) (*Joint Waiver Request*).

¹¹⁰ *See, e.g.*, *Joint Waiver Order*, 38 FCC Rcd at 3993, para. 15.

¹¹¹ 47 CFR § 90.377(b).

permit higher radiated power for state and local government entities or be consistent among all users as a way of maximizing spectrum use and controlling potential harmful interference between users. The Commission sought comment on whether RSU radiated power should be limited to 23 dBm as specified for some channels, 33 dBm as specified for others, or some other value, such as permitting higher power on a control channel; whether the rules should continue to specify both output power (power delivered to the input of the transmitting antenna) and radiated power levels for communications zone/channel combinations, or whether it would be more appropriate to specify only a radiated power limit, and specify power as a power density (power per unit of frequency, commonly known as power spectral density (PSD)) to normalize power for wider bandwidth channels, if the use of such channels is still permitted; and whether compliance with the limits should be determined with a root mean square (RMS) detector (i.e., average measurement) or with a peak detector.¹¹²

30. 5GAA recommends adopting a maximum 33 dBm EIRP without transmitter output power limits for C-V2X RSUs to promote more robust safety services and maximize the overall benefits of C-V2X safety services.¹¹³ A broad range of commenters support 5GAA's recommendation.¹¹⁴ Auto Innovators contends that raising the RSU EIRP limit in this manner would provide more flexibility to C-V2X operations.¹¹⁵ DENSO International America, Inc., on behalf of DENSO Corporation and its US affiliate (DENSO) supports a maximum 33 dBm EIRP for C-V2X RSUs to provide more protection from unlicensed device out-of-band emissions from the adjacent 5.850-5.895 GHz U-NII-4 band.¹¹⁶ 5G Americas supports 5GAA's recommendation for C-V2X RSU's in-band power limit because the proposal is consistent with 3GPP physical layer standards.¹¹⁷ In response to the *5.9 GHz NPRM* proposal, the National Telecommunications and Information Administration (NTIA) supported a maximum RSU EIRP limit of 33 dBm.¹¹⁸ In its comments on the Joint Waiver Parties C-V2X waiver request, which only specified the 5.905-5.925 GHz band, NTIA supported an RSU EIRP limit of 33 dBm over a 20-megahertz channel (33 dBm/20 MHz) at 5.905-5.925 GHz,¹¹⁹ and then, in its October 2020 Technical Report, an RSU EIRP limit of 33 dBm in the lower 10-megahertz channel (33 dBm/10 MHz) at 5.895-5.905 GHz.¹²⁰ In its June 7, 2024 letter, NTIA further expressed support for the 33 dBm limit throughout the entire 30 megahertz.¹²¹ NTIA expressed agreement with the Commission's conclusion that requiring coordination for ITS RSU installations located within a section 90.371 coordination zone is the best approach to

¹¹² *FNPRM*, 35 FCC Rcd at 13504-5, paras. 159-160.

¹¹³ 5GAA *FNPRM* Comments at 21, A-4.

¹¹⁴ 5G Americas *FNPRM* Comments at 10; Auto Innovators *FNPRM* Comments at 8; Applied Information *FNPRM* Comments at 1; Fiat Chrysler Automobiles (FCA) *FNPRM* Comments at 2; Ford *FNPRM* Comments at 11-12; LG Electronics *FNPRM* Comments at 2; Qualcomm *FNPRM* Comments at 12-13.

¹¹⁵ Auto Innovators *FNPRM* Comments at 8.

¹¹⁶ DENSO *FNPRM* Comments at 2.

¹¹⁷ 5G Americas *FNPRM* Comments at 10.

¹¹⁸ See Letter from Kathy Smith, Chief Counsel, National Telecommunications and Information Administration, enclosed Technical Report, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138, at 38, n.55 (filed Oct. 22, 2020) (Smith NTIA 2020 Letter); *5.9 GHz NPRM*, 34 FCC Rcd at 12618-19, paras. 38-39.

¹¹⁹ See Letter from Charles Cooper, Associate Administrator, Office of Spectrum Management, National Telecommunications and Information Administration, to Ronald T. Repasi, Acting Chief, Office of Engineering and Technology, FCC, ET Docket No. 19-138, at 2 (filed April 14, 2023) (Cooper NTIA 2023 Letter).

¹²⁰ Smith NTIA 2020 Letter at 38, n.55.

¹²¹ Letter from Charles Cooper, Associate Administrator, Office of Spectrum Management, National Telecommunications and Information Administration, to Ronald Repasi, Chief, Office of Engineering and Technology, FCC, ET Docket No. 19-138 (June 7, 2024) (NTIA Geofencing Letter).

facilitate sharing with federal systems.¹²² We received no comments on whether it would be appropriate to specify the EIRP as a PSD, or whether compliance with the EIRP limits should be evaluated using RMS or peak measurements.

31. After consideration of the record, we adopt an EIRP PSD limit for C-V2X RSU operations, without any limit on the transmitter output power. Because the PSD limit will limit the overall EIRP, we see no need to also adopt a corresponding maximum EIRP limit. By specifying radiated power limits, without a transmitter output power limit, we offer more flexibility for RSU stations to provide reliable service in a given coverage area, and enable licensees to select the most efficient and effective equipment parameters to meet their coverage requirements, while protecting incumbent federal radiolocation stations from harmful interference. An EIRP PSD limit will keep the power even across the channel to avoid RSUs concentrating energy in a narrow bandwidth, thereby keeping the harmful interference potential low, and promoting more efficiency/higher data throughput by making the use of wider bandwidth channels more attractive when RSUs are transmitting. Although we adopt these general limits, we note that if C-V2X RSUs are to be located within a coordination zone identified in section 90.387(b), they must first be coordinated with NTIA.¹²³ As recommended in the NTIA letter and supported in the record, we adopt a 33 dBm/10 MHz, 33dBm/20 MHz, and 33dBm/30 MHz EIRP PSD limits for C-V2X RSUs. These power levels will enable ITS systems to operate over their intended service areas and protect federal incumbent radar systems for any RSU location outside the coordination zones.

32. Consistent with the measurement procedure for out-of-band emissions from unlicensed devices that operate in the 5.850-5.895 GHz (U-NII-4) and 5.925-6.425 GHz (U-NII-5) bands,¹²⁴ we permit compliance with the RSU EIRP limits to be determined using RMS measurements rather than requiring peak measurements. As the Commission has previously determined, RMS measurements are more appropriate to characterize a transmitter's operation because peak power may only be reached occasionally and for short periods of time, whereas RMS measurements represent the continuous power being generated from a device.¹²⁵

33. *Antenna height.* The Commission's rules restrict DSRC RSU antenna height to limit their signals within their designated zones to the extent practicable.¹²⁶ RSU antenna height is currently limited to 8 meters at full power and may be as high as 15 meters with a corresponding power reduction.¹²⁷ In the *FNPRM*, the Commission sought comment on whether the existing RSU antenna height limitations in the rules are justified, if there are any reasons to permit higher antenna heights, and

¹²² See Letter from Charles Cooper, Associate Administrator, Office of Spectrum Management, National Telecommunications and Information Administration, to Ronald T. Repasi, Acting Chief, Office of Engineering and Technology, FCC, ET Docket No. 19-138, at 3 (filed Sept. 8, 2020); Smith NTIA 2020 Letter, enclosed Technical Report, at 38.

¹²³ 47 CFR § 90.387(b). See also 47 CFR § 90.371.

¹²⁴ *First Report and Order*, 33 FCC Rcd at 13476-77, para. 85; *Order on Reconsideration*, FCC 24-32, paras. 19-20; *Unlicensed Use of the 6 GHz Band*, ET Docket No. 18-295; *Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, GN Docket No. 17-183, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3852, 3926, para. 198 (2020) (unlicensed use of 5.925-7.125 GHz (U-NII-5 to -8)).

¹²⁵ See, e.g., *First Report and Order*, 33 FCC Rcd at 13476, para. 85.

¹²⁶ 47 CFR § 90.377 (b).

¹²⁷ Frequencies are available for assignment to eligible applicants within the 5.895-5.925 GHz band for RSUs and the maximum EIRP permitted for an RSU with an antenna height not exceeding 8 meters above the roadway bed surface. An RSU may employ an antenna with a height exceeding 8 meters but not exceeding 15 meters provided the EIRP is reduced by a factor of $20 \log(Ht/8)$ in dB where Ht is the height of the radiation center of the antenna in meters above the roadway bed surface. The EIRP is measured as the maximum EIRP toward the horizon or horizontal, whichever is greater, of the gain associated with the main or center of the transmission beam. The RSU antenna height shall not exceed 15 meters above the roadway bed surface. 47 CFR § 90.377(b), n.1.

whether licensees should continue to be required to reduce their power for higher RSU antenna heights as a way of controlling coverage area and reducing the potential for harmful interference.¹²⁸ In the C-V2X waiver grants noted above,¹²⁹ the Commission requires compliance with the existing RSU antenna height limitation requirements.¹³⁰

34. In its comments, 5GAA recommends that the Commission retain the existing RSU antenna height limitations and associated power reduction requirement for roadside antennas over 8 meters in height up to a maximum of 15 meters.¹³¹ DENSO contends that the power and antenna height issues require sufficient technical study and should be agreed to by all stakeholders because these technical requirements have a significant impact on V2X communication system performance and cost.¹³²

35. We agree with 5GAA that the existing limitations on roadside unit transmitting antenna height and associated power reduction requirement for RSU transmitting antennas over 8 meters in height up to a maximum of 15 meters should be retained in the Commission's rules. These limitations have been successful in enabling coexistence within the band and preventing harmful interference between ITS DSRC operations and to other incumbent operations in the 5.9 GHz band while also enabling sufficient signal coverage over the localized areas being served by each RSU. Retaining the roadside antenna height limits and the associated power reduction requirement for antennas more than 8 meters in height will continue to provide a known spectral environment for C-V2X systems so that network designers can create efficient systems while reducing the potential for harmful interference with other ITS licensees and incumbents in the 5.895-5.925 GHz band. Thus, we retain the roadside unit antenna height limitations and associated power reduction requirement currently specified in the Commission's rules.¹³³ In instances where the maximum RSU EIRP must be reduced due to an antenna height greater than 8 meters above the roadway surface, the RSU PSD limits must be equivalently reduced.

2. Power Limits for C-V2X On-Board Units (OBUs)

36. Under the Commission's part 95 rules, DSRC OBU transmitters operating in the 5.895-5.925 GHz band must comply with technical standard Institute of Electrical and Electronics Engineers (IEEE) 802.11p-2010 for wireless access in vehicular environments.¹³⁴ For vehicular and portable on-board units,¹³⁵ IEEE standard 802.11p-2010 specifies maximum transmitter output power (power supplied to the input of the transmitting antenna) limits ranging from 1 mW (0 dBm) to 760 mW (28.8 dBm), and maximum radiated power (EIRP) permitted on each channel ranging generally from 23 dBm to 33 dBm, but permitting state and local government entities to radiate at higher levels up to 44.8 dBm.¹³⁶ In the *FNPRM*, the Commission sought comment on whether it should modify these power rules for application to C-V2X on-board units. The Commission proposed to limit C-V2X OBU transmitter output power to no more than 20 dBm and EIRP to no more than 23 dBm, believing these power levels to be appropriate for C-V2X vehicular and portable devices. The Commission sought comment on whether

¹²⁸ *FNPRM*, 35 FCC Rcd at 13505, para. 160.

¹²⁹ *See supra* para. 7.

¹³⁰ *See Joint Waiver Order*, 38 FCC Rcd at 3994, para 23; *Aug 16, 2023 Waiver Letter* at 7-8; *Nov. 3, 2023 Waiver Letter*, 38 FCC Rcd at 10407; *Apr. 18, 2024 Waiver Letter*, DA 24-363, at 7; *Jul. 19, 2024 Waiver Letter*, DA 24-707, at 6.

¹³¹ 5GAA *FNPRM* Comments at A4-A5.

¹³² DENSO *FNPRM* Comments at 2.

¹³³ *See* 47 CFR § 90.377(c).

¹³⁴ 47 CFR § 95.3189(a).

¹³⁵ A portable on-board unit is a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user. 47 CFR § 95.3167(c).

¹³⁶ *See* technical standard IEEE 802.11p-2010 at 31, Table 1.5a.

it should increase the OBU EIRP limit to 33 dBm and whether such an increase would affect the ability of C-V2X roadside units to co-exist with and protect federal radiolocation stations. Further, in this context, the Commission also reminded commenters of the need to simultaneously ensure that portable on-board units comply with the Commission's radiofrequency (RF) radiation exposure limits.¹³⁷

37. In its comments, 5GAA recommends increasing the C-V2X OBU EIRP limit to 33 dBm and eliminating the transmitter output power limit requirement.¹³⁸ A broad range of commenters support this 5GAA recommendation.¹³⁹ Ford Motor Company (Ford) stated "that the transmit power limit for OBUs should be specified only as an EIRP of 33 dBm RMS to provide broader coverage including emergency/public safety vehicles." Ford submits that "an increased EIRP limit (achieved through a combination of higher transmit power and antenna gain) will allow C-V2X-OBUs equipped vehicles to communicate more effectively among each other and with C-V2X RSUs. This additional flexibility can be useful to first responders and public safety vehicles in providing higher reliability and range for their safety critical needs (e.g., traffic light preemption)."¹⁴⁰ Auto Innovators similarly supports 5GAA's proposed power limits to provide more flexibility for C-V2X operations.¹⁴¹

38. Fiat Chrysler Automobiles supports swift adoption of 5GAA's proposed C-V2X service rules to facilitate deployment in the U.S.¹⁴² 5G Americas supports 5GAA's proposed C-V2X technical rules, including the OBU in-band power limit, because it is consistent with 3GPP physical layer standards.¹⁴³ OTI/PK agree that the Commission should adopt 5GAA's proposal and authorize on board units to operate at up to 33 dBm, if feasible.¹⁴⁴ Dynamic Spectrum Alliance (DSA), a global, cross-industry alliance focused on increasing dynamic access to unused radio frequencies and unlicensed usage proponent, supports 5GAA's request for OBUs to operate with a 33 dBm EIRP.¹⁴⁵

39. In its reply comments, NCTA states that the 5GAA proposal would increase power tenfold without addressing NTIA guidance relating to the protection of radiolocation exclusion zones.¹⁴⁶ Further, NCTA suggests that "if the Commission determines that C-V2X OBUs can operate at such high power (i.e. up to 33 dBm) without the need for exclusion zones, it should also permit U-NII-4 devices to operate using at least the same power level without exclusion zones, as they would pose a significantly lower risk of potential harmful interference to federal radars than similarly powered C-V2X devices."¹⁴⁷

40. Subsequent to the comment period, 5GAA modified its original support for a general 33 dBm EIRP limit by suggesting that the Commission's rules should allow the OBU EIRP limits that were granted in the C-V2X waivers *i.e.*, OBUs operating in the 5.905-5.925 GHz band may operate at 33 dBm EIRP, but not exceed 27 dBm EIRP within ± 5 degrees of horizontal. 5GAA states that OBUs that seek to operate at up to 33 dBm within ± 5 degrees of horizontal can implement a geolocation function to reduce their power to the 27 dBm EIRP level when operating near federal radar sites that require

¹³⁷ FNPRM, 35 FCC Red at 13505, para. 161.

¹³⁸ 5GAA FNPRM Comments at Appendix A, A-7.

¹³⁹ 5G Americas FNPRM Comments at 10; Auto Innovators FNPRM Comments at 8; Applied Information FNPRM Comments at 1; Fiat Chrysler Automobiles (FCA) FNPRM Comments at 2; Ford FNPRM Comments at 11-12; LG Electronics FNPRM Comments at 2; Qualcomm FNPRM Comments at 12-13.

¹⁴⁰ Ford FNPRM Comments at 6, 11-12.

¹⁴¹ Auto Innovators FNPRM Comments at 8.

¹⁴² Fiat Chrysler Automobiles FNPRM Comments at 2.

¹⁴³ 5G Americas FNPRM Comments at 10.

¹⁴⁴ OTI/PK FNPRM Comments at 14-15.

¹⁴⁵ DSA Comments at 10.

¹⁴⁶ NCTA FNPRM Reply Comments at 41.

¹⁴⁷ *Id.*

protection.¹⁴⁸

41. In its Technical Report submitted in response to the *5.9 GHz NPRM*, NTIA determined that OBUs operating at 23 dBm EIRP or less would not need to be coordinated to protect federal operations in the 5.905-5.925 GHz band, thus providing an implied power limitation for non-NTIA coordinated ITS operations.¹⁴⁹ Subsequently, in its comments on the *Joint Waiver Request* filing,¹⁵⁰ NTIA supported a maximum 33 dBm OBU EIRP limit for the C-V2X operations in the 5.905-5.925 GHz band. However, to adequately protect the primary federal radiolocation services operating in the 5.9 GHz band during the period in which devices are operating under a waiver, NTIA requested that C-V2X OBUs be limited to 27 dBm EIRP within ± 5 degrees in elevation from the horizontal plane.¹⁵¹ The granted waivers limit OBU operations and power reduction conditions to the 5.905-5.925 GHz band, as requested by NTIA.¹⁵²

42. On June 7, 2024, NTIA submitted a letter to the Commission providing additional information in response to the *5.9 GHz FNPRM*.¹⁵³ The NTIA letter addressed, among other things, the C-V2X OBU EIRP limits necessary for “the protection of federal radiolocation systems.”¹⁵⁴ As the NTIA’s OBU proposal, which was similar to the most recent 5GAA proposal,¹⁵⁵ differed from the Commission’s initial *5.9 GHz FNPRM* proposal, the Office of Engineering and Technology (OET) issued a Public Notice on June 11, 2024 inviting comment on the proposal.¹⁵⁶ The NTIA proposal, as set forth in the OET Public Notice, would permit OBU devices to optionally incorporate geofencing¹⁵⁷ techniques to

¹⁴⁸ See Letter from Suzanne M. Tetrault, Counsel to 5GAA, to Marlene Dortch, Secretary, FCC, at 2 (dated April 24, 2024).

¹⁴⁹ See Smith NTIA 2020 Letter, enclosed Technical Report at 38-39, n.55. We note that, at the time the NTIA report was filed, the Commission had proposed to split the band with 5.895-5.905 GHz for DSRC or C-V2X operations and 5.905-5.925 GHz for C-V2X operations. *5.9 GHz NPRM*, 34 FCC Rcd at 12613-16, paras. 24-31. The NTIA Technical Report acknowledged this distinction, but it does consider the overall Commission proposal, including the entire 5.895-5.925 GHz band and 23 dBm EIRP for OBU units in the context of addressing the technical merits of the Commission proposal. See, e.g., Smith NTIA 2020 Letter, enclosed Technical Report at 2, n.17.

¹⁵⁰ *Joint Waiver Request*, *supra* note 109.

¹⁵¹ See Cooper NTIA 2023 letter at 3.

¹⁵² See, e.g., *Joint Waiver Order*, 38 FCC Rcd at 3994, paras. 22-23.

¹⁵³ NTIA Geofencing Letter, *supra* note 121.

¹⁵⁴ *Id.* at 1.

¹⁵⁵ See *supra* para. 37.

¹⁵⁶ *Office of Engineering and Technology Seeks Additional Comment on On-Board Unit Power Limits for C-V2X Operations*, ET Docket 19-138, Public Notice, DA 24-538, at 2-3 (OET, rel. Jun. 11, 2024) (*Geofencing Public Notice*). Overall, the NTIA letter addressed “three specific areas related to the protection of federal radiolocation systems: (1) general provisions for C-V2X technical and service rules”; “(2) C-V2X roadside unit (RSU) equivalent isotropically-radiated power (EIRP) limits; and, (3) EIRP limits for C-V2X OBUs.” The NTIA filings in the first two instances were reasonably similar to the *5.9 GHz FNPRM* proposals and did not represent a significant departure from the comments generally filed within the record of this proceeding.

¹⁵⁷ Geofencing is used to create a virtual geographic boundary around a physical location. A geofence can be dynamically generated (as in a radius around a point location) or match a predefined set of boundaries (such as school zones or neighborhood boundaries). The Commission has required white space devices and 6 GHz unlicensed U-NII devices to incorporate geographic awareness (i.e., a geolocation capability) and use a database to avoid areas where the potential for causing harmful interference would exist. For example, white space devices are required to incorporate a geolocation capability and check a white space database for a list of available channels before they can operate. 47 CFR § 15.711. Similarly, 6 GHz standard power U-NII devices are required to incorporate a geolocation capability and consult an automated frequency coordination database prior to operating to avoid causing interference to fixed service incumbents. 47 CFR § 15.407(k)(9).

protect federal radiolocation sites from harmful interference, while operating with higher power in otherwise unaffected areas.¹⁵⁸ In sum, for geofenced devices, the Public Notice proposal would provide a 33 dBm EIRP PSD limit over the operating bandwidth in areas outside of coordination zones. Such devices would rely on a geofencing capability to limit the EIRP PSD to 23 dBm for operations that utilize the 5.895-5.905 GHz band within coordination zone areas¹⁵⁹ and 27 dBm within ± 5 degrees of horizontal for coordination area operations that exclusively use the 5.905-5.925 GHz band. Geofenced devices operating in any portion of the 5.895-5.905 GHz band would have to abide by the “worse-case” 23 dBm limit if operating within the coordination zones. Devices that do not incorporate a geofencing capability would be required to meet the aforementioned restrictions at all locations.

43. Additionally, NTIA asks that the Commission adopt specific compliance requirements to ensure geofencing capabilities are properly implemented. In this regard, NTIA suggests that manufacturers implementing a geofencing capability would need to specifically demonstrate and certify compliance of the capability within the FCC’s equipment certification process specified in part 2 of the Commission’s rules. Further, in the event that interference protection requirements are changed, resulting in updated protection zones, the device should include a mechanism to update the OBUs with new information within a reasonable timeframe.¹⁶⁰

44. Comments filed in response to the Public Notice support the optional use of geofencing techniques. In its comments, the Intelligent Transportation Society of America (ITS America) states that it supports NTIA’s proposal related to optional geofencing capabilities and appreciates the flexibility that the proposal provides to C-V2X operations with regards to power levels.¹⁶¹ ITS America further states that updating geofencing parameters for deployed devices poses challenges and will require collaboration among government and industry stakeholders to successfully implement.¹⁶² Auto Innovators also supports the use of geofencing techniques to enable operations at less restrictive EIRP levels.¹⁶³

45. Support for geofencing techniques also came from additional commenters, including the 5G Automotive Association, the American Association of State Highway and Transportation Officials, the Institute of Transportation Engineers, and the Wireless Infrastructure Association.¹⁶⁴ These commenters recommend the Commission define two distinct C-V2X channels, specifically focusing on the lower 10 megahertz channel at 5.895-5.905 GHz and the upper 20 megahertz channel at 5.905-5.925 GHz.¹⁶⁵ Doing so, they say, will ensure interoperability within the band. These commenters also request that the Commission adopt rules requiring C-V2X operators to look to the NTIA website for information on the location of coordination zones.¹⁶⁶ Both the Commission’s rules and the NTIA’s comments in this item specify section 90.371(b) of the rules as the location of the coordination zones necessary to protect federal radiolocation systems.¹⁶⁷ Lastly, these commenters also recommend including provisions in the rules that would require an OBU equipped with geofencing capability to lower its transmit EIRP to the

¹⁵⁸ *Geofencing Public Notice*, DA 24-538, at 2-3.

¹⁵⁹ *See* 47 CFR § 90.371(b).

¹⁶⁰ *Geofencing Public Notice*, DA 24-538, at 3.

¹⁶¹ ITS America Public Notice Comments at 2.

¹⁶² *Id.*

¹⁶³ Auto Innovators Public Notice Comments at 1.

¹⁶⁴ *See* 5GAA, AASHTO, ITE, and WIA Public Notice Comments at 1. NCTA also submitted comments in response to the Public Notice, although these comments focused on outdoor and portable U-NII-4 operations, which we have declined to address in this Report and Order.

¹⁶⁵ *Id.* at 2.

¹⁶⁶ 5GAA, AASHTO, ITE, and WIA Public Notice Comments at 3.

¹⁶⁷ While DSRC coordination zones were located in 47 CFR § 90.371(b), the coordination zones applicable to C-V2X operations are located in 47 CFR § 90.387(b).

appropriate level within 60 seconds of entering the power reduction zone.¹⁶⁸

46. Based on consideration of the record, we adopt power limit rules for C-V2X OBUs that provide for optional use of “geofencing” techniques to allow the OBUs to operate at a higher radiated power in some locations. As we have discussed, geofencing technique involves a radiofrequency device using a geolocation capability to determine whether its geographic coordinates are within a defined geographic area. In the instant case, “geofenced” OBU devices would incorporate a geolocation capability to be aware of the appropriate protection areas around federal radiolocation sites. The OBUs would be programmed with the existing 5.895-5.925 GHz band federal radiolocation sites’ coordination zones (specified by geographic coordinates and a radius) to ensure that they operate with lower power levels within the protected areas. OBU equipment that does not incorporate this geolocation capability would be required to comply with the more restrictive OBU EIRP limit.

