

**Volume 38, No. 12, Pages 10191 to 10894,
October 30 – November 15, 2023**

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 38, No. 12, Pages 10191 to 10894, October 30 – November 15, 2023



FEDERAL COMMUNICATIONS COMMISSION

Jessica Rosenworcel, Chairwoman
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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: 23-994
Released: October 30, 2023

ENFORCEMENT BUREAU CONTINUES 2023 EEO AUDITS

On October 30, 2023, the Enforcement Bureau issued the second of its Equal Employment Opportunity (EEO) audit letters for 2023 to randomly selected radio and television stations. In accordance with section 73.2080(f)(4) of the Commission's EEO rules,¹ the Enforcement Bureau annually audits the EEO programs of randomly selected broadcast licensees. Each year, approximately five percent of all radio and television stations are selected for EEO audits.

A list of the radio and television stations included in this audit as well as the text of the October 30, 2023 audit letter appears on the following pages, which are also located at the Enforcement Bureau's EEO headline page on the FCC website at: <https://www.fcc.gov/enforcement/eb-eeo/equal-employment-opportunity-headlines>. The deadline for stations to upload responses to their FCC-hosted online public inspection files is December 14, 2023.

As a reminder, the Enforcement Bureau will no longer issue letters to licensees upon completion of our review of audit responses.² If questions arise during staff review, the Enforcement Bureau will contact the licensee.

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

– FCC –

¹ 47 CFR § 73.2080(f)(4)

² On April 24, 2023, the Enforcement Bureau sent the first broadcast EEO audit letters for 2023. *See Enforcement Bureau Commences 2023 Broadcast EEO Audits*, Public Notice, DA 23-232, 2023 WL 3151992 (EB Apr. 24, 2023). The Enforcement Bureau also sent its MVPD EEO audit letters on October 6, 2023. *See Enforcement Bureau Announces 2023 MVPD EEO Audits*, Public Notice, DA 23-917, 2023 WL 6549927 (EB Oct. 6, 2023).



Federal Communications Commission
Washington, D.C. 20554

October 30, 2023

Dear Licensee:

1. In accordance with 47 CFR § 73.2080(f)(4), [Station call sign] (the Station) and all other stations, if any, in the same station employment unit (defined by 73.2080(e)(2) as commonly owned stations in the same market that share employees) (the Unit) has been randomly selected for an audit of its Equal Employment Opportunity (EEO) program. A copy of section 73.2080 of the Federal Communications Commission (FCC or Commission) rules can be found here: <https://www.fcc.gov/enforcement/eb-eeo/equal-employment-opportunity-rules>.

2. Audit Data Requested.

(a) If the Unit has fewer than five full-time employees (defined by section 73.2080(e)(1) as employees regularly assigned to work 30 hours a week or more), submit a response listing 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 Question 2(b)(vi) below. Please also see Questions 3 and 4 below for guidance regarding brokers and brokered stations.

(b) If the Unit employs five or more full-time employees, provide the following information:

(i) Copies of the Unit's two most recent EEO Public File Reports, described in section 73.2080(c)(6).

(ii) For each station in the Unit that maintains a website, the website address. If the Unit's most recent EEO Public File Report is not posted on each website as required by section 73.2080(c)(6), identify that website and 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 most recent EEO Public File Report is linked pursuant to section 73.2080(c)(6).

(iii) For each of the Unit's full-time positions filled during the period covered by the EEO Public File Reports noted above, or since acquisition of the Unit (if during that period), the date of hire as required by section 73.2080(c)(5)(vi) as well as dated copies of all advertisements, bulletins, letters, faxes, e-mails or other communications announcing the position, as described in section 73.2080(c)(5)(iii). However, to reduce the burden of responding to this audit, if a job notice was sent to multiple sources, the Unit may include in its response: (1) documentation showing one such notice was sent, (2) a list of the additional sources to which the notice was distributed, and (3) a statement confirming notices to all additional sources used to announce the vacancy were retained, as required by section 73.2080(c)(5)(iii).³ Include, however, copies of all job announcements sent to any organization (identified separately from other recruitment sources) that has notified the Unit that it wants to be notified of the Unit's job openings, as described in section 73.2080(c)(1)(ii).

³ For on-air announcements that aired multiple times to advertise the position, you may send a traffic log summary documenting the timeframe during which the announcements aired (in lieu of the log in its entirety). The log showing all air dates and times may be required for additional verification, but the Unit need not provide with its initial response.

(iv) As required by section 73.2080(c)(5)(v), the total number of interviewees for each vacancy and the referral source for each interviewee for all the Unit's full-time vacancies filled during the period covered by the above-noted EEO Public File Reports.

(v) Dated documentation demonstrating performance of the Unit's recruitment initiatives described in section 73.2080(c)(2) during the period covered by the above-noted EEO Public File Reports, such as participation in job fairs, events with educational institutions, and mentoring or training programs for staff. Specify the Unit personnel involved in each recruitment initiative. In addition, provide the Unit's total number of full-time employees and state whether the population of the market in which any of the Unit's stations operates is 250,000 or more. Based upon these two factors and as required by sections 73.2080(c)(2) and (e)(3) of the Commission's rules, state whether the Unit is required to perform two or four points worth of initiative activities within a two-year period (measured from the date the stations in the Unit file their renewal applications and the second, fourth, sixth and eighth anniversaries of that date). 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., two or four 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 Unit's current license term(s) 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, or sex. For each such complaint, provide: (1) a brief description of the allegations and issues involved; (2) the names of the complainant and other persons involved; (3) the date the complaint was filed; (4) the court or agency before which it is pending or by which it 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 section 73.2080(b), during the Unit's current license term(s) (or since acquisition of the Unit (if during that period)), a description of the responsibilities of each level of Unit management responsible for implementing Unit EEO policies and how the Unit has informed employees and job applicants of its EEO policies and program.

(viii) In accordance with section 73.2080(c)(3), during the Unit's current license term(s) (or since acquisition of the Unit (if during that period)), a description of the Unit's efforts to analyze its EEO recruitment program to ensure that it is effective and to address any problems found as a result of such analysis.

(ix) As required by section 73.2080(c)(4), during the Unit's current license term(s) (or since acquisition of the Unit (if during that period)), a description of the Unit's efforts to analyze periodically its measures taken to examine pay, benefits, seniority practices, promotions, and selection techniques and tests to ensure that they provide equal opportunity and do not have a discriminatory effect. If the Unit has one or more union agreements, describe how the Unit cooperates with each union to ensure EEO policies are followed for the Unit's union-member employees and job applicants.

(x) If your entity is a religious broadcaster and any of the Unit's full-time employees are subject to a religious qualification as described in section 73.2080(a) of the rules, the Unit should indicate that status in its response and provide data as applicable to its EEO program. For example, for those full-time hires subject to a religious qualification, you must provide only a record of the hire listed by job title and date filled, the recruitment sources used for the opening, and the source that referred the person hired. No other records are required for those hires. If five or more full-

time positions are not subject to a religious qualification, the licensee must maintain and provide all records for such hires and complete the initiatives required under section 73.2080(c)(2). Otherwise, a religious broadcaster is not required to perform these initiatives.

(c) Resumes, company training manuals, posters, employee handbooks, and corporate guidebooks are not required to be submitted. If any of the information in these or similar materials is relevant to any part of this audit letter, the Unit may provide a summary of any content if it so wishes. If this audit requires an unusually burdensome volume of documentation, the Unit may contact EEO staff at (202) 418-1450 prior to the response deadline to discuss alternative ways of condensing the information.

3. Time Brokerage—Licensee of brokered station(s) receives audit letter.

If any station included in the Unit is subject to a time brokerage agreement, the licensee must immediately forward a copy of this letter to the broker under each such agreement. Additionally, if the Unit employs fewer than five full-time employees, the licensee must respond by providing a list of the Unit's full-time employees listed by job title, the number of hours each employee is assigned to work, and a response to Question 2(b)(vi) above. If the Unit employs five or more full-time employees, the licensee must respond fully to paragraph 2(b).

4. Time Brokerage—Broker receives audit letter.

(a) **Broker receives audit letter from brokered station licensee.** The broker must submit information requested in 2(b) above concerning information relating only to its own full-time employees working on behalf of the brokered station, as required by section 73.2080(f)(3) of the Commission's rules. If recruitment activity for those brokered station employees is maintained with that of other stations licensed to you, and you lack the ability to separate the information, submit information pertaining to both.

(b) **Broker receives audit letter directly from Commission.** If any station in the Unit is licensed to you, submit information requested in 2(b) above for the Unit's EEO program. If recruitment activity pertaining to full-time employees working on behalf of another station you broker is maintained with that of the Unit, and you lack the ability to separate the information, submit information pertaining to both.

(c) **Broker described in 4(a) or 4(b).** If full-time employees at the station you broker, combined with full-time employees at the Station (or Unit), total fewer than five, you need only respond to this letter by submitting a list of full-time employees (identified by job title and number of hours regularly assigned to work per week) for both the brokered station(s) and subject Station as well as a response to Question 2(b)(vi).

5. Procedures.

(a) **The response to this audit letter must be uploaded to the FCC-hosted online public inspection file (<https://publicfiles.fcc.gov/>) belonging to each station in the Unit by no later than December 14, 2023.** The response should be placed in the EEO Audits, Investigations, and Complaints subfolder in the online public file (found at EEO Records>>Additional Documents>> EEO Audits, Investigations, and Complaints). Include in the response the Station's Facility ID Number and an e-mail address of a Station representative.

(b) Any extension of time must be requested at least five days prior to aforementioned deadline (via email to EB-EEO@fcc.gov), indicate the additional time the Unit believes it needs to complete its response (not to exceed 45 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.

(c) If the Unit submitted an EEO audit response in 2021 or 2022 and/or the most recent license renewal

application(s) applicable to the Unit were granted after October 1, 2021, send an email to EB-EEO@fcc.gov for additional guidance on whether a response is required. In the email, provide a reference to the relevant filings/applications before the Commission.

(d) The accuracy and completeness of the response must be certified by an officer, partner or other principal of the Station licensee or broker (as appropriate) or, in the case of a noncommercial educational station, by an officer, member or other principal of the licensee. (*See* 47 CFR § 1.16.). 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; 47 CFR § 1.17), revocation of any station license or construction permit (47 U.S.C. § 312(a)(1)), and/or forfeiture (47 U.S.C. § 503). Failure to respond to this audit letter by the deadline is punishable by sanctions in accordance with section 73.2080(g).

(e) As required by sections 73.3526(e)(10) (commercial stations) and 73.3527(e)(11) (noncommercial educational stations), a copy of this letter and the response must be placed in the FCC-hosted online public inspection file belonging to each station in the Unit. Consequently, the response should not include personal information about individuals, such as social security numbers, home addresses, or other personally identifiable information. The FCC does not require that employment units retain such information in their records, or that such information be provided in response to this letter.

(f) 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.

6. Should you have any questions, please contact EEO Staff at EB-EEO@fcc.gov or (202) 418-1450. Thank you for your cooperation.

Sincerely,

/s/ Elizabeth Goldin

Elizabeth E. Goldin
Assistant Chief, Investigations & Hearings Division
Enforcement Bureau

**OCTOBER 30, 2023 BROADCAST EEO AUDIT
RADIO & TELEVISION STATIONS**

	CALL SIGN	SERVICE	FACILITY ID	CITY OF LICENSE	STATE	LICENSEE NAME
1.	KADN-TV	DTV	33261	LAFAYETTE	LA	BCBL License Subsidiary, LLC
2.	KARX	FM	72038	CANYON	TX	Cumulus Licensing LLC
3.	KATV	DTV	33543	LITTLE ROCK	AR	KATV Licensee, LLC
4.	KAZI	FM	3344	AUSTIN	TX	Austin Community Radio
5.	KBCQ-FM	FM	57722	ROSWELL	NM	Majestic Broadcasting, LLC
6.	KBRN	FM	190402	BELLE ROSE	LA	Alex Media, Inc.
7.	KBUF	AM	33689	HOLCOMB	KS	Western Kansas Broadcast Center, LLC
8.	KDDL	FM	109	CHINO VALLEY	AZ	Prescott Valley Broadcasting Company, Inc.
9.	KDGS	FM	70266	ANDOVER	KS	Audacy License, LLC
10.	KDPX	FM	190418	PINE BLUFF	AR	Bluff City Radio, LLC
11.	KDUS	AM	65165	TEMPE	AZ	Phoenix FCC License Sub, LLC
12.	KEUC	FM	191538	RINGWOOD	OK	Oklahoma Catholic Broadcasting, Inc.
13.	KEYH	AM	2911	HOUSTON	TX	Estrella Radio License of Houston LLC
14.	KEZS-FM	FM	74580	CAPE GIRARDEAU	MO	MRR LICENSE LLC
15.	KFBD-FM	FM	4259	WAYNESVILLE	MO	Alpha Media Licensee LLC
16.	KFMZ	AM	2	BROOKFIELD	MO	Best Broadcasting, Inc.
17.	KFOG	AM	24150	LITTLE ROCK	AR	Radio License Holding CBC, LLC
18.	KGBT-FM	FM	6662	MCALLEN	TX	Latino Media Network, LLC
19.	KGMS	AM	53592	TUCSON	AZ	Tucson Christian Radio, Inc.
20.	KHCA	FM	34525	WAMEGO	KS	KHCA, Inc.
21.	KIIZ-FM	FM	60802	KILLEEN	TX	iHM Licenses, LLC
22.	KKCN	FM	10024	BALLINGER	TX	Townsquare License, LLC
23.	KKMS	AM	18518	RICHFIELD	MN	Salem Communications Holding Corporation
24.	KKVU	FM	162327	STEVENSVILLE	MT	Missoula Broadcasting Company, LLC
25.	KLIX-FM	FM	3407	TWIN FALLS	ID	Townsquare License, LLC
26.	KLKC-FM	FM	65566	PARSONS	KS	Parsons Media Group LLC
27.	KLPA-TV	DTV	38590	ALEXANDRIA	LA	Louisiana Educational Television Authority

**OCTOBER 30, 2023 BROADCAST EEO AUDIT
RADIO & TELEVISION STATIONS**

	CALL SIGN	SERVICE	FACILITY ID	CITY OF LICENSE	STATE	LICENSEE NAME
28.	KLQL	FM	39260	LUVERNE	MN	Alpha 3E Licensee LLC
29.	KMJI	FM	7828	ASHDOWN	AR	Townsquare License, LLC
30.	KMNQ	AM	101	BROOKLYN PARK	MN	Santamaria Broadcasting, Inc.
31.	KNBT	FM	48377	NEW BRAUNFELS	TX	New Braunfels Communications, Inc.
32.	KOMS	FM	37086	POTEAU	OK	Cumulus Licensing LLC
33.	KOSY-FM	FM	162475	ANAMOSA	IA	iHM Licenses, LLC
34.	KPLC	DTV	13994	LAKE CHARLES	LA	Gray Television Licensee, LLC
35.	KPLT-FM	FM	35484	PARIS	TX	East Texas Broadcasting, Inc
36.	KPTJ	FM	164190	GRAPE CREEK	TX	La Unica Broadcasting Co.
37.	KSYZ-FM	FM	41878	GRAND ISLAND	NE	NRG License Sub, LLC
38.	KTCL	FM	68684	WHEAT RIDGE	CO	iHM Licenses, LLC
39.	KTEJ	DTV	2769	JONESBORO	AR	Arkansas Educational Television Commission
40.	KTLH	FM	198622	HALLSVILLE	TX	Alpha Media Licensee LLC
41.	KTNC	AM	8081	FALLS CITY	NE	KNZA Inc.
42.	KTOP	AM	62236	TOPEKA	KS	Cumulus Licensing LLC
43.	KTPB	FM	190416	ALTHEIMER	AR	Bluff City Radio, LLC
44.	KTSC-FM	FM	69148	PUEBLO	CO	Board of Governors of the Colorado State University System
45.	KTYL-FM	FM	35711	TYLER	TX	Townsquare License, LLC
46.	KVET-FM	FM	62048	AUSTIN	TX	iHM Licenses, LLC
47.	KXQT	FM	191560	STANTON	TX	Permian Basin Broadcasting, LLC
48.	KXSP	AM	50313	OMAHA	NE	SM-KXSP, LLC
49.	KZNG	AM	16570	HOT SPRINGS	AR	US Stations, LLC
50.	WACS-TV	DTV	23930	DAWSON	GA	GEORGIA PUBLIC TELECOMMUNICATIONS COMMISSION
51.	WACT	AM	48643	TUSCALOOSA	AL	iHM Licenses, LLC
52.	WALQ	AM	68309	CARRVILLE	AL	Hughey Communications, Inc.
53.	WANG	AM	37095	BILOXI	MS	Telesouth Communications, Inc.
54.	WAVA	AM	54465	ARLINGTON	VA	Salem Communications Holding Corporation

**OCTOBER 30, 2023 BROADCAST EEO AUDIT
RADIO & TELEVISION STATIONS**

	CALL SIGN	SERVICE	FACILITY ID	CITY OF LICENSE	STATE	LICENSEE NAME
55.	WAVE	DTV	13989	LOUISVILLE	KY	Gray Television Licensee, LLC
56.	WBCU	AM	7088	UNION	SC	Union-Carolina Broadcasting Company, Inc.
57.	WBEZ	FM	66649	CHICAGO	IL	Chicago Public Media, Inc.
58.	WBKS	FM	40714	COLUMBUS GROVE	OH	iHM Licenses, LLC
59.	WBMM	DTV	68427	TUSKEGEE	AL	Alabama Broadcasting Partners
60.	WBRP	FM	4490	BAKER	LA	Guaranty Broadcasting Company of Baton Rouge, LLC
61.	WBRZ-TV	DTV	38616	BATON ROUGE	LA	Louisiana Television Broadcasting, LLC
62.	WCKK	FM	63436	CALVERT CITY	KY	Freeland Broadcasting Co., Inc.
63.	WCET	DTV	65666	CINCINNATI	OH	Greater Cincinnati Television Educational Foundation
64.	WCHZ-FM	FM	17129	WARRENTON	GA	BEASLEY MEDIA GROUP LICENSES, LLC
65.	WCKQ	FM	26644	CAMPBELLSVILLE	KY	Tri-County Radio Broadcasting Corp.
66.	WCOV-TV	DTV	73642	MONTGOMERY	AL	Montgomery TV License Company, LLC
67.	WDSU	DTV	71357	NEW ORLEANS	LA	New Orleans Hearst Television Inc.
68.	WEBY	AM	64	MILTON	FL	ADX Communications of Milton, LLC
69.	WELU	DTV	26602	TOA BAJA	PR	SENDA EDUCATIONAL BROADCASTING INC
70.	WEWS-TV	DTV	59441	CLEVELAND	OH	Scripps Broadcasting Holdings LLC
71.	WFFT-TV	DTV	25040	FORT WAYNE	IN	Ft. Wayne TV License Company, LLC
72.	WFMC	AM	70622	GOLDSBORO	NC	New Age Communications, Inc.
73.	WFNA	DTV	83943	GULF SHORES	AL	Nexstar Inc.
74.	WFRO-FM	FM	73388	FREMONT	OH	BAS Broadcasting, Inc.
75.	WFXL	DTV	70815	Albany	GA	WFXL Licensee, LLC
76.	WGBP	DTV	11113	OPELIKA	AL	CNZ Communications SE, LLC
77.	WGMR	FM	172818	EFFINGHAM	IL	COVENANT NETWORK
78.	WGXA	DTV	58262	MACON	GA	WGXA Licensee, LLC
79.	WHBQ-TV	DTV	12521	MEMPHIS	TN	Imagicom Memphis, LLC
80.	WHOV	FM	25952	HAMPTON	VA	Hampton University

**OCTOBER 30, 2023 BROADCAST EEO AUDIT
RADIO & TELEVISION STATIONS**

	CALL SIGN	SERVICE	FACILITY ID	CITY OF LICENSE	STATE	LICENSEE NAME
81.	WHSG-TV	DTV	68058	MONROE	GA	Trinity Broadcasting of Texas, Inc.
82.	WJJM-FM	FM	40477	LEWISBURG	TN	WJJM, Inc.
83.	WJKG	FM	191579	ALTAMONT	IL	Cromwell Group, Inc. of Illinois
84.	WJPX	DTV	58340	SAN JUAN	PR	America-CV Station Group, Inc.
85.	WJRT-TV	DTV	21735	FLINT	MI	Flint TV License Company, LLC
86.	WJW	DTV	73150	CLEVELAND	OH	Tribune Broadcasting Company II, LLC
87.	WJZ-TV	DTV	25455	BALTIMORE	MD	CBS Television Licenses LLC
88.	WKFL	AM	62365	BUSHNELL	FL	Walco Enterprises LLC
89.	WKHA	DTV	34196	HAZARD	KY	Kentucky Authority for Educational TV
90.	WKHY	FM	63185	LAFAYETTE	IN	Neuhoff Media Lafayette, LLC
91.	WKNX-TV	DTV	83931	Knoxville	TN	Tennessee TV, LLC
92.	WLAV-FM	FM	41680	GRAND RAPIDS	MI	Radio License Holding CBC, LLC
93.	WLEW-FM	FM	67046	BAD AXE	MI	Thumb Broadcasting Inc
94.	WLEY-FM	FM	71282	AURORA	IL	WLEY Licensing, Inc.
95.	WLPO	AM	36645	LASALLE	IL	Starved Rock Media, Inc.
96.	WLPT	FM	23953	JESUP	GA	Augusta Radio Fellowship Institute, Inc.
97.	WLTZ	DTV	37179	COLUMBUS	GA	SagamoreHill of Columbus GA, LLC
98.	WLVQ	FM	11277	COLUMBUS	OH	Franklin Communications, Inc.
99.	WMAE-TV	DTV	43170	BOONEVILLE	MS	Mississippi Authority for Educational Television
100.	WNCF	DTV	72307	MONTGOMERY	AL	Channel 32 Montgomery, LLC
101.	WNDD	FM	737	ALACHUA	FL	Saga South Communications, LLC
102.	WNTA	AM	671	ROCKFORD	IL	Long Nine, Inc.
103.	WNTZ-TV	DTV	16539	NATCHEZ	MS	Nexstar Broadcasting, Inc.
104.	WOOD-FM	FM	25086	MUSKEGON	MI	iHM Licenses, LLC
105.	WOVK	FM	44048	WHEELING	WV	iHM Licenses, LLC
106.	WPGA-TV	DTV	54728	PERRY	GA	Gray Television Licensee, LLC
107.	WPGD-TV	DTV	60820	Hendersonville	TN	Trinity Broadcasting of Texas, Inc.

**OCTOBER 30, 2023 BROADCAST EEO AUDIT
RADIO & TELEVISION STATIONS**

	CALL SIGN	SERVICE	FACILITY ID	CITY OF LICENSE	STATE	LICENSEE NAME
108.	WPTA	DTV	73905	FORT WAYNE	IN	Gray Television Licensee, LLC
109.	WPXL-TV	DTV	21729	NEW ORLEANS	LA	ION Television License, LLC
110.	WQHS-DT	DTV	60556	CLEVELAND	OH	Univision Cleveland LLC
111.	WQMP	FM	73137	DAYTONA BEACH	FL	Audacy License, LLC
112.	WRUF-FM	FM	66575	GAINESVILLE	FL	Board of Trustees, University of Florida
113.	WSAQ	FM	73074	PORT HURON	MI	Liggett Communications LLC
114.	WSB-TV	DTV	23960	ATLANTA	GA	Georgia Television, LLC
115.	WSCD-FM	FM	42940	DULUTH	MN	Minnesota Public Radio
116.	WSFJ-TV	DTV	11118	London	OH	ION Television License, LLC
117.	WSIX-FM	FM	59815	NASHVILLE	TN	iHM Licenses, LLC
118.	WSWG	DTV	28155	VALDOSTA	GA	Marquee Broadcasting Georgia, Inc.
119.	WSWI	AM	68924	EVANSVILLE	IN	University of southern Indiana Board of Trustees
120.	WTEB	FM	14356	NEW BERN	NC	Craven Community College
121.	WTLC-FM	FM	25071	GREENWOOD	IN	Radio One of Indiana, LLC
122.	WTLH	DTV	23486	BAINBRIDGE	GA	New Age Media of Tallahassee License, LLC
123.	WTLV	DTV	65046	Jacksonville	FL	Multimedia Holdings Corporation
124.	WTNZ	DTV	19200	Knoxville	TN	Marble City TV LLC
125.	WTOL	DTV	13992	TOLEDO	OH	WTOL Television, LLC
126.	WTOY	AM	29210	SALEM	VA	Ward Broadcasting Corporation
127.	WTTT	FM	8603	SPRINGFIELD	IL	COVENANT NETWORK
128.	WTTV	DTV	56523	BLOOMINGTON	IN	Tribune Media Company
129.	WTWC-TV	DTV	66908	TALLAHASSEE	FL	WTWC Licensee, LLC
130.	WUFE	AM	73	BAXLEY	GA	South Georgia Broadcasters, Inc.
131.	WUNW-FM	FM	172306	WELCOME	NC	WUNC Public Radio, LLC
132.	WUPT	FM	164244	GWINN	MI	AMC Partners Escanaba, LLC
133.	WURV	FM	37230	RICHMOND	VA	SM-WURV, LLC
134.	WUSA	DTV	65593	WASHINGTON	DC	WUSA-TV, Inc
135.	WUSN	FM	28620	CHICAGO	IL	Audacy License, LLC

**OCTOBER 30, 2023 BROADCAST EEO AUDIT
RADIO & TELEVISION STATIONS**

	CALL SIGN	SERVICE	FACILITY ID	CITY OF LICENSE	STATE	LICENSEE NAME
136.	WUXP-TV	DTV	9971	NASHVILLE	TN	WUXP Licensee, LLC
137.	WVGC	AM	54562	ELBERTON	GA	WSGC Radio LLC
138.	WVLA-TV	DTV	70021	BATON ROUGE	LA	Knight Broadcasting of Baton Rouge License Corp.
139.	WVMC-FM	FM	39815	MANSFIELD	OH	Soaring Eagle Promotions, Inc.
140.	WVRI	FM	177072	CLIFTON FORGE	VA	Liberty University, Inc.
141.	WWFW	FM	56765	FORT WAYNE	IN	ARG of Fort Wayne, LLC
142.	WWGF	FM	78706	DONALSONVILLE	GA	Augusta Radio Fellowship Institute, Inc.
143.	WWGO	FM	72317	CHARLESTON	IL	Cromwell Group, Inc. of Illinois
144.	WXIX-TV	DTV	39738	NEWPORT	KY	Gray Television Licensee, LLC
145.	WXLC	FM	10451	WAUKEGAN	IL	Alpha Media Licensee LLC
146.	WXTX	DTV	12472	COLUMBUS	GA	WXTX License Subsidiary, LLC
147.	WYDE-FM	FM	77749	CORDOVA	AL	Kimtron Inc
148.	WYLS	AM	24819	YORK	AL	Grantell Broadcasting LLC
149.	WYTI	AM	74280	ROCKY MOUNT	VA	WYTI INC
150.	WZZY	FM	71415	WINCHESTER	IN	Rodgers Broadcasting Corp.



PUBLIC NOTICE

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DA 23-1007

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STREAMLINED RESOLUTION OF REQUESTS RELATED TO ACTIONS BY THE UNIVERSAL SERVICE ADMINISTRATIVE COMPANY

CC Docket No. 02-6
WC Docket No. 21-23

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 for Failure to Comply with the Commission's Basic Filing Requirements³

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. 47 CFR §§ 54.719(b)-(c); 54.1718(a)(1)-(2). 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 47 CFR § 54.721 (setting forth general filing requirements for requests for review of decisions issued by USAC, including the requirement that the request for review include supporting documentation); see also *Wireline Competition Bureau Reminds Parties of Requirements for Request for Review of Decisions by the Universal Service Administrative Company*, CC Docket Nos. 96-45, 02-6, WC Docket Nos. 02-60, 06-122, 10-90, 11-42, 13-184, 14-58, Public Notice, 29 FCC Rcd 13874 (WCB 2014) (reminding parties submitting appeals to the Bureau of the general filing requirements contained in the Commission's rules which, along with a proper caption and reference to the applicable docket number, require: (1) a statement setting forth the party's interest in the matter presented for review; (2) a full statement of relevant, material facts with supporting affidavits and documentation; (3) the question presented for review, with reference, where appropriate, to the relevant Commission rule, order or statutory provision; and (4) a statement of the relief sought and the relevant statutory or regulatory provision pursuant to which such relief is sought); *Universal Service Contribution Methodology; Request for Review by Alternative Phone, Inc. and Request for Waiver*, WC Docket No. 06-122, Order, 26 FCC Rcd 6079 (WCB 2011) (dismissing (continued....))