47. Thus, reflective of NTIA’s June 7, 2024 recommendation and to allow the maximum flexibility possible for C-V2X OBU operations while still protecting incumbent federal radar operations in the band from harmful interference, we will permit C-V2X OBUs with geolocation capabilities to operate with up to the maximum 33 dBm/10 MHz, 33 dBm/20 MHz, and 33 dBm/30 MHz EIRP PSD outside of a section 90.387(b) coordination zone. Within the coordination zones, the following limits will apply: all operations that include use of the 5.895-5.905 GHz channel (i.e., 5.895-5.905 GHz, 5.895-5.915 GHz, and 5.895-5.925 GHz) are limited to a 23 dBm EIRP over the channel bandwidth; all other channels (i.e., 5.905-5.915 GHz, 5.915-5.925 GHz, 5.905-5.925 GHz operations) are limited to 33 dBm over the channel bandwidth, but must be reduced to 27 dBm over the channel bandwidth within ± 5 degrees of horizontal in elevation.¹⁶⁹ OBUs not equipped with geofencing capability will be limited to the power levels specified for operation within the coordination zones. Manufacturers incorporating geofencing capability for an OBU will need to specifically demonstrate and certify that the device implements the capability in a manner that complies with the requirements discussed herein when seeking an FCC Equipment Certification under part 2 of the Commission’s rules. If geofencing locations and parameters are subsequently modified, a mechanism should be available such that OBUs can be updated with the new information.

48. We further decline to implement recommendations from parties responding to the Public Notice that we re-channelize C-V2X operations into two distinct 10 megahertz and 20 megahertz channels. As stated in the channel bandwidth section above, we are providing maximum flexibility to enable the ITS industry to evolve and modify operations as necessary to use the band in the most efficient way possible to deliver safety applications to the American public. We also decline these parties’ recommendation that the Commission adopt rules requiring C-V2X operators obtain coordination zone information from NTIA’s website.¹⁷⁰ However, we do support industry and government collaboration on additional means of obtaining this information. To that end, we note that NTIA has developed machine readable KML files for download from its website that can be used by C-V2X devices for determining if they are within a coordination zone.¹⁷¹ We also decline to implement a 60-second EIRP adjustment requirement after an OBU enters a coordination zone. The rules require C-V2X devices to comply with the power limits for their location and manufacturers must ensure that devices operate such that they comply with the rules for their location. Thus, a specific requirement, such as a 60-second adjustment period is not necessary.

49. Although the rules we adopt today permit OBUs to operate at up to 33 dBm (with geolocation capability), we decline to grant similar power limits for U-NII-4 devices at this time. This *Second Report and Order* is focused solely on C-V2X operations in the 5.9 GHz band and issues related

¹⁶⁸ 5GAA, AASHTO, ITE, and WIA Public Notice Comments at 3.

¹⁶⁹ This list will also be reflected in the Commission’s part 95 OBU rules.

¹⁷⁰ 5GAA, AASHTO, ITE, and WIA Public Notice Comments at 3.

¹⁷¹ The KML files are available at: <https://www.ntia.gov/spectrum-frequency-bands/59-ghz>.

to U-NII-4 operations as contemplated in the FNPRM remain pending. Although NCTA suggested that the Commission should simultaneously address U-NII-4 outdoor rules and C-V2X service rules, the record has not been sufficiently developed to address the interference dynamics to licensed operations from the outdoor U-NII-4 operations, including the federal radar operations. Application of the *2023 Policy Statement* regarding the spectrum management will be considered when outdoor U-NII-4 operation is addressed.¹⁷²

3. Out-of-Band Emissions Limits for C-V2X Roadside Units and On-Board Units

50. Under the Commission's part 90 and 95 rules, DSRC RSU and OBU transmitters operating in the 5.895-5.925 GHz band must comply with IEEE standard 802.11p-2010 for wireless access in vehicular environments.¹⁷³ Under this standard, the applicable out-of-band emissions (OOBE) EIRP limits are:

- -16.0 dBm/100 kHz at the channel edge;
- -22.0 dBm/100 kHz at 1 megahertz from the channel edge;
- -30.0 dBm/100 kHz at 10 megahertz from the channel edge; and
- -40 dBm/100 kHz at 20 megahertz from the channel edge.¹⁷⁴

In the recently granted C-V2X waivers, the Bureaus require C-V2X RSUs and OBUs to comply with these IEEE 802.11p-2010 OOBE limits.¹⁷⁵

51. In the *FNPRM*, the Commission proposed that all C-V2X equipment limit OOBE measured at the antenna input (i.e., conducted limits) to:

- -29 dBm/100 kHz at the band edge;
- -35 dBm/100 kHz at ± 1 megahertz from the band edge;
- -43 dBm/100 kHz at ± 10 megahertz from the band edge; and
- -53 dBm/100 kHz at ± 20 megahertz from the band edge.¹⁷⁶

The Commission also proposed to limit out-of-band radiated emissions to -25 dBm/100 kHz or less EIRP outside the 5.895 GHz and 5.925 GHz band edges. The Commission sought comment on these proposed limits and whether they would continue to be appropriate for C-V2X equipment.¹⁷⁷ Additionally, in the *FNPRM*, the Commission noted that 5GAA, in its comments to the *5.9 GHz NPRM*, recommended the following C-V2X conducted OOBE limits for RSUs and OBUs:¹⁷⁸

- -16 dBm/100 kHz at ± 1 megahertz of the band edge;
- -13 dBm/MHz at ± 1 megahertz to ± 5 megahertz of the band edge;
- -16 dBm/MHz at ± 5 megahertz to ± 30 megahertz of the band edge; and
- -28 dBm/MHz beyond 30 megahertz from the band edges.¹⁷⁹

¹⁷² See *Principles for Promoting Efficient Use of Spectrum and Opportunities for New Services*, ET Docket No. 23-122, Policy Statement, 38 FCC Rcd 3682 (2023) (*2023 Policy Statement*).

¹⁷³ 47 CFR §§ 90.379, 95.3189(a).

¹⁷⁴ See technical standard IEEE 802.11p-2010 at 32, Table I.8.

¹⁷⁵ See *Joint Waiver Order*, 38 FCC Rcd at 3995, para 23; *Aug. 16, 2023 Waiver Letter* at 8; *Nov. 3, 2023 Waiver Letter*, 38 FCC Rcd at 10407; *Apr. 18, 2024 Waiver Letter*, DA 24-363, at 7; *Jul. 19, 2024 Waiver Letter*, DA 24-707, at 6.

¹⁷⁶ *FNPRM*, 35 FCC Rcd at 13506, para. 163.

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 13506, para. 164; 5GAA NPRM Comments, Appx. A, at A-9.

¹⁷⁹ 5GAA NPRM Comments, Appx. A, at A-8 to A-9 and A-11 to A-12.

The Commission sought comment on 5GAA's proposed limits, asking whether it should adopt those alternative OOB limits; what effect those relaxed limits would have on the ability to design and manufacture C-V2X equipment; how they would affect equipment cost; and whether the limits would ensure compatibility with adjacent U-NII devices in both the U-NII-4 (5.850-5.895 GHz) and U-NII-5 (5.925-6.425 GHz) bands, which are below and above the modified ITS band, respectively; and what effects those limits would have on adjacent band fixed services in the 6 GHz band.¹⁸⁰ The Commission also sought comment on the measurement standards that should be associated with equipment approval for verifying that C-V2X equipment meets whatever OOB limits it ultimately adopts.¹⁸¹

52. In response, 5GAA recommends that the Commission provide more flexibility for C-V2X operations by adopting the OOB limits for RSUs and non-public safety OBUs that it had previously proposed. Their proposed limits are less restrictive than the OOB limits the Commission proposed in the *FNPRM* and specified in the C-V2X waiver grants. For RSUs and non-public safety OBUs, 5GAA recommends that the Commission adopt the following conducted OOB limits:

- -16 dBm/100 kHz at ± 1 megahertz of the band edge;
- -13 dBm/MHz at ± 1 megahertz to ± 5 megahertz of the band edge;
- -16 dBm/MHz at ± 5 megahertz to ± 30 megahertz of the band edge; and
- -28 dBm/MHz beyond 30 megahertz from the band edges.¹⁸²

53. To help “improve the performance and speed the delivery of critical C-V2X services to fire trucks, police vehicles, ambulances, and other public safety vehicles,” 5GAA recommends that the Commission adopt the following conducted OOB limits for OBUs operating from such vehicles:

- -10 dBm/100 kHz at the band edge linearly decreasing to -26 dBm/100 kHz at ± 20 megahertz from the band edges;
- -16 dBm/MHz within 20 to 30 megahertz from the upper band edge and within -30 megahertz to -20 megahertz from the lower band edge; and
- -28 dBm/MHz beyond 30 megahertz from the band edges.¹⁸³

54. A broad range of commenters support 5GAA's recommended C-V2X OOB limits.¹⁸⁴ 5G Americas supports adopting 5GAA's recommended OOB limits because they are consistent with 3GPP physical layer standards.¹⁸⁵ Auto Innovators urges the Commission to adopt 5GAA's recommended C-V2X OOB limits, rather than the OOB limits proposed in the *FNPRM*, because the more relaxed OOB limits recommended by 5GAA would “facilitate both C-V2X's evolution and more robust safety services for travelers” given V2X's reduced spectrum allotment.¹⁸⁶ CNH Industrial America LLC urges the Commission to provide slightly more relaxed OOB limits for safety messages transmitted in “off-road” rural areas.¹⁸⁷ Qualcomm expresses support for 5GAA's recommended OOB limits for RSUs and OBUs that operate in the upper 30-megahertz portion of the 5.9 GHz band.¹⁸⁸ Fiat Chrysler

¹⁸⁰ *FNPRM*, 35 FCC Rcd at 13506, para. 164.

¹⁸¹ *Id.*

¹⁸² 5GAA *FNPRM* Comments at 22-23, Appx. A, at A-5, A-7.

¹⁸³ *Id.* at 22, Appx. A, at A-7.

¹⁸⁴ 5G Americas *FNPRM* Comments at 10; Auto Innovators *FNPRM* Comments at 8; Applied Information *FNPRM* Comments at 1; Fiat Chrysler Automobiles (FCA) *FNPRM* Comments at 2; Ford *FNPRM* Comments at 11-12; LG Electronics *FNPRM* Comments at 2; Qualcomm *FNPRM* Comments at 12-13.

¹⁸⁵ 5G Americas *FNPRM* Comments at 10.

¹⁸⁶ Auto Innovators *FNPRM* Comments at 8.

¹⁸⁷ CNH Industrial America LLC *FNPRM* Comments at 6.

¹⁸⁸ Qualcomm *FNPRM* Comments at 12-13; Qualcomm *FNPRM* Reply Comments at 2.

Automobiles also supports 5GAA's recommended C-V2X service rules to facilitate deployment in the U.S.¹⁸⁹ Ford expresses its belief that the power and emissions rules 5GAA specified in its comments on the *FNPRM* are essential.¹⁹⁰

55. T-Mobile expresses support for technical rules for C-V2X operations that are based on 3GPP standards and potentially more permissive requirements if they are necessary to fully maximize C-V2X operations and are based on sound technical analyses.¹⁹¹ However, Autotalks urges the Commission not to adopt the 3GPP's C-V2X OOB values because they are too strict, would be challenging to implement, require a filter in most systems that would increase costs, and add an insertion loss that would decrease the system reception sensitivity and communication range. According to Autotalks, 5GAA's recommended OOB limits can be supported without adding a filter.¹⁹²

56. On the other hand, NCTA – The Internet & Television Association, argues that 5GAA's push for relaxed OOB limits for C-V2X operations in the 5.895-5.925 GHz band threatens to undermine Wi-Fi across the country; those OOB limits could erode reliance on Wi-Fi in the new U-NII-4 band adjacent to C-V2X operations in the 5.895-5.925 GHz band. Instead of adopting 5GAA's recommended limits, NCTA recommends adopting the C-V2X OOB limits the Commission proposed in the *FNPRM*, claiming those limits are sufficient for C-V2X operations and support compatibility with adjacent U-NII operations. NCTA argues that the Commission should reject 5GAA's proposed OOB limits because C-V2X advocates have failed to describe the impact of these more permissive levels on the Commission's goal of making the U-NII-4 and U-NII-5 bands a success for Wi-Fi service.¹⁹³ In response, 5GAA asserts that the Commission should dismiss NCTA's assertion, which 5GAA characterizes as baseless both because it is made without any technical support and because unlicensed broadband communications inside buildings should not be impacted, much less undermined, by C-V2X operations occurring on roadways.¹⁹⁴

57. Based on consideration of the record, we adopt 5GAA's recommended set of OOB limits for all RSUs and OBUs. We decline to adopt different OOB limits for public safety OBUs because there is not enough information in the record to justify how more relaxed OOB limits for public safety OBUs can improve the performance of critical safety message delivery. Also, because of the wide variety of vehicles associated with public safety and uncertainty in whether they get outfitted with ITS equipment by the manufacturer or through aftermarket vehicle alterations, it would be administratively burdensome for entities within the supply chain, equipment integrators and installers, and agencies themselves to track different classes of OBUs for different vehicles. Furthermore, having a single class of OBUs would lower manufacturing costs as separate public safety and non-public safety models are not necessary to design and build. Thus, consistent with the limits recommended by 5GAA, we adopt the following conductive OOB limits outside of the authorized 5.895-5.925 GHz band for all RSUs and OBUs:

- -16 dBm/100 kHz within ± 1 megahertz of the band edges;
- -13 dBm/MHz within ± 1 megahertz to ± 5 megahertz of the band edges;
- -16 dBm/MHz within ± 5 megahertz to ± 30 megahertz of the band edges; and
- -28 dBm/MHz beyond 30 megahertz from the band edges.

¹⁸⁹ Fiat Chrysler Automobiles *FNPRM* Comments at 2.

¹⁹⁰ Ford *FNPRM* Comments at 12.

¹⁹¹ T-Mobile *FNPRM* Reply Comments at 2.

¹⁹² Autotalks *FNPRM* Comments at 2-3.

¹⁹³ NCTA – The Internet & Television Association *FNPRM* Comments at 26 and *FNPRM* Reply Comments at 42-43.

¹⁹⁴ 5GAA *FNPRM* Reply Comments at 9.

The OOB limits we are adopting are consistent with OOB limits the Commission has previously adopted to protect operations in adjacent bands from harmful interference.¹⁹⁵ These limits will provide equipment manufacturers and C-V2X operators with the flexibility to design, manufacture, and operate RSUs and OBUs, respectively, that will help ensure reliable service while protecting adjacent bands operations from harmful interference. Furthermore, we do not expect that the OOB limits will impact, much less undermine, unlicensed broadband communications inside buildings, as claimed by NCTA.¹⁹⁶ The separation distance between 5.895-5.925 GHz band C-V2X transmitters operated on roadways and indoor unlicensed devices operating in frequency bands adjacent to the 5.895-5.925 GHz band, coupled with signal losses due to the angular antenna discrimination between the respective transmitting and receiving antennas, and building attenuation, will significantly reduce the power level of any C-V2X OOB received by a receiver operating on an unlicensed basis.¹⁹⁷

F. Technology Transition

58. In order to complete the transition to C-V2X technology in a timely manner, in the *FNPRM*, the Commission proposed that all ITS operations in the 5.895-5.925 GHz band either convert to C-V2X or cease operating two years after the effective date of a *Second Report and Order* in this proceeding. The Commission indicated that two years would be a sufficient timeframe to allow ITS supply chains to amass C-V2X equipment and to allow the remaining DSRC incumbents to sunset DSRC technology.¹⁹⁸ The Commission asked commenters for input on various timeline-related issues, including the state of C-V2X equipment development, whether supply chains could readily distribute such equipment, and whether vehicle manufacturers could install C-V2X equipment within the proposed two-year timeframe.¹⁹⁹ Further, the Commission asked several questions related to the technical implications of C-V2X and DSRC operations occurring simultaneously in the 5.895-5.925 GHz band during the transition period. In this regard, the Commission asked whether any geographic or spectral separation requirements are necessary to ensure that simultaneous DSRC and C-V2X operations do not result in harmful interference and generally suggested that commenters address any transitional operation concerns in the context of any comments addressing technical parameters.²⁰⁰ Additionally, the Commission sought comment on how it should treat DSRC OBUs after the final transition date. The Commission asked commenters whether OBUs could be turned off by that date, whether they could be modified to become C-V2X compatible through hardware or software updates, whether the potential for harmful interference existed if DSRC OBUs continued to communicate after the final transition date, and whether the Commission should take affirmative steps to notify the owners of vehicles equipped with DSRC OBUs of the transition.²⁰¹

59. Commenters generally expressed agreement with the Commission's proposal to mandate a two-year timeframe for DSRC incumbents to cease operations.²⁰² In its comments, the UDOT states that the two-year timeframe is reasonable and adequate for most public agencies, but stipulates that the process to replace its existing DSRC system would make any timeframe shorter than two years

¹⁹⁵ See, e.g., 47 CFR §§ 27.53(n)(1), (2).

¹⁹⁶ NCTA FNPRM Comments at 26.

¹⁹⁷ Under the Commission's part 15 rules, unlicensed operations are subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station. See 47 CFR § 15.5(b).

¹⁹⁸ *FNPRM*, 35 FCC Rcd at 13500, para. 147.

¹⁹⁹ *Id.* at 13501, paras. 149-150.

²⁰⁰ *Id.* at 13502, para. 152.

²⁰¹ *Id.* at 13501, paras. 149-150.

²⁰² See UDOT FNPRM Comments at 3; Maryland Dept. of Transportation FNPRM Comments at 2; Hyundai America Technical Center FNPRM Reply Comments at 1.

unacceptable.²⁰³ Other commenters suggest that issues such as procurement, engineering, workforce training, testing, installation, and different budgetary concerns all necessitate a minimum timeframe of two years.²⁰⁴ In its reply comments, Hyundai states that an unreasonably short transition period could prematurely discontinue ongoing deployments and research projects or add an undue investment burden to entities that operate within tighter budgetary constraints.²⁰⁵ The Institute of Transportation Engineers, however, states that C-V2X testing and deployment should serve as the main influence on the length of the transition timeframe, rather than a strictly calendar view of the issue.²⁰⁶ MEMA suggests that, during the transition period, 20 megahertz should be dedicated exclusively to C-V2X, permitting DSRC operations on the remaining 10 megahertz until the phase out is complete. MEMA suggests this proposal would reduce the chances of harmful interference occurring between DSRC and C-V2X operations during the transition.²⁰⁷

60. Given the time already elapsed since the Commission's decision to adopt C-V2X technology in the 5.9 GHz band, and the information provided in the record, we believe that two years will provide sufficient time for incumbents, industry, and suppliers to sunset DSRC operations. We believe this timeframe adequately allows public entities with longer budgetary timelines to procure compliant equipment and complete the sunset of DSRC. This two year period will commence on the Federal Register publication date of the rules adopted in this *Second Report and Order*. We find good cause to start the two-year DSRC sunset effective with Federal Register publication of this *Second Report and Order*, rather than the effective date of the rules, because we have provided ample notice of the pending action and the intent to sunset DSRC operations.²⁰⁸ To effectuate this transition period, new licenses issued after the effective date of the final rules will only authorize C-V2X operations (not DSRC).²⁰⁹ Because of the lack of interoperability between DSRC and C-V2X operations and the issuance of multiple waivers allowing early C-V2X deployment, ceasing licensing of DSRC as of the effective date of these rules will prevent circumvention of the rules we adopt here and ensure a timely transition. Moreover, the period of time between release of this *Second Report and Order* and the effective date of the rules provides additional time to finalize or modify any pending license applications. We direct PSHSB and WTB to work with any prospective licensees with pending applications to ensure compliance with this timeframe. Existing licensees may use DSRC technology during the two-year transition period and may file RSU modification applications as necessary to continue operations during the transition period. We delegate authority to PSHSB and WTB to issue a public notice, if necessary, detailing any filing requirements for licensees transitioning from DSRC to C-V2X operations.²¹⁰ We also make conforming and non-substantive edits to the Commission's rules that are necessitated by the decision to sunset DSRC technology in this *Second Report and Order*.

61. Regarding waivers for deployment of C-V2X operations in the upper 30-megahertz portion of the 5.9 GHz band (5.895-5.925 GHz), we hereby terminate those waivers issued prior to adopting final C-V2X-based technical rules upon the effective date of the final rules adopted herein. We

²⁰³ UDOT FNPRM Comments at 3.

²⁰⁴ See *id.* at 5; Maryland Department of Transportation FNPRM Comments at 2.

²⁰⁵ Hyundai America Technical Center, Inc. FNPRM Comments at 1.

²⁰⁶ Institute of Transportation Engineers FNPRM Comments at 3.

²⁰⁷ *Id.*

²⁰⁸ See 5 U.S.C. 553(d)(3) (allows agencies to make a rule effective with less than 30 days' notice with a good cause showing).

²⁰⁹ Recognizing the Commission will need time to update Universal Licensing System (ULS) consistent with the new rules and policies here, we direct the PSHSB and WTB to issue licensing and filing guidance to licensees during the transition.

²¹⁰ These delegations include authority to use notice-and-comment procedures if PSHSB and WTB deem it necessary or advisable to do so.

direct PSHSB and WTB to implement any necessary license modifications in accordance with final rules. As to equipment authorizations granted pursuant to the same waiver authority, we note that the power limits and out-of-band emissions limits permitted under waiver authority are within those that we adopted herein, with the exception of optional geofencing.²¹¹ Thus, we do not expect that such devices would cause harmful interference and they may continue to be operated and marketed under their existing equipment authorizations if the authorization is received or in process (i.e., all required information has been provided to a Telecommunication Certification Body) as of the effective date of the final rules adopted herein. However, if any such devices are subsequently modified, the device must comply with all currently applicable rules, including those rules adopted herein.

62. We decline to dedicate 10 megahertz to DSRC operations during the transition, as MEMA suggests. Doing so would deprive C-V2X operators of the opportunity to utilize the full bandwidth made available through this proceeding during the transition, only to require additional modifications and filings at the end of the transition. Similarly, many existing DSRC devices would require modification in order to operate on a dedicated channel or cease operation on the C-V2X channels, an inefficient process given that any requirement would only be temporary. We further note that because most licensees provide the sole service within defined geographic areas, such licensees can provision their systems accordingly, if necessary, without a Commission imposed mandate. Thus, we expect instances where C-V2X and DSRC operations may cause harmful interference to each other to be unlikely. In any event, if harmful interference does occur, under our rules, the later-filed licensee would be required to take any steps necessary to protect the incumbent.

63. We recognize that there are existing DSRC OBUs that have been deployed and are currently in operation, many of which are operated on a licensed-by-rule basis. Commenters urge us not to dictate a particular method of compliance with any transition deadline for OBUs. For example, the UDOT states that it would not be possible to turn off these units remotely, nor would such an operation be acceptable.²¹² UDOT further states that all of its DSRC OBUs will be replaced with C-V2X OBUs before the final transition date, with the replacement taking place at night to minimize service disruptions. We anticipate that other OBU operators will likely follow a similar replacement strategy to replace DSRC OBUs with C-V2X OBUs, or cease to use DSRC OBUs altogether, consistent with the cessation of DSRC RSU operations. We expect that any remaining DSRC OBUs are unlikely to present significant interference concerns because the opportunities for such devices to communicate with DSRC RSUs will be significantly reduced throughout the transition period and eventually eliminated, and we believe that the continued operation of DSRC OBUs will be minimal. Consistent with stakeholders' calls for flexibility, while we complete the sunset of DSRC operations, we will provide flexibility in ceasing DSRC OBU operations. To assist licensees and operators, we direct PSHSB and WTB to conduct outreach providing appropriate reminders and information to facilitate compliance with the DSRC sunset date.

64. Finally, with respect to administrative issues associated with ITS station licenses during this transition, in the *First Report and Order*, the Commission modified all ITS licenses by eliminating authorization to transmit in the 5.850-5.895 GHz band (lower 45 megahertz), thus limiting authority to channels in the 5.895-5.925 GHz band (upper 30 megahertz).²¹³ The Commission also required those licensees to exit the lower 45 megahertz by a date certain and file a notification confirming their timely exit.²¹⁴ Where licensees failed to timely transition out of the lower 45 megahertz and notify the

²¹¹ See, e.g., *Joint Waiver Order*, 38 FCC Rcd at 3994-95, paras. 23-24.

²¹² UDOT FNPRM Comments at 13.

²¹³ See *First Report and Order*, 35 FCC Rcd at 13456-59, paras. 48-55.

²¹⁴ See *id.* at 13459, para. 52; see also *Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Remind 5.9 GHz Band ITS Licensees of the July 5, 2022, Deadline to Transition Out of the 5850-5895 MHz Portion of the Band and the July 20, 2022, Deadline to Notify the Bureaus of the Transition*, ET Docket. No. 19-138, 37 FCC Rcd 6650, 6651 (2022) (5.9 GHz Deadline Reminder PN).

Commission, those licenses terminated automatically²¹⁵ (but operators may seek a new license if they wish to operate in the upper 30 megahertz). Today, we adopt flexible channelization rules permitting any licensee to operate on any 10-megahertz channel (or aggregation of channels) in the upper band. In light of this flexible approach, going forward, we will streamline our licensing mechanism to authorize each licensee to use the entire 30-megahertz band on all of its RSUs, following registration of those RSUs with the Bureaus.

G. Other Spectrum for ITS

65. The Commission sought comment on whether, notwithstanding its determination that current safety-of-life services can continue to operate using 30 megahertz of spectrum, it should consider allocating additional spectrum for ITS applications. In this regard, the Commission directed commenters to provide specific information indicating why existing spectrum resources were inadequate and what specific safety benefits would result from additional spectrum allocations for ITS applications.²¹⁶ Given that the Commission designated C-V2X as the sole technology for 5.9 GHz ITS applications, it also sought comment on how additional spectrum could be used to leverage C-V2X and aid in its deployment.