Inner City Christian School, FL, No Application Number Given, CC Docket No 02-6 (filed Aug. 18, 2021)

Dismissed on Reconsideration⁴

Ascent Classical Academy DougCo Consortium, CO, Application No. 211039802, Petition for Reconsideration, CC Docket No. 02-6 (filed Sept. 1, 2023)

North Country Library System, NY, Application No. 221040906, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 4, 2023)

Synergetics Diversified Computer Services, Inc. (West Bolivar Consolidated School District), MS, Application No. 191034303, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 2, 2023)

Granted⁵

*Discount Calculation*⁶

New Generation School, FL, Application No. 231030307, Request for Review, CC Docket No. 02-6 (filed Aug. 18, 2023)

*Discount Calculation—Information Submitted Outside Permitted Time Period*⁷

St. Landry Charter School, LA, Application Nos. 211039482, 211038742, Request for Review, CC Docket No. 02-6 (filed Dec. 13, 2022)

(Continued from previous page) _____
without prejudice a request for review that failed to meet the requirements of section 54.721 of the Commission's rules).

⁴ 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).

⁵ 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 54.507(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).

⁶ See, e.g., *Requests for Review of the Decision of the Universal Service Administrator by Academia Claret et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 21 FCC Rcd 10703, 10708, para. 12 (WCB 2006) (*Academia Claret Order*) (remanding applications for further processing when, upon de novo review, the Commission disagreed with USAC's discount calculation determination).

While we grant this appeal, we agree with USAC that it was not possible to determine the date of the information submitted by New Generation School to calculate its discount for funding year 2023. In future years, New Generation School should update its forms to reflect the correct funding year it is seeking funding from the E-Rate program.

⁷ See, e.g., *Academia Claret Order*, 21 FCC Rcd at 10708, para. 12 (allowing the submission of discount calculation information when the applicant was previously unable to fully comply with the document request within USAC's permitted time period).

*Discount Calculation—Remand for USAC Determination*⁸

Albert Einstein Academy for Letters, Arts and Sciences, OH, Application No. 211010248, Request for Review, CC Docket No. 02-6 (filed July 26, 2021)

*Duplicative Services—Remand for USAC Determination*⁹

Seneca Family of Agencies, CA, Application No. 201003362, Request for Review, CC Docket No. 02-6 (filed Dec. 5, 2022)

*Eligible Entities*¹⁰

Baltimore City, MD, Application Nos. 161003174, 171000385, 181014684, 181016980, 181018926, 201024172, 201024174, 211029432, 211029797, 211011944, 221037492, and 221016014, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Feb. 17, 2023)

*Grant on Reconsideration—Late-Filed FCC Form 471 Applications*¹¹

Acanc Consortium, Ascent Classical Academy Dougco Consortium, Aspen Community School Consortium, Carbondale Community School Consortium, Rocky Mountain Classic Academy, Talmudical Academy-Baltimore, Texas Torah Institute, University Preparatory School, University Prep Steele Street Inc., Application Nos. 231039229, 231039414, 231039411, 231039413, 231039224, 231039225, 231039226, 231039231, 231039230, 231039227, 231039228, Petition for Reconsideration, CC Docket No. 02-6 (filed Aug. 30, 2023, supplemented Sept. 25, 2023 and Sept. 27, 2023)

⁸ USAC denied the petitioner's funding request based on documentation regarding student counts that did not come from an acceptable source, such as a school official or employee. Because there was no outreach and the denial explanation only said that the academy "failed to supply documentation to support the requested" student counts, USAC should work with Albert Einstein Academy for Letters, Arts and Sciences on remand to explain what documentation is required. *See, e.g., Academia Claret Order*, 21 FCC Rcd at 10708-09, para. 12-13 (remanding appeals when there is no explanation in the record why USAC denied the requested discount rate). *See also supra* note 5.

⁹ The application number and date filed for Seneca Family of Agencies were incorrect in a previous public notice. *See Streamlined Resolution of Requests Related to Actions by the Universal Service Administrative Company*, CC Docket No. 02-6, WC Docket Nos. CC Docket No. 02-6, 21-93, 02-60, 18-213, 10-90, Public Notice, DA 23-883 (WCB Oct. 2, 2023). We include the entry in this public notice with the correct information.

¹⁰ *See Requests for Review of Decisions of the Universal Service Administrator by Bootheel Consortium et al., Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 22 FCC Rcd 8747, 8750-51, paras. 7-8 (2007) (finding that applicants had provided sufficient documentation to show that they might be eligible for E-Rate support, justifying further review by USAC to reach a definitive determination). Consistent with precedent, we remand this application to USAC for consideration of the eligibility of entities listed on the invoice given the additional documentation submitted. *Id.*

¹¹ *See, e.g., Petitions for Reconsideration by Callisburg Independent School District; School and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order and Order on Reconsideration, 28 FCC Rcd 9459, 9461, para. 5 (WCB 2013) (*Callisburg Independent School District Order*) (granting petition for reconsideration where, upon reconsideration of the record, we do not find that the evidence supports our previous determination); *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Acorn Public Library District, et al.*, CC Docket No. 02-6, Order, 23 FCC Rcd 15474, 15476-79, paras. 6-7 (WCB 2008) (*Acorn Public Library Order*) (granting waiver requests where petitioners filed their FCC Forms 471 late because of an illness of the E-rate staff person or from the death of a member or his or her family).

*Grant on Reconsideration—Waiver of Appeal Filing Deadline*¹²

Keller Independent School District, TX, Application No. 191041828, Petition for Reconsideration, CC Docket No. 02-6 (filed Oct. 2, 2023)

*Incorrect Service Start Date on FCC Form 486*¹³

Riverdale Unified School District, CA, Application No. 201046858, Request for Review, CC Docket No. 02-6 (filed Dec. 12, 2022)

*Late-Filed FCC Form 486*¹⁴

Lakeview School District, MI, Application No. 221028584, Request for Review, CC Docket No. 02-6 (filed Sept. 28, 2023)

¹² See, e.g., *Callisburg Independent School District Order*, 28 FCC Rcd at 9461, para. 5 (granting petition for reconsideration where, upon reconsideration of the record, we do not find that the evidence supports our previous determination); *Requests for Review of Decisions of the Universal Service Administrator by ABC Unified School District*, 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 back to USAC to make a determination on the merits. See *supra* note 5.

¹³ See, e.g., *Request for Review and/or Waiver by Glendale Unified School District, Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 21 FCC Rcd 1040 (WCB 2006) (*Glendale Unified School District Order*); *Request for Waiver by Harvey Public Library District, Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 23 FCC Rcd 15419 (WCB 2008) (*Harvey Public Library District*) (both orders granting waiver requests when the applicants inadvertently listed the wrong service start date on their FCC Forms 486).

Consistent with precedent, we also find good cause exists to waive section 54.720(a) or (b) of the Commission's rules, which requires that petitioners file their appeals within 60 days of an adverse USAC decision. See, e.g., *Requests for Review and/or Waiver of Decisions of the Universal Service Administrator by Barrow County School District et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 26 FCC Rcd 4028, 4029, para. 2 (WCB 2011) (*Barrow County School District*) (waiving the filing deadline for petitioners that filed the appeal as soon they received actual notice of the mistake).

¹⁴ See, e.g., *Requests for Waiver of Decisions of the Universal Service Administrator by Archdiocese of New Orleans et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 31 FCC Rcd 11747, 11750, para. 10 (WCB 2016) (*Archdiocese of New Orleans Order*) (granting relief for late-filed FCC Forms 486 that were filed no later than 120 days after the last day to receive service for the funding request at issue and where the applicant demonstrated good cause for the late filing).

Consistent with precedent, we also find good cause exists to waive section 54.720(a) or (b) of the Commission's rules, which requires that petitioners file their appeals within 60 days of an adverse USAC decision, for Lakeview School District. See, e.g., *Barrow County School District Order*, 26 FCC Rcd at 4029, para. 2 (waiving the filing deadline for petitioners that filed the appeal as soon they received actual notice of the mistake).

*Ministerial and/or Clerical Errors*¹⁵

Arkansas Division of Information Systems, AR, Application Nos. 161060951, 161061038, Request for Review, CC Docket No. 02-6 (June 9, 2020)

Beaverton School District, OR, Application No. 221007970, Request for Waiver, CC Docket No. 02-6 (filed Oct. 6, 2023)

Berkeley School District 87, IL, Application No. 201016403, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Dec. 20, 2022)¹⁶

Chautauqua Cattaraugus Library System, NY, Application No. 231034590, Request for Waiver, CC Docket No. 02-6 (filed Jun. 27, 2023)

Choanoke Area Development, NC, Application No. 231037705, Request for Waiver, CC Docket No. 02-6 (filed Sept. 21, 2023, supplemented Oct. 15, 2023)

Darbonne Woods Charter School, LA, Application No. 211007055, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Oct. 11, 2023)

Hutto Independent School District, TX, Application Nos. 231023790, 231023810, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Sept. 14, 2023)

Imagine Schools Riverside, CA, Application No. 221021178, Request for Waiver, CC Docket No. 02-6 (filed July 26, 2023, supplemented Oct. 12, 2023)

Middle County Central School District, NY, Application No. 221015667, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Sept. 28, 2023, supplemented Oct. 4, 2023)

New Mexico Military Institute, NM, Application Nos. 221014463, 221036882, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Mar. 6, 2023, supplemented Sept. 19, 2023)

¹⁵ See, e.g., *Requests for Review of Decisions of the Universal Service Administrator by Ann Arbor Public Schools*, CC Docket No. 02-6, Order, 25 FCC Rcd at 17319, 17319-20, para. 2, nn. 5, 15, 17, 20 (WCB 2010) (*Ann Arbor Public Schools Order*) (granting waivers where the applicant or USAC entered the wrong discount rate, selected the wrong category of service on its FCC Form 471 or the applicant omitted entities or services from source documents onto its FCC Form 471); *Requests for Review of Decisions of the Universal Service Administrator by Joseph Jingoli & Son*, CC Docket No. 02-6, Order, 22 FCC Rcd, 19227, 19228-29, paras. 3-4 (WCB 2007) (*Joseph Jingoli & Son Order*) (granting petitioners' request to correct a mistaken cancellation of a funding request); *Requests for Review of Decisions of the Universal Service Administrator by Archer Public Library et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 23 FCC Rcd 15518, 15521 n.19 (WCB 2008) (*Archer Public Library Order*) (permitting applicant to correct a mischaracterization of the nature of a recipient of service on form 471); *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket 13-184, 29 FCC Rcd 8870, 8955-56, para 218 (2014) (*First 2014 E-Rate Modernization Order*) (finding that "an applicant can add eligible schools within its district that were inadvertently omitted from its applications, even after the deadline for making changes to the FCC Form 471.").

¹⁶ Although the petitioner does not raise this argument, we are remanding this matter to USAC to determine whether there was a clerical error on the FCC Form 471 or mistake during the invoicing stage that resulted in the services listed to be misclassified. We make no finding on the underlying issues in this appeal and remand the application back to USAC to make a determination on the merits. See *supra* note 5.

Vidalia City Schools, GA, Application No. 231036547, Request for Waiver, CC Docket No. 02-6 (filed Oct. 10, 2023)

West Aurora School District, IL, Application No. 231028450, Request for Review and/or Waiver, CC Docket No. 02-6 (filed Aug. 18, 2023, supplemented Aug. 25, 2023)

Winn Parish School District, LA, Application No. 231003855, Request for Review and/or Waiver, CC Docket No. 02-6 (filed July 28, 2023, supplemented Oct. 3, 2023)

*Waiver of the Red Light Rule*¹⁷

Adelphoi Education School District, PA, Application Nos. 231009032, 231024835, 231024540, 231017860, 231016379, Request for Waiver, CC Docket No. 02-6 (filed July 24, 2023)

*Waiver of Special Construction Service Delivery Deadline*¹⁸

North Central Consortium, NM, Application No. 201026229, Request for Waiver, CC Docket No. 02-6 (filed Aug. 18, 2023)

Denied

*Discount Calculation*¹⁹

Online School of Arizona, AZ, Application No. 221036345, Request for Review, CC Docket No. 02-6 (filed Aug. 24, 2022)

¹⁷ See *Metropolitan Nashville Public Schools, Schools and Libraries Support Mechanism*, CC Docket No. 02-6, Order, 33 FCC Rcd 12334, 12338-39, para. 14, n.43 (WCB 2018) (*Metropolitan Nashville Public Schools Order*)(holding that waiver of the red light rule was warranted given the grossly disproportionate penalty of funding loss coupled with the other unique circumstances present, including the payment of the debt shortly after it received notice of the debt).

¹⁸ See, e.g., *Requests for Waiver of the Decisions of the Universal Service Administrator by Grants/Cibola County School District and Jemez Pueblo Tribal Consortium*, CC Docket No. 02-6, Order, 33 FCC Rcd 10048, 10051, para. 8 (WCB 2018) (*Grants/Cibola Order*) (waiving the special construction service delivery deadline because the applicant was unable to complete implementation for reasons beyond the service provider's control and the petitioner made good faith efforts to comply with Commission rules and procedures).

We find that this entity was unable to complete implementation for reasons beyond its and its service provider's control and made good faith efforts to comply with Commission rules and procedures. We grant Central Consolidated School District 22 until June 30, 2024 to complete its project. We grant North Central Consortium until June 30, 2024 to complete its project. Accordingly, we waive the special construction service delivery deadline and direct USAC to provide the applicant this additional time to complete its special construction project. We also waive any associated administrative or procedural deadlines, including the invoice filing deadline, that might be necessary to effectuate our ruling. See *supra* note 5.

¹⁹ See, e.g., *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Enterprise City Schools et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 27 FCC Rcd 2372, para. 1 (2012) (*Enterprise City Schools Order*)(finding that applicants did not provide sufficient documentation to support their requested discount rate).

*Duplicative Services*²⁰

Addie Mae Collins Community Service, NY, Application No. 221006772, Request for Review, CC Docket No. 02-6 (filed Dec. 24, 2022, referral from USAC filed Jan. 4, 2023)

*Failure to File FCC Form 470 for Current Funding Year*²¹

Developmental Disabilities Institute, NY, Application No. 211011173, Request for Review, CC Docket No. 02-6 (filed Apr. 24, 2018)

*Ineligible Services*²²

Nevada Virtual Academy, NV, Application No. 181003354, Request for Review, CC Docket No. 02-6 (filed Oct. 29, 2018)

Nevada Virtual Academy, NV, Application Nos. 161016746, 171014517, 191007366, 201002673, 211005339, Request for Review, CC Docket No. 02-6 (filed Nov. 30, 2021)

*Late-Filed FCC Form 471 Applications*²³

Caesar E. Chavez Consortium, OH, Application No. 231039660, Request for Waiver, CC Docket No. 02-6 (filed July 27, 2023)²⁴

Gladewater ISD, NH, Application No. 231039730, Request for Waiver, CC Docket No. 02-6 (filed Sept. 6, 2023)

²⁰ The appeal date was incomplete for Addie Mae Collins Community Service in a previous public notice. The public notice did not include the date of the original appeal, which was Dec. 24, 2022. See *Streamlined Resolution of Requests Related to Actions by the Universal Service Administrative Company*, CC Docket No. 02-6, WC Docket Nos. CC Docket No. 02-6, 21-93, 02-60, 18-213, 10-90, Public Notice, DA 23-883 (WCB Oct. 2, 2023). We include the entry in this public notice with the correct information.

²¹ See, e.g., *Review of the Decision of the Universal Service Administrator by Aberdeen School District; School and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 22 FCC Rcd 8757, 8763, para. 10 (2007) (*Aberdeen School District Order*) (denying appeal where applicant failed to file a new FCC Form 470 and solicit bids in the year for which it sought services, thereby circumventing the competitive bidding process).

²² See, e.g., *Requests for Waiver and Review of Decisions of the Universal Service Administrator by AllWays, Inc. (Prairie Hills School District 144); Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 27 FCC Rcd 1968, 1968-69, para. 1 (WCB 2012) (upholding denials of funding requests for services that are not eligible for E-rate support).

²³ See, e.g., *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Academy of Math and Science, et al*, 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 waivers of our rules).

²⁴ Caesar E. Chavez Consortium initially filed a waiver request on July 13, 2023, which was denied. See *Streamlined Resolution of Requests Related to Actions by the Universal Service Administrative Company*, CC Docket No. 02-6, WC Docket Nos. 21-93, 02-60, 10-90, 06-122, Public Notice, DA 23-756 (WCB Aug. 31, 2023). Before the Bureau denied the waiver request, Caesar E. Chavez Consortium filed a second waiver request for the same FCC Form 471 application, which included details explaining why the application was filed late. We again find that the petitioner failed to present special circumstances justifying a waiver of our rules and we deny its second waiver filing.

Glenbrook School of Minden, LA, Application No. 231039803, Request for Waiver, CC Docket No. 02-6 (filed Sept. 12, 2023)

Hernando County School District, FL, Application No. 231039825, Request for Waiver, CC Docket No. 02-6 (filed Sept. 25, 2023)

Marseilles Public Library, IL, Application No. 231039768, Request for Waiver, CC Docket No. 02-6 (filed Aug. 29, 2023)

Moore Public Memorial Library, MT, Application No. 231039810, Request for Waiver, CC Docket No. 02-6 (filed Sept. 20, 2023)

Robert J. Kleberg Public Library, TX, Application Nos. 231039740, 231039640, Request for Waiver, CC Docket No. 02-6 (filed Oct. 14, 2023)²⁵

Rollinsford School District, NH, Application No. 231039783, Request for Waiver, CC Docket No. 02-6 (filed Sept. 5, 2023)

Solomon Schechter Day School Of Greater Monmouth County, NJ, Application No. 231039761, Request for Waiver, CC Docket No. 02-6 (filed Sept. 18, 2023)

Springwood School, AL, Application Nos. 231039840, 231039841, Request for Waiver, CC Docket No. 02-6 (filed Sept. 27, 2023)

St. Anne Pacelli School, GA, Application No. 231039662, Request for Waiver, CC Docket No. 02-6 (filed July 3, 2023)

Tensas Academy, LA, Application No. 231039778, Request for Waiver, CC Docket No. 02-6 (filed Aug. 30, 2023)

*Late-Filed Invoice or Invoice Deadline Extension*²⁶

Ford Heights School District 169, IL, Application No. 211025264, Request for Waiver, CC Docket No. 02-6 (filed June 14, 2023)

²⁵ We also deny this waiver request because it was filed more than 60 days after the date the Robert J. Kleberg Public Library received notice that the FCC Form 471 applications were filed out of window. *See, e.g., Requests for Review of Decisions of the Universal Service Administrator by Agra Public Schools I-134 et al.; Schools and Libraries Universal Service Support 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 et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 29 FCC Rcd 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).

²⁶ 47 CFR § 54.514. *See also, e.g., Requests for Waiver of Decisions of the Universal Service Administrator by Ada School District et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 31 FCC Rcd 3834, 3836, para. 8 (WCB 2016) (*Ada School District Order*) (denying requests for waiver of the Commission's invoice filing deadline rule for petitioners that failed to demonstrate extraordinary circumstances justifying a waiver); *see also First 2014 E-Rate Modernization Order*, 29 FCC Rcd at 8966, para. 240 (establishing that it is generally not in the public interest to waive the Commission's invoicing rules absent extraordinary circumstances).

Reliable Network Solutions (Central Lee Comm SD), IA, Application No. 211014961, Request for Waiver, CC Docket No. 02-6 (filed Sept. 13, 2023)

*Ministerial and/or Clerical Errors*²⁷

Fremont Co School District 14, WY, Application No. 211032683, Request for Waiver, CC Docket No. 02-6 (filed Oct. 6, 2023)

*Relying on FCC Form 470 That Did Not Seek Bids on Types of E-rate Services Later Requested*²⁸

Central California Child Development Services, Inc., CA, Application No. 221032624, Request for Review, CC Docket No. 02-6 (filed Jan. 4, 2023)

Jefferson County Public Schools, KY, Application No. 171026261, Request for Waiver, CC Docket No. 02-6 (filed Sept. 6, 2023)

*Untimely Filed Appeals or Waiver Requests*²⁹

American Internet Group, LLC (Detroit Edison PS Academy, New Paradigm College Prep Academy, New Paradigm Glazer Academy, New Paradigm Loving Academy, University Yes Academy), MI, Application Nos. 211024897, 211035203, 211036278, 211039036, 211039471, Request for Waiver, CC Docket No. 02-6 (filed Sept. 26, 2023)

Aspiranet dba Fusion Charter School, CA, Application No. 181028269, Request for Waiver, CC Docket No. 02-6 (filed Aug. 31, 2023)

Estill County School District, KY, Application No. 221029143, Request for Waiver, CC Docket No. 02-6 (filed June 13, 2023)

Fairfield Community School District, IA, Application No. 231015931, Request for Waiver, CC Docket No. 02-6 (filed Sept. 13, 2023)

FastTrack Communications (Pine River Public Library), CO, Application No. 211040233, Request for Waiver, CC Docket No. 02-6 (filed May 5, 2023)

²⁷ See, e.g., *Requests for Waiver and Review of Decisions of the Universal Service Administrator by Assabet Valley Regional Vocational District; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 27 FCC Rcd 1924, 1925, para. 1 (WCB 2012) (*Assabet Valley Order*) (finding that the petitioners did not demonstrate good cause to justify waivers of the Commission's rules permitting changes to the applicants' E-Rate applications after the filing window deadline).

²⁸ See, e.g., *Request for Review of a Decision of the Universal Service Administrator by Albert Lea Schools et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 24 FCC Rcd 4533 (WCB 2009); *Petition for Reconsideration by Chicago Public Schools; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 29 FCC Rcd 9289 (WCB 2014) (denying appeals of applicants that filed FCC Forms 470 that did not include the types of services for which the applicants later requested E-rate funding).

²⁹ See, e.g., *Agra Public Schools Order*, 25 FCC Rcd at 5688, para. 6 (WCB 2010); *Bound Brook School District Order*, 29 FCC Rcd 5823, para. 1 (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).

Holyoke School District Re-1J, CO, Application No. 211031257, Request for Waiver, CC Docket No. 02-6 (filed May 3, 2023)

Meritworks Partners, LLC (KIPP Indianapolis, Inc.), IN, Application No. 201033721, Request for Waiver, CC Docket No. 02-6 (filed Feb. 22, 2023)

Mora School District 332, MN, Application No. 221009881, Request for Waiver, CC Docket No. 02-6 (filed Sept. 19, 2023)

Success Academy Charter Schools, NY, Application No. 201026875, Request for Waiver, CC Docket No. 02-6 (filed May 4, 2023)

Emergency Connectivity Fund Program
WC Docket No. 21-93

Granted³⁰

*Early Delivery*³¹

Kettle Moraine School District, WI, Application No. ECF202201250, Request for Waiver, WC Docket No. 21-93 (filed Sept. 26, 2023)

Readington Township School District, NJ, Application No. ECF202202995, Request for Waiver, WC Docket No. 21-93 (filed Oct. 18, 2023)

*Granting Additional Time to Respond to USAC's Request for Information*³²

Quality Education and Development LLC, NY, Application Nos. ECF222120792, ECF202106910, ECF202114320, ECF202106919, ECF202112105, ECF202107497, ECF202112049, Request for Review and/or Waiver, WC Docket No. 21-93 (filed Oct. 11, 2023)

³⁰ See *supra* note 5.

³¹ 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).

³² See, e.g., *Requests for Review of the Decision of the Universal Service Administrator by Alpaugh Unified School District et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 22 FCC Rcd 6035 (2007); *Requests for Review of Decisions of the Universal Service Administrator by Ben Gamla Palm Beach et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 29 FCC Rcd 1876 (WCB 2014) (granting requests for review for applicants that had been denied funding because they failed to respond to USAC's request for information within the USAC-specified time frame). Consistent with the Commission's decision to adopt the similar appeal and waiver rules that govern all of the Universal Service Fund programs, including the E-Rate program, and to leverage existing E-Rate processes and forms in the Emergency Connectivity Fund program, we rely on E-Rate program precedent to resolve these petitions for waiver of the Emergency Connectivity Fund program rules.

*Ministerial and/or Clerical Errors*³³

New Springs School, FL, Application No. ECF202209001, Request for Review and/or Waiver, WC Docket No. 21-93 (filed July 26, 2023)

*Payment Verification*³⁴

Norwood School District 14, OK, Application No. ECF202205173, Request for Waiver and/or Review, WC Docket No. 21-93 (filed Sept. 28, 2023)

*Waiver of Service Delivery Date*³⁵

Pike County Public Library District, KY, Application No. ECF202112478, Request for Waiver, WC Docket No. 21-93 (filed Sept. 27, 2023)³⁶

Yupit School District, AK, Application No. ECF202112448, Request for Waiver, WC Docket No. 21-93 (filed Oct. 17, 2023)³⁷

³³ See, e.g., *Ann Arbor Public Schools Order*, 25 FCC Rcd at 17320-21, para. 2, n.5 (permitting applicant to add an omitted item that was on its source list). Consistent with the Commission's decision to adopt the similar appeal and waiver rules that govern all of the Universal Service Fund programs, including the E-Rate program, and to leverage existing E-Rate processes and forms in the Emergency Connectivity Fund program, we rely on E-Rate program precedent to resolve these petitions for waiver of the Emergency Connectivity Fund program rules.

³⁴ See, e.g., *Request for Review of a Decision of the Universal Service Administrator by Youthbuild Columbus Community School; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 26 FCC Rcd 337, 339, paras. 5-6 (WCB 2011) (granting an appeal of a commitment adjustment action where applicant provided evidence of payment of non-discount share on appeal). Consistent with precedent, we also find good cause exists to waive section 54.1718(b)(1) of the Commission's rules, which requires petitioners to file their appeals within 30 days of an adverse USAC decision, because the applicant filed its request within a reasonable period of time of receiving actual notice, there was no actual violation of program rules, and this is an emergency program. See, e.g., *ABC Unified School District Order*, 26 FCC Rcd at 11019, para. 2 (waiving the filing deadline for petitioners that submitted their appeals to the Commission within a reasonable period of time after receiving actual notice of USAC's adverse decision). Consistent with the Commission's decision to adopt the similar appeal and waiver rules that govern all of the Universal Service Fund programs, including the E-Rate program, and to leverage existing E-Rate processes and forms in the Emergency Connectivity Fund program, we rely on E-Rate program precedent to this petition for waiver of the Emergency Connectivity Fund program rules.

³⁵ See, e.g., *Request for Review/Waiver of the Decision of the Universal Service Administrator by Accelerated Charter et al.; Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 29 FCC Rcd 13652, 13652-53, para. 2 (WCB 2014) (allowing extensions of the deadline for service implementation when applicants demonstrated they were unable to complete implementation on time for reasons beyond their control and made significant efforts to secure the necessary extensions).

³⁶ Consistent with the six-month extension granted to some applicants on May 12, 2023, we waive the service delivery deadline and direct USAC to set a new service delivery deadline of December 27, 2023, and adjust any associated administrative or procedural deadlines, including the invoice deadline, that might be necessary to effectuate our ruling. *Establishing Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Order, DA 23-405 (WCB May 12, 2023) (extending the deadline of equipment funding requests from the first and second application filing window by 180 days). We also waive any associated administrative or procedural deadlines that might be necessary to effectuate our ruling. See *supra* note 5. Consistent with the Commission's decision to adopt the similar appeal and waiver rules that govern all of the Universal Service Fund programs, including the E-Rate program, and to leverage existing E-Rate processes and forms in the Emergency Connectivity Fund program, we rely on E-Rate program precedent to this petition for waiver of the Emergency Connectivity Fund program rules.

Denied*Untimely Filed Appeals or Waiver Requests*³⁸

Ivymount School, MD, Application Nos. ECF202205196, ECF202203652, Request for Waiver and/or Review, WC Docket No. 21-93 (filed Oct. 9, 2023)

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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³⁷ Consistent with the extension granted to some applicants on May 12, 2023, we waive the service delivery deadline and direct USAC to set a new service delivery deadline of June 30, 2024, and adjust any associated administrative or procedural deadlines, including the invoice deadline, that might be necessary to effectuate our ruling. *See Establishing Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Order, DA 23-405 (WCB May 12, 2023) (extending the deadline of recurring services funding requests from the first and second application filing window to June 30, 2024). We also waive any associated administrative or procedural deadlines that might be necessary to effectuate our ruling. Consistent with the Commission's decision to adopt the similar appeal and waiver rules that govern all of the Universal Service Fund programs, including the E-Rate program, and to leverage existing E-Rate processes and forms in the Emergency Connectivity Fund program, we rely on E-Rate program precedent to resolve this petition for waiver of the Emergency Connectivity Fund program rules.