66. Commenters generally support the prospect of the Commission providing additional spectrum for C-V2X deployment. Some, such as University of Michigan Transportation Research Institute (UMTRI) and UDOT, take specific issue with the Commission's conclusion in the *First Report and Order* that the record supported that 30 megahertz of spectrum is sufficient to provide ITS basic safety functions, both current and those under consideration in the near future.²¹⁷ The Institute of Transportation Engineers specifically states that it is "important to note that advanced C-V2X applications, including those that rely on collective perception messages (CPM), maneuver coordination messages (MCM), and personal safety messages (PSM) will likely be lost."²¹⁸ Multiple commenters echo this sentiment, collectively stating that if the Commission fails to provide additional mid-band spectrum for safety-of-life and advanced safety applications, the utility of C-V2X will be limited.²¹⁹

67. Many commenters that dispute the need for additional spectrum express concerns that ITS advocates seeking additional spectrum under the guise of providing safety-of-life services in fact intend to use the additional spectrum for commercial, non-safety applications and services.²²⁰ OTI/PK, in their reply comments, raise this exact concern, stating that the Commission should ensure that it does not "create incentives for the auto and mobile industries to preempt future safety mandates or needs by occupying ITS spectrum for commercial applications or services."²²¹

68. Commenters, such as 5GAA and the Alliance for Automotive Innovation, request that the Commission identify an additional 40 megahertz of contiguous, mid-band spectrum for advanced V2X operations.²²² Multiple commenters implore the Commission to convene a working group consisting of representatives from the U.S. DOT, NTIA, state departments of transportation, and the private sector to

²¹⁵ See *First Report and Order*, 35 FCC Rcd at 13459, para. 52; *5.9 GHz Deadline Reminder PN*, 37 FCC Rcd at 6651.

²¹⁶ *FNPRM*, 35 FCC Rcd at 13505, para. 190.

²¹⁷ See UMTRI *FNPRM Comments* at 3; UDOT *FNPRM Comments* at 11.

²¹⁸ Institute of Transportation Engineers *FNPRM Comments* at 12.

²¹⁹ See Bosch *FNPRM Comments* at 5; Ford Motor Company *FNPRM Comments* at 6; DENSO *FNPRM Comments* at 6-7.

²²⁰ See, e.g., DSA *FNPRM Comments* at 14; OTI/PK *FNPRM Comments* at 25-26; OTI/PK *FNPRM Reply Comments* at 38.

²²¹ OTI/PK *FNPRM Reply Comments* at 39.

²²² 5GAA *FNPRM Comments* at 21; Alliance for Automotive Innovation *FNPRM Comments* at 11.

identify and validate additional spectrum for V2X services.²²³

69. The Commission concluded in the *First Report and Order* that the 30 megahertz provided for ITS is sufficient to provide basic safety services consistent with the objectives for this technology and we remain convinced that such spectrum is sufficient for that purpose without the need for additional spectrum. Moreover, given that the Commission is adopting a safety-of-life communication priority hierarchy in this proceeding, we are confident that this spectrum will be preserved for those vital safety applications. As C-V2X deployments are only just beginning, we encourage industry to fully test the bounds of the current spectrum allocation, the C-V2X technology itself, and the technical parameters we prescribe in this *Second Report and Order* for its operation in order to reach a full consensus on whether there is a need for additional spectrum to support safety-of-life services. We anticipate that industry testing, system optimization, and evaluation of the currently allotted spectrum will obviate the need for additional spectrum allocations to support basic safety services.

H. Compensation or Reimbursement for Transition Costs

70. In the *FNPRM*, the Commission sought comment on the possibility of compensating for transition costs, how such costs would be documented, and the process by which such compensation would be determined or implemented.²²⁴ The UDOT states that incumbent DSRC users must be compensated for the cost of replacing their systems and that it should be the manufacturers and users who benefit and profit from using unlicensed technologies in the lower 45 megahertz that should pay those transition costs.²²⁵ In comments considering the process by which such costs would be implemented, UDOT references the method by which microwave licensees in the 2 GHz band that were displaced in the mid-1990's to make way for broadband Personal Communications Services were compensated.²²⁶

71. The Institution of Transportation Engineers (ITE) makes similar arguments regarding compensating incumbents, stating that “[t]he funding source for these reimbursements could be covered by those who are gaining benefit from the newly available 45 MHz of spectrum.”²²⁷ The Alliance for Automotive Innovation also states that the Commission should require unlicensed new entrants to the band to compensate ITS incumbents for their reasonable relocation costs.

72. Other commenters, however, dispute the need for unlicensed entrants to reimburse DSRC incumbents. The National Cable and Telecommunications Association (NCTA) states that “it would be arbitrary and unreasonable for the Commission to require individual purchasers of unlicensed equipment or the broadband providers, companies, schools, libraries, and hospitals that provide Wi-Fi networks to pay existing operators for access to the U-NII-4 band, particularly after DSRC licensees failed to make meaningful use of the band for 20 years.”²²⁸ NCTA further expounds on the lack of a reasonable mechanism to collect a levy on the unlicensed entities, as well as the lack of a legal structure to force payment.²²⁹

73. OTI/PK also strongly oppose imposing a reimbursement mechanism. OTI/PK cite the Commission's broad authority under section 316 of the Communications Act to modify licenses under the public interest standard, as well as arguments against reimbursing incumbents for investing in failed

²²³ See Intelligent Transportation Society of America FNPRM Comments at 15-16; Alliance for Automotive Innovation FNPRM Comments at 12; Panasonic FNPRM Reply Comments at 6.

²²⁴ *FNPRM*, 35 FCC Rcd at 13505, para. 167.

²²⁵ See UDOT FNPRM Comments at 3.

²²⁶ *Id.* at 9.

²²⁷ Institute of Transportation Engineers FNPRM Comments at 6.

²²⁸ National Cable and Telecommunications Association FNPRM Comments at 22.

²²⁹ *Id.* at 23-24.

technology, and the impracticality of assessing and collecting user fees from unlicensed users.²³⁰ The Wireless Internet Service Providers Association (WISPA) states that, in the instances cited by proponents of the third-party reimbursement mechanism, such as UDOT above, the Commission has never required unlicensed users to reimburse transitioning licensees.²³¹

74. We agree with NCTA, OTI/PK, and WISPA regarding reimbursement for DSRC incumbents. As the Supreme Court has held, “[n]o licensee obtains any vested interest in any frequency.”²³² Moreover, Courts have repeatedly upheld the Commission’s broad authority under section 316 to modify licenses so long as it is in the public interest.²³³ Section 304 and section 316 grant the Commission broad authority to alter a spectrum license while also eliminating any claim that an incumbent licensee has on the spectrum it was originally allocated. Nothing in these provisions obligates the Commission to compensate a licensee when it exercises its authority to modify a license.

75. As the Commission stated in the *First Report and Order*, “existing DSRC licensees have recently begun to employ C-V2X on an experimental basis, telling us that the transition to C-V2X is ongoing.”²³⁴ It was at this stage that the Commission determined that, due to the DSRC to C-V2X transition already being underway, including the cost of transitioning to C-V2X in the transition calculation was inappropriate. Further, in the *First Report and Order*, the Commission, acting in the public interest, modified all existing 5.9 GHz licenses to operate in the upper 30 megahertz. This action, coupled with the long timeline between the Commission’s issuing of the *FNPRM* and the two-year transition date adopted herein, should provide all licensees sufficient time to work within their normal budgetary cycles to procure C-V2X equipment in cases where they may have previously planned for DSRC equipment. Further, given the Commission’s broad authority to modify licenses when doing so would be in the public interest, the aforementioned ongoing transition to C-V2X currently underway, and the impracticality of levying fees on unlicensed entities and entrants, the Commission will not take action on reimbursement at this time.

IV. COST-BENEFIT ANALYSIS

76. The rules that we adopt in this *Second Report and Order* enable the repurposing and transition of ITS spectrum sought in the *First Report and Order*, in particular, by codifying C-V2X technical parameters in the Commission’s rules, including band usage, message priority, channel bandwidth, and channelization building. The sources of benefits and costs of those outcomes have therefore not changed from those analyzed in the *First Report and Order*.²³⁵ In that analysis, the Commission concluded that the expected \$17.2 billion of benefits²³⁶ outweigh the costs.²³⁷ The benefits and costs of that analysis were calculated to occur over the time period 2022 to 2025.²³⁸ Because of the

²³⁰ OTI/PK FNPRM Reply Comments at 21.

²³¹ Wireless Internet Service Providers Association FNPRM Reply Comments at 10.

²³² See *Ashbacker Radio Corp. v. FCC*, 326 U.S. 327, 332 (1945).

²³³ See, e.g., *California Metro Mobile Communications Inc. v. FCC*, 365 F.3d 38, 45 (D.C. Cir. 2004) (“Section 316 grants the Commission broad power to modify licenses; the Commission need only find that the proposed modification serves the public interest, convenience and necessity.”); *Cellco Partnership v. FCC*, 700 F.3d 534, 543-544 (D.C. Cir. 2012); *Community Television, Inc. v. FCC*, 216 F.3d 1133, 1140-41 (D.C. Cir. 2000).

²³⁴ *First Report and Order*, 35 FCC Rcd at 13499, para. 143.

²³⁵ *Id.* at 13493-99, paras. 133-43.

²³⁶ *Id.* at 13495, paras. 135.

²³⁷ *Id.* at 13499, paras. 143. The *First Report and Order* did not specifically endorse a particular cost estimate, but did argue that an estimate of \$500 million based on comments and a U.S. DOT analysis was likely too high. *Id.* at 13493, 13499, paras. 131, 143.

²³⁸ *Id.* at 13493-99, paras 133-43.

court challenges to, and petitions to reconsider, the *First Report and Order*,²³⁹ some of the benefits and costs that we calculated could only be fully realized over a deferred time horizon, following this *Second Report and Order*. However, we note that demand for unlicensed use has remained strong in the intervening years, and we find that the benefits from the transition of ITS, while delayed, have not been reduced.²⁴⁰ Further, the *First Report and Order* recognized costs with regards to the ITS transition only, and the delay in implementation has likely reduced costs going forward as some efforts in the ITS transition have already occurred in the time since the release of the *First Report and Order*.²⁴¹ We therefore conclude that the benefits continue to outweigh costs for this *Second Report and Order*.

V. PROCEDURAL MATTERS

77. *Final Regulatory Flexibility Analysis*. As required by the Regulatory Flexibility Act of 1980 (RFA),²⁴² as amended, the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) regarding the significant economic impact on small entities of the policies and rules of this *Second Report and Order*, which is found in Appendix B. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the *Second Report and Order*, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration.²⁴³

78. *Paperwork Reduction Act*. – This document does not contain any new or modified information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104-13. Thus, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. § 3506(c)(4).

79. *Congressional Review Act*. – The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget concurs, that this rule is “major” under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this *Second Report and Order* to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

80. *Further Information*. For further information, contact Jamie Coleman of the Office of Engineering and Technology, at 202-418-2705 or Jamie.Coleman@fcc.gov.

VI. ORDERING CLAUSES

81. Accordingly, **IT IS ORDERED** that, pursuant to the authority found in sections 1, 4(i), 301, 302, 303, 309, 316, and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 301, 302, 303, 309, 316, and 332 that this Second Report and Order IS HEREBY ADOPTED and, except as otherwise provide below, is effective sixty days after the date of publication in the Federal Register.

²³⁹ See *supra* paras. 5-6.

²⁴⁰ Telecom Advisory Services estimates that in 2021, the economic benefits associated with Wi-Fi in the United States were almost \$979 billion and would increase to nearly \$1.4 trillion in 2025. Telecom Advisory Services, *The Economic Value of Wi-Fi: a global view (2021 – 2025)* at 34-35 (Sept. 2021), <https://www.wi-fi.org/file/detail-global-economic-value-of-wi-fi-2021-2025>. Park Associates estimates that the number of connected devices per household with Internet access has increased to 17 in 2023 from 12 in 2020. Parks Associates, *Parks: Average U.S. Internet Home Had 17 Connected Devices in 2023* (Jan. 10, 2024), <https://www.parksassociates.com/blogs/in-the-news/parks-average-us-internet-home-had-17-connected-devices-in-2023>.

²⁴¹ In the *First Report and Order*, the Commission observed that some experimentation with C-V2X already began with C-V2X, so concluded “the transition to C-V2X is already ongoing.” *First Report and Order*, 35 FCC Rcd at 13499, para. 143.

²⁴² See 5 U.S.C. § 603.

²⁴³ See 5 U.S.C. § 603(a). In addition, the Second Report and Order and FRFA (or summaries thereof) will be published in the Federal Register.

82. IT IS FURTHER ORDERED that no Intelligent Transportation System license will be issued for Dedicated Short Range Communications (DSRC) systems after the effective date of the Final Rules adopted herein. Existing licenses may be renewed as necessary following the effective date of the Final Rules but only for a period not to exceed the date two years after publication of Final Rules in the Federal Register. ITS licenses that reflect DSRC will cancel automatically on the date two years after publication of Final Rules in the Federal Register.

83. IT IS FURTHER ORDERED that the amendments of the Commission's rules as set forth in Appendix A ARE ADOPTED, effective sixty days after publication in the Federal Register.

84. IT IS FURTHER ORDERED that the Commission's Office of the Secretary, SHALL SEND a copy of this Second Report and Order, including the Final Regulatory Flexibility Analyses, to the Chief Counsel for Advocacy of the Small Business Administration.

85. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Second Report and Order, including the Final Regulatory Flexibility Analysis, to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Final Rules

For the reasons set forth in the preamble, the Federal Communications Commission amends 47 CFR parts 1, 90, 95, and 97 as follows:

PART 1 – PRACTICE AND PROCEDURE

1. The authority citation for part 1 continues to read as follows:

Authority: 47 U.S.C. chs. 2, 5, 9, 13; 28 U.S.C. 2461 note; 47 U.S.C. 1754, unless otherwise noted.

2. Amend § 1.907 by revising the definition of “*Covered geographic licenses*” to read as follows:

§ 1.907 Definitions.

* * * * *

Covered geographic licenses. Covered geographic licenses consist of the following services: 1.4 GHz Service (part 27, subpart I, of this chapter); 1.6 GHz Service (part 27, subpart J); 24 GHz Service and Digital Electronic Message Services (part 101, subpart G, of this chapter); 218-219 MHz Service (part 95, subpart F, of this chapter); 220-222 MHz Service, excluding public safety licenses (part 90, subpart T, of this chapter); 600 MHz Service (part 27, subpart N); 700 MHz Commercial Services (part 27, subparts F and H); 700 MHz Guard Band Service (part 27, subpart G); 800 MHz Specialized Mobile Radio Service (part 90, subpart S); 900 MHz Specialized Mobile Radio Service (part 90, subpart S); 900 MHz Broadband Service (part 27, subpart P); 3.45 GHz Service (part 27, subpart Q); 3.7 GHz Service (part 27, subpart O); Advanced Wireless Services (part 27, subparts K and L); Air-Ground Radiotelephone Service (Commercial Aviation) (part 22, subpart G, of this chapter); Broadband Personal Communications Service (part 24, subpart E, of this chapter); Broadband Radio Service (part 27, subpart M); Cellular Radiotelephone Service (part 22, subpart H); Citizens Broadband Radio Service (part 96, subpart C, of this chapter); Intelligent Transportation Systems Radio Service in the 5895-5925 MHz band, excluding public safety licenses (part 90, subpart M); Educational Broadband Service (part 27, subpart M); H Block Service (part 27, subpart K); Local Multipoint Distribution Service (part 101, subpart L); Multichannel Video Distribution and Data Service (part 101, subpart P); Multilateration Location and Monitoring Service (part 90, subpart M); Multiple Address Systems (EAs) (part 101, subpart O); Narrowband Personal Communications Service (part 24, subpart D); Paging and Radiotelephone Service (part 22, subpart E; part 90, subpart P); VHF Public Coast Stations, including Automated Maritime Telecommunications Systems (part 80, subpart J, of this chapter); Space Launch Services (part 26 of this chapter); Upper Microwave Flexible Use Service (part 30 of this chapter); and Wireless Communications Service (part 27, subpart D).

* * * * *

PART 90 – PRIVATE LAND MOBILE RADIO SERVICES

3. The authority citation for part 90 continues to read as follows:

Authority: 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7), 1401-1473.

4. Amend § 90.7 by adding the definition of “*Cellular Vehicle to Everything (C-V2X)*” in alphabetical order, and revising the definitions of “*On-Board unit (OBU)*”, “*Roadside unit (RSU)*”, and “*Roadway bed surface*” to read as follows:

Subpart A—General Information.**§ 90.7 Definitions.**

* * * * *

Cellular Vehicle to Everything (C-V2X). The use of cellular radio techniques to transfer data between roadside and on-board units or between on-board units to perform operations related to the improvement of traffic flow, traffic safety, and other Intelligent Transportation System applications in a variety of environments. C-V2X systems may also transmit status and instructional messages related to the units involved.

* * * * *

On-Board Unit (OBU). An On-Board Unit is an Intelligent Transportation System transceiver, operating in the 5895-5925 MHz band, that is normally mounted in or on a vehicle, or which in some instances may be a portable unit. An OBU can be operational while a vehicle or person is either mobile or stationary. The OBUs receive and transmit on one or more radio frequency (RF) channels. Except where specifically excluded, OBU operation is permitted wherever vehicle operation or human passage is permitted. The OBUs mounted in vehicles are licensed by rule under part 95 of this chapter and communicate with Roadside Units (RSUs) and other OBUs. Portable OBUs also are licensed by rule under part 95 of this chapter.

* * * * *

Roadside Unit (RSU). A Roadside Unit is an Intelligent Transportation System transceiver, operating in the 5895-5925 MHz band, that is mounted along a road or pedestrian passageway. An RSU may also be mounted on a vehicle or is hand carried, but it may only operate when the vehicle or hand-carried unit is stationary. Furthermore, an RSU operating under this part is restricted to the location where it is licensed to operate. However, portable or hand-held RSUs are permitted to operate where they do not interfere with a site-licensed operation. An RSU broadcasts data to or exchanges data with OBUs. For DSRC-based RSUs operating in the Intelligent Transportation System until [INSERT DATE 2 YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], an RSU also provides channel assignments and operating instructions to OBUs in its communications zone, when required.

Roadway bed surface. For the Intelligent Transportation System Radio Service, the road surface at ground level.

* * * * *

§ 90.7 [Amended]

5. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 90.7 by removing the definitions of “*Communications zone*” and “*Dedicated Short Range Communication Services (DSRCS)*” and the last sentence in the definition of “*Roadside Unit (RSU)*”.

Subpart B—Public Safety Radio Pool

6. Amend § 90.20 by revising paragraph (d)(86) to read as follows:

§ 90.20 Public Safety Pool.

* * * * *

(d) * * *

(86) Subpart M of this part contains rules for assignment of frequencies in the 5895-5925 MHz band.

* * * * *

Subpart C—Industrial/Business Radio Pool

7. Amend § 90.35 by revising paragraph (c)(91) to read as follows:

§ 90.35 Industrial/Business Pool.

* * * * *

(c) * * *

(91) Subpart M of this part contains rules for assignment of frequencies in the 5895-5925 MHz band.

* * * * *

Subpart G—Applications and Authorizations

8. Amend § 90.149 by revising paragraph (b) to read as follows:

§ 90.149 License term.

* * * * *

(b) Non-exclusive geographic area licenses for Intelligent Transportation Systems radio service Roadside Units (RSUs) in the 5895-5925 MHz band under subpart M of this part will be issued for a term not to exceed ten years from the date of original issuance or renewal. The registration dates of individual RSUs (see §§ 90.375, 90.389 of this part) will not change the overall renewal period of the single license.

9. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 90.149 by revising the second sentence of paragraph (b) to read as follows:

§ 90.149 License term.

* * * * *

(b) * * * The registration dates of individual RSUs (see § 90.389 of this part) will not change the overall renewal period of the single license.

10. Amend § 90.155 by revising paragraph (i) to read as follows:

§ 90.155 Time in which station must be placed in operation.

* * * * *

(i) Intelligent Transportation Systems radio service Roadside Units (RSUs) under subpart M of this part in the 5895-5925 MHz band must be placed in operation within 12 months from the effective date of registration (see §§ 90.375, 90.389 of this part) or the authority to operate the RSUs cancels automatically (see § 1.955 of this chapter). Such registration date(s) do not change the overall renewal period of the single license. Licensees must notify the Commission in accordance with § 1.946 of this chapter when registered units are placed in operation within their construction period.

11. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 90.155 by revising the first sentence of paragraph (i) to read as follows:

§ 90.155 Time in which station must be placed in operation.

* * * * *

(i) Intelligent Transportation Systems radio service Roadside Units (RSUs) under subpart M of this part in the 5895-5925 MHz band must be placed in operation within 12 months from the effective date of

registration (see 90.389 of this part) or the authority to operate the RSUs cancels automatically (see § 1.955 of this chapter). * * *

Subpart H—POLICIES GOVERNING THE ASSIGNMENT OF FREQUENCIES

12. Amend § 90.175 by revising paragraph (j)(16) to read as follows:

§ 90.175 Frequency coordinator requirements.

* * * * *

(j) * * *

(16) Applications for licenses in the Intelligent Transportation Systems radio service (as well as registrations for Roadside Units) under subpart M of this part in the 5895-5925 MHz band.

13. Amend § 90.179 by revising paragraph (f) to read as follows:

§ 90.179 Shared use of radio stations.

* * * * *

(f) Above 800 MHz, shared use on a for-profit private carrier basis is permitted only by SMR, Private Carrier Paging, LMS, and C-V2X and DSRCS licensees. See subparts M, P, and S of this part.

14. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], further amend § 90.179 by revising the first sentence of paragraph (f) to read as follows:

§ 90.179 Shared use of radio stations.

* * * * *

(f) Above 800 MHz, shared use on a for-profit private carrier basis is permitted only by SMR, Private Carrier Paging, LMS, and C-V2X licensees. * * *

Subpart I—GENERAL TECHNICAL STANDARDS

15. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 90.210 by deleting from Table 1 the entry for “5895-5925” and footnote 4.

16. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 90.213 by revising footnote 10 of Table 1 to paragraph (a) to read as follows:

§ 90.213 Frequency stability.

* * * * *

Table 1 to § 90.213 – Minimum Frequency Stability

* * * * *

¹⁰ For all equipment, frequency stability is to be specified in the station authorization.

* * * * *

Subpart M – Intelligent Transportation Systems Radio Service

17. In subpart M, add an undesignated center heading above §§ 90.350 through 90.365 to read as follows:

REGULATIONS GOVERNING THE LOCATION AND MONITORING SERVICE (LMS)

§ 90.395 [Redesignated as § 90.384]

18. In subpart M, redesignate § 90.395 as § 90.384.

19. Revise § 90.350 to read as follows:

§ 90.350 Scope.

The Intelligent Transportation Systems (ITS) radio service is for the purpose of integrating radio-based technologies into the nation's transportation infrastructure and developing and implementing the nation's intelligent transportation systems. It includes the Location and Monitoring Service (LMS), Dedicated Short Range Communications Service (DSRCS), and Cellular Vehicle to Everything (C-V2X). Rules regarding eligibility for licensing, frequency availability, and any special requirements for services in the ITS radio service are set forth in this subpart.

(a) DSRCS stations must cease operations in the 5895-5925 MHz band no later than [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. No applications for new DSRCS station licenses will be issued after [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) DSRCS stations licensed as of [INSERT DATE 60 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER] may continue to operate and make modifications in accordance with the rules in this subpart until [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

20. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], further revise § 90.350 to read as follows:

§ 90.350 Scope.

The Intelligent Transportation Systems (ITS) radio service is for the purpose of integrating radio-based technologies into the nation's transportation infrastructure and developing and implementing the nation's intelligent transportation systems. It includes the Location and Monitoring Service (LMS) and Cellular Vehicle to Everything (C-V2X). Rules regarding eligibility for licensing, frequency availability, and any special requirements for services in the ITS radio service are set forth in this subpart.

21. Amend § 90.371 by revising the first sentence of paragraphs (a) and (b) to read as follows:

§ 90.371 Dedicated short range communications service.

(a) These provisions pertain to systems in the 5895-5925 MHz band for Dedicated Short-Range Communications Service (DSRCS). * * *

(b) DSRCS Roadside Units (RSUs) operating in the band 5895-5925 MHz shall not receive protection from Government Radiolocation services in operation prior to the establishment of the DSRCS station. *

* * * * *

22. Amend § 90.377 by revising paragraph (b), designating the table in paragraph (b) as "Table 1 to paragraph (b)" and revising it, and adding paragraphs (b)(1) through (3) to read as follows:

§ 90.377 Frequencies available; maximum EIRP and antenna height, and priority communications.

* * * * *

(b) Frequencies available for assignment to eligible applicants within the 5895-5925 MHz band for RSUs and the maximum EIRP permitted for an RSU with an antenna height not exceeding 8 meters above the roadway bed surface are specified in the table below. ***

Table 1 to paragraph (b)

Channel No.	Frequency range (MHz)	Max. EIRP (dBm)	Channel use
180	5895-5905	23	Service Channel.
181	5895-5915	23	Service Channel.
182	5905-5915	23	Service Channel.
184	5915-5925	33/40	Service Channel.