³⁸ *See, e.g., Agra Public Schools Order*, 25 FCC Rcd at 5688, para. 6; *Bound Brook School District Order*, 29 FCC Rcd at 5823, para. 1 (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 the required timeframe; or failed to submit their waiver requests to the Commission within the required deadline set forth by the Commission's rules; and (2) did not demonstrate special circumstances necessary for the Commission to waive the rule). Consistent with the Commission's decision to adopt the similar appeal and waiver rules that govern all of the Universal Service Fund programs, including the E-Rate program, and to leverage existing E-Rate processes and forms in the Emergency Connectivity Fund program, we rely on E-Rate program precedent to resolve these petitions for waiver of the Emergency Connectivity Fund program rules. We note that the Commission adopted a shortened waiver and appeal timeframe of 30 days in the Emergency Connectivity Fund Program due to the short-term, emergent nature of the program. *See* 47 CFR § 54.1718; *Emergency Connectivity Fund Report and Order*, 36 FCC Rcd at 8740, 8746, paras. 90, 107. As such, absent special circumstances, appeals of USAC's decisions or requests for waiver of Emergency Connectivity Fund Program rules that are filed later than 30 days as required by section 54.1718 of the Commission's rules will be denied.



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 23-1023

Released: October 30, 2023

WIRELESS TELECOMMUNICATIONS BUREAU, OFFICE OF ENGINEERING AND TECHNOLOGY, AND SPACE BUREAU REMIND GRANDFATHERED FIXED SATELLITE SERVICE LICENSEES IN THE 3.6-3.7 GHz BAND TO SUBMIT 2024 ANNUAL REGISTRATION UPDATES BY DECEMBER 1, 2023

GN Docket No. 17-258

By this Public Notice, the Wireless Telecommunications Bureau, Office of Engineering and Technology, and the Space Bureau (the Bureaus) remind grandfathered Fixed Satellite Service (FSS) earth station operators in the 3.6-3.7 GHz band of their annual registration requirements. *All registrations must be renewed annually by December 1, 2023, for the registration to be valid at the beginning of next year, January 1, 2024.*¹ Registrations must be submitted via the 3.5 GHz FSS Database.² The Bureaus remind FSS operators that only those earth stations that meet the qualification requirements in section 96.17 of the Commission's rules may register for protection in the 3.5 GHz FSS database.³

After January 1, 2024, registrations that have not been completed may be deactivated or deleted, and the site will no longer merit protection by the Spectrum Access System (SAS) administrators. Consistent with established policy, the Bureaus will continue to accept late-filed registrations and renewals, including registrations submitted after deactivation, and the SAS administrators will reinstate protections as soon as reasonably practicable after filing.⁴

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).

¹ "FSS earth station licensees requesting protection under this part must register with the Commission annually, no later than 30 days before the end of the preceding calendar year, or upon making changes to any of the operational parameters listed in this section. Registration information shall be made available to all approved SASs." 47 CFR § 96.17(d). This includes information required by the Commission's rules as well as additional information necessary to ensure that SASs can appropriately protect registered FSS earth stations. "Annual registration for each earth station shall include, at a minimum: (i) The earth station's geographic location (Using NAD83 coordinates); (ii) Antenna gain; (iii) Azimuth and elevation antenna gain pattern; (iv) Antenna azimuth relative to true north; and (v) Antenna elevation angle. (vi) Whether the earth station is used for satellite telemetry, tracking, and control (for earth stations in the 3700-4200 MHz band)." 47 CFR § 96.17(d)(1).

² See *Wireless Telecommunications Bureau, Office of Engineering and Technology, and International Bureau Announce the Initial Filing Window and Procedures for Registration of Fixed Satellite Service Earth Stations Entitled to Protection from 3.5 GHz Citizens Broadband Radio Service*, GN Docket No. 17-258, Public Notice, 33 FCC Rcd 6033 (WTB/OET/IB 2018); see also 47 CFR § 96.17.

³ See 47 CFR § 96.17.

⁴ See *Wireless Telecommunications Bureau, Office of Engineering and Technology, and International Bureau Announce Procedures for Registration of Fixed Satellite Service Earth Stations Entitled to Protection from the 3.5 GHz Citizens Broadband Radio Service*, Public Notice, 32 FCC Rcd 10419, 10421 (WTB/OET/IB 2017).

Additional Information. For further information regarding this Public Notice, please contact Paul Powell, Associate Chief, Wireless Telecommunications Bureau, Mobility Division at paul.powell@fcc.gov or 202-418-1613; Navid Golshahi, Electronics Engineer, Office of Engineering and Technology, Electromagnetic Compatibility Division at navid.golshahi@fcc.gov or 202-418-2422; or Gregory Coutros, Associate Division Chief, Earth Station Licensing Division, Space Bureau, at gregory.coutros@fcc.gov or 202-418-2351.

Customers with questions regarding filing registrations may contact the FCC Licensing Support via the web at <https://www.fcc.gov/wireless/available-support-services>, or by telephone at 877-480-3201 (select option #2). The support hours of operation are 8 a.m. to 6 p.m. EST, Monday through Friday (except Federal holidays).

By the Chief, Wireless Telecommunications Bureau, the Chief, Office of Engineering and Technology, and the Chief, Space Bureau.

-FCC-



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

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

DA 23-1024

Released: October 30, 2023

WIRELINE COMPETITION BUREAU RELEASES THE 2024 TELECOMMUNICATIONS REPORTING WORKSHEETS AND ACCOMPANYING INSTRUCTIONS

WC Docket No. 06-122

The Wireline Competition Bureau (Bureau) announces the release of the (1) annual Telecommunications Reporting Worksheet, FCC Form 499-A (FCC Form 499-A) and accompanying instructions (FCC Form 499-A Instructions) to be used in 2024 to report 2023 revenues,¹ and (2) quarterly Telecommunications Reporting Worksheet, FCC Form 499-Q (FCC Form 499-Q) and accompanying instructions (FCC Form 499-Q Instructions) to be used in 2024 to report projected and collected revenues on a quarterly basis.²

The Bureau has delegated authority to revise the FCC Forms and accompanying instructions to, among other things, ensure “sound and efficient administration of the universal service programs.”³ The

¹ The Communications Act of 1934 (Act), as amended, 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). The FCC Form 499-A is due on April 1 of each year. See Universal Service Administrative Company Schedule of Filings, <https://www.usac.org/service-providers/contributing-to-the-usf/when-to-file/> (last visited Sept. 29, 2023).

² Sections 54.706, 54.711, and 54.713 of the Commission’s rules require all telecommunications carriers providing interstate telecommunications services, interconnected VoIP providers that provide interstate telecommunications, providers of interstate telecommunications that offer interstate telecommunications for a fee on a non-common carrier basis, and payphone providers that are aggregators to contribute to the universal service fund and file an FCC Form 499-Q on February 1, May 1, August 1, and November 1 each year. 47 CFR §§ 54.706, 54.711, 54.713.

³ *Changes to the Board of Directors of the National Exchange Carrier Association, Inc.; Federal-State Joint Board on Universal Service*, CC Docket Nos. 96-45, 97-21, Report and Order and Second Order on Reconsideration, 12 FCC Rcd 18400, 18442, para. 81 (1997) (“Because it is difficult to determine in advance precisely the information that will be needed to administer the new universal service programs, the [Common Carrier, now Wireline Competition] Bureau will have delegated authority to waive, reduce, or eliminate contributor reporting requirements that may prove unnecessary. The Bureau also will have delegated authority to require any additional contributor reporting requirements necessary to the sound and efficient administration of the universal service programs.”). Consistent with this authority, the Bureau annually revises the Telecommunications Reporting Worksheet Instructions to provide instructions and guidance for complying with existing rules and requirements. See 47 CFR § 54.711(c). The FCC Forms and accompanying instructions are modified based on experience in administering the universal service program and explicit rulings by the Commission. See, e.g., *Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 et al., Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518, 7533-50, paras. 24-62 (2006).

Bureau sought comment on the proposed revisions by Public Notice.⁴ The Bureau submitted an extension without change of the information collection for the FCC Forms and the accompanying instructions (collection 3060-0855) to the Office of Management and Budget (OMB) for approval pursuant to 44 U.S.C. § 3507 of the Paperwork Reduction Act of 1995 and the extension was approved by OMB on September 25, 2023.⁵ The revisions to the information collection were approved by OMB on September 28, 2023.⁶

The revisions to the 2024 FCC Forms 499-A and 499-Q and the accompanying instructions, as applicable, are summarized below. The revised FCC Forms and the accompanying instructions are also attached to this Public Notice for informational purposes only and will be available soon on the Universal Service Administrative Company's (USAC) website at <https://www.usac.org/service-providers/contributing-to-the-usf/forms-to-file/>.

Changes to both the 2024 FCC Form 499-A and FCC Form 499-Q, where applicable, and instructions:

- **Date Changes:** Dates are updated throughout the FCC Forms and instructions. References to “2023” are changed to “2024” and references to “2022” are changed to “2023.”
- **Clarifications and Stylistic Changes:** In a number of instances, additional non-substantive clarifications and minor stylistic changes, such as correcting typographical errors and spacing, are also made.

Changes to the 2024 FCC Form 499-A Instructions:

- **Clarifications:**
 - Table 2 on page 12 is updated to clarify that carriers that hold international section 214 authorizations must designate a Washington, D.C.-based agent for service of process who is a U.S. citizen or lawful permanent resident.
 - Page 16 is updated to add the reference to the Broadband Data Collection (BDC) system and indicate that entities required to submit information to the BDC system should use the same single name that is used in the entity information associated with the FCC Form 477 subscription data and/or the biannual submissions of BDC availability.
 - Page 18 is updated to clarify that carriers that hold international section 214 authorizations must designate a Washington, D.C.-based agent for service of process who is a U.S. citizen or lawful permanent resident.
 - Page 28 is updated to clarify that line 305.2 should not include revenue from interconnected VoIP service provided by the Filer and resold as interconnected VoIP service by reseller customers of the Filer. However, revenue from private

⁴ *Wireline Competition Bureau Seeks Comment on Proposed Changes to the FCC Form 499-A, FCC Form 499-Q, and Accompanying Instructions*, Public Notice, DA 23-488 (rel. June 8, 2023) (*2024 Form 499 Public Notice*).

⁵ See Notice of Office of Management and Budget Action (NOA) (dated Sept. 25, 2023), <http://reginfo.gov/public/do/PRAOMBHistory?ombControlNumber=3060-0855> (ICR Reference Number 202306-3060-017) (last visited Sept. 29, 2022).

⁶ See Notice of Office of Management and Budget Action (NOA) (dated Sept. 28, 2023), <http://reginfo.gov/public/do/PRAOMBHistory?ombControlNumber=3060-0855> (ICR Reference Number 202309-3060-016) (last visited Sept. 29, 2022).

line/business data service provided by the Filer and resold as interconnected VoIP service by reseller customers of the Filer should be included.

- Page 32 is updated to clarify that Line 311 should include long distance using interconnected VoIP provided to contributing resellers.
- Page 48 is updated to provide examples of exemptions from paying certain regulatory fees.
- Page 49 is updated to clarify that line 514(a) should be used for contributions funding IP Relay and Video Relay Service (VRS) in addition to IP Captioned Telephone Service (CTS).

Changes to the 2023 Form 499-Q Instructions:

- **Circularity Factor Update:** The circularity factor is updated in the Form 499-Q instructions based upon the quarterly contribution factors subsequent to the Fourth Quarter 2023 contribution factor announcement.
- Page 10 is updated to add the reference to the BDC system and indicate that entities required to submit information to the BDC system should use the same single name that is used in the entity information associated with the FCC Form 477 subscription data and/or the biannual submissions of BDC availability.

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 contact Matthew Baker, Telecommunications Access Policy Division, Wireline Competition Bureau, at Matthew.Baker@fcc.gov or at (202) 418-0556.

Attachments:

Attachment A: 2024 FCC Form 499-A
Attachment B: 2024 FCC Form 499-A Instructions
Attachment C: 2024 FCC Form 499-Q
Attachment D: 2024 FCC Form 499-Q Instructions

- FCC -

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)

APPROVED BY OMB
3060-0855

>>> Please read instructions before completing <<<

Annual Filing -- due April 1, 2024

Block 1: Contributor Identification Information

101 Filer 499 ID [If you don't know your number, contact the administrator at (888) 641-8722.
If you are a new filer, write "NEW" in this block and a Filer 499 ID will be assigned to you.]

102 Legal name of filer

103 IRS employer identification number

104 Name filer is doing business as

105 Telecommunications activities of filer [Select up to 5 boxes that best describe the reporting entity. Enter numbers starting with "1" to show the order of importance -- see instructions.]
☐ CAP/CLEC
☐ Cellular/PCS/SMR (wireless telephony inc. by resale)
☐ Audio Bridging (teleconferencing) Provider
☐ Interconnected VoIP
☐ Coaxial Cable
☐ Incumbent LEC
☐ Interexchange Carrier (IXC)
☐ Non-Interconnected VoIP
☐ Operator Service Provider
☐ Paging
☐ Private Service Provider
☐ Satellite Service Provider
☐ Shared-Tenant Service Provider / Building LEC
☐ Prepaid Card
☐ Payphone Service Provider
☐ SMR (dispatch)
☐ Toll Reseller
☐ Wireless Data
☐ Other Local
☐ Other Mobile
☐ Other Toll

106.1 Affiliated Filers Name/Holding Company Name (All affiliated companies must show the same name on this line.)

Check if filer has no affiliates ☐

106.2 Affiliated Filers Name/Holding Company Name IRS employer identification number

107 FCC Registration Number (FRN) [https://apps.fcc.gov/cors/userLogin.do]

108 Management company [if filer is managed by another entity]

109 Complete mailing address of reporting entity corporate headquarters

110 Complete business address for customer inquiries and complaints

check if same address as Line 109 ☐

111 Telephone number for customer complaints and inquiries [Toll-free number if available]

112 List all trade names used in the past 3 years in providing telecommunications. Include all names by which you are known by customers.

a	g
b	h
c	i
d	j
e	k
f	l

Use additional sheets if necessary. Each filer must provide all names used for telecommunications activities

PERSONS MAKING WILLFUL FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. § 1001

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FCC Form 499-A / 2024

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)										Page 2
Block 2-A: Regulatory Contact Information										
201	Filer 499 ID [from Line 101]									
202	Legal name of filer [from Line 102]									
203	Person who completed this Worksheet	First		MI	Last					
204	Telephone number of this person	()	-		ext -					
205	Fax number of this person	()	-							
206	Email of this person [not for public release]	Office		Attn: First name	MI	Last				
207	Contact person name, office name, and mailing address of a corporate office to which correspondence regarding this Telecommunications Reporting Worksheet should be sent. ☐ check if same name as Line 203 ☐ check if same address as Line 109	Email [not for public release]		Phone () -	ext-	Fax () -				
		Street1								
		Street2								
		Street3								
		City	State	Zip (postal code)	Country					
208	Billing address and billing contact person [Plan administrators will send bills for contributions to this address. Please attach a written request for alternative billing arrangements.] ☐ check if name and address same as Line 207	Company		Attn: First name	MI	Last				
		Email [not for public release]		Phone () -	ext-	Fax () -				
		Street1								
		Street2								
		Street3								
		City	State	Zip (postal code)	Country					
208.1	Email address pertaining to ITSP regulatory fee issues	[not for public release]								
Block 2-B: Agent for Service of Process										
209	D.C. Agent for Service of Process	Company		Attn: First name	MI	Last				
210	Telephone number of D.C. agent	()	-	ext -						
211	Fax number of D.C. agent	()	-							
212	Email of D.C. agent									
213	Complete business address of D.C. agent for hand service of documents	Street1								
		Street2								
		Street3								
		City	State	DC	Zip					
214	Local/alternate Agent for Service of Process (optional)	Company		Attn: First name	MI	Last				
215	Telephone number of local/alternate agent	()	-	ext -						
216	Fax number of local/alternate agent	()	-							
217	Email of local/alternate agent									
218	Complete business address of local/alternate agent for hand service of documents	Street1								
		Street2								
		City	State	Zip (postal code)	Country					
PERSONS MAKING WILLFUL FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. § 1001										

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)										Page 3
Block 2-C: FCC Registration and Contact Information					Filers must refile Blocks 1, 2 and 6 if there are any changes in this section. See Instructions.					
219	Filer 499 ID [from Line 101]									
220	Legal name of filer [from Line 102]									
221	Chief Executive Officer (or highest ranking company officer if the filer does not have a chief executive officer)									
222	Business address of individual named on Line 221									
	check if same as Line 109 ☐									
223	Second ranking company officer, such as Chairman (Must be someone other than the individual listed on Line 221)									
224	Business address of individual named on Line 223									
	check if same as Line 109 ☐									
225	Third ranking company officer, such as President or Secretary (Must be someone other than individuals listed on Lines 221 and 223)									
226	Business address of individual named on Line 225									
	check if same as Line 109 ☐									
227	Indicate jurisdictions in which the filer provides service. Include jurisdictions in which service was provided in the past 15 months and jurisdictions in which service is likely to be provided in the next 12 months.									
	☐ Alabama ☐ Alaska ☐ American Samoa ☐ Arizona ☐ Arkansas ☐ California ☐ Colorado ☐ Connecticut ☐ Delaware ☐ District of Columbia ☐ Florida ☐ Georgia	☐ Guam ☐ Hawaii ☐ Idaho ☐ Illinois ☐ Indiana ☐ Iowa ☐ Johnston Atoll ☐ Kansas ☐ Kentucky ☐ Louisiana ☐ Maine ☐ Maryland	☐ Massachusetts ☐ Michigan ☐ Midway Atoll ☐ Minnesota ☐ Mississippi ☐ Missouri ☐ Montana ☐ Nebraska ☐ Nevada ☐ New Hampshire ☐ New Jersey ☐ New Mexico	☐ New York ☐ North Carolina ☐ North Dakota ☐ Northern Mariana Islands ☐ Ohio ☐ Oklahoma ☐ Oregon ☐ Pennsylvania ☐ Puerto Rico ☐ Rhode Island ☐ South Carolina ☐ South Dakota	☐ Tennessee ☐ Texas ☐ Utah ☐ U.S. Virgin Islands ☐ Vermont ☐ Virginia ☐ Wake Island ☐ Washington ☐ West Virginia ☐ Wisconsin ☐ Wyoming					
228	Year and month filer first provided (or expects to provide) telecommunications in the U.S.		☐ Check if prior to 1/1/1999, otherwise:		Year	Month				
PERSONS MAKING WILLFUL FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. § 1001										

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)						Page 4
Block 3: Carrier's Carrier Revenue Information						
301	Filer 499 ID [from Line 101]		Total Revenues (a)	If breakouts are not book amounts, enter whole percentage estimates (b) Interstate (c) International	Breakouts Interstate Revenues (d) International Revenues (e)	
302	Legal name of filer [from Line 102]					
		Report billed revenues for January 1 through December 31, 2023. Do not report any negative numbers. Dollar amounts may be rounded to the nearest thousand dollars. However, report all amounts as whole dollars.				
		See instructions regarding percent interstate and international.				
Revenues from Services Provided for Resale as Telecommunications by Other Contributors to Federal Universal Service Support Mechanisms						
<i>Fixed local service</i>						
Monthly service, local calling, connection charges, vertical features, and other local exchange service including subscriber line and PICC charges to IXC's						
303.1	Provided as unbundled network elements (UNEs)					
303.2	Provided under other arrangements					
304.1	Per-minute charges for originating or terminating calls provided under state or federal access tariff					
304.2	Provided as unbundled network elements or other contract arrangement					
Local private line & business data service						
305.1	Provided to other contributors for resale as telecommunications					
305.2	Provided to other contributors for resale as interconnected VoIP					
306	Payphone compensation from toll carriers					
307	Other local telecommunications service revenues					
308	Support revenues received from Federal or state sources					
<i>Mobile services (i.e., wireless telephony, paging, and other mobile services)</i>						
309	Monthly, activation, and message charges except toll					
<i>Toll services</i>						
310	Operator and toll calls with alternative billing arrangements (credit card, collect, international call-back, etc.)					
311	Ordinary long distance (direct-dialed MTS, customer toll-free (800/888 etc.) service, "10-10" calls, associated monthly account maintenance, PICC pass-through, and other switched services not reported above)					
312	Long distance private line services					
313	Satellite services					
314	All other long distance services					
315	Total revenues from resale [Lines 303 through 314]					
See section III.C.2 of the instructions for the requirements applicable to revenue reported on this page. These records must be made available to the administrator or the FCC upon request.						
PERSONS MAKING WILLFUL FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. § 1001						

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)

Page 5

Block 4-A: End-User and Non-Telecommunications Revenue Information

401	Filer 499 ID [from Line 101]						
402	Legal name of filer [from Line 102]						
Report billed revenues for January 1 through December 31, 2023. Do not report any negative numbers. Dollar amounts may be rounded to the nearest thousand dollars. However, report all amounts as whole dollars. See instructions regarding percent interstate and international.							
Revenues from All Other Sources (end-user, telecom, & non-telecom.) Surcharges or other amounts on bills identified as recovering State or Federal universal service contributions							
Fixed local services Monthly service, local calling, connection charges, vertical features, and other local exchange service charges except for federally tariffed subscriber line charges and PCCC charges Traditional Circuit Switched							
404.1	Provided at a flat rate including interstate toll service – local portion						
404.2	Provided at a flat rate including interstate toll service – toll portion						
404.3	Provided without interstate toll included (see instructions)						
Interconnected VoIP							
404.4	Offered in conjunction with a broadband connection						
404.5	Offered independent of a broadband connection						
405	Tariffed subscriber line charges, Access Recovery Charges, and PCCC charges levied by a local exchange carrier on a no-PIC customer						
406	Local private line & business data service [Includes the transmission portion of wireline broadband Internet access provided on a common carrier basis.]						
407	Payphone coin revenues (local and long distance)						
408	Other local telecommunications service revenues						
Mobile services (i.e., wireless telephony, paging, and other mobile services)							
409	Monthly and activation charges						
410	Roaming and air-time charges for toll calls, but excluding separately stated toll charges						
PERSONS MAKING WILLFUL FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. § 1001							

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)

Page 6

Block 4-A: Continued

	Total Revenues (a)	If breakouts are not book amounts, enter whole percentage estimates		Breakouts	
		Interstate (b)	International (c)	Interstate Revenues (d)	International Revenues (e)
<i>Toll services</i>					
411 Prepaid calling card (including card sales to customers) and non-carrier distributors) reported at face value of cards					
412 International calls that both originate and terminate in foreign points		0%	100%		
413 Operator and toll calls with alternative billing arrangements (credit card, collect, international call-back, etc.) other than revenues reported on Line 412					
Ordinary long distance (direct-dialed MTS, customer toll-free (800/888 etc.) service, "10-10" calls, associated monthly account maintenance, PCCC pass-through, and other switched services not reported above)					
414.1 All, other than interconnected VoIP, including, but not limited to, itemized toll on wireline and wireless bills					
414.2 All interconnected VoIP long distance, including, but not limited to, itemized toll					
415 Long distance private line services					
416 Satellite services					
417 All other long distance services					
Revenues other than U.S. telecommunications revenues, including information services, inside wiring maintenance, billing and collection, customer premises equipment, published directory, dark fiber, Internet access, cable TV program transmission, foreign carrier operations, and non-telecommunications revenues (See instructions)					
418.1 bundled with circuit switched local exchange service					
418.2 bundled with interconnected VoIP local exchange service					
418.3 Other					
418.4 non-interconnected VoIP revenues not included in any other category					
Block 4-B: Total Revenue and Uncollectible Revenue Information					
419 Gross billed revenues from all sources (incl. reseller & non-telecom.) [Lines 303 through 314 plus Lines 403 through 418]					
420 Gross universal service contribution base amounts [Lines 403 through 411 plus Lines 413 through 417] [See Table 3 in instructions.]					
421 Uncollectible revenue/bad debt expense associated with gross billed revenues amounts shown on Line 419 [See instructions.]					
422 Uncollectible revenue/bad debt expense associated with universal service contribution base amounts shown on Line 420					
423 Net universal service contribution base revenues [Line 420 minus line 422]					

2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)

Page 7

Block 5: Additional Revenue Breakouts

501 Filer 499 ID [from Line 101]

502 Legal name of filer [from Line 102]

Filers that report revenues in Block 3 and Block 4 must provide the percentages requested in Lines 503 through 510. See instructions for limited exceptions.

Percentage of revenues reported in Block 3 and Block 4 billed in each region of the country. Round or estimate to nearest whole percentage. Enter 0 if no service was provided in the region.

503 Southeast:	Alabama, Florida, Georgia, Kentucky Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, and U.S. Virgin Islands	Block 3 Carrier's Carrier (a)	Block 4 End-User Telecom (b)
504 Western:	Alaska, Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming	%	%
505 West Coast:	California, Hawaii, Nevada, American Samoa, Guam, Johnston Atoll, Midway Atoll, Northern Mariana Islands, and Wake Island	%	%
506 Mid-Atlantic:	Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia, and West Virginia	%	%
507 Mid-West:	Illinois, Indiana, Michigan, Ohio, and Wisconsin	%	%
508 Northeast:	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont	%	%
509 Southwest:	Arkansas, Kansas, Missouri, Oklahoma, and Texas	%	%
510 Total:	[Percentages must add to 0 or 100.]	%	%

511 Revenues from resellers that do not contribute to universal service support mechanisms are included in Block 4-B, Line 420 but may be excluded from a filer's TRS, NANPA, LNP, and FCC interstate telephone service provider regulatory fee contribution bases. To have these amounts excluded the filer has the option of identifying such revenues below. As stated in the instructions, you must have in your records the FCC Filer 499 ID for each customer whose revenues are included on Line 511. (See instructions.)

(a)		(b)
Total Revenues		Interstate and International
Revenues from resellers that do not contribute to Universal Service		
512 Gross TRS contribution base amounts		
[Lines 403 through 417 plus Line 418.4 less Line 511]		
513 Uncollectible revenue/bad debt expense associated with TRS contribution base amounts shown on Line 512		
514 Net TRS contribution base revenues [Line 512 less Line 513]		

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FCC Form 499-A / 2024

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2024 FCC Form 499-A Telecommunications Reporting Worksheet (Reporting 2023 Revenues)										Page 8
Block 6: CERTIFICATION: to be signed by an officer of the filer										
601	Filer 499 ID [from Line 101]									
602	Legal name of filer [from Line 102]									
Section IV of the instructions provides information on which types of filers are required to file for which purposes. Any filer claiming to be exempt from one or more contribution requirements should so certify below and attach an explanation. [The Universal Service Administrator will determine which filers meet the <i>de minimis</i> threshold based on information provided in Block 4, even if you fail to so certify below.]										
603	I certify that the filer is exempt from contributing to: Universal Service☐ TRS☐ NANPA☐ LNP Administration☐									
Provide explanation below:										
604	Please indicate whether the filer is State or Local Government Entity☐ I.R.C. § 501 or State Tax Exempt (see instructions)☐									
605	I certify that the revenue data contained herein are privileged and confidential and that public disclosure of such information would likely cause substantial harm to the competitive position of the company. I request nondisclosure of the revenue information contained herein pursuant to sections 0.459, 52.17, 54.711 and 64.604 of the Commission's rules. I certify that I am an officer of the above-named filer as defined in the instructions, that I have examined the foregoing report and, to the best of my knowledge, information and belief, all statements of fact contained in this Worksheet are true and that said Worksheet is an accurate statement of the affairs of the above-named company for the previous calendar year. In addition, I swear, under penalty of perjury, that all requested identification registration information has been provided and is accurate. If the above-named filer is filing on a consolidated basis, I certify that this filing incorporates all of the revenues for the consolidated entities for the entire year and that the filer adhered to and continues to meet the conditions set forth in section III-B of the instructions.									
606	Signature									
607	Printed name of officer									
608	Position with reporting entity									
609	Business telephone number of officer									
610	Email of officer [not for public release]									
611	Date									
612	Check those that apply Original April 1 filing for year☐ New filer, registration only☐ Revised filing with updated registration☐ Revised filing with updated revenue data☐									
Do not mail checks with this form. File this form online: https://forms.universalservice.org/portal/login For additional information regarding this worksheet contact: (888) 641-8722 or via email: Form499@usac.org										
PERSONS MAKING WILLFUL FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. § 1001										

FCC Form 499-A, September 2023

Approved by OMB

OMB Control Number 3060-0855

Estimated Average Burden Hours Per Response: 13.5 Hours

**2024 Telecommunications Reporting Worksheet Instructions
(FCC Form 499-A)**

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File the FCC Form 499-A online at <https://forms.universalservice.org>

I. INTRODUCTION

The Communications Act of 1934, as amended, requires that the Commission establish mechanisms to fund universal service (USF), interstate telecommunications relay services (TRS), the administration of the North American Numbering Plan (NANPA), and the shared costs of local number portability administration (LNPA).¹ 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 Telecommunications Reporting Worksheet the revenues they receive from offering service.² The administrators of each of these programs use the revenues reported on this Worksheet to calculate and assess any necessary contributions. The Commission also uses the revenue data reported on this Worksheet to calculate and assess Interstate Telecommunications Service Provider (ITSP) regulatory fees.³

¹ 47 U.S.C. §§ 151, 225, 251, 254, 616.