(1) An RSU may employ an antenna with a height exceeding 8 meters but not exceeding 15 meters provided the EIRP specified in the table above is reduced by a factor of $20 \log(Ht/8)$ in dB where Ht is the height of the radiation center of the antenna in meters above the roadway bed surface. The EIRP is measured as the maximum EIRP toward the horizon or horizontal, whichever is greater, of the gain associated with the main or center of the transmission beam. The RSU antenna height shall not exceed 15 meters above the roadway bed surface.

(2) Channels 180/182 may be combined to create a twenty-megahertz channel, designated Channel No. 181.

(3) Channel 184 is designated for public safety applications involving safety of life and property. Only those entities meeting the requirements of § 90.373(a) are eligible to hold an authorization to operate on this channel.

* * * * *

§§ 90.370 through 90.384 [Removed]

23. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], further amend subpart M by removing §§ 90.370 through 90.384.

24. Add an undesignated center heading and §§ 90.386 through 90.394 to subpart M to read as follows:

REGULATIONS GOVERNING THE LICENSING AND USE OF FREQUENCIES IN THE 5895-5925 MHz BAND
FOR CELLULAR VEHICLE TO EVERYTHING (C-V2X) ROADSIDE UNITS (RSUs)

§ 90.386 Permitted frequencies.

(a) Cellular Vehicle to Everything (C-V2X) Roadside Units (RSUs) are permitted to operate in the 5895-5925 MHz band.

(b) Frequencies in the 5895-5925 MHz band will not be assigned for the exclusive use of any licensee. Channels are available on a shared basis only for use in accordance with the Commission's rules. All licensees shall cooperate in the selection and use of channels in order to reduce interference. This includes

monitoring for communications in progress and any other measures as may be necessary to minimize interference.

(c) Licensees of C-V2X RSUs suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If the licensees are unable to do so, the Commission may impose restrictions including specifying the transmitter power, antenna height and direction, additional filtering, or area or hours of operation of the stations concerned. The use of any channel at a given geographical location may be denied when, in the judgment of the Commission, its use at that location is not in the public interest; use of any such channel may be restricted as to specified geographical areas, maximum power, or such other operating conditions, contained in this part or in the station authorization.

§ 90.387 Cellular Vehicle to Everything (C-V2X).

(a) These provisions pertain to Cellular Vehicle to Everything (C-V2X) Roadside Units (RSUs) operating in the 5895-5925 MHz band. C-V2X On-Board Units are authorized under part 95, subpart L of this chapter.

(b) C-V2X RSUs operating in the band 5895-5925 MHz shall not receive protection from Government Radiolocation services in operation prior to the establishment of the RSU. Operation of RSU stations within the radius centered on the locations listed in the table below, must be coordinated through National Telecommunications and Information Administration (NTIA).

Table 1 to § 90.387(b)—Coordination Locations

Location	Latitude	Longitude	Coordination zone radius
Ancote, Florida	28-11-18	82-47-40	45
Cape Canaveral, Florida	28-28-54	80-34-35	47
Cape San Blas, Florida	29-40-31	85-20-48	47
Carabelle Field, Florida	29-50-38	84-39-46	36
Charleston, South Carolina	32-51-48	79-57-48	16
Edwards, California	34-56-43	117-54-50	53
Eglin, Florida	30-37-51	86-24-16	103
Fort Walton Beach, Florida	30-24-53	86-39-58	41
Kennedy Space Center, Florida	28-25-29	80-39-51	47
Key West, Florida	24-33-09	81-48-28	12
Kirtland AFB, New Mexico	34-59-51	106-28-54	15
Kokeepark, Hawaii	22-07-35	159-40-06	5
MacDill, Florida	27-50-37	82-30-04	47
NV Test Training Range, Nevada	37-18-27	116-10-24	186
Patuxent River, Maryland	38-16-55	76-25-12	6

Location	Latitude	Longitude	Coordination zone radius
Pearl Harbor, Hawaii	21-21-17	157-57-51	16
Pillar Point, California	37-29-52	122-29-59	36
Poker Flat, Alaska	65-07-36	147-29-21	13
Port Canaveral, Florida	28-24-42	80-36-17	19
Port Hueneme, California	34-08-60	119-12-24	24
Point Mugu, California	34-07-17	119-09-1	18
Saddlebunch Keys, Florida	24-38-51	81-36-22	29
San Diego, California	32-43-00	117-11-00	11
San Nicolas Island, California	33-14-47	119-31-07	195
Tonopah Test Range, Nevada	37-44-00	116-43-00	2
Vandenberg, California	34-34-58	120-33-42	55
Venice, Florida	27-04-37	82-27-03	50
Wallops Island, Virginia	37-51-23	75-30-41	48
White Sands Missile Range, New Mexico	32-58-26	106-23-43	158
Yuma, Arizona	32-54-03	114-23-10	2

(c) NTIA may authorize additional station assignments in the federal radiolocation service and may amend, modify, or revoke existing or additional assignments for such service. Once a federal assignment action is taken, the Commission's Universal Licensing System (ULS) database will be updated accordingly and the list in paragraph (b) of this section will be updated as soon as practicable.

§ 90.388 Eligibility.

The following entities are eligible to hold an authorization to operate C-V2X RSUs:

- (a) Any territory, possession, state, city, county, town or similar governmental entity.
- (b) Any entity meeting the eligibility requirements of §§ 90.20, 90.33 or 90.35.

§ 90.389 RSU license areas and registrations.

(a) Roadside Units (RSUs) in the 5895-5925 MHz band are licensed on the basis of non-exclusive geographic areas. Governmental applicants will be issued a geographic area license based on the geopolitical area encompassing the legal jurisdiction of the entity. All other applicants will be issued a geographic area license for their proposed area of operation based on county(s), state(s) or nationwide.

(b) Applicants who are approved in accordance with FCC Form 601 will be granted non-exclusive licenses for the channel(s) corresponding to their intended operations (see § 90.386). Such licenses serve as a prerequisite of registering individual RSUs located within the licensed geographic area described in paragraph (a) of this section. Licensees must register each RSU in the Universal Licensing System (ULS) before operating such RSU. RSU registrations are subject, inter alia, to the requirements of § 1.923 of this chapter as applicable (antenna structure registration, environmental concerns, international

coordination, and quiet zones). Additionally, RSUs at locations subject to NTIA coordination (see § 90.387(b)) may not begin operation until NTIA approval is received. Registrations are not effective until the Commission posts them on the ULS. It is the licensee's responsibility to delete from the ULS registration database any RSUs that have been discontinued.

(c) Licensees must operate each C-V2X RSU in accordance with the Commission's rules and the registration data posted on the ULS for such C-V2X RSU.

§ 90.390 Channels and priority communications.

(a) *Channels.* C-V2X may operate on the following band segments:

10-megahertz channels:	20-megahertz channels:	30-megahertz channel:
5895-5905 MHz	5895-5915 MHz	5895-5925 MHz
5905-5915 MHz	5905-5925 MHz	
5915-5925 MHz		

(b) *Safety/public safety priority.* The following access priority governs all C-V2X operations:

- (1) Communications involving the safety of life have access priority over all other C-V2X communications;
- (2) C-V2X communications involving public safety have access priority over all other C-V2X except those communications described in (b)(1) of this section. Roadside Units (RSUs) operated by state or local governmental entities are presumptively engaged in public safety priority communications.

(c) *Non-priority communications.* C-V2X communications not listed in paragraph (b) of this section, are non-priority communications.

- (1) If a dispute arises concerning non-priority communications, the licensee of the later-registered RSU must accommodate the operation of the early registered RSU, i.e., interference protection rights are date-sensitive, based on the date that the RSU is first registered (see § 90.389) and the later-registered RSU must modify its operations to resolve the dispute in accordance with paragraph (c)(2) of this section.
- (2) For purposes of this paragraph (c), objectionable interference will be considered to exist when the Commission receives a complaint and the difference in signal strength between the earlier-registered RSU and the later-registered RSU is 18 dB or less (co-channel). Later-registered RSUs causing objectionable interference must correct the interference immediately unless written consent is obtained from the licensee of the earlier-registered RSU.

§ 90.391 Maximum EIRP and antenna height.

(a) C-V2X licensees must limit RSU equivalent isotropically radiated power (EIRP) to 33 dBm. This limit applies to any operation within the 5895-5925 MHz band as follows:

- (1) 33 dBm/10 MHz EIRP;
- (2) 33 dBm/20 MHz EIRP; and
- (3) 33 dBm/30 MHz EIRP.

For purposes of this section, the EIRP is root mean squared (RMS) measured as the maximum EIRP toward the horizon or horizontal, whichever is greater, of the gain associated with the main or center of the transmission beam.

(b) The radiation center of an RSU antenna shall not exceed 8 meters above the roadway bed surface, except that an RSU may employ an antenna with a height exceeding 8 meters but not exceeding 15 meters provided the EIRP specified in paragraph (a) of this section is reduced by a factor of $20 \log(Ht/8)$ in dB where Ht is the height of the radiation center of the antenna in meters above the roadway bed surface.

The RSU antenna height must not exceed 15 meters above the roadway bed surface.

§ 90.392 C-V2X emissions limits.

C-V2X Roadside Units (RSUs) must comply with the following out-of-band emissions limits.

- (a) Conducted limits measured at the antenna input must not exceed:
 - (1) -16 dBm/100 kHz within ± 1 megahertz of the band edges;
 - (2) -13 dBm/MHz within ± 1 megahertz to ± 5 megahertz of the band edges;
 - (3) -16 dBm/MHz within ± 5 megahertz to ± 30 megahertz of the band edges; and
 - (4) -28 dBm/MHz beyond 30 megahertz from the band edges
- (b) [reserved]

§ 90.393 RSU sites near the U.S./Canada or U.S./Mexico border.

Until such time as agreements between the United States and Canada or the United States and Mexico, as applicable, become effective governing border area use of the 5895-5925 MHz band, authorizations to operate Roadside Units (RSUs) are granted subject to the following conditions:

- (a) RSUs must not cause harmful interference to stations in Canada or Mexico that are licensed in accordance with the international table of frequency allocations for Region 2 (see § 2.106 of this chapter) and must accept any interference that may be caused by such stations.
- (b) Authority to operate RSUs is subject to modifications and future agreements between the United States and Canada or the United States and Mexico, as applicable.

Subpart N—OPERATING REQUIREMENTS

- 25. Amend § 90.421 by adding paragraph (d) to read as follows:

§ 90.421 Operation of mobile station units not under the control of the licensee.

* * * * *

- (d) C-V2X On-Board Units licensed by rule under part 95 of this chapter may communicate with any C-V2X roadside unit authorized under this part or any licensed commercial mobile radio service station as defined in part 20 of this chapter.

- 26. Amend § 90.425 by revising paragraph (d)(10) to read as follows:

§ 90.425 Station identification.

* * * * *

- (d) * * *

- (10) It is a Roadside Unit (RSU) in an Intelligent Transportation System operating in the 5895-5925 MHz band.

PART 95—PERSONAL RADIO SERVICES

- 27. The authority citation for part 95 continues to read as follows:

Authority: 47 U.S.C. 154, 303, and 307.

- 28. Amend subpart L by revising the subpart heading to read as follows:

Subpart L—Intelligent Transportation Systems (ITS) On-Board Units (OBUs) in the 5895-5925 MHz Band

* * * * *

29. Revise § 95.3101 to read as follows:

§ 95.3101 Scope.

This subpart contains rules that apply only to ITS On-Board Units (OBUs) transmitting in the 5895-5925 MHz frequency band. ITU Roadside Units (RSUs) are authorized under part 90, subpart M of this chapter.

30. Amend § 95.3103 by
- a. Adding the definition of “*Cellular Vehicle to Everything (C-V2X)*”;
 - b. Revising the definition of “*Dedicated Short-Range Communications Services (DSRCS)*”;
 - c. Adding the definitions of “*Geofenced Onboard Unit*” and “*Geofencing*”;
 - d. Revising the definition of “*Onboard Unit (OBU)*”.

The additions and revisions read as follows:

§ 95.3103 Definitions.

Cellular Vehicle to Everything (C-V2X). See § 90.7 of this chapter.

Dedicated Short-Range Communications Services (DSRCS). See § 90.7 of this chapter.

Geofenced Onboard Unit. An OBU that incorporates geofencing to protect the appropriate areas around federal radiolocation sites currently enumerated in 47 CFR § 90.387(b) by reducing power within those areas. Such OBUs programmed with information about these sites have the option of operation under the transmit power limits set forth in section 95.3404 of this subpart.

Geofencing. For the purposes of this subpart, geofencing is used to create a virtual boundary around a physical location by enabling a radiofrequency device using a geolocation capability to determine whether its geographic coordinates are within a defined geographic area.

On-Board Unit (OBU). See § 90.7 of this chapter.

* * * * *

31. Amend subpart L by adding an undesignated center heading after § 95.3103, to read as follows:

REGULATIONS GOVERNING THE USE OF FREQUENCIES IN THE 5895-5925 MHZ BAND FOR DEDICATED
SHORT-RANGE COMMUNICATIONS SERVICES (DSRCS) ON BOARD UNITS (OBUS)

* * * * *

Subpart L—[Amended]

32. Effective [INSERT DATE TWO YEARS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], further amend subpart L by removing the undesignated center heading and §§ 95.3105 through 95.3189.

33. Add the undesignated center heading and §§ 95.3201 through 95.3205 to subpart L to read as follows:

REGULATIONS GOVERNING THE USE OF FREQUENCIES IN THE 5895-5925 MHZ BAND FOR CELLULAR
VEHICLE TO EVERYTHING (C-V2X) ON BOARD UNITS (OBUS)

§ 95.3201 Permissible uses.

C-V2X OBUs may transmit signals to other C-V2X OBUs and to C-V2X Roadside Units (RSUs) authorized under part 90 of this chapter or any licensed commercial mobile radio service station as defined in part 20 of this chapter.

§ 95.3202 OBU transmitter certification.

- (a) Each C-V2X OBU that operates or is intended to operate in the 5895-5925 MHz band must be certified in accordance with this subpart and subpart J of part 2 of this chapter.
- (b) A grant of equipment certification for this subpart will not be issued for any C-V2X OBU transmitter type that fails to comply with all of the applicable rules in this subpart.

§ 95.3203 OBU frequencies.

C-V2X OBUs are permitted to operate in the 5895-5925 MHz band.

§ 95.3204 OBU transmit power limit.

(a) The following power limits apply for OBUs without a geofencing capability at all locations and for OBUs with a geofencing capability when operating within any coordination zone specified in § 90.387(b) of this chapter:

- (1) 10 MHz channel (5895-5905 MHz): 23 dBm/10 MHz EIRP;
- (2) 10 MHz channel (5905-5915 MHz): 33 dBm/10 MHz EIRP, reduced to 27 dBm within ± 5 degrees of horizontal;
- (3) 10 MHz channel (5915-5925 MHz): 33 dBm/10 MHz EIRP, reduced to 27 dBm within ± 5 degrees of horizontal;
- (4) 20 MHz channel (5895-5915 MHz): 23 dBm/20 MHz EIRP;
- (5) 20 MHz channel (5905-5925 MHz): 33 dBm/20 MHz EIRP, reduced to 27 dBm within ± 5 degrees of horizontal; and
- (6) 30 MHz channel: 23 dBm/30 MHz EIRP.

(b) The following power limits apply to OBUs with a geofencing capability when operating at locations outside any coordination zone specified in § 90.387(b) of this chapter:

- (1) 10 MHz channel (5895-5905 MHz): 33 dBm/10 MHz EIRP;
- (2) 10 MHz channel (5905-5915 MHz): 33 dBm/10 MHz EIRP;
- (3) 10 MHz channel (5915-5925 MHz): 33 dBm/10 MHz EIRP;
- (4) 20 MHz channel (5895-5915 MHz): 33 dBm/20 MHz EIRP;
- (5) 20 MHz channel (5905-5925 MHz): 33 dBm/20 MHz EIRP; and
- (6) 30 MHz channel: 33 dBm/30 MHz EIRP.

(c) For purposes of this section, the EIRP is root mean squared (RMS) measured as the maximum EIRP toward the horizon or horizontal, whichever is greater, of the gain associated with the main or center of the transmission beam.

(d) For purposes of this section, a portable unit is a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

34. Add § 95.3179 to subpart L to read as follows:

§ 95.3205 Unwanted emissions limits.

(a) C-V2X OBUs must comply with the following out-of-band emissions limits. Conducted emissions limits measured at the antenna input shall not exceed:

- (1) -16 dBm/100 kHz within ± 1 megahertz of the band edges;
- (2) -13 dBm/MHz within ± 1 megahertz to ± 5 megahertz of the band edges;
- (3) -16 dBm/MHz within ± 5 megahertz to ± 30 megahertz of the band edges; and
- (4) -28 dBm/MHz beyond 30 megahertz from the band edges.

PART 97—AMATEUR RADIO SERVICE

35. The authority citation for part 97 continues to read as follows:

Authority: 47 U.S.C. 151-155, 301-609, unless otherwise noted.

36. Amend § 97.303 by revising the last sentence of paragraph (r)(2) to read as follows:

§ 97.303 Frequency sharing requirements.

* * * * *

(r) * * *

(2) * * * In the United States, the use of mobile service is restricted to operations in the Intelligent Transportation System radio service.

* * * * *

APPENDIX B

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Use of the 5.850-5.925 GHz Band, Further Notice of Proposed Rulemaking (FNPRM)* released in November 2020.² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *FNPRM*, including comment on the IRFA. No comments were filed addressing the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Second Report and Order

2. In the *Second Report and Order*, the Commission addresses the transition of 5.9 GHz Intelligent Transportation System (ITS) operations from Dedicated Short Range Communications (DSRC) to cellular-to-vehicle-everything (C-V2X). Specifically, the *Second Report and Order* discusses standards and establishes C-V2X technical parameters in the Commission's rules, such as those governing C-V2X equivalent isotropically radiated power (EIRP) and out-of-band emissions (OOBE) limits for C-V2X on-board units (OBUs) and roadside units (RSUs), and for antenna height limits for RSUs. We also eliminate the DSRC requirement for communications zone designations and finalize the timeline for phasing out DSRC-based technology. Additionally, we address the issues of additional spectrum allocations for ITS use and reimbursing the transition costs of DSRC incumbents. The term "DSRC" refers to the technology being phased out of use to provide ITS in the 5.9 GHz band. For ease of reference, we use the term "DSRC" throughout this document. The rules adopted in the *Second Report and Order* address the Commission's objectives of promoting the efficient use of 30 megahertz of spectrum dedicated to ITS as well as providing the safety benefits this technology promises to deliver to the American public.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

3. There were no comments filed that specifically addressed the proposed rules and policies presented in the IRFA.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

4. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.⁴ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

5. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.⁵ The RFA generally defines

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, First Report and Order (*First Report and Order*), Further Notice of Proposed Rulemaking (*FNPRM*), and Order of Proposed Modification, 35 FCC Rcd 13440, 13500-08, paras. 146-68 (2020).

³ 5 U.S.C. § 604.

⁴ *Id.* § 604 (a)(3).

⁵ *Id.* 604(a)(4).

the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁶ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁷ A “small business concern” is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).⁸

6. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe, at the outset, three broad groups of small entities that could be directly affected herein.⁹ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.¹⁰ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹¹

7. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹² The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.¹³ Nationwide, for tax year 2022, there were approximately 530,109 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.¹⁴

8. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special

⁶ *Id.* § 601(6).

⁷ *Id.* § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁸ Small Business Act, 15 U.S.C. § 632 (1996).

⁹ 5 U.S.C. § 601(3)-(6).

¹⁰ See SBA, Office of Advocacy, “What’s New With Small Business?,” <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf> (Mar. 2023).

¹¹ *Id.*

¹² 5 U.S.C. § 601(4).

¹³ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations – Form 990-N (e-Postcard), “Who must file,” <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

¹⁴ See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2022 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (71,897), Region 2-Mid-Atlantic and Great Lakes Areas (197,296), and Region 3-Gulf Coast and Pacific Coast Areas (260,447) that includes the continental U.S., Alaska, and Hawaii. This data includes information for Puerto Rico (469).

districts, with a population of less than fifty thousand.”¹⁵ U.S. Census Bureau data from the 2022 Census of Governments¹⁶ indicate there were 90,837 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁷ Of this number, there were 36,845 general purpose governments (county,¹⁸ municipal, and town or township¹⁹) with populations of less than 50,000 and 11,879 special purpose governments (independent school districts²⁰) with enrollment populations of less than 50,000.²¹ Accordingly, based on the 2022 U.S. Census of Governments data, we estimate that at least 48,724 entities fall into the category of “small governmental jurisdictions.”²²

9. *Radio Frequency Equipment Manufacturers (RF Manufacturers).* There are several analogous industries with an SBA small business size standard that are applicable to RF Manufacturers. These industries are Fixed Microwave Services, Other Communications Equipment Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. A description of these industries and the SBA small business size standards are detailed below.

10. *Fixed Microwave Services.* Fixed microwave services include common carrier,²³ private-operational fixed,²⁴ and broadcast auxiliary radio services.²⁵ They also include the Upper Microwave

¹⁵ 5 U.S.C. § 601(5).

¹⁶ 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/economic-census/year/2022/about.html>.

¹⁷ See U.S. Census Bureau, 2022 Census of Governments – Organization Table 2. Local Governments by Type and State: 2022 [CG2200ORG02], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG2200ORG02 Table Notes_Local Governments by Type and State_2022.

¹⁸ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2022 [CG2200ORG05], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 2,097 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

¹⁹ See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2022 [CG2200ORG06], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 18,693 municipal and 16,055 town and township governments with populations less than 50,000.

²⁰ See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2022 [CG2200ORG10], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 11,879 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2022 [CG2200ORG04], CG2200ORG04 Table Notes Special Purpose Local Governments by State Census Years 1942 to 2022.

²¹ While the special purpose governments category also includes local special district governments, the 2022 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

²² This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,845) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (11,879), from the 2022 Census of Governments - Organizations tbls. 5, 6 & 10.

²³ See 47 CFR part 101, subparts C and I.

²⁴ See *id.* subparts C and H.

²⁵ Auxiliary Microwave Service is governed by part 74 of Title 47 of the Commission’s Rules. See 47 CFR part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between
(continued....)

Flexible Use Service (UMFUS),²⁶ Millimeter Wave Service (70/80/90 GHz),²⁷ Local Multipoint Distribution Service (LMDS),²⁸ the Digital Electronic Message Service (DEMS),²⁹ 24 GHz Service,³⁰ Multiple Address Systems (MAS),³¹ and Multichannel Video Distribution and Data Service (MVDDS),³² where in some bands licensees can choose between common carrier and non-common carrier status.³³ Wireless Telecommunications Carriers (*except* Satellite)³⁴ is the closest industry with an SBA small business size standard applicable to these services. The SBA small size standard for this industry classifies a business as small if it has 1,500 or fewer employees.³⁵ U.S. Census Bureau data for 2017 show that there were 2,893 firms that operated in this industry for the entire year.³⁶ Of this number, 2,837 firms employed fewer than 250 employees.³⁷ Thus, under the SBA size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

11. The Commission's small business size standards with respect to fixed microwave services involve eligibility for bidding credits and installment payments in the auction of licenses for the various frequency bands included in fixed microwave services. When bidding credits are adopted for the auction of licenses in fixed microwave services frequency bands, such credits may be available to several types of small businesses based average gross revenues (small, very small and entrepreneur) pursuant to the competitive bidding rules adopted in conjunction with the requirements for the auction and/or as identified in part 101 of the Commission's rules for the specific fixed microwave services frequency bands.³⁸

12. In frequency bands where licenses were subject to auction, the Commission notes that as a general matter, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Further, the Commission does not generally track subsequent business size unless, in the context of assignments or transfers, unjust enrichment issues are implicated. Additionally, since the Commission does not collect data on the number of employees for licensees providing these services, at this time we are not able to

two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

²⁶ See 47 CFR part 30.

²⁷ See 47 CFR part 101, subpart Q.

²⁸ See *id.* subpart L.

²⁹ See *id.* subpart G.

³⁰ See *id.*

³¹ See *id.* subpart O.

³² See *id.* subpart P.

³³ See 47 CFR §§ 101.533, 101.1017.

³⁴ See U.S. Census Bureau, *2017 NAICS Definition*, "517312 Wireless Telecommunications Carriers (*except* Satellite)," <https://www.census.gov/naics/?input=517312&year=2017&details=517312>.

³⁵ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

³⁶ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIIRM, NAICS Code 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPFIIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

³⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

³⁸ See 47 CFR §§ 101.538(a)(1)-(3), 101.1112(b)-(d), 101.1319(a)(1)-(2), and 101.1429(a)(1)-(3).

estimate the number of licensees with active licenses that would qualify as small under the SBA's small business size standard.

13. *Other Communications Equipment Manufacturing.* This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).³⁹ Examples of such manufacturing include fire detection and alarm systems manufacturing, intercom systems and equipment manufacturing, and signals (e.g., highway, pedestrian, railway, traffic) manufacturing.⁴⁰ The SBA small business size standard for this industry classifies firms having 750 or fewer employees as small.⁴¹ For this industry, U.S. Census Bureau data for 2017 shows that 321 firms operated for the entire year.⁴² Of that number, 310 firms operated with fewer than 250 employees.⁴³ Based on this data, we conclude that the majority of Other Communications Equipment Manufacturers are small.

14. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.⁴⁴ Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.⁴⁵ The SBA small business size standard for this industry classifies firms having 1,250 employees or less as small.⁴⁶ U.S. Census Bureau data for 2017 show that there were 656 firms in this industry that operated for the entire year.⁴⁷ Of this number, 624 had fewer than 250 employees.⁴⁸ Based on this data, we conclude that a majority of manufacturers in this industry are small.

15. *Wireless Telecommunications Carriers (except Satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.⁴⁹ Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless Internet access, and

³⁹ See U.S. Census Bureau, *2017 NAICS Definitions*, "334290 Other Communications Equipment Manufacturing," <https://www.census.gov/naics/?input=334290&year=2017&details=334290>.

⁴⁰ *Id.*

⁴¹ See 13 CFR 121.201, NAICS Code 334290.

⁴² See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 334290, <https://data.census.gov/cedsci/table?y=2017&n=334290&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁴³ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁴⁴ See U.S. Census Bureau, *2017 NAICS Definition*, "334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing," <https://www.census.gov/naics/?input=334220&year=2017&details=334220>.

⁴⁵ *Id.*

⁴⁶ See 13 CFR § 121.201, NAICS Code 334220.

⁴⁷ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 334220, <https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁴⁸ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁴⁹ See U.S. Census Bureau, *2017 NAICS Definition*, "517312 Wireless Telecommunications Carriers (except Satellite)," <https://www.census.gov/naics/?input=517312&year=2017&details=517312>.

wireless video services.⁵⁰ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁵¹ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁵² Of that number, 2,837 firms employed fewer than 250 employees.⁵³ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 594 providers that reported they were engaged in the provision of wireless services.⁵⁴ Of these providers, the Commission estimates that 511 providers have 1,500 or fewer employees.⁵⁵ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

16. *Automobile Manufacturing.* This U.S. industry comprises establishments primarily engaged in (1) manufacturing complete automobiles (i.e., body and chassis or unibody) or (2) manufacturing automobile chassis only.⁵⁶ The SBA small business size standard for this industry classifies firms having 1,500 employees or less as small.⁵⁷ 2017 U.S. Census Bureau data indicate that 157 firms operated in this industry for the entire year.⁵⁸ Of this number, 145 firms employed fewer than 100 employees.⁵⁹ Therefore, the Commission estimates that the majority of manufacturers in this industry are small entities.

17. *Internet Service Providers (Non-Broadband).* Internet access service providers using client-supplied telecommunications connections (e.g., dial-up ISPs) as well as VoIP service providers using client-supplied telecommunications connections fall in the industry classification of All Other Telecommunications.⁶⁰ The SBA small business size standard for this industry classifies firms with annual receipts of \$40 million or less as small.⁶¹ For this industry, U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.⁶² Of those firms, 1,039

⁵⁰ *Id.*

⁵¹ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁵² See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIIRM, NAICS Code 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPFIIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁵³ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁵⁴ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

⁵⁵ *Id.*

⁵⁶ See U.S. Census Bureau, *2017 NAICS Definition, "336111 Automotive Manufacturing,"* <https://www.census.gov/naics/?input=336111&year=2017&details=336111>.

⁵⁷ See 13 CFR § 121.201, NAICS Code 336111 (as of 10/1/22 NAICS Code 336110).

⁵⁸ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIIRM, NAICS Code 336111, <https://data.census.gov/cedsci/table?y=2017&n=336111&tid=ECNSIZE2017.EC1700SIZEEMPFIIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁵⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁶⁰ See U.S. Census Bureau, *2017 NAICS Definition, "517919 All Other Telecommunications,"* <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁶¹ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

⁶² See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919,

(continued....)

had revenue of less than \$25 million.⁶³ Consequently, under the SBA size standard a majority of firms in this industry can be considered small.

18. *Wired Broadband Internet Access Service Providers (Wired ISPs).*⁶⁴ Providers of wired broadband Internet access service include various types of providers except dial-up Internet access providers. Wireline service that terminates at an end user location or mobile device and enables the end user to receive information from and/or send information to the Internet at information transfer rates exceeding 200 kilobits per second (kbps) in at least one direction is classified as a broadband connection under the Commission's rules.⁶⁵ Wired broadband Internet services fall in the Wired Telecommunications Carriers industry.⁶⁶ The SBA small business size standard for this industry classifies firms having 1,500 or fewer employees as small.⁶⁷ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.⁶⁸ Of this number, 2,964 firms operated with fewer than 250 employees.⁶⁹

19. Additionally, according to Commission data on Internet access services as of June 30, 2019, nationwide there were approximately 2,747 providers of connections over 200 kbps in at least one direction using various wireline technologies.⁷⁰ The Commission does not collect data on the number of employees for providers of these services, therefore, at this time we are not able to estimate the number of providers that would qualify as small under the SBA's small business size standard. However, in light of the general data on fixed technology service providers in the Commission's *2022 Communications Marketplace Report*,⁷¹ we believe that the majority of wireline Internet access service providers can be considered small entities.

20. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended, contains a size standard for a "small cable operator," which is "a cable operator that, directly or

<https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁶³ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

⁶⁴ Formerly included in the scope of the Internet Service Providers (Broadband), Wired Telecommunications Carriers and All Other Telecommunications small entity industry descriptions.

⁶⁵ See 47 CFR § 1.7001(a)(1).

⁶⁶ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁶⁷ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁶⁸ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517311, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁶⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁷⁰ See Federal Communications Commission, *Internet Access Services: Status as of June 30, 2019* at 27, Fig. 30 (*IAS Status 2019*), Industry Analysis Division, Office of Economics & Analytics (March 2022). The report can be accessed at <https://www.fcc.gov/economics-analytics/industry-analysis-division/iad-data-statistical-reports>. The technologies used by providers include aDSL, sDSL, Other Wireline, Cable Modem and FTTP). Other wireline includes: all copper-wire based technologies other than xDSL (such as Ethernet over copper, T-1/DS-1 and T3/DS-1) as well as power line technologies which are included in this category to maintain the confidentiality of the providers.

⁷¹ See *Communications Marketplace Report*, GN Docket No. 22-203, 2022 WL 18110553 at 10, paras. 26-27, Figs. II.A.5-7. (2022) (*2022 Communications Marketplace Report*).

through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.”⁷² For purposes of the Telecom Act Standard, the Commission determined that a cable system operator that serves fewer than 498,000 subscribers, either directly or through affiliates, will meet the definition of a small cable operator.⁷³ Based on industry data, only six cable system operators have more than 498,000 subscribers.⁷⁴ Accordingly, the Commission estimates that the majority of cable system operators are small under this size standard. We note however, that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.⁷⁵ Therefore, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

21. *Intelligent Transportation System (ITS)*. The Commission’s own data—available in its Universal Licensing System—indicate that, as of June 11, 2024, there are 310 active ITS licenses in the Commission’s database that will be affected by our actions.⁷⁶ An authorization to operate in the ITS service may be obtained by any territory, possession, state, city, county, town, or similar governmental entity, and any public safety or industrial/business entity meeting the pertinent eligibility requirements. Prior to operation, applicants are issued a non-exclusive, geographic area license: governmental entities are authorized based on that entity’s legal jurisdictional area of operations; and non-governmental entities are licensed based on each applicant’s area of operation (i.e., by county, state, multi-state, or nationwide). 91 licensees are considered “public safety eligible” with the remaining 212 qualified under the Industrial/Business Pool requirements. The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

22. In the *Second Report and Order*, the Commission adopts crucial rules that will optimize the use of 30 megahertz of spectrum dedicated to ITS. The adopted rules address band usage, message prioritization, channel bandwidth, power for RSUs and OBUs, and out-of-band emissions (OOBE) limits for C-V2X operations, along with transition issues and compensation to existing users.

23. The Commission expects that all filing, recordkeeping and reporting requirements associated with the adopted rules will be the same for small and other entities. Further, we believe the rules adopted in the *Second Report and Order* would effectively provide an advantage to small entities, as these entities would benefit from the C-V2X rules that reflect the existing DSRC message prioritization hierarchy in order of precedence as follows: safety-of-life, public safety, and non-priority communications. We also believe minimizing the disruption to ongoing transition activities by maintaining the 10-megahertz channel bandwidths, corresponding to 5.895-5.905 GHz, 5.905-5.915 GHz,

⁷² 47 U.S.C. § 543(m)(2).

⁷³ *FCC Announces Updated Subscriber Threshold for the Definition of Small Cable Operator*, Public Notice, DA 23-906 (MB 2023) (2023 *Subscriber Threshold PN*). In this Public Notice, the Commission determined that there were approximately 49.8 million cable subscribers in the United States at that time using the most reliable source publicly available. *Id.* This threshold will remain in effect until the Commission issues a superseding Public Notice. See 47 CFR § 76.901(e)(1).

⁷⁴ S&P Global Market Intelligence, S&P Capital IQ Pro, *Top Cable MSOs 06/23Q* (last visited Sept. 27, 2023); S&P Global Market Intelligence, *Multichannel Video Subscriptions*, Top 10 (April 2022).

⁷⁵ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to § 76.901(e) of the Commission’s rules. See 47 CFR § 76.910(b).

⁷⁶ See Federal Communications Commission, *Universal Licensing System*, <http://wireless.fcc.gov/uls>. For the purposes of this (IRFA), consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

and 5.915-5.925 GHz will equally allow users and small entities to combine the 10-megahertz channels into 20 or 30-megahertz channels without restriction, thus accommodating various ITS applications and services.

24. In addition, by eliminating the communications zone requirements that managed congestion, the modified rules under §§ 90.7, 90.375, 90.377, which were once required under DSRC rules, are now unnecessary as ITS evolves to C-V2X technology, thereby reducing burdens on small entities. Further, the adopted rules also offer more flexibility for RSU stations without any limit on transmitter output power, thereby enabling those stations to be able to provide reliable service in a given coverage area and also enable licensees to select the most efficient and effective equipment parameters to meet their coverage requirements by a simple coordination with the National Telecommunications and Information Administration (NTIA). Additionally, retaining the existing limitations on RSU transmitting antenna height and associated power reduction requirement for RSU transmitting antennas over 8 meters in height and up to a maximum of 15 meters, will eliminate a significant impact on performance and cost to small and other entities.

25. Lastly, the Commission believes two years is sufficient time for small and other suppliers to sunset DSRC operations and convert to C-V2X technology in the 5.9 GHz band. This timeframe adequately allows public entities with longer budgetary timelines to obtain compliant equipment. Therefore, allowing smaller entities an easier transition. This two year period will commence on the effective date of the *Second Report and Order* followed by reminders delegated to PSHSB and WTB via public notice. Regarding the cost of compliance for small entities, the record in this proceeding does not currently include a sufficient economic analysis that would allow us to quantify those costs, including whether it will be necessary for small entities to hire professionals to comply with the adopted rules. However, we believe the benefits gained from the repurposing and transition of ITS spectrum, the continued strong demand for unlicensed use, and the reduced costs that have already occurred in the time since the release of the *First Report and Order*⁷⁷ outweigh the costs of the adopted rules in the *Second Report and Order*.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

26. The RFA requires an agency to provide, “a description of the steps the agency has taken to minimize the significant economic impact on small entities. . .including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.”⁷⁸

27. The *Second Report and Order* enables the repurposing and transition of ITS spectrum and specifically outlines C-V2X technical parameters in its adopted rules. This includes band usage, message priority, channel bandwidth, and channelization building. The Commission anticipates significant economic benefits from expanding Wi-Fi capacity for small and other entities, as the expected \$17.2 billion of benefits over three years should outweigh the cost for ITS use. Further, the rules adopted in the *Second Report and Order* will be sufficient for current and future ITS licensees to continue offering this service in the band. We also believe that we have appropriately streamlined these rules to provide new cost-effective opportunities for small entities to access that spectrum, thereby reducing economic barriers to entry for that market. In addition, we find that the public interest is best served by addressing the needs of both ITS and unlicensed users for access to distinct parts of the 5.9 GHz band. The adopted rules for unlicensed use have remained strong in recent years, and we find the benefits from the transition of ITS, while delayed, have not diminished. Consequently, we do not expect that the current and future

⁷⁷ See *First Report and Order*, 35 FCC Rcd 13440.

⁷⁸ 5 U.S.C. § 604(a)(6).

licensees in the band, including small entities, would experience a significant economic impact from additional unlicensed use of the spectrum permitted under the adopted rules.

28. In making its final determinations in the *Second Report and Order*, the Commission considered various alternatives and approaches to the rules ultimately adopted. For example, we considered proposals for imposing a reimbursement mechanism for transition costs incurred by DSRC incumbents. Ultimately, however, we agreed with industry associations representing small entities such as the Wireless Internet Service Providers Association (WISPA) and rejected this approach, thereby reducing an economic burden on unlicensed users, which include small entities.⁷⁹ In addition, we considered proposals that all ITS operations in the 5.895-5.925 GHz band either convert to C-V2X or cease operating in less than two years after the effective date of the *Second Report and Order*, however, in adopting the two-year timeframe, which was generally agreed with by commenters in this proceeding, we reduced undue economic hardship on those small entities who may lack the economic or staffing resources to comply with a shorter timeframe. We will continue to explore alternatives in the future to eliminate unnecessary regulations and minimize any significant impact on small entities.

G. Report to Congress

29. The Commission will send a copy of the *Second Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.⁸⁰ In addition, the Commission will send a copy of the *Second Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Second Report and Order* and FRFA (or summaries thereof) will also be published in the *Federal Register*.⁸¹

⁷⁹ See *Second Report and Order*, para 71.

⁸⁰ *Id.* § 801(a)(1)(A).

⁸¹ *Id.* § 604(b).

APPENDIX C**List of Commenters**

5G Americas

5G Automotive Association

5G Automotive Association; American Association of State Highway and Transportation Officials;
Institute of Transportation Engineers; Wireless Infrastructure Association

Alliance for Automotive Innovation

Amateur Radio Emergency Data Network (AREDN)

American Association of State Highway and Transportation Officials

American Society of Civil Engineers

Applied Information and the Infrastructure Automotive Technology

Association of Equipment Manufacturers

AT&T Services, Inc.

Auto Innovators FNPRM

Autotalks FNPRM

Broadcom, Inc. and Facebook, Inc.

City of New York

CLAAS Omaha, Inc.

CNH Industrial America LLC

Commsignia

Commonwealth of Kentucky Transportation Cabinet

Continental Automotive Systems

Dennis, PE, Eric Paul

DENSO International America, Inc.

DriveOhio

Dynamic Spectrum Alliance

Fiat Chrysler Automobiles (FCA) US LLC

Ford Motor Company

Georgia Department of Transportation

LG Electronics Inc.

Hyundai America Technical Center

Institute of Transportation Engineers (ITE)

Intelligent Transportation Society of America (ITS America)

ACT|The App Association; American Honda Motor Co., Inc.; Apple, Inc.; Cisco Systems, Inc.; Computer
Ways, Inc.; Fair Standards Alliance; Juniper Networks, Inc.; Lenovo (United States) Inc.; Motorola
Mobility LLC; Nordic Semiconductor ASA; Sierra Wireless, Inc.; Telit Communication S.p.A.; Valeo

Telematik and Akustik GmbH; Volkswagen Group of America, Inc.
Maryland Department of Transportation
Massachusetts Department of Transportation
Michigan Department of Transportation
Motor and Equipment Manufacturers Association (MEMA)
National Cable and Telecommunications Association
National Safety Council (NSC)
National Telecommunications and Information Administration (NTIA)
NCTA – The Internet & Television Association FNPRM and FNPRM Reply
New America’s Open Technology Institute and Public Knowledge
NW 33 Innovation Council of Governments (COG)
Panasonic Corporation of North America
Public Knowledge
Qualcomm Incorporated
Robert Bosch LLC
T-Mobile USA, Inc.
Toyota Motor Corporation
University of Michigan Transportation Research Institute (UMTRI)
Utah Department of Transportation (UDOT)
Wi-Fi Alliance
Wireless Internet Service Providers Association (WISPA)

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Modifying Emissions Limits for the 24.25-24.45	)	ET Docket No. 21-186
GHz and 24.75-25.25 GHz Bands	)	
	)	
	)	
	)	
	)	

REPORT AND ORDER

Adopted: November 27, 2024

Released: December 2, 2024

By the Commission:

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I. INTRODUCTION

1. In this Report and Order, we revise the Commission’s rules for the 24.25-24.45 GHz and 24.75-25.25 GHz bands (collectively, the 24 GHz band) to implement certain decisions made in the World Radiocommunication Conference held by the International Telecommunication Union (ITU) in 2019 (WRC-19). Specifically, we align part 30 of the Commission’s rules for mobile operations in these frequencies with the Resolution 750 limits adopted at WRC-19 to protect the passive 23.6-24.0 GHz band from unwanted emissions on the timeframes adopted at WRC-19.

II. BACKGROUND

2. The 23.6-24.0 GHz band is allocated to several passive scientific and research services, including the Earth Exploration Satellite Service (EESS) (passive), on a primary basis.¹ EESS utilizes passive sensors located on satellites to measure the power level of naturally occurring radio emissions from water vapor and cloud liquid water molecules in the atmosphere, which are critical measurements for climatology and weather forecasting.² Because naturally occurring radio emissions in the 23.6-24.0 GHz band are very weak, the passive sensors that measure them are sensitive and vulnerable to interference.³

3. Observations made by EESS sensors operating in the 23.6-24.0 GHz band are essential for meteorological applications.⁴ The National Oceanic and Atmospheric Administration (NOAA) uses EESS to take measurements considered vital to the accuracy and timeliness of weather forecasting, including hurricane and tornado warnings, and the National Aeronautics and Space Administration (NASA) also operates passive EESS systems in the band to conduct climatological science.⁵ Additionally, EESS passive sensors aid EESS active instruments that use radar on satellites to measure ocean topography, sea ice, and precipitation by measuring total atmospheric water vapor and correcting the “refraction-induced path delay in the radar signal.”⁶ The 23.6-24.0 GHz band has been used for passive sensor observations for a considerable length of time and has generated valuable long-term climate data records.⁷

4. The Commission first authorized service in the 24.25-24.45 GHz and 25.05-25.25 GHz bands in 1997, when it transitioned the Digital Electronic Messaging Service (DEMS) to these bands from the 18 GHz band.⁸ In 2000, the Commission adopted competitive bidding and service rules for

¹ See 47 CFR § 2.106(a). Space Research Service (passive) and Radio Astronomy Service (RAS) also have primary allocations in the 23.6-24.0 GHz band. *Id.*; see also CORF Comments at 6 n.18.

² ITU Radiocommunication Bureau, Handbook on Use of Radio Spectrum for Meteorology: Weather, Water and Climate Monitoring and Prediction 75, 78 (2017 ed.), https://library.wmo.int/doc_num.php?explnum_id=3793; see also NTIA Comments at 2 (stating that observed moisture data collected by passive sensing in the 23.8 GHz spectrum range serves as the basis for water vapor imagery that is vital to ensure accuracy and timeliness of hourly weather forecasts and severe weather warnings); CORF Comments at 4-5 (describing how observations in the 23.6-24 GHz band are critical to accurately measuring atmospheric humidity over oceans and water vapor in the lowest one kilometer in the atmosphere, which are important inputs to developing accurate weather forecasts). CORF notes that accurate weather forecasting is critical for safety of life and can reduce the costs of natural disasters. CORF Comments at 5.

³ NTIA Comments at 1-2; see also CORF Comments at 6-8 (describing specifics of how interference in the 23.6-24 GHz band affects the overall observing system).

⁴ See CORF Comments at 3.

⁵ NTIA Comments at 1; see also NOAA Comments at 2-3; CORF Comments at Table 1.

⁶ CORF Comments at 3-4.

⁷ See CORF Comments at 4; see also NOAA comments at 5 (stating that international sharing agreements allow NOAA to share and receive satellite observation information regarding weather forecasting from partner nations).

⁸ See *Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz Band and To Allocate the 24 GHz Band for Fixed Services*, ET Docket No. 97-99, Order, 12 FCC Rcd 3471 (1997) (reallocating DEMS from the 18 GHz band to the 24 GHz Band), *reconsideration denied*, Memorandum Opinion and Order, 13 FCC Rcd 15147 (1998); see also *Amendment of the Commission's Rules to Relocate the Digital Electronic Message Service from the 18 GHz Band to the 24 GHz Band and To Allocate the 24 GHz Band for Fixed Services*, ET Docket No. 97-99, Order, 12 FCC Rcd 8266 (WTB PSPWD 1997) (modifying DEMS-based licenses to change authorized band of operations from 18 GHz to 24 GHz).

24.25-24.45 GHz and 25.05-25.25 GHz bands and created a 24 GHz Service.⁹ This 24 GHz Service had a total of 176 Economic Areas (EAs) or EA-like service areas.¹⁰ In 2004, the Commission held Auction 56, in which it made 880 24 GHz Service licenses available. Only seven of the 880 24 GHz Service licenses were sold.¹¹ As of 2017, there were 33 active DEMS licenses in these bands.¹² While the former DEMS licenses were converted to Upper Microwave Flexible Use Services (UMFUS) licenses, they were subsequently cancelled.¹³

5. In 2016, the Commission adopted licensing and technical rules for UMFUS services in the 27.5-28.35 GHz band, the 37.6-38.6 GHz band, and the 38.6-40 GHz band.¹⁴ Expanding on the 2016 efforts to open high-frequency spectrum, in 2017, the Commission authorized the 24 GHz band for UMFUS, and generally applied the same licensing and technical rules to UMFUS in the 24 GHz band that it applied to UMFUS in other upper microwave bands.¹⁵ The UMFUS rules allow licensees flexibility to the services they will deploy and the architecture of their networks. Under these rules, licensees are able to deploy mobile services,¹⁶ but they also may deploy fixed point-to-point and point-to-multipoint systems.¹⁷ Among other things, the UMFUS rules specify that emissions outside of a licensee's assigned frequency block must be limited to -13 dBm/MHz.¹⁸ In its decision authorizing UMFUS in the 24 GHz band, the Commission noted ongoing ITU studies to establish emissions limits applicable to International

⁹ See *Amendments to Parts 1, 2, 87 and 101 of the Commission's Rules to License Fixed Services at 24 GHz*, WT Docket No. 99-327, Report and Order, 15 FCC Rcd 16934, 16937, para. 3 (2000) (adopting competitive bidding and service rules for 24 GHz Band). We note as a point of clarification that the 24 GHz Service and the UMFUS 24 GHz band encompass different, but overlapping frequencies. The frequencies 24.25-24.45 GHz and 25.05-25.25 GHz refer to the 24 GHz Service, whereas we refer to the 24.25-24.45 GHz and 24.75-25.25 GHz bands collectively as the 24 GHz band.

¹⁰ See 47 CFR § 101.523 (2016).

¹¹ See *24 GHz Service Spectrum Auction Closes, Winning Bidders Announced*, Public Notice, 19 FCC Rcd 14738 (WTB 2004).

¹² See *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, GN Docket No. 14-177, IB Docket Nos. 15-256 and 97-95, WT Docket No. 10-112, Second Report and Order, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, and Memorandum Opinion and Order, 32 FCC Rcd 10988, 10995, para. 16 (2017) (*Spectrum Frontiers 2nd R&O*).

¹³ See *FiberTower Spectrum Holdings, LLC*, Order on Remand and Memorandum Opinion and Order, 33 FCC Rcd 253 (2018).

¹⁴ *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, GN Docket No. 14-177, IB Docket Nos. 15-256 and 97-95, RM-11664, WT Docket No. 10-112, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8023-63, paras. 17-124 (2016).

¹⁵ See *Spectrum Frontiers 2nd R&O*, 32 FCC Rcd at 10994-11002, paras. 15-42.

¹⁶ See 47 CFR §§ 30.6(a), 30.202(a).

¹⁷ See 47 CFR pt. 30 Subpart E.

¹⁸ See 47 CFR § 30.203(a). In the bands immediately outside and adjacent to the licensee's frequency block, having a bandwidth equal to 10 percent of the channel bandwidth, the conductive power or the total radiated power of any emission shall be -5 dBm/MHz or lower. *Id.* As the 23.6-24 GHz passive band is 250 megahertz away from the UMFUS bands, the -5 dBm/MHz does not apply within that passive band for UMFUS licensees.

Mobile Telecommunications (IMT)¹⁹ to protect passive sensors in the 23.6 – 24.0 GHz band, and it acknowledged that the UMFUS rules might be revisited once the ITU studies had been completed.²⁰

6. WRC-19 allocated 24.25-25.25 GHz to mobile (except aeronautical) on a primary basis in Regions 1 and 2, globally identified the 24.25-27.5 GHz band for IMT, and established unwanted emissions limits applicable to IMT in the 24.25-27.5 GHz band to protect passive systems in the 23.6-24.0 GHz band.²¹ To implement these limits, WRC-19 modified a footnote to the International Table of Allocations to add Resolution 750 (Rev. WRC-19).²² Resolution 750 specifies unwanted emissions limits in terms of Total Radiated Power (TRP)²³ as the amount of power that may be radiated into any 200 megahertz block of the 23.6-24.0 GHz passive band by IMT base stations and IMT mobile stations operating in the 24.25-27.5 GHz band. Resolution 750 sets emissions limits for current IMT devices as well as more stringent emissions limits for IMT devices that will be brought into use in the 24.25-27.5 GHz band after September 1, 2027.²⁴ These two sets of unwanted emissions limits are shown in Table 1.