² See 47 CFR §§ 52.17(b), 52.32(b), 54.708, 54.711, 64.604(c)(5)(iii)(A) and (B).

³ See 47 U.S.C. § 159(a), (b)(1)(A), (g) (authorizing the Commission to collect annual regulatory fees to recover the costs of enforcement, policy and rulemaking, user information, and international activities).

Although some Telecommunications Reporting Worksheet filers may not need to contribute to each of the support and cost recovery mechanisms, all telecommunications carriers and certain additional telecommunications providers must file. These instructions explain which filers must contribute to particular mechanisms, but filers should consult the specific rules that govern contributions for each of the mechanisms.⁴ In general, contributions are calculated based on each filer's end-user telecommunications revenue information, as filed in this Worksheet.

By filing this Worksheet, filers may also satisfy their obligations under section 413 of the Act to designate an agent in the District of Columbia for service of process⁵ and their obligations to register with the Federal Communications Commission.⁶

II. CONTACT INFORMATION

If you have questions about the Worksheet or the instructions, you may contact:

Universal Service Administrator	form499@usac.org (888) 641-8722

If you have questions regarding contribution amounts, billing procedures, or the support and cost recovery mechanisms, you may contact:

Universal Service Administrator:	form499@usac.org (888) 641-8722

TRS Administrator:	trs@rolkaloube.com (717) 585-6605

NANPA Billing and Collection Agent:	nanp@welchllp.com (613) 760-4512

Local Number Portability Administrator:	NPACBilling@iconnectiv.numberportability.com (844) 560-8050

ITSP Regulatory Fees	(877) 480-3201

⁴ See 47 CFR §§ 52.17 (numbering administration), 52.32 (local number portability), 54.706 (universal service), 64.604 (TRS).

⁵ 47 U.S.C. § 413; see 47 CFR § 1.47(h).

⁶ 47 CFR § 64.1195.

III. FILING REQUIREMENTS AND GENERAL INSTRUCTIONS

A. WHO MUST FILE

1. GENERAL INFORMATION

With very limited exceptions, all intrastate, interstate, and international providers of telecommunications in the United States⁷ must file this Worksheet.⁸ In addition to filing this form most filers must contribute to the universal service, TRS, NANPA, and LNPA funding mechanisms. This section provides a short summary to assist carriers and service providers in determining whether they must contribute to one or more of the mechanisms. Filers should consult the Commission's rules and orders to determine whether they must contribute to one or more of the mechanisms.

FCC Form 499-A is a multi-purpose form. It is used for at least seven purposes:

Annual filing requirements:

1. Report revenues for purposes of the federal Universal Service Fund (USF);
2. Report revenues for purposes of the federal Telecommunications Relay Services Fund (TRS);
3. Report revenues for the administration of the North American Numbering Plan (NANPA);
4. Report revenues for the shared costs of local number portability administration (LNPA);
5. Report revenues for calculating and assessing Interstate Telecommunications Service Provider (ITSP) regulatory fees;

One-time filing requirements (with obligation to revise if information changes):

6. Satisfy obligations under section 413 of the Act to designate an agent in the District of Columbia for service of process;
7. Fulfill obligations to register with the Federal Communications Commission under 47 CFR § 64.1195.

If you are subject to one or more of the above requirements, you must file FCC Form 499-A.

1. Federal Universal Service Fund — Entities that provide interstate telecommunications to the public for a fee as well as certain other providers of interstate telecommunications must contribute to the universal service support mechanisms. See 47 CFR § 54.706.

⁷ For this purpose, the United States is defined as the contiguous United States, Alaska, Hawaii, American Samoa, Baker Island, Guam, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Island, Navassa Island, the Northern Mariana Islands, Palmyra, Puerto Rico, the U.S. Virgin Islands, and Wake Island.

⁸ Section 254(d) applies not only to “every telecommunications carrier that provides interstate telecommunications services” but also to certain “other provider[s] of interstate telecommunications.” 47 U.S.C. § 254(d) (emphasis added). For more information on these terms, see: 47 U.S.C. §§ 153(50), (51); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776 (1997) (*Universal Service First Report and Order*); *Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 *et al.*, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518 (2006) (*2006 Contribution Methodology Reform Order*).

2. Telecommunications Relay Services — Every common carrier⁹ providing telecommunications services and every VoIP provider (including interconnected and non-interconnected) must contribute to the TRS Fund. *See* 47 CFR §§ 64.601(b), 64.604.

3. Non-Interconnected VoIP Service Providers — All providers of “non-interconnected VoIP service” (as defined in section 64.601(a) of the Commission’s rules) with end-user revenues subject to TRS contributions must file this Worksheet in order to register with the Commission and report their revenues for purposes of calculating TRS contributions.¹⁰

4. North American Numbering Plan Administration — All telecommunications carriers and interconnected VoIP providers in the United States shall contribute to meet the costs of establishing numbering administration. *See* 47 CFR § 52.17.

5. Shared Costs of Local Number Portability — The shared costs of long-term number portability attributable to a regional database shall be recovered from all telecommunications carriers and interconnected VoIP providers providing service in that region. *See* 47 CFR § 52.32.

6. ITSP Regulatory Fees — Congress requires the Commission to assess and collect regulatory fees “to recover the costs of ... enforcement activities, policy and rulemaking activities, user information services, and international activities.” *See* 47 CFR § 159(a).

7. Designation of Agent for Service of Process — For more information on this requirement, see the instructions for Block 2-B.

8. FCC Registration — For more information on this requirement, see the instructions for Block 2-C.

2. ADDITIONAL INFORMATION REGARDING USF CONTRIBUTION REQUIREMENTS

Entities that provide interstate telecommunications to the public for a fee as well as certain other providers of interstate telecommunications must contribute to the universal service support mechanisms.

- The term “telecommunications” refers to the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.¹¹
- For the purpose of filing, the term “interstate telecommunications” includes, but is not limited to, the following types of services: wireless telephony, including cellular and personal communications services (PCS); paging services; dispatch and operator services; mobile radio services;¹² access to interexchange service; business data services; wide area telecommunications

⁹ “Common carrier” or “carrier” means “any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio or interstate or foreign radio transmission of energy. . .” 47 U.S.C. § 153(11).

¹⁰ *See Contributions to the Telecommunications Relay Services Fund*, CG Docket No. 11-47, Report and Order, 26 FCC Rcd 14532, 14537, para. 12 (2011) (*2011 TRS Contributions Order*) (adding definition of “non-interconnected VoIP service” to the Commission’s TRS rules at section 64.601(a)). *See* 47 C.F.R. § 64.601(a).

¹¹ 47 U.S.C. § 153(50).

¹² *See Request for Review by Waterway Communication System, LLC and Mobex Network Services, LLC of a Decision of the Universal Service Administrator*, WC Docket No. 06-122, Order, 23 FCC Rcd 12836 (Wireline Comp. Bur. 2008).

services (WATS); subscriber toll-free and 900 services; message telephone services (MTS); private line; telex; telegraph; video services; satellite services; resale services; Frame Relay services; asynchronous transfer mode (ATM) services; Multi-Protocol Label Switching (MPLS) services; audio bridging services;¹³ and interconnected VoIP services.

- Note that all incumbent (ILEC) and competitive (CLEC) local exchange carriers provide access services and, therefore, provide interstate telecommunications. No filing exemptions exist for data or non-voice services.
- There is no filing exception for entities that offer services to a narrow or limited class of users. Thus filers include:
 - Entities that provide interstate telecommunications to entities other than themselves for a fee on a private, contractual basis.
 - Most telecommunications carriers and all interconnected VoIP providers including those that qualify for the *de minimis* exception under the Commission's universal service rules.¹⁴
 - Owners of pay telephones, also known as "pay telephone aggregators."
- Three types of non-common-carrier telecommunications providers may, under the circumstances set forth below, not be required to contribute to USF directly: (a) *de minimis* telecommunications providers; (b) government, broadcasters, schools, and libraries; and (c) systems integrators and self-providers.

a. Exception for USF *de minimis* telecommunications providers

Telecommunications providers are not required to contribute directly to the universal service support mechanisms for a given year if their contribution for that year is less than \$10,000.¹⁵

- Providers that offer telecommunications for a fee exclusively on a non-common carrier basis need not file this Worksheet if their contribution to the universal service support mechanisms would be *de minimis* under the universal service rules. Note that entities providing solely private line service may nevertheless be considered common carriers if they offer their services directly to the public or to such classes of users as to be effectively available directly to the public.¹⁶
- Telecommunications carriers providing telecommunications services on a common-carriage basis and interconnected VoIP providers need not contribute directly to the universal service support mechanism if they meet the *de minimis* standard.¹⁷ However, they must file this Worksheet because they must contribute to other support mechanisms (TRS, NANPA or LNPA). See section

¹³ See *Request for Review by InterCall, Inc. of Decision of Universal Service Administrator*, CC Docket No. 96-45, Order, 23 FCC Rcd 10731, 10737–38, para. 22 (2008) (*InterCall Order*), *petition for reconsideration denied, Petitions for Reconsideration and Clarification of the InterCall Order*, WC Docket No. 06-122, CC Docket No. 96-45, Order on Reconsideration, 27 FCC Rcd 898 (2012), *subsequent history omitted*.

¹⁴ See 47 CFR § 54.708.

¹⁵ See *id.*

¹⁶ See 47 U.S.C. § 153(53).

¹⁷ A resale provider may contribute directly to the USF by signing a resale certificate or may be treated as an end user by its underlying carrier and therefore may contribute indirectly as a result of USF pass-through charges. See, e.g., section IV.C.4 "Attributing Revenues from Contributing Resellers and From End Users."

III.A.1 for information regarding contribution requirements for TRS, NANPA, and LNPA. Such providers need not file an FCC Form 499-Q.¹⁸

Providers who may be *de minimis* should complete the table contained in Appendix A to determine whether they meet the *de minimis* standard.

- Use the table in Appendix A to calculate estimated universal service contributions for the period January 2023 through December 2023.
 - To complete this table, providers must first complete Block 4 of the Worksheet and enter the amounts from Lines 423(d) on Appendix A line 1, and 423(e) on Appendix A line 2.
- Providers whose estimated contributions to universal service support mechanisms would be less than \$10,000 are considered *de minimis* for universal service contribution purposes and will not be required to contribute directly to universal service support mechanisms.

b. Exception for government, broadcasters, schools, and libraries

The following non-common-carrier entities are explicitly exempted from contributing directly to the universal service support mechanisms and need not file this Worksheet unless they contribute to TRS, LNP, or NANPA:¹⁹

- Government entities that purchase telecommunications services in bulk on behalf of themselves, such as state networks for schools and libraries.
- Public safety and local governmental entities licensed under Subpart B of Part 90 of the Commission's rules or any entity providing interstate telecommunications exclusively to public safety or government entities that do not offer services to others.
- Broadcasters, non-profit schools, non-profit libraries, non-profit colleges, non-profit universities, and non-profit health care providers.

c. Exception for systems integrators and self-providers

Systems integrators: Systems integrators that derive less than five percent of their systems integration revenues from the resale of telecommunications are not required to file or contribute directly to universal service.²⁰ Systems integrators provide integrated packages of services and products that may include, but are not limited to computer capabilities, interstate telecommunications, remote data processing services,

¹⁸ Sections 54.706, 54.711, and 54.713 of the Commission's rules require all telecommunications carriers providing interstate telecommunications services, interconnected VoIP providers that provide interstate telecommunications, providers of interstate telecommunications that offer interstate telecommunications for a fee on a non-common carrier basis, and payphone providers that are aggregators to contribute to the universal service fund and file a FCC Form 499-Q on February 1, May 1, August 1, and November 1 each year. 47 CFR §§ 54.706, 54.711, 54.713. The FCC Form 499-Q sets forth information that the contributor must submit, so that the Administrator of the universal service support mechanisms may calculate and assess contributions. See Telecommunications Reporting Worksheet, FCC Form 499-Q (2024) Instructions for Completing the Quarterly Worksheet for Filing Contributions to Universal Service Support Mechanisms, OMB Control Number 3060-0855 (Insert Release Date).

¹⁹ See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9187, para. 800 (1997) (*Universal Service First Report and Order*).

²⁰ Note that systems integrators that have contribution obligations to other support mechanisms (TRS, NANPA, or LNPA) must file this worksheet.

back-office data processing, management of customer relationships with underlying carriers and vendors, provision and maintenance of telecommunications and computer equipment, and help desk functions.²¹ However, systems integrators must file this Worksheet if they have contribution obligations to other support mechanisms (TRS, NANPA or LNPA).

Self-Providers: Entities that provide telecommunications only to themselves or to commonly-owned affiliates need not file.²²

d. Filing Exemption for Marketing Agents

Marketing agents, i.e., entities that market services on behalf of a telecommunications provider, are not telecommunications providers and are not required to file this Worksheet. The amounts remitted to or retained by the marketing agent are treated as expenses of the underlying provider and may not be deducted from the provider's revenues. A telecommunications reseller is not a marketing agent and must file this Worksheet.

B. WHICH TELECOMMUNICATIONS PROVIDERS MUST CONTRIBUTE FOR WHICH PURPOSES

Table 1 summarizes which telecommunications carriers and service providers must directly contribute for particular purposes. This chart is provided for informational purposes only. It is not intended to be exhaustive, nor is it intended to serve as legal guidance or precedent. Filers are instructed to consult the Commission's rules and orders to determine whether they must contribute to one or more of the mechanisms. See 47 CFR §§ 52.17, 52.32, 54.706, 64.604.

Table 1: Which Telecommunications Providers Must Contribute Directly for Which Purposes

Type of filer	Universal Service	TRS	NANPA	LNPA
Non-interconnected VoIP providers with no other telecommunications revenues		X		
<i>De minimis</i> payphone aggregators that do not also have telecommunications carrier revenues		X		
Other payphone aggregators that do not also have telecommunications carrier revenues	X	X		
<i>De minimis</i> telecommunications providers (including audio-bridging service providers) with no telecommunications service revenues				

²¹ See *Federal-State Joint Board on Universal Service; Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, End User Common Line Charge*, Fourth Order on Reconsideration, 13 FCC Rcd 5318, 5471-75 (1997).