Table 1: WRC-19 Resolution 750 Unwanted emissions permitted within any 200 megahertz in the 23.6-24 GHz passive band		
Type of Station	Current TRP Limits	TRP Limits After Sept. 1, 2027
IMT Base Stations	–33 dBW	–39 dBW
IMT Mobile Stations	–29 dBW	–35 dBW

7. On April 26, 2021, the Office of Engineering and Technology (OET) and the Wireless Telecommunications Bureau (WTB) issued a *Public Notice* to develop a record on whether and how the Commission could implement the emissions limits contained in Resolution 750 for the active services in the 24 GHz band.²⁵ The *Public Notice* sought comment on amending part 30 of the Commission’s rules to conform to the unwanted emissions limits into the passive 23.6-24.0 GHz band that were adopted at

¹⁹ IMT is the generic term used by the ITU to designate broadband mobile systems and encompasses IMT-2000, IMT-Advanced, and IMT-2020. See ITU, *Radiocommunication Sector ITU-R FAQ on International Telecommunications* (Feb. 23, 2022), <https://www.itu.int/en/ITU-R/Documents/ITU-R-FAQ-IMT.pdf>. As described below, the Commission rules do not define IMT. See *infra* para. 11.

²⁰ See *Spectrum Frontiers 2nd R&O*, 32 FCC Red at 10997, para. 22; see also *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, GN Docket No. 14-177, WT Docket No. 10-112, Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking, 33 FCC Red 5576, 5581-82, para. 15 (2018) (recognizing the need to protect passive satellite operations that provide important data necessary for weather predictions and warnings, and stating that “[o]nce interference protection standards are agreed upon internationally we will, if necessary, consider through notice and comment whether any modification of our current out-of-band limits may be needed”).

²¹ See ITU Radio Regulations (2020), Resolution 750 (Rev.WRC-19), Table 1, Vol. 3 at 519, 522, <https://www.itu.int/en/myitu/Publications/2020/09/02/14/23/Radio-Regulations-2020>. Resolution 750 specifies limits of unwanted emission power for IMT base stations and mobile stations.

²² See ITU Radio Regulations (2020), n.5.338A, Vol. 1 at 100.

²³ See ITU Radio Regulations (2020), Resolution 750 (Rev.WRC-19), Note 5, Vol. 3 at 522.

²⁴ See ITU Radio Regulations (2020), Resolution 750 (Rev.WRC-19), Table 1, Vol. 3 at 522. For IMT base stations and mobile stations brought into use prior to September 1, 2027, the more relaxed unwanted emissions limits will continue to apply.

²⁵ See *Office of Engineering & Technology and the Wireless Telecommunications Bureau Seek Comment on Emission Limits for the 24.25-27.5 GHz Band*, ET Docket No. 21-186, GN Docket No. 14-177, Public Notice, 36 FCC Red 7561 (OET/WTB 2021) (*Public Notice*).

WRC-19 and/or adding footnotes to the United States Table of Frequency Allocations at part 2 of the Commission's rules.²⁶ Twelve parties made filings in response to the *Public Notice*.²⁷

8. On December 22, 2023, the Commission released a *Notice of Proposed Rulemaking (Notice)* proposing to implement certain decisions regarding the 24.25-27.5 GHz band made at WRC-19.²⁸ The *Notice* proposed to align part 30 of the Commission's rules for mobile operations in the 24 GHz band with the Resolution 750 limits on unwanted emissions into the passive 23.6-24.0 GHz band. In addition, the *Notice* also sought comment on several different issues, including: (1) applying Resolution 750 limits to mobile operations; (2) applying emissions limits more stringent than Resolution 750; (3) applying Resolution 750 limits to fixed operations; (4) exempting indoor small-cell operations from Resolution 750 limits; (5) allowing conductive power measurements; and (6) the schedule for transition to the new Resolution 750 limits applicable after September 1, 2027.²⁹

9. Comments on the *Notice* were due February 28, 2024, and reply comments were due March 14, 2024.³⁰ The Commission received ten comments and four reply comments. A list of commenters, reply commenters, and *ex parte* filers is contained in Appendix C.

III. DISCUSSION

A. Revision of Commission Rules to Adopt Resolution 750 Unwanted Emissions Limits

10. Consistent with the proposal in the *Notice*,³¹ we adopt the Resolution 750 unwanted out-of-band emissions (OOBE) limits and apply these limits to all mobile operations in the 24 GHz band. In response to the *Notice*, all commenters, including the weather community, scientific community, mobile operators, equipment manufacturers, federal agencies, and other commenters, agree the Commission should align its rules for mobile operations in the 24 GHz band with Resolution 750.³² We find that the Resolution 750 OOBE limits will appropriately protect sensitive passive sensing operations in the 23.6-24.0 GHz band, while at the same time allowing next generation wireless service to continue to develop

²⁶ *Public Notice*, 36 FCC Rcd at 7563 (citing 47 CFR § 2.106; 47 CFR pt. 30).

²⁷ Parties responding to the *Public Notice* included American Geophysical Union, American Meteorological Society, and National Weather Association; AT&T; The National Academy of Sciences Committee on Radio Frequencies (CORF); CTIA; Elliot Eichen, Ph.D. Principal, Choyu Networks; Ericsson; IEEE Geoscience and Remote Sensing Society (IEEE GRSS); Mike Marcus and Josep Jornet; Nokia; National Telecommunications and Information Administration (NTIA); Qualcomm Incorporated; and T-Mobile USA, Inc.

²⁸ *Modifying Emission Limits for the 24.25-24.45 GHz and 24.75-25.25 GHz Bands*, ET Docket No. 21-186, Notice of Proposed Rulemaking, FCC 23-114, 2023 WL 8946049 (rel. Dec. 22, 2023) (*Notice*).

²⁹ *See generally Notice*. The *Notice* (at para. 29) also sought comment on a proposal to use a Real-time Geospatial Spectrum Sharing (RGSS) system as an alternative means of protecting EESS. WIRG touts its work developing a proof of concept RGSS system and asks that the Commission establish rules allowing use of RGSS. WIRG Comments at 4-5, *Ex Parte* Presentation of WIRG (filed Mar. 20, 2024). While we believe adopting a rule authorizing the use of RGSS is premature at this time, we encourage further research and study of such systems and are open to consideration of such a system as it becomes more developed.

³⁰ *Modifying Emission Limits for the 24.25-24.45 GHz and 24.75-25.25 GHz Bands*, 89 Fed. Reg. 5440 (Jan. 29, 2024).

³¹ *See Notice* at para. 8. Our action today is consistent with the Commission's statements prior to the 24 GHz auction that it could revisit the OOBE limits applicable to the 24 GHz band once international studies were complete. *See* para. 5, *supra*.

³² *See* The American Geophysical Union, American Meteorological Society and National Weather Association (AGU/AMS/NWA) Comments at 12; IEEE GRSS Comments at 5; CORF Comments at 8; T-Mobile Comments at 8; CTIA Comments at 7; Ericsson Comments at 1; Qualcomm Inc. Comments at 1; NTIA Comments at 3; NASA Comments at 1; NOAA Comments 3; Michael Ravnitzky Comments at 1; GuRu Wireless Inc. Comments at 2; AT&T Reply Comments at 2; Nokia Reply Comments at 2.

in the United States. In addition, adopting the Resolution 750 limits would promote international harmonization and result in certain public interest benefits associated with such harmonization, including facilitating the provision of advanced wireless services in the U.S., providing regulatory certainty to all interested stakeholders, and promoting spectrum use by both wireless providers and the weather and satellite communities.³³

11. Consistent with the *Notice*,³⁴ we also apply Resolution 750 limits to all mobile operations (as defined in parts 2 and 20 of the Commission's rules)³⁵ in the 24 GHz band. As adopted by WRC-19, the Resolution 750 limits apply only to IMT base and mobile stations. Commenters who addressed the issue support applying the Resolution 750 unwanted OOB limits to all mobile operations, rather than just IMT operations.³⁶ Moreover, our rules do not define IMT as a separate category of mobile, nor do they require that equipment comply with a particular standard in the 24 GHz band.³⁷ Furthermore, no commenter offered a technical basis for distinguishing between IMT and other mobile operations for purposes of domestic spectrum use. Finally, attempting to treat non-IMT mobile operations differently from IMT mobile operations could cause confusion and difficulties with enforcing the limits, as suggested in the *Notice*.³⁸

12. As of the effective date of the rules adopted herein, mobile operations in the 24 GHz band will be required to comply with the current limits adopted at WRC-19 (which we refer to as Phase 1 limits).³⁹ We find that the application of the Resolution 750 OOB limits to mobile operations strikes the appropriate balance between protecting adjacent passive sensing operations and facilitating use of the 24 GHz band.⁴⁰

13. *Rule Amendments.* In the *Notice*, the Commission proposed to make any changes to the limits on emissions into the 23.6-24.0 GHz band by amending the part 30 rules and adding a footnote to the U.S. Table of Allocations.⁴¹ The Commission noted that, since the part 30 rules already contained a rule governing emissions limits, it appeared to be appropriate to incorporate any changes made in this proceeding into that rule.⁴² Commenters broadly agree that these changes are appropriate ways of aligning the Commission's rules with WRC-19 Resolution 750.⁴³ These limits will be incorporated into

³³ See *Notice* at para. 11.

³⁴ *Notice* at para. 10.

³⁵ See 47 CFR § 2.1 ("Mobile Service. A radiocommunication service between mobile and land stations, or between mobile stations."); see also 47 CFR § 20.3 ("Mobile Service. A radio communication service carried on between mobile stations or receivers and land stations, and by mobile stations communicating among themselves, and includes: (a) Both one-way and two-way radio communications services; (b) A mobile service which provides a regularly interacting group of base, mobile, portable, and associated control and relay stations (whether licensed on an individual, cooperative, or multiple basis) for private one-way or two-way land mobile radio communications by eligible users over designated areas of operation; and (c) Any service for which a license is required in a personal communications service under part 24 of this chapter.")

³⁶ See, e.g., NOAA Comments at 13; AGU/AMS/NWA Comments at 12; T-Mobile Comments at 8; CTIA Reply Comments at 4.

³⁷ See *Notice* at para. 16.

³⁸ See *Notice* at para. 16.

³⁹ See *Notice* at para. 16. Correspondingly, we refer to the Resolution 750 unwanted emissions limits applicable after September 1, 2027 as the Phase 2 limits.

⁴⁰ See *Notice* at para. 11.

⁴¹ *Notice* at para. 15.

⁴² See *Notice* at para. 15 & n.50 (citing 47 CFR § 30.203).

⁴³ See, e.g., NOAA Comments at 2; NTIA Comments at 3; AT&T Comments at 1-3; Ericsson Comments at 1.

our part 30 technical rules as well as codified in a new U.S. footnote to the Table of Frequency Allocations (Allocation Table) in accordance with the proposal.⁴⁴ Further, part 2 of the Commission's rules is amended to allow the Table of Frequency Allocations to show that the Resolution 750 unwanted OOB limits will apply to all mobile systems.

14. We decline to make other changes to the part 30 rules and the Table of Frequency Allocations footnote, as we do not believe they are necessary. For example, NASA suggests including the start dates of the Phase 1 and Phase 2 OOB limits in the Table of Allocations.⁴⁵ The Phase 2 effective date will be incorporated into the part 30 rule and the Allocation Table footnote. Since the Phase 1 limits will be effective immediately upon the effective date of the rules, we believe there is no need to include the Phase 1 effective date. NASA also recommends that the language of the amendment to the part 30 rules be trimmed down to a cross reference to the Table of Allocations.⁴⁶ We will retain the substantive emissions limits in section 30.203 of our rules, as it is the better practice to include the specified limits in our technical rules.

B. Adopting Limits More Stringent Than Resolution 750

15. In the *Notice*, the Commission sought comment on whether it was necessary to adopt even stricter OOB limits to protect EESS systems than those set forth in Resolution 750 by WRC-19.⁴⁷ We decline to adopt limits beyond the Resolution 750 limits because the record does not show that such limits are technically necessary. While the proponents of stricter limits express concern that the Resolution 750 limits will be insufficient to protect EESS, their concerns are speculative.⁴⁸ Furthermore, no party has submitted specific technical data justifying stricter limits or evaluating the costs and benefits of applying them as directed in the *Notice*.⁴⁹

16. We also note that NTIA did not advocate for implementation of stricter limits, and NTIA, NOAA, and NASA all agree to the adoption of the Resolution 750 limits.⁵⁰ While NOAA maintains that stricter limits would better protect Earth Exploration-Satellite Service (EESS) passive sensors, that measurements gathered by sensitive radiometers in the 23.6 – 24.0 and 31.3 – 31.5 GHz bands could be compromised by unwanted by-products from a 5G signal, and that the Resolution 750 limits may not adequately protect passive sensors below 24 GHz, it nevertheless acknowledges that the WRC-19 limits are a compromise and are what most countries are considering.⁵¹

17. Moreover, while much of the weather and scientific communities would prefer to adopt more stringent unwanted OOB limits, they too support the adoption of the Resolution 750 limits, at least as a preliminary step.⁵² We note that federal agencies and non-federal licensees have deployed nearly

⁴⁴ See *Notice* at para. 10.

⁴⁵ See NASA Comments at 3.

⁴⁶ See *id.*

⁴⁷ See *Notice* at para. 13.

⁴⁸ While WIRG supports adoption of the Resolution 750 limits as a “minimum acceptable requirement,” it suggests that further research would be appropriate, after which the Commission should consider adopting stricter limits. WIRG Comments at 2.

⁴⁹ See *Notice* at para. 17.

⁵⁰ See, e.g., NTIA Comments at 4 (stating that NTIA, NOAA and NASA all support imposition of the more stringent OOB limits by the WRC-19 designated deadline of September 2027).

⁵¹ NOAA Comments at 7-10.

⁵² See CORF Comments at 8; AGU/AMS/NWA Comments at 2; IEEE GRSS Comments at 4; see also CORF Comments at 9. CORF's statement that these microwave links may cause weak levels of interference is unsupported.

40,000 point-to-point microwave links in the 21.2-23.6 GHz band — immediately below the 23.6-24.0 GHz band — that operate with a less restrictive -13 dBm/MHz or -20 dBW/200 MHz OOB limit, and yet there is no indication, and no party has submitted a technical showing, that these point-to-point links have caused harmful interference to passive sensors.⁵³ In contrast to these directly adjacent point-to-point microwave links, there will be at least 225 megahertz separation between UMFUS operations and the 23.6 – 24 GHz passive band. Given that channels in this band are 100 megahertz wide,⁵⁴ this amount of separation is significant.

18. We find that adopting stricter emissions limits could significantly limit the ability to use the band for next generation wireless services and other advanced mobile services.⁵⁵ Because millimeter wave spectrum has limited propagation, licensees must deploy higher power to ensure sufficient network coverage. Imposing overly restrictive emissions limits could create higher insertion losses due to filtering requirements, and limit the power carriers can use, adversely affecting services available to consumers.⁵⁶ Furthermore, adopting emissions limits unique to the United States would be inconsistent with international harmonization.⁵⁷

19. We are not persuaded that the technical information provided by CORF and the IEEE Geoscience and Remote Sensing Society (IEEE GRSS) justifies adopting stricter OOB limits. CORF advocates for stricter emissions limits, such as those adopted by the European Commission (-42 dBW/200 MHz) or those of the World Meteorological Organization (-55 dBW/dBW/200 MHz).⁵⁸ CORF contends that the Resolution 750 Phase 2 limits of -35 dBW/200 MHz for mobile devices equates to 0.4 mW per device, only a factor of 10 below the ITU-R Recommendation RS.2017 threshold for protection of passive sensors in the 23.6 – 24 GHz band.⁵⁹ CORF argues that, even assuming somewhat directional beams from 5G mobile devices, it is clear that deployment of thousands of such devices in urban areas will exceed the ITU threshold,⁶⁰ but CORF does not clearly explain how it extrapolates the 0.4 mW per

⁵³ See Ericsson Comments at 3.

⁵⁴ 47 CFR § 30.4(a).

⁵⁵ Accord AT&T Comments at 4; CTIA Comments at 6; Ericsson Comments at 2; T-Mobile Comments at 4; Qualcomm Comments at 3; AT&T Reply Comments at 3-4.

⁵⁶ CTIA Comments at 6.

⁵⁷ See CTIA Comments at 6; see also T-Mobile Comments at 3; AT&T Reply Comments at 1-2.

⁵⁸ CORF Comments at 7.

⁵⁹ See CORF Comments at 7-8. CORF states that the “AMSR2 instrument on the GCOM-W1 spacecraft (the successor to NASA’s AMSR-E instrument launched on the Aqua mission in 2002) measures natural black-body emission signals over a 400 MHz-wide region of the spectrum at 24 GHz with 14 x 14 km pixels. Thermal emission from one such pixel over dry land at 300 K (80°F) in this band totals to only ~26 W across this ~200 km² pixel. This 26 W is emitted in all directions, and the AMSR2 instrument receives only a fraction of a trillionth of that power. The ITU-R Recommendation RS.2017 interference threshold equates to requiring that there should be no perturbations (e.g., from RFI) greater than 4 mW total emission across this entire pixel. This requirement enables EESS (passive) measurements to be made with an accuracy of 0.05 K brightness temperature (~0.09°F), which is considered sufficient to provide accurate weather forecasts and reliable quantification of potential signatures of climate change (which are of order of one or two degrees per century). The Res. 750 limits of -35 dBW in 200 MHz for mobile devices equates to 0.4 mW per device, only a factor of 10 below the ITU-R Recommendation RS.2017 threshold.” *Id.*

⁶⁰ CORF Comments at 8. CORF also notes that the ITU Radiocommunication Sector (“ITU-R”) Recommendation RS.2017, establishes a limit of -166 dBW in 200 MHz for the 23.6-24.0 GHz band, to be met over 99.99 percent of a 10,000,000 km² area. *Id.* at 6-7. It argues the limits specified in ITU-R Resolution 750 (Rev. WRC-19), when applied to likely IMT implementations, and taking into consideration typical characteristics of orbiting EESS sensors (described in ITU-R Recommendation RS.1861), fail to meet this RS.2017 criterion particularly when considering the aggregate interference from the vast multiplicity of transmitters that are inherent to the nature of

(continued....)

device figure from the Phase 2 standard. IEEE GRSS supports the stricter limits proposed by CORF, because it maintains that the Resolution 750 limits would allow the presence of signals above the interference threshold in the 23.6-24.0 GHz passive band when more 5G base stations are placed within the sensor's coverage area.⁶¹ We find that both CORF's and IEEE GRSS's analyses are based on the assumptions that there will be large but unknown numbers of mobile devices that are not related to specific deployments or use cases.⁶² In addition, IEEE GRSS and NOAA cite the European Union's decision to implement the more stringent limit of -39 dBW/200 MHz as of January 1, 2024, as an argument for applying the more stringent limit on an accelerated timeframe in the U.S.⁶³ We note, however, that the United States is not similarly situated to the European Union. Terrestrial operations in Europe are above 25 GHz and farther away from the passive services in the 23.6 – 24.0 GHz band than U.S. operations. Given the greater frequency separation distance, it is easier for European providers to permit their mobile operators to use higher power and yet meet stricter emissions limits without impairment to the EESS passive service. While we understand the desire of the weather and scientific communities for the greatest protection possible, the record before us does not support adopting limits stricter than the limits agreed to at WRC-19. Accordingly, we decline to adopt more stringent OOB limits for the U.S. than those adopted in Resolution 750.⁶⁴

C. Applying Resolution 750 Limits to Other Services

20. *Fixed operations.* The *Notice* sought comment on applying the Resolution 750 emissions limits to fixed operations, including point-to-point and point-to-multipoint operations.⁶⁵ We decline to do so. As adopted by the ITU, Resolution 750 does not apply to fixed operations; WRC-19 only studied IMT operations under a mobile service allocation. Fixed operation transmissions are significantly more directional than mobile operations – point-to-point operations have tightly focused and stationary beams, and point-to-multipoint base stations direct signals towards user stations.⁶⁶ As noted above, there are existing fixed point-to-point operations under part 101 in the spectrum immediately below the passive band that are not subject to stricter emissions limits, and yet there is no indication that these point-to-point links have caused harmful interference to passive sensors.⁶⁷ This is in contrast to the at least 225 megahertz of frequency separation between the UMFUS operations starting at 24.25 GHz and the 23.6-24.0 GHz passive band, which should further help alleviate interference concerns.⁶⁸ As fixed

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IMT deployments; CORF assumes deployment of thousands of IMT devices in urban areas is likely an underestimate. *See Id.* at 6-8.

⁶¹ *See* IEEE GRSS Comments at 2-4.

⁶² *See* CORF Comments at 8; IEEE GRSS Comments at 4, 6.

⁶³ *See* IEEE GRSS Comments at 6-7; NOAA Comments at 10-11.

⁶⁴ We do not rely on arguments that adopting stricter limits would be a material change from information made available to bidders in the 24 GHz auction and that licensees reasonably made investments based on the Resolution 750 limits. *See* CTIA Comments at 6; AT&T Reply Comments at 3-4 & n.12 (citing T-Mobile Comments at 4).

⁶⁵ *Notice* at para. 16. Point-to-multipoint operations include transportable user equipment, where the user equipment is not intended to be used while in motion, but the equipment could be moved when not in operation. *See* 47 CFR § 30.2. We agree with GuRu Wireless, Inc. that expansion of WRC-19 emissions limits to the Industrial, Scientific, and Medical (ISM) band is outside the scope of this proceeding. *See* GuRu Wireless, Inc. Comments at 2.

⁶⁶ *See* Nokia Reply Comments at 2.

⁶⁷ CORF asserts it cannot verify whether or not these point-to-point links have caused harmful interference to passive sensors at 23.6-24.0 GHz. CORF Comments at 9. Ericsson states that there are no known reports of interference from UMFUS services to EESS in the adjacent band. *See* Ericsson Comments at 3; Nokia Reply Comments at 2-3; *see also* IEEE GRSS Comments at 5 (stating “we do not have any information on whether interference has been detected by operational sensors”).

⁶⁸ *See, e.g.,* Ericsson Comments at 3.

deployments increase in the band, we will monitor for potential issues, and, if necessary, consider whether to revisit the limits for fixed operations.

21. The Commission's *Notice* also directed proponents of applying the stricter limits to fixed operations to provide "specific technical data as well as the costs and benefits of applying stricter limits or of keeping the existing limits."⁶⁹ Neither proponents nor opponents of applying the Resolution 750 limits to fixed operations presented such technical or cost/benefit data. Indeed, IEEE GRSS, which supports applying the Resolution 750 limits to fixed, suggests that further studies are necessary.⁷⁰ CORF argues that "[i]t is counterproductive to protect passive uses from OOB from mobile service equipment, but not from equipment used for UMFUS fixed services," and it "recommends that a rigorous OOB standard apply to all UMFUS equipment operating at 24 GHz: UMFUS fixed point-to-point and point-to-multipoint equipment, as well as mobile equipment."⁷¹ Given the differences between fixed and mobile operations, however, and the lack of any technical support, the conclusory arguments by CORF and others are insufficient to justify extending Resolution 750's mobile limits to fixed operations.

22. CTIA suggests that the Commission clarify that transportable stations (which it said are fixed stations) would not be subject to the more stringent emissions limits.⁷² For purposes of these rules, we will use the definition of a mobile station contained in part 2 of our rules, "[a] station in the mobile service intended to be used while in motion or during halts at unspecified points."⁷³ In contrast, a transportable station, which our rules define as "[t]ransmitting equipment that is not intended to be used while in motion, but rather at stationary locations,"⁷⁴ operates under the fixed service allocation and would not be subject to the Resolution 750 limits. While transportable equipment is used in a limited number of stationary locations (such as a fixed modem at a home or office), mobile equipment could be used anywhere (for example, stopped at a red light).

23. NTIA asks that, as an alternative to applying the Resolution 750 limits to fixed operations, we mandate downtilt in fixed operations to avoid transmissions towards EESS satellites.⁷⁵ Because there may be situations where downtilt is not feasible (for example, a point-to-point link between two sites that differ in elevation), rather than mandating downtilt, we instead strongly encourage licensees to avoid uptilt where practical.

24. *Indoor small-cell systems.* The *Notice* also sought comment on Ericsson's and AT&T's proposal that indoor small-cell systems be exempt from the Resolution 750 limits.⁷⁶ In response to the *Public Notice*, Ericsson stated that there is a growing interest in indoor small cell deployments, the 24 GHz band may provide an opportunity to enhance indoor coverage, and the technical rules for such use cases should not deviate from what is currently allowed under part 30.⁷⁷ Ericsson further noted that "several mitigating factors, including wall and building entry losses and the potential for clutter losses from nearby buildings, mitigate the need for more stringent limits."⁷⁸ Arguing that indoor small cells are not governed by the WRC-19 agreement limits, CTIA contends that, because "indoor small cells are

⁶⁹ *Notice* at para. 17.

⁷⁰ See IEEE GRSS Comments at 5.

⁷¹ CORF Comments at 8-9; see also AGU/AMS/NWA Comments at 12; NTIA Comments at 3.

⁷² CTIA Comments at 7-8 (emphasis added).

⁷³ 47 CFR § 2.1.

⁷⁴ 47 CFR § 30.2

⁷⁵ NTIA Comments at 3.

⁷⁶ *Notice* at para. 18.

⁷⁷ Ericsson Jun. 28, 2021, Comments at 5-6 (Ericsson PN Comments).

⁷⁸ Ericsson PN Comments at 5.

installed inside of buildings, the mobile signal level is already reduced by hundreds to thousands of times...[and] as a result, the commercial mobile signals will be negligible at the satellite receiver, making tighter emissions levels for indoor small cells unnecessary.”⁷⁹ T-Mobile agrees that exempting indoor small-cell systems would not harm passive sensors in the 23.6-24.0 GHz band because “indoor small-cell systems operate inside buildings at a lower power, making them subject to building attenuation.”⁸⁰ It maintains that, “[d]ue to the propagation characteristics of signals from indoor small-cell systems, it is unlikely that those signals would propagate outdoors and even be recognized by, let alone cause harmful interference to, passive sensors.”⁸¹

25. Other commenters oppose an exemption from the Resolution 750 limits for indoor small-cell systems. IEEE GRSS notes that “[m]icrowave signals are not necessarily attenuated by all building materials at these frequencies, and there is no assurance that equipment built for indoor use may not be improperly installed in an outdoor setting.”⁸² CORF recommends against such an exemption, “particularly for low-cost devices that may be deployed in large numbers,”⁸³ and it agrees that, while these devices typically operate at lower power, building entry loss serves to reduce emissions to a “lower but not necessarily acceptable level.”⁸⁴ Similarly, NASA argues that, while indoor operations may provide additional signal blockage of those signals to NASA’s passive sensors, this issue was not studied during WRC-19 to determine the potential impact from indoor small-cell operations on NASA missions.⁸⁵ NASA further notes that ‘indoor-only’ use limitations are difficult to enforce, and expressed concern that even a very small amount of hardware operating outside may pose impacts to NASA mission success.⁸⁶

26. We conclude that the current record is insufficient to support exempting indoor base stations from the Resolution 750 limits, and decline to do so at this time. The current maximum power for UMFUS base stations is +75dBm/100 MHz.⁸⁷ Although some indoor operations may operate at lower power levels, and while there may be some power level at which indoor operations could be safely exempted, we lack a sufficient record on which to craft such an exemption. Although the Notice asked parties advocating for indoor exemption from Resolution 750 to provide technical justification,⁸⁸ no studies addressing the factors we would need to evaluate with respect to such an exemption were presented. These factors would include, for example: (1) propagation/penetration losses at 24 GHz, (2) the effect of building materials on such propagation/penetration losses, especially materials used in ceilings and roofs, since the receivers being protected are in the sky, and (3) the sensitive nature of the observations being made in the passive band. Given the insufficiency of the record, we decline to exempt indoor small-cell equipment from the Resolution 750 limits at this time.

D. Measurement of Unwanted Emissions

27. In the 24 GHz *Notice*, the Commission proposed to allow compliance with the unwanted emissions limits for the 23.6-24.0 GHz band to be demonstrated using TRP measurements, given that

⁷⁹ CTIA Comments at 8.

⁸⁰ T-Mobile Comments at 7.

⁸¹ T-Mobile Comments at 7; *see also* Nokia Reply Comments at 2.

⁸² IEEE GRSS Comments at 5.

⁸³ CORF Comments at 10.

⁸⁴ CORF Comments at 10.

⁸⁵ NASA Comments at 2; *see also* NOAA Comments at 13.

⁸⁶ NASA Comments at 2.

⁸⁷ *See* 47 CFR § 30.202(a).

⁸⁸ *Notice* at para. 18.

Resolution 750 specifies the limits in terms of TRP.⁸⁹ Total radiated power is a measure of how much power is radiated by an antenna when the antenna is connected to an actual radio (or transmitter). TRP is an active measurement in that a powered transmitter is used to transmit through the antenna. The total received power is calculated and summed up over all possible angles (hence, it is a spherical or three dimensional measurement).⁹⁰ The *Notice* also sought comment on whether to permit use of conductive power measurements as well.⁹¹ Maximum conducted output power⁹² measurements do not take into account the efficiency of the antenna.⁹³

28. We will allow the use of both TRP and maximum conductive output power measurements to ensure compliance with the limits on emissions into the 23.6-24 GHz band, consistent with the part 30 rules applicable in other UMFUS bands.⁹⁴ As CTIA and Nokia observe, OET has issued a knowledge database (“KDB”) document that permits both TRP and maximum conducted output power measurement procedures to demonstrate regulatory compliance for UMFUS devices.⁹⁵ In our experience, maximum conducted output power measurements have worked well in these bands, and allowing use of either TRP or maximum conducted output power measurements would provide equipment manufacturers with maximum flexibility as they develop equipment for the 24 GHz band. We see no reason to treat the 24 GHz band differently from other UMFUS bands.

29. We find the arguments that certain commenters have raised against allowing conductive power measurements to be unpersuasive. We acknowledge, as IEEE GRSS, NTIA, NOAA, and NASA point out, that the WRC-19 studies relied on TRP to develop the Resolution 750 standards.⁹⁶ By itself, however, that fact does not mean that maximum conducted output power measurements cannot be used to demonstrate compliance. NASA argues that conductive power methodology does not provide an accurate characterization of the aggregate effects of systems’ components on the measurement results, and it asserts that TRP and conductive power measurements methodologies may produce different quantitative limits for unwanted emissions.⁹⁷ We note that conductive power measurements are more conservative than TRP. In other words, if a conductive power measurement shows compliance, the corresponding TRP measurement will demonstrate compliance as well (although the converse will not necessarily be true).

⁸⁹ *Notice* at para. 8.

⁹⁰ See <https://www.antenna-theory.com/definitions/trp.php>. TRP can also be defined as the integral of the power transmitted from all antenna elements in different directions over the entire radiation sphere. See ITU Radio Regulations (2020), Resolution 750 (Rev.WRC-19), Note 5, Vol. 3 at 522.

⁹¹ *Notice* at para. 8.

⁹² See 47 CFR § 15.403.

⁹³ TRP of a transmitter is closely related to its conductive power. In fact, TRP is product of antenna radiation efficiency, e_r , and conductive power P ($TRP = e_r P$), and depending on antenna efficiency, TRP can be virtually the same as the conductive power P . See W.L. Stutzman and Gary A. Thiele, *Antenna Theory and Design*, 2013, equations 13-40 and 2-155.

⁹⁴ 47 CFR § 30.203(a). We will also add the existing definition of “maximum conducted output power” contained in our part 15 rules into our part 30 rules. See 47 CFR § 30.2.

⁹⁵ See Nokia Reply Comments at 4-5 & n.8 (citing *Basic Certification Requirements and Measurement Procedures for Upper Microwave Flexible Use Services (UMFUS) Devices*, FCC Office of Engineering and Technology Laboratory Division, Knowledge Database (KDB) publication, KDB 842590 D01 (Apr. 20, 2021) <https://apps.fcc.gov/kdb/GetAttachment.html?id=yV3FexQrXZMe%2F42JGriFdg>; see also CTIA Comments at 9-10 & n.25.

⁹⁶ See IEEE GRSS Comments at 8; NASA Comments at 2; NOAA Comments at 14; see also NTIA Jun. 28, 2021, Comments at 12.

⁹⁷ NASA Comments at 2.

Accordingly, allowing conductive power measurements does not present a substantial risk that noncompliant equipment will be placed into the marketplace.

30. In addition, parties against allowing conductive power measurements argue that the TRP methodology is clearly understood,⁹⁸ and NOAA points to Ericsson's prior statement that it does not anticipate difficulties performing TRP measurements.⁹⁹ While there is broad support for allowing TRP measurements, such measurements require use of an anechoic chamber, which imposes additional costs, and may not be available to all stakeholders. We disagree with NASA's claim that using measurement techniques other than TRP would require significant further technical analysis.¹⁰⁰ The Commission has allowed licensees and equipment manufacturers to perform conductive power measurements in other UMFUS bands for many years, pursuant to the KDB guidance discussed above,¹⁰¹ and using conductive power to measure compliance with the Resolution 750 limits does not present any unique new issues. While AGU, AMS and NWA argue that the calculations required for OOB measurements are not straightforward and allowing the use of multiple measurement methods by the industry "would only contribute to the difficulty,"¹⁰² they do not precisely explain what they perceive the difficulty to be. Finally, CORF argues that many 24 GHz devices will not have clean access to an antenna port, and even devices with access to the radiating element's port may radiate unintentionally from other parts of the equipment being tested.¹⁰³ In those cases where there is no clear access to an antenna port, we anticipate that TRP will be used. So long as equipment manufacturers follow the guidance we have issued, we see no reason why conductive power measurements cannot work here, as they do in other UMFUS bands. Accordingly, we will allow compliance with the emissions limits for equipment certification in the 24 GHz band to be demonstrated by measurements showing that either TRP or maximum conducted output power is within the limits set in Resolution 750.

E. Timetable for Application of WRC-19 Limits

31. *Phase 1 to Phase 2 Transition Timetable.* Having decided to transition to the WRC-19 Resolution 750 OOB limit regime for the 24 GHz band, we must still determine *when* that transition will take place – i.e., the appropriate timetable for moving to stricter limits, as well as *how* it will occur – and the practical steps necessary for transitioning equipment to the stricter limits. The *Notice* proposed to apply the new Resolution 750 unwanted emissions limits on the timetable adopted at WRC-19.¹⁰⁴ This timing is set forth in two footnotes to Resolution 750, that state:

^a A limit of –39 dB(W/200 MHz) will apply to IMT base stations brought into use after 1 September 2027. This limit will not apply to IMT base stations which have been brought into use prior to this date. For those IMT base stations, the limit of –33 dB(W/200 MHz) will continue to apply after this date.

and

^b A limit of –35 dB(W/200 MHz) will apply to IMT mobile stations brought into use after 1 September 2027. This limit will not apply to IMT mobile stations which have been brought into

⁹⁸ See, e.g., NTIA Comments at 4.

⁹⁹ NOAA Comments at 14; see also Ericsson PN Comments at 4.

¹⁰⁰ NASA Comments at 2.

¹⁰¹ See *supra* n.95.

¹⁰² See AGU/AMS/NWA Comments at 12.

¹⁰³ See CORF Comments at 10-11.

¹⁰⁴ See *Notice* at paras. 5 (Table 1), 10 & 24.

use prior to this date. For those IMT mobile stations, the limit of –29 dB(W/200 MHz) will continue to apply after this date.¹⁰⁵

32. We adopt the WRC-19 timetable as proposed in the *Notice*. The first phase limits (–33 dBW/200 MHz for base stations, –29 dBW/200 MHz for mobile stations) will apply as of the effective date of the rules,¹⁰⁶ and the second phase limits (–39 dBW/200 MHz for base stations, –35 dBW/200 MHz for mobile stations) will apply to all deployments brought into use (i.e., constructed and operating) after September 1, 2027. This schedule strikes an appropriate balance between protecting weather and scientific observations and promoting deployment in the 24 GHz band.¹⁰⁷ Various commenters support adopting the WRC-19 schedule.¹⁰⁸ Moreover, we wish to incentivize the work of manufacturers like Ericsson, which asserts it has already produced equipment meeting the Phase 1 limit.¹⁰⁹

33. We decline to accelerate the effective date of the Phase 2 standards, as requested by NOAA, IEEE GRSS, and AGU/AMS/NWA.¹¹⁰ There is considerable uncertainty as to when equipment meeting Phase 2 standards will be available. Implementing Phase 2 standards prematurely could make it impractical for licensees to deploy in the band. Finally, while WRC-19 contemplated that there could be a longer period (up to eight years) where Phase 1 equipment could be deployed, in fact deployments will be required to comply with Phase 2 in fewer than three years. Accordingly, it appears that the number of deployments using Phase 1 equipment may be lower than originally contemplated at WRC-19.

34. We also reject T-Mobile’s suggestion that the more stringent Phase 2 limits should only apply to equipment “authorized for use” after September 1, 2027, but that equipment could be “brought into use” after that date even if it was certified prior to that date and only complied with the Phase 1 limits.¹¹¹ T-Mobile argues that purchased and certified equipment that only meets the Phase 1 limit but is unused due to certain delays beyond the control of the provider should be allowed be installed even after September 1, 2027; in other words, that providers should be permitted to use any equipment that was manufactured and sold before September 1, 2027, indefinitely under the Phase 1 limits so long as that equipment has been approved for use by the Commission prior to that date.¹¹² We disagree with this position because we believe this could act as an incentive for entities to stock up on equipment that met the Phase 1 limit in order to deploy this equipment at their leisure during Phase 2, effectively allowing an ‘end-run’ around the very concept of implementing the Phase 2 limit after September 1, 2027. T-Mobile’s interpretation is plainly inconsistent with what was contemplated at WRC-19. From the perspective of the ITU, equipment that is certified but also “brought into use” prior to September 1, 2027, will be ‘grandfathered’ – i.e., allowed to continue to operate at the prior emissions limits even after implementation of the stricter emissions limits regime. But there is indeed a defined limit based on when equipment is ‘brought into use.’ As the Commission stated in the *Notice*,

Because the unwanted emission limits for base stations and mobile stations will change after September 1, 2027 under our proposal, equipment certifications based on compliance with the

¹⁰⁵ See ITU Radio Regulations (2020), Resolution 750 (Rev.WRC-19), Notes to Table 1, Vol. 3 at 522, <https://www.itu.int/en/myitu/Publications/2020/09/02/14/23/Radio-Regulations-2020>.

¹⁰⁶ See NOAA Comments at 11 (urging Commission to make Phase 1 limits effective immediately). The rules we adopt in this item will be effective 30 days after Federal Register publication of the item. See *infra* para. 47.

¹⁰⁷ See *Notice* at para.11; accord AT&T Comments at 3.

¹⁰⁸ See AT&T Comments at 3; CTIA Comments at 10; T-Mobile Comments at 9; NTIA Comments at 4; see also AT&T Reply Comments at 4.

¹⁰⁹ Ericsson Comments at 4.

¹¹⁰ See NOAA Comments at 11; IEEE GRSS Comments at 6-7; see also AGU/AMS/NWA Comments at 10-11.

¹¹¹ T-Mobile Reply Comments at 6-7.

¹¹² T-Mobile Comment at 11.

first phase limits would expire on that date. Any equipment remaining in the supply chain—i.e. in warehouses or in transit—*would then be illegal to sell or install under our rules.*¹¹³

35. We reiterate that, under the rules we adopt today, any equipment “brought into use” after September 1, 2027 must be “authorized for use” – i.e., certified for use - according to the Phase 2 limits of Resolution 750. We also reject IEEE GRSS’s argument that the ITU intended that “all base station equipment that does not comply with the -39 dBW/200 MHz limit should be modified or removed by September 1, 2028.”¹¹⁴ If Phase 1 equipment was brought into use on August 31, 2027, it can continue to operate after September 1, 2027 per the ITU’s footnote clarifications, even though it may not meet the increased OOB limits. We find that it serves the public interest to use the ITU’s footnote clarifications for a clear and effective application of the time table for the limits.

36. *Certification of Phase 1 Equipment.* The Commission also sought comment in the *Notice* on how to transition equipment deployed under the Phase 1 limits and to incentivize early and timely development and deployment of Phase 2 equipment.¹¹⁵ The *Notice* pointed to the equipment authorization program for RF devices as one tool meant to ensure compliance with the technical rules.¹¹⁶ RF devices must comply with the Commission’s technical and equipment authorization requirements before they can be imported into or marketed in the United States.¹¹⁷ Because under our proposal, the unwanted emissions limits for base stations and mobile stations will change on September 1, 2027, equipment certifications based on compliance with the first phase limits would no longer be granted on or after this date. Furthermore, as noted above, any equipment remaining in the supply chain—i.e. in warehouses or in transit—would then be illegal to sell or install under the rules.¹¹⁸ In the *Notice*, the Commission sought comment on whether it should prohibit the grant of new equipment certifications for, or the importation of, equipment not complying with the Phase 2 unwanted emissions limits at a date prior to September 1, 2027, as a means of both preventing equipment certified as complying only with Phase 1 limits from remaining in the supply chain – in warehouses or in transit – or being brought into use after September 1, 2027.¹¹⁹ As an example, the Commission stated that it could cease granting new equipment certifications or cease permitting importation of equipment only meeting the first phase limit after March 1, 2027, or six months prior to implementation of the second phase limits.¹²⁰

37. We decline to accelerate the deadline for equipment certification of Phase 1 equipment since we do not believe that it would incentivize the early development and deployment of Phase 2 equipment, but instead may place additional burdens on large and small equipment manufacturers and carriers planning their own affairs. The benefits touted by proponents of setting an earlier certification deadline rely on arguments that we do not find persuasive in light of the licensing and compliance paradigm we clarify today.¹²¹ Under the interpretation of Resolution 750 limits for the 24 GHz band that

¹¹³ *Notice* at para. 20 (emphasis added).

¹¹⁴ IEEE GRSS Comments at 5-6.

¹¹⁵ *Notice* at para. 22.

¹¹⁶ *Notice* at para. 20.

¹¹⁷ *Notice* at para. 20 (citing 47 CFR §§ 2.803, 30.201).

¹¹⁸ *See Notice* at para. 20.

¹¹⁹ *Notice* at para. 20.

¹²⁰ *Notice* at para. 20.

¹²¹ *See* NTIA Comments at 3 (advocating for a March 1, 2027 equipment certification deadline); IEEE GRSS Comments at 5-6 (recommending the Commission to cease granting Phase 1 certifications on January 1, 2027, but as part of an overall proposal by IEEE GRSS that all equipment not complying with Phase 2 limits be replaced by Sept. 1, 2028); AGU/AMS/NWA Comments at 10-11 (recommending the Commission prohibit grants of new equipment certificates or importation of equipment that is not in compliance with the Phase 2 limits as of January 1, 2027); Qualcomm Comments at 2-3 (recommending the Commission to cease granting Phase 1 certifications on September 1, 2027). (continued....)

we adopt and incorporate into our rules today, equipment meeting the Phase 1 limits can be brought into use up through September 1, 2027, and can remain in use thereafter. Accordingly, we see no need to stop certifying Phase 1 equipment before September 1, 2027. We emphasize that the September 1, 2027 deadline for bringing Phase 1 equipment into use is firm, and equipment manufacturers and licensees must keep that firm deadline in mind when deciding to develop or to purchase Phase 1 equipment. Any decision to develop or to purchase equipment that does not meet Phase 2 emissions limits close to the September 1, 2027 deadline will be solely at the risk of the equipment manufacturer or licensee, and we presume that they will plan accordingly. This decision trusts equipment manufacturers and carriers to structure their own affairs, gives them a well-defined timeline to do so, and removes any disincentive for manufacturers to prematurely cease producing equipment that meets Phase 1.¹²²

38. *Requiring Phase 1 Equipment to Transition to Phase 2.* The Commission also sought comment in the *Notice* on what should happen with Phase 1 equipment still operating after the Phase 2 deadline.¹²³ NTIA, NOAA, and NASA advocate that equipment modified or replaced after September 1, 2027, must meet the more stringent Phase 2 OBE levels.¹²⁴ AGU/AMS/NWA, IEEE GRSS, and NOAA ask that base station and user equipment that does not comply with the -39 dBW/200 MHz limit be given a sunset date of September 1, 2028, by which it must be modified/retrofitted to meet the more stringent limits or removed.¹²⁵

39. We decline to establish a hard date by which Phase 1 equipment brought into use on or prior to September 1, 2027, must comply with the Phase 2 limits, subject to certain conditions, as explained further below. Establishing a hard sunset date would be inconsistent with the WRC-19 framework, which contemplates that Phase 1 equipment brought into use prior to September 1, 2027, could be operated indefinitely. Furthermore, the proponents of a hard sunset date have not offered any technical justification for such a sunset date, nor have they cited any factor that was allegedly not considered at WRC-19.

40. Rather, we will adopt NTIA's proposal to require that equipment modified or replaced after September 1, 2027, must meet the more stringent Phase 2 emissions limits, clarified by CTIA and T-Mobile's suggestion that, for purposes of this requirement, only base station modifications that affect emission characteristics would constitute a "modification" requiring compliance with the Phase 2 limits.¹²⁶ We believe these decisions strike the appropriate balance between granting licensees flexibility

(Continued from previous page)

1, 2026, as this will ensure that majority of equipment placed into service after September 1, 2027 will be compliant because requiring removal of Phase 1 equipment from the supply chain after September 1, 2027 will be difficult, costly and time-consuming).

¹²² See Nokia Reply Comments at 4 ("Establishing an earlier date for ceasing equipment authorization for the first phase could preclude mobile operators from deploying equipment compliant with those limits while still in the first phase time frame, which in practice would mean an anticipation of the time frame agreed in WRC-19 for the second phase unwanted emissions limits. A well-defined and definite timeline for the two-phase unwanted emissions limits should allow industry to comply with the established two-phased requirements taking into account the Commission's process for equipment authorization"); see also Ericsson Comments at 5 ("[B]y declining to grant new equipment certifications beginning six months before the implementation for the second phase limits, [the Commission] would effectively accelerate the WRC-19 implementation timeline. Equipment manufacturers and their customers should flexibility to deploy new first phase 24 GHz equipment up until September 1, 2027, without restriction.").

¹²³ *Notice* at para. 24.

¹²⁴ NTIA Comments at 4; NASA Comments at 2 (NASA defines this modification or replacement as "any physical or electrical modifications to the systems").

¹²⁵ AGU/AMS/NWA Comments at 11; IEEE GRSS Comments at 5; NOAA Comment at 12.

¹²⁶ See CTIA Comments at 11 & n.29 (citing Reply Comments of T-Mobile, ET Docket No. 21-186, at 4 (filed July 26, 2021)) ("T-Mobile agrees that equipment that is "replaced" after September 1, 2027 should be treated as if it is (continued....)

and being consistent with the decisions made at WRC-19. On the one hand, allowing licensees to make “modifications” to equipment without restriction could result in equipment that is substantially different from what is initially deployed not being subject to the Phase 2 limits. On the other hand, there are many sorts of routine modifications that could be made to equipment that would have no impact on the equipment’s compliance with the Resolution 750 limits. As CTIA notes, requiring that any modification trigger compliance with the Phase 2 limits would be overly broad and would effectively preclude licensees from making any changes to existing deployments without purchasing and installing entirely new equipment.¹²⁷ We see no reason why those sorts of routine modifications should trigger a requirement to replace that equipment. Since the emission characteristics are critical here, we conclude that only modifications that would change the emission characteristics of the equipment would constitute a “modification” that would trigger a requirement to comply with the Phase 2 emissions limits. We also conclude that any equipment that is completely replaced after September 1, 2027 should be treated as if it is newly installed and therefore subject to the post-September 1, 2027 emissions limits of the ITU Resolution 750.¹²⁸

IV. PROCEDURAL MATTERS

41. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),¹²⁹ requires that an agency prepare a regulatory flexibility analysis for notice-and-comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”¹³⁰ Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule changes contained in this *Report and Order*. The FRFA is set forth in Appendix B.

42. *Paperwork Reduction Act.* This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden “for small business concerns with fewer than 25 employees,” pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. § 3506(c)(4).

43. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Report & Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

44. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice).

(Continued from previous page) —
newly installed and therefore subject to the post-September 1, 2027 emission limits of ITU Resolution 750. But, as the Commission is aware, base station equipment may be “modified” in many ways, not all of which are meaningful. There should be no requirement to conform existing equipment to the 2027 emission limits unless the base station modification affects the emission characteristics of the base station’s transmitter.”).

¹²⁷ *See* CTIA Comments at 11.

¹²⁸ *See* T-Mobile Reply Comments at 4 (commenting that equipment that is “replaced” after September 1, 2027 should be treated as if it is newly installed and therefore subject to the post-September 1, 2027 emission limits of ITU Resolution 750).

¹²⁹ 5 U.S.C. §§ 601–612. The RFA has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹³⁰ 5 U.S.C. § 605(b).

45. *Contact Persons.* For further information contact Simon Banyai of the Wireless Telecommunications Bureau, Broadband Division, at 202-418-1443 or by e-mail to Simon.Banyai@fcc.gov.

V. ORDERING CLAUSES

46. Accordingly, IT IS ORDERED, pursuant to sections 4(i), 301, 302, 303(r), 308, 309, and 333 of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 301, 302a, 303(r), 308, 309, 333, that this Report and Order IS HEREBY ADOPTED.

47. IT IS FURTHER ORDERED that sections 2.106 and 30.203 of the Commission's rules ARE AMENDED as specified in Appendix A, and such rule amendments WILL BECOME EFFECTIVE 30 days after the date of publication in the *Federal Register*.

48. IT IS FURTHER ORDERED that the Commission's Office of the Secretary, SHALL SEND a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

49. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this *Report and Order* in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A**Final Rules**

For the reasons discussed in the document above, the Federal Communications Commission amends 47 CFR parts 2 and 30 as follows:

PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for part 2 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

2. Amend § 2.106 in paragraph (a) by revising pages 54 and 55 and add paragraph (c)(146) to read as follows:

§ 2.106 Table of Frequency Allocations

(a) * * *

* * * * *

22-22.21 FIXED MOBILE except aeronautical mobile 5.149	22-22.21 FIXED MOBILE except aeronautical mobile US342			
22-21-22.5 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.532	22-21-22.5 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) US342 US532			
22-5-22.55 FIXED MOBILE	22-5-22.55 FIXED MOBILE US211			
22-55-23.15 FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A 5.149	22-55-23.15 FIXED INTER-SATELLITE US145 US278 MOBILE SPACE RESEARCH (Earth-to-space) 5.532A US342			Satellite Communications (25) Fixed Microwave (101)
23-15-23.55 FIXED INTER-SATELLITE 5.338A MOBILE	23-15-23.55 FIXED INTER-SATELLITE US145 US278 MOBILE			
23-55-23.6 FIXED MOBILE	23-55-23.6 FIXED MOBILE			Fixed Microwave (101)
23-6-24 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	23-6-24 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY US74 SPACE RESEARCH (passive) US246			
24-24.05 AMATEUR AMATEUR-SATELLITE 5.150	24-24.05 AMATEUR AMATEUR-SATELLITE 5.150 US211			ISM Equipment (18) Amateur Radio (97)
24-05-24.25 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150	24-05-24.25 RADIOLOCATION G59 Earth exploration-satellite (active) Amateur Earth exploration-satellite (active) Radiolocation 5.150			RF Devices (15) ISM Equipment (18) Private Land Mobile (90) Amateur Radio (97)
24-25-24.45 FIXED MOBILE except aeronautical mobile 5.338A 5.532AB RADIO NAVIGATION	24-25-24.45 FIXED MOBILE 5.338A 5.532AB RADIO NAVIGATION			RF Devices (15) Upper Microwave Flexible Use (30)

Table of Frequency Allocations					24.45-31.8 GHz (SHF/EHF)	
International Table			United States Table			FCC Rule Part(s)
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table		
24.45-24.65 FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.338A 5.532AB	24.45-24.65 FIXED 5.532AA INTER-SATELLITE MOBILE except aeronautical mobile 5.338A 5.532AB RADIONAVIGATION	24.45-24.65 FIXED INTER-SATELLITE MOBILE 5.338A 5.532AB RADIONAVIGATION	24.45-24.65 INTER-SATELLITE RADIONAVIGATION			RF Devices (15) Satellite Communications (25)
24.65-24.75 FIXED INTER-SATELLITE (Earth-to-space) 5.532B ER-SATELLITE MOBILE except aeronautical mobile 5.338A 5.532AB	24.65-24.75 FIXED 5.532AA INTER-SATELLITE MOBILE except aeronautical mobile 5.338A 5.532AB RADIOLOCATION-SATELLITE (Earth-to-space)	24.65-24.75 FIXED INTER-SATELLITE (Earth-to-space) 5.532B INTER-SATELLITE MOBILE 5.338A 5.532AB	5.533 24.65-24.75 INTER-SATELLITE RADIOLOCATION-SATELLITE (Earth-to-space)			
24.75-25.25 FIXED INTER-SATELLITE (Earth-to-space) 5.532B MOBILE except aeronautical mobile 5.338A 5.532AB	24.75-25.25 FIXED 5.532AA FIXED-SATELLITE (Earth-to-space) 5.535 MOBILE except aeronautical mobile 5.338A 5.532AB	24.75-25.25 FIXED INTER-SATELLITE (Earth-to-space) 5.535 MOBILE 5.338A 5.532AB	24.75-25.25 FIXED INTER-SATELLITE (Earth-to-space) MOBILE US146 NG65	24.75-25.25 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE US146	24.75-25.25 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE US146	RF Devices (15) Satellite Communications (25) Upper Microwave Flexible Use (30)
25.25-25.5 FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB Standard frequency and time signal-satellite (Earth-to-space)	25.25-25.5 FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space)	25.25-25.5 FIXED INTER-SATELLITE 5.536 MOBILE US146 SPACE RESEARCH (space-to-Earth) Standard frequency and time signal-satellite (Earth-to-space)	25.25-25.5 FIXED INTER-SATELLITE 5.536 MOBILE US146 Standard frequency and time signal-satellite (Earth-to-space)	25.25-25.5 Inter-satellite 5.536 Standard frequency and time signal-satellite (Earth-to-space)	25.25-25.5 Inter-satellite 5.536 Standard frequency and time signal-satellite (Earth-to-space)	RF Devices (15)
25.5-27 EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.536B FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space)	25.5-27 EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.536B FIXED 5.534A INTER-SATELLITE 5.536 MOBILE US146 SPACE RESEARCH (space-to-Earth) Standard frequency and time signal-satellite (Earth-to-space)	25.5-27 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED INTER-SATELLITE 5.536 MOBILE US146 SPACE RESEARCH (space-to-Earth) Standard frequency and time signal-satellite (Earth-to-space)	25.5-27 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED INTER-SATELLITE 5.536 MOBILE US146 SPACE RESEARCH (space-to-Earth) Standard frequency and time signal-satellite (Earth-to-space)	25.5-27 SPACE RESEARCH (space-to-Earth) Inter-satellite 5.536 Standard frequency and time signal-satellite (Earth-to-space)	25.5-27 SPACE RESEARCH (space-to-Earth) Inter-satellite 5.536 Standard frequency and time signal-satellite (Earth-to-space)	
5.536A 27-27.5 FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB	27-27.5 FIXED 5.534A FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB	27-27.5 FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB	27-27.5 FIXED INTER-SATELLITE 5.536 MOBILE US146	27-27.5 Inter-satellite 5.536	27-27.5 Inter-satellite 5.536	
27.5-28.5 FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.517A 5.539 MOBILE	27.5-28.5 FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.517A 5.539 MOBILE	27.5-28.5 FIXED INTER-SATELLITE (Earth-to-space) MOBILE	27.5-30 FIXED INTER-SATELLITE 5.536 MOBILE US146	27.5-28.35 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	27.5-28.35 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	RF Devices (15) Satellite Communications (25) Upper Microwave Flexible Use (30) Fixed Microwave (101)
5.538 5.540				28.35-29.1 FIXED-SATELLITE (Earth-to-space) G165 NG527A	28.35-29.1 FIXED-SATELLITE (Earth-to-space) G165 NG527A	RF Devices (15) Satellite Communications (25)

* * * * *

(C) * * *

(146) US146 In the bands 24.25-24.45 GHz and 24.75-27.5 GHz, the maximum conducted output power or the total radiated power (TRP) of emissions from stations in the mobile service in any 200 MHz of the band 23.6-24 GHz shall not exceed -33 dBW/200 MHz for base stations and -29 dBW/200 MHz for mobile stations, and for stations brought into use after September 1, 2027, the maximum conducted output power or TRP shall not exceed -39 dBW/200 MHz for base stations and -35 dBW/200 MHz for mobile stations. If equipment brought into use on or prior to September 1, 2027 is replaced, or modified in a manner that changes the emissions characteristics of the equipment, the equipment must then comply with the -39 dBW/200 MHz limit for base stations and -35 dBW/200 MHz limit for mobile stations.

* * * * *

PART 30 – UPPER MICROWAVE FLEXIBLE USE SERVICE.

3. The authority citation for part 30 continues to read as follows:

Authority: 47 U.S.C. 151, 152, 153, 154, 301, 303, 304, 307, 309, 310, 316, 332, 1302, unless otherwise noted.

4. Amend § 30.2 by adding the definition of “Maximum Conducted Output Power” in alphabetical order to read as follows:

§ 30.2 Definitions.

* * * * *

Maximum Conducted Output Power. The total transmit power delivered to all antennas and antenna *elements* averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (*e.g.*, alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

* * * * *

5. Amend § 30.203 by revising the section heading and add paragraph (d) to read as follows:

§ 30.203 Emissions limits.

* * * * *

(d)(1) In addition to the limits noted above, for licensees operating mobile equipment in the 24.25-24.45 GHz or 24.75-25.25 GHz bands, the maximum conducted output power or the total radiated power of emissions in any 200 MHz of the 23.6-24.0 GHz band shall not exceed -33 dBW (for base stations) or -29 dBW (for mobile stations).

(2) For mobile equipment brought into use after September 1, 2027, the maximum conducted output power or the total radiated power of emissions in any 200 MHz of the 23.6-24.0 GHz band shall not exceed -39 dBW (for base stations) or -35 dBW (for mobile stations). If equipment brought into use on or prior to September 1, 2027 is replaced, or modified in a manner that changes the emissions characteristics of the equipment, the equipment must then comply with the emissions limits in this paragraph.

APPENDIX B

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Modifying Emissions Limits for the 24.25-24.45 GHz and 24.75-25.25 GHz Band, Notice of Proposed Rulemaking (Notice)* released in December 2023.² The Federal Communications Commission (Commission) sought written public comment on the proposals in the *Notice*, including comment on the IRFA.³ No comments were filed addressing the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.⁴

A. Need for, and Objectives of, the Final Rules

2. The *Report and Order (Report and Order)* adopted by the Commission today implements certain decisions regarding the 24.25-27.5 GHz band made in the World Radiocommunication Conference held by the International Telecommunication Union (ITU) in 2019 (WRC-19). The Commission aligns part 30 of its rules for mobile operations with the Resolution 750 limits on unwanted emissions into the passive 23.6-24.0 GHz band that were adopted at WRC-19, and specifically: (1) applies the Resolution 750 unwanted OOB limits to all mobile operations; (2) declines to adopt limits more stringent than those imposed by Resolution 750; (3) declines to apply the Resolution 750 limits to fixed operations, including point-to-point and point-to-multipoint systems; (4) declines to exempt indoor small-cell equipment from the Resolution 750 limits; (5) allows the demonstration of compliance with the unwanted emissions limits for the 23.6-24.0 GHz band using both conducted power measurement methodology in addition to the Total Radiated Power (TRP) methodology; and (6) sets the timetable for application of Resolution 750 limits. These rule changes and decisions will promote international harmonization, help to facilitate the protection of passive sensors used for weather forecasting and scientific research in the 23.6 GHz-24.0 GHz band, while continuing to promote flexible commercial use of the 24.25-24.45 GHz and 24.75-25.25 GHz bands (collectively, 24 GHz band).

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

3. There were no comments filed that specifically addressed the proposed rules and policies presented in the IRFA.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

4. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.⁵ The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² *Modifying Emission Limits for the 24.25-24.45 GHz and 24.75-25.25 GHz Band*, ET Docket No. 21-186, Notice of Proposed Rulemaking, FCC 23-114, 2023 WL 8946049, (rel. Dec. 22, 2023) (*Notice*).

³ See generally *Notice*.

⁴ 5 U.S.C. § 604.

⁵ *Id.* § 604 (a)(3).

D. Description and Estimate of the Number of Small Entities To Which the Rules Will Apply

5. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by rules adopted herein.⁶ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁷ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁸ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.⁹

6. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe, at the outset, three broad groups of small entities that could be directly affected herein.¹⁰ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.¹¹ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹²

7. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹³ The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.¹⁴ Nationwide, for tax year 2022, there were approximately 530,109 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.¹⁵

⁶ *Id.* § 604(a)(44).

⁷ *Id.* § 601(6).

⁸ *Id.* § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁹ 15 U.S.C. § 632.

¹⁰ 5 U.S.C. § 601(3)-(6).

¹¹ See SBA, Office of Advocacy, “What’s New With Small Business?,” (Mar. 2023), <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf>.

¹² *Id.*

¹³ 5 U.S.C. § 601(4).

¹⁴ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations – Form 990-N (e-Postcard), “Who must file.” We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

¹⁵ See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region.” The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2022 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (71,897), Region 2-Mid-Atlantic and Great Lakes Areas (197,296), and Region 3-Gulf Coast and Pacific Coast Areas

(continued....)

8. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹⁶ U.S. Census Bureau data from the 2022 Census of Governments¹⁷ indicate there were 90,837 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁸ Of this number, there were 36,845 general purpose governments (county,¹⁹ municipal, and town or township²⁰) with populations of less than 50,000 and 11,879 special purpose governments (independent school districts²¹) with enrollment populations of less than 50,000.²² Accordingly, based on the 2022 U.S. Census of Governments data, we estimate that at least 48,724 entities fall into the category of “small governmental jurisdictions.”²³

9. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.²⁴ Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless Internet access, and wireless video services.²⁵ The SBA size standard for this industry classifies a business as small if it has

(Continued from previous page) _____

(260,447) that includes the continental U.S., Alaska, and Hawaii. This data includes information for Puerto Rico (469).

¹⁶ 5 U.S.C. § 601(5).

¹⁷ 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Census of Governments, <https://www.census.gov/programs-surveys/economic-census/year/2022/about.html>.

¹⁸ See U.S. Census Bureau, 2022 Census of Governments – Organization Table 2. Local Governments by Type and State: 2022 [CG2200ORG02], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG2200ORG02 Table Notes_Local Governments by Type and State_2022.

¹⁹ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2022 [CG2200ORG05], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 2,097 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

²⁰ See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2022 [CG2200ORG06], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 18,693 municipal and 16,055 town and township governments with populations less than 50,000.

²¹ See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2022 [CG2200ORG10], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 11,879 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2022 [CG2200ORG04], CG2200ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2022.

²² While the special purpose governments category also includes local special district governments, the 2022 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

²³ This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,845) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (11,879), from the 2022 Census of Governments - Organizations tbls. 5, 6 & 10.

²⁴ See U.S. Census Bureau, 2017 NAICS Definition, “517312 Wireless Telecommunications Carriers (except Satellite),” <https://www.census.gov/naics/?input=517312&year=2017&details=517312>.

²⁵ *Id.*

1,500 or fewer employees.²⁶ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.²⁷ Of that number, 2,837 firms employed fewer than 250 employees.²⁸ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 594 providers that reported they were engaged in the provision of wireless services.²⁹ Of these providers, the Commission estimates that 511 providers have 1,500 or fewer employees.³⁰ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

10. *Fixed Microwave Services.* Fixed microwave services include common carrier,³¹ private-operational fixed,³² and broadcast auxiliary radio services.³³ They also include the Upper Microwave Flexible Use Service (UMFUS),³⁴ Millimeter Wave Service (70/80/90 GHz),³⁵ Local Multipoint Distribution Service (LMDS),³⁶ the Digital Electronic Message Service (DEMS),³⁷ 24 GHz Service,³⁸ Multiple Address Systems (MAS),³⁹ and Multichannel Video Distribution and Data Service (MVDDS),⁴⁰ where in some bands licensees can choose between common carrier and non-common carrier status.⁴¹ Wireless Telecommunications Carriers (*except* Satellite)⁴² is the closest industry with a SBA small business size standard applicable to these services. The SBA small size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁴³ U.S. Census Bureau data for 2017

²⁶ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

²⁷ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.*: 2017, Table ID: EC1700SIZEEMPFI, NAICS Code 517312, .

²⁸ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

²⁹ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

³⁰ *Id.*

³¹ See 47 CFR Part 101, Subparts C and I.

³² See *id.* Subparts C and H.

³³ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. See 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

³⁴ See 47 CFR Part 30.

³⁵ See 47 CFR Part 101, Subpart Q.

³⁶ See *id.* Subpart L.

³⁷ See *id.* Subpart G.

³⁸ See *id.*

³⁹ See *id.* Subpart O.

⁴⁰ See *id.* Subpart P.

⁴¹ See 47 CFR §§ 101.533, 101.1017.

⁴² See U.S. Census Bureau, *2017 NAICS Definition, "517312 Wireless Telecommunications Carriers (except Satellite),"* <https://www.census.gov/naics/?input=517312&year=2017&details=517312>.

⁴³ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

show that there were 2,893 firms that operated in this industry for the entire year.⁴⁴ Of this number, 2,837 firms employed fewer than 250 employees.⁴⁵ Thus under the SBA size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

11. Additionally, since the Commission does not collect data on the number of employees for licensees providing these services, at this time we are not able to estimate the number of licensees with active licenses that would qualify as small under the SBA's small business size standard.

12. *Satellite Telecommunications.* This industry comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications."⁴⁶ Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$44 million or less in annual receipts as small.⁴⁷ U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year.⁴⁸ Of this number, 242 firms had revenue of less than \$25 million.⁴⁹ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 65 providers that reported they were engaged in the provision of satellite telecommunications services.⁵⁰ Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.⁵¹ Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

13. *All Other Telecommunications.* This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.⁵² This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.⁵³ Providers of Internet services (e.g. dial-up ISPs) or Voice over Internet Protocol

⁴⁴ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFI, NAICS Code 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

⁴⁵ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁴⁶ See U.S. Census Bureau, *2017 NAICS Definition, "517410 Satellite Telecommunications,"* <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

⁴⁷ See 13 CFR § 121.201, NAICS Code 517410.

⁴⁸ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVF, NAICS Code 517410, <https://data.census.gov/cedsci/table?y=2017&n=517410&tid=ECNSIZE2017.EC1700SIZEREVF&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁴⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

⁵⁰ Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

⁵¹ *Id.*

⁵² See U.S. Census Bureau, *2017 NAICS Definition, "517919 All Other Telecommunications,"* <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁵³ *Id.*

(VoIP) services, via client-supplied telecommunications connections are also included in this industry.⁵⁴ The SBA small business size standard for this industry classifies firms with annual receipts of \$40 million or less as small.⁵⁵ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.⁵⁶ Of those firms, 1,039 had revenue of less than \$25 million.⁵⁷ Based on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

14. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.⁵⁸ Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.⁵⁹ The SBA small business size standard for this industry classifies businesses having 1,250 employees or less as small.⁶⁰ U.S. Census Bureau data for 2017 show that there were 656 firms in this industry that operated for the entire year.⁶¹ Of this number, 624 firms had fewer than 250 employees.⁶² Thus, under the SBA size standard, the majority of firms in this industry can be considered small.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

15. The *Report and Order* expands the compliance obligations of Resolution 750’s emissions limits to all mobile operations in the 24 GHz band. However, the adoption of the Resolution 750 emissions limits, emissions limits measurement methodology and emissions limits effective date timetables will not impose any new reporting or recordkeeping requirements on small or other entities. No comments were filed in this proceeding regarding the specific implications of our proposals, including any associated costs, on small entities. In assessing the cost of compliance for small entities, at this time the Commission is not in a position to determine whether these actions will require small entities to hire professionals to comply, and cannot quantify the cost of compliance with the rule changes that were

⁵⁴ *Id.*

⁵⁵ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

⁵⁶ See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Sales, Value of Shipments, or Revenue Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEREVFIRM, NAICS Code 517919, <https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>. At this time, the 2022 Economic Census data is not available.

⁵⁷ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. We also note that according to the U.S. Census Bureau glossary, the terms receipts and revenues are used interchangeably, see https://www.census.gov/glossary/#term_ReceiptsRevenueServices.

⁵⁸ See U.S. Census Bureau, *2017 NAICS Definition, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing,”* <https://www.census.gov/naics/?input=334220&year=2017&details=334220>.

⁵⁹ *Id.*

⁶⁰ See 13 CFR § 121.201, NAICS Code 334220.

⁶¹ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 334220, <https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePreview=false>. At this time, the 2022 Economic Census data is not available. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/31SG2//naics~334220

⁶² *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

adopted. We note, as we did in the IRFA addressing the proposal, that comments in response to the *Public Notice*⁶³ that raised concerns about increased costs if Resolution 750 emissions limits are adopted, have been taken into consideration.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

16. The RFA requires an agency to provide “a description of the steps the agency has taken to minimize the significant economic impact on small entities . . . including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.”⁶⁴

17. In making its determinations regarding the rules adopted in the *Report and Order*, the Commission has sought data on the costs and economic impact of the proposals and approaches discussed in the *Notice* in order to allow the Commission to better evaluate options and alternatives for minimization of any significant economic impact on small entities if Resolution 750 emissions limits and effective date timetables were adopted.

18. Based on the record in this proceeding, our adoption of Resolution 750 emissions limits strives to strike the appropriate balance between protecting passive sensing satellite operations and facilitating use of the 24 GHz band. For example, in the *Report and Order*, the Commission considered, but ultimately declined to adopt rules accelerating the deadline for equipment certification of Phase 1 equipment. In taking that step, the Commission minimized significant economic and administrative burdens on small equipment manufacturers and carriers seeking to plan their own affairs. Additionally, the Commission could have developed and adopted its own emissions limits and related requirements which may have included emissions limits that were more or less strict than the Resolution 750 emissions limits. The Commission could have also simply maintained the existing rules. However, all commenters - including the weather community, scientific community, mobile operators, equipment manufacturers, federal agencies, and other commentors, some of which are small entities - agreed that the Commission should align its rules with Resolution 750 to protect extremely sensitive passive satellite operations, facilitate the continued development and deployment of 5G in the U.S., promote international harmonization, enable equipment manufacturers to provide globally marketable equipment, and to be consistent with U.S. policy relating to Radio Regulations.⁶⁵ Thus, the synchronicity between the Resolution 750 emissions limits and the Commission's part 30 rules appears to be the best course of action, although small entities that hold licenses subject to these rules may incur increased deployment costs to comply with the more stringent Resolution 750 emissions limits.

19. In the alternative, if the Commission were to propose and adopt its own emissions limits, particularly if the emissions limits were stricter than both the existing emissions limits and Resolution 750 emissions limits, small entities could be subjected to significantly increased compliance costs without any of the above-mentioned benefits. Further, if the Commission were to propose and adopt less stringent emissions limit requirements or if we simply maintained the existing requirements, our rules may not provide the necessary protections for passive satellite operations to operate in the 24 GHz band and might make it difficult for EESS to make observations free from harmful interference, thereby jeopardizing the accuracy of critical weather forecasting and climatology data. Instead, the Commission believes adoption of the Resolution 750 emissions limits, which were carefully considered and the product of extensive

⁶³ See *Office of Engineering & Technology and the Wireless Telecommunications Bureau Seek Comment on Emission Limits for the 24.25-27.5 GHz Band*, ET Docket No. 21-186; GN Docket No. 14-177, Public Notice, 36 FCC Rcd 7561 (OET WTB 2021) (*Public Notice*).

⁶⁴ 5 U.S.C. § 604(a)(6).

⁶⁵ See *Report and Order* at n.33.

industry collaboration, is the right approach and any potential burdens are outweighed by the benefits of protecting passive observations in the 23.6-24.0 GHz band, including improvements in weather forecasting.

20. We received several comments regarding applying the emissions limits to indoor small cell operations. CTIA noted that doing so would impose significant regulatory costs on manufacturers to obtain equipment certification and could delay deployment, without conferring additional benefit to EESS.⁶⁶ Ericsson explained that “[t]he Resolution 750 limits are not necessary to protect adjacent services from indoor small cell systems and applying them would only add production costs that hinder the deployment of small cell systems in the band.”⁶⁷ As discussed in the *Report and Order*, the Commission found that the record was insufficient to support exempting indoor base stations, and decided to apply the Resolution 750 limits to indoor small-cell mobile equipment. While commenters noted that doing so would be unnecessary to reduce the risk of interference and may be costly – commenters did not include specifics, figures, or examples in their filings. As the Commission noted, while an argument could be made for exempting indoor base stations, doing so would require further record development on an appropriate power level for indoor base stations. On the current record, it is unclear to what extent exempting indoor base stations from the Resolution 750 limits would be useful or what sort of cost alleviation – if any – may occur.

21. We also received comments regarding implementation timeline and requirements. AT&T and Qualcomm noted that an accelerated timeline would be “impractical and costly,” for stakeholders.⁶⁸ For this reason and others discussed in the *Report and Order*, the Commission adopted the Resolution 750 unwanted emissions limits on the timeframes adopted at WRC-19. The first phase limits (–33 dBW for base stations, –29 dBW for mobile stations) will apply as of the effective date of the rules, and the second phase limits (–39 dBW for base stations, –35 dBW for mobile stations) will apply to all deployments after September 1, 2027.

22. AT&T further stated that requiring 24 GHz licensees to replace existing equipment before they intend to place Phase 2 equipment into service would be costly and inefficient, which would discourage deployments before the Phase 2 compliance date.⁶⁹ As discussed, to the extent that equipment meeting only the Phase 1 emissions limit is installed sometime on or prior to September 1, 2027, the Commission adopted NTIA’s proposal that it “require base station and user equipment modified or replaced after September 2027 to comply with the post-September 2027 emissions limits.”⁷⁰ But due to cost and inefficiency concerns expressed, the Commission added the clarification that only equipment that undergoes replacement, or modifications that change the emission characteristics of the equipment would constitute a “modification or replacement” triggering the requirement that this equipment must be Phase 2 compliant.

G. Report to Congress

23. The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.⁷¹ In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A

⁶⁶ CTIA Reply Comments at 7.

⁶⁷ AT&T Reply Comments at 6; Ericsson Comments at 4; T-Mobile Comments at 7; CTIA Comments at 4. *See also* Qualcomm Comments at 2-3.

⁶⁸ AT&T Reply Comments at 5; Qualcomm Comments at 2.

⁶⁹ AT&T Reply Comments at 6.

⁷⁰ NTIA Comments at 4.

⁷¹ 5 U.S.C. § 801(a)(1)(A).

copy of the *Report and Order*, and FRFA (or summaries thereof) will also be published in the Federal Register.⁷²

⁷² *Id.* § 604(b).

APPENDIX C**List of Commenters to *Notice of Proposed Rulemaking*****Comments**

Michael Ravnitzky

IEEE Geoscience and Remote Sensing Society (IEEE GRSS)

The National Academy of Sciences, through its Committee on Radio Frequencies (CORF)

GuRu Wireless

AT&T Services Inc. (AT&T)

CTIA

T-Mobile USA, Inc. (T-Mobile)

Ericsson

Qualcomm Incorporated (Qualcomm)

National Telecommunications and Information Administration (NTIA)

National Aeronautics and Space Administration (NASA)

National Oceanic and Atmospheric Administration (NOAA)

Wireless Interdisciplinary Research Group (WIRG)

American Geophysical Union, American Meteorological Society, and National Weather Association (AGU/AMS/NWA)

Reply Comments

T-Mobile

Nokia

AT&T

CTIA

Ex Parte

WIRG