²² See *Universal Service First Report and Order*, 12 FCC Rcd at 9187, para. 800.

Other telecommunications providers (including audio-bridging providers) with no telecommunications service revenues	X			
Telecommunications carriers that provide only intrastate service		X	X	X
Telecommunications carriers that provide services only to other universal service contributors			X	X
Telecommunications carriers that provide only international services		X	X	X
<i>De minimis</i> interstate telecommunications carriers (including satellite carriers and common-carriage stand-alone audio-bridging service providers) and <i>de minimis</i> interconnected VoIP providers		X	X	X
All other interstate telecommunications carriers (including satellite carriers and common-carriage stand-alone audio-bridging service providers) and all other interconnected VoIP providers	X	X	X	X

As shown above, some providers may be exempt from contributing to USF, but nevertheless must file this Worksheet because they are required to contribute to TRS, NANPA, or LNPA. If an entity is not required to contribute to any of these support mechanisms, then it is not required to file this Worksheet.

- For USF purposes, these non-contributors must be treated as end users by their underlying carriers and therefore may end up contributing indirectly as a result of USF pass-through surcharges.
- Providers who do not file this Worksheet because they are *de minimis* for USF contribution purposes, and need not file for any other purpose, should retain the table contained in Appendix A and documentation of their contribution base revenues for five calendar years after the date each Worksheet is due.²³
- Interconnected VoIP providers who are *de minimis* must file this Worksheet and retain the table and documentation of their contribution base revenues for five calendar years after the date each Worksheet is due.²⁴

²³ See 47 CFR § 54.706(e) (“Any entity required to contribute to the federal universal service support mechanisms shall retain, for at least five years from the date of the contribution, all records that may be required to demonstrate to auditors that the contributions made were in compliance with the Commission’s universal service rules”); *Comprehensive Review of the Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195, Report and Order, 22 FCC Rcd 16372, 16386–87, para. 27 (2007) (*USF Comprehensive Review Order*). Section § 54.711(a) of the Commission’s rules, 47 CFR § 54.711, also requires contributors to “maintain records and documentation to justify information reported in the Telecommunications Reporting Worksheet, including the methodology used to determine projections, for three years and shall provide such records and documentation to the Commission or the Administrator upon request.”

²⁴ *Id.*

FILING BY LEGAL ENTITY

Each legal entity providing interstate telecommunications for a fee or providing interstate interconnected VoIP service, including each affiliate or subsidiary of an entity, must separately complete and file a copy of the Worksheet, except as provided below.²⁵ Entities with distinct articles of incorporation, articles of formation, or similar legal documents are separate legal entities. Each legal entity, affiliate, and subsidiary must identify its ultimate controlling parent or entity, or provide a common identifier for all of its affiliated filers on Block 1, Line 106.

As an alternative to each affiliate filing separately, entities may file on a consolidated basis but must certify each year that they meet all of the following conditions:²⁶

- A single entity oversees the management of all affiliated systems;
- A single entity sends bills to customers identifying it (or a trade name) as the service provider, rather than identifying the individual legal entities;
- All revenues are posted to a single general ledger;²⁷
- If separate revenue and expense accounts exist, they are derived from one consolidated set of books and the consolidated filing must cover all revenues contained in the consolidated books;
- Customers have a single point of contact;
- The consolidated filer acknowledges that process served on it would represent process served on any or all of the affiliated legal entities;
- The consolidated filer agrees to document and resolve all slamming complaints that might be served on either it or any of the affiliated legal entities;²⁸
- The consolidated filer obtains a separate FCC Registration Number (FRN) from those assigned to its affiliated legal entities;
- The consolidated filer acknowledges that its universal service, TRS, LNP, NANPA, and regulatory fee obligations will be based on data provided in the consolidated Worksheet filings, that it bears the responsibility of satisfying those obligations, and that all legal entities covered by the filing are jointly and severally liable for such obligations; and
- The consolidated filer acknowledges that it: (1) was not insolvent on the date it undertook to make payments on a consolidated basis or on the date of actual payments to universal service, TRS, LNP, NANPA, and regulatory fees, and did not become insolvent as a result of such undertaking or payments; (2) was not left with unreasonably small capital as a result of such

²⁵ See 47 CFR § 64.1195 (outlining the Commission's registration requirements).

²⁶ See 1998 Biennial Regulatory Review—Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Services, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms, CC Docket 98-171, Report and Order, 14 FCC Rcd 16602 (1999) (Consolidated Reporting Order); Federal-State Joint Board on Universal Service *et al.*, CC Docket No. 96-45 *et al.*, Further Notice of Proposed Rulemaking and Report and Order, 17 FCC Rcd 3752 (2002) (2002 First Contribution Methodology Order and FNPRM).

²⁷ The FCC Form 499 Filings for the consolidated filer must reflect all revenues in this general ledger.

²⁸ A Commercial Mobile Radio Service (CMRS) carrier that is not subject to certain slamming regulations is not required to certify that it will document and resolve all slamming complaints that might be served on either the filer or any of its affiliated legal entities that also are not subject to the slamming regulations.

undertaking or payments; and (3) was not left unable to pay debts as they matured as a result of such undertaking or payments.²⁹

This certification should be filed with the Commission's Data Collection Agent (*see* address in Table 3) and must also include:

- A list of the legal names of all the legal entities covered by the filing. See instructions to Line 112 regarding the reporting of these legal names on the Worksheet.
- The FCC Form 499 Filer IDs of all the legal entities covered by the filing
- The consolidated filer's FRN
- For wireless carriers, a list of all radio licenses (call signs) issued to each legal entity covered by the filing

Filers filing on a consolidated basis should be aware that any penalties associated with failure to pay or underpayment of any of its obligations will be assessed on the total revenue reported on the consolidated basis, rather than on a separate legal entity basis.

C. HOW TO FILE

1. NO FILING FEE

There is no fee to file this form.

2. WHEN TO FILE

This section provides the filing schedule and relevant filing addresses. If a filing date is a holiday (as defined in section 1.4(e)(1) of the Commission's rules), Worksheets are due the next business day. *See* 47 CFR § 1.4(e)(1).

²⁹ For purposes of this certification, the term "insolvent" means either unable to pay debts when due or having liabilities greater than assets. *See* 11 U.S.C. § 101(32).

Table 2: Filing Schedule for One-Time Requirements

What to file	When to file	Where to file
New telecommunications carriers and other telecommunications providers must <u>register</u> with the Commission when they begin to provide service.³⁰ Registration with the Commission includes obtaining an FCC registration number (“FRN”) from the Commission registration system (“CORES”) and obtaining a Filer ID from USAC’s E-File system. If a new filer had already started providing telecommunications services prior to its registration with the FCC and obtaining a 499 Filer ID from USAC, it must file FCC Forms 499-A for all prior applicable years in which it provided telecommunications services and/or VoIP. New carriers and VoIP providers (including interconnected and non-interconnected) must identify an agent for service of process within the District of Columbia. Although alternate agents may be included in the filing, a resident D.C. agent must be designated. Carriers that hold international section 214 authorizations must designate a U.S. citizen or U.S. lawful permanent resident as their agent for service of process.	Upon beginning to provide service, but no later than 30 days after beginning to provide service.	<u>FCC (to obtain an FRN)</u> https://apps.fcc.gov/cores/userLogin.do <u>USAC (to obtain a 499 Filer ID)</u> https://www.usac.org/service-providers/contributing-to-the-usf/register-for-a-499-id/ Such information is provided at Page 2, Block 2 of the FCC Form 499-A.
Filers must update their registration information, including a DC Agent for Service of Process in accordance with these instructions to the FCC Form 499-A.	Within one week of the contact information change.	Filers wishing to update Preparer information, headquarter address, billing contact information, or DC Agent for Service of Process, can submit either an FCC Form 499-A or an FCC Form 499-Q or, for billing-related matters only, email USAC’s billing department.³¹ Filers wishing to update any other information must submit a revised FCC Form 499-A. For more information, see https://www.usac.org/service-providers/contributing-to-the-usf/making-revisions/

³⁰ Registration information includes information reported in Blocks 1 and 2 of the Telecommunications Reporting Worksheet.

³¹ Filers seeking to update limited DC agent information such as an address and/or telephone number change for more than twenty registrations at one time may contact USAC and request permission to submit a summary Excel-styled document containing these changes. Generally, changing an agent requires submission of an FCC Form 499-A with the accompanying officer certification.

What to file	When to file	Where to file
Filers that cease providing telecommunications must deactivate their Filer ID with USAC by submitting a letter with termination date and information on their successor entity to USAC. Filers must also update their CORES ID information with the Commission	Within 30 days of the date that the company ceased providing service.	<u>FCC</u> https://apps.fcc.gov/cores/userLogin.do <u>USAC</u> https://www.usac.org/service-providers/contributing-to-the-usf/manage-your-499-id/

Table 3: Filing Schedule for Annual Reporting Requirements

What to file	When to file	Where to file
Completed FCC Form 499-A	April 1	Data Collection Agent https://forms.universalservice.org
Completed FCC Form 499-Q (universal service contributors only)	February 1 May 1 August 1 November 1	Data Collection Agent c/o Universal Service Administrative Company https://forms.universalservice.org
Traffic studies relied on by providers to report interstate and/or international revenues on FCC Form 499-A <i>See section IV.C.5.h for format and content requirements for traffic studies</i>	April 1	<u>Data Collection Agent</u> - via Email c/o Universal Service Administrative Company form499@usac.org
Consolidated filer certification <i>See section III.B for format and content requirements for consolidated filer certification</i>	April 1	<u>Data Collection Agent</u> - via Email c/o Universal Service Administrative Company form499@usac.org

Do not send universal service, TRS, NANPA or LNPA contributions with the Worksheet or to any of the above listed addresses. The appropriate administrators will calculate the amount of contribution due and send a bill to the billing contact person and billing address identified on Line 208 of the FCC Form 499-A. *See Table 4 for contribution bases used by the USF, TRS, NANPA and LNPA administrators to determine contribution obligations.*

3. ELECTRONIC FILING

Filers capable of accessing the Internet are required to file this form electronically. For information on filing electronically, go to <https://www.usac.org/service-providers/contributing-to-the-usf/forms-to-file/>.

Filers may file the consolidated filer certifications and traffic studies by submitting paper copies to: **Form 499 Data Collection Agent c/o USAC, 700 12th Street N.W., Suite 900, Washington, D.C. 20005.**

D. OBLIGATION TO FILE REVISIONS

Line 612 provides check boxes to show whether the Worksheet is the original April 1 filing for the year, a registration form for a new filer, a revised filing with updated registration information, or a revised filing with updated revenue data for the year.

Filers must submit a revised Form 499-A if there is any change in any of the following types of information:

- Filer identification in Block 1

- Regulatory contact information in Block 2-A
- Agent for service of process in Block 2-B
- FCC registration information in Block 2-C

Filers must also submit revised worksheets if they discover an error in their revenue data.

- Since companies generally close their books for financial purposes by the end of March, such filers should base the April filing on closed books.
- In filing a revised Worksheet, filers should not include routine out-of-period adjustments to revenue data unless such adjustments would affect a reported amount by more than ten percent.
- **Filers must submit any revised Worksheet that would result in decreased contributions by March 31 of the year after the original filing due date.**³²

Filers should not file revised revenue information to reflect mergers, acquisitions, or sales of operating units.

- If a filer that submitted a Form 499-A no longer exists, its successor company is responsible for continuing to make assessed contribution or true-up payments, if any, for the funding period and must notify the Form 499 Data Collection Agent.
- If the operations of an entity ceased during the previous calendar year and are now part of a successor, the successor must include the previous calendar year revenues of the now-defunct entity with its own Worksheet. Thus, it is the successor company's responsibility to ensure that the revenues for both companies for the previous calendar year are accounted for in their entirety.
- The entity that ceased operations may owe, or its successor may owe, additional universal service contributions or may be due refunds, depending on how its FCC Form 499-A Worksheet compares to previously filed FCC Form 499-Q Worksheets.
 - Such entities are not liable for TRS, LNP, or NANPA contributions for the upcoming year. Check the appropriate boxes on Line 603 and write "Not in business as of filing date" on the explanation line.

E. RECORDKEEPING

Filers shall maintain records and documentation to justify information reporting on the Worksheet, including the methodology used to determine projections and to allocate interstate revenues, for five years.³³ Additionally, filers must make available all documents and records that pertain to them, including those of contractors and consultants working on their behalf, to the Commission's Office of Inspector General, to the Universal Service Administrative Company (USAC), and to auditors upon request.³⁴ Review by the Commission or USAC may cover any existing corporate records, not just those

³² See *Federal-State Joint Board on Universal Service et al.*, CC Docket No. 96-45 *et al.*, Order, 20 FCC Rcd 1012, 1013, para. 2 (Wireline Comp. Bur. 2004), *pet. for recon. and applications for review pending*.

³³ See 47 CFR § 54.706(e) ("These records shall include without limitation the following: Financial statements and supporting documentation; accounting records; historical customer records; general ledgers; and any other relevant documentation.").

³⁴ See *id.*; 47 CFR § 54.711(a).

specifically maintained for these purposes.³⁵ Entities acquiring carrier operations through consolidation, merger, etc., must maintain the records of the acquired entity.³⁶

F. COMPLIANCE

Failure to file the Worksheet, submit traffic studies (if applicable), submit supporting documentation upon request, and pay contributions in a timely fashion may subject entities to the enforcement provisions of the Communications Act and any other applicable law.³⁷ In addition, entities may be billed by the administrators for reasonable costs, including interest and administrative costs that are caused by late, inaccurate, or untruthful filing of the Worksheet or overdue contributions.³⁸ Inaccurate or untruthful information contained in the Worksheet may lead to prosecution under the criminal provisions of Title 18 of the United States Code.³⁹

G. ROUNDING OF NUMBERS AND NEGATIVE NUMBERS

Dollar Amounts. — Reported revenues in Blocks 3, 4, and 5 greater than one thousand dollars may be rounded to the nearest thousand dollars. Dollar amounts may be reported in whole dollars. For example, \$2,271,881.93 could be reported at \$2,271,882 or \$2,272,000, but not \$2272 thousand, \$2,270,000.00, or \$2.272 million. Enter \$0 in any line for which the filer had no revenues for the year.

Negative Numbers. — Filers are directed to provide billed revenues without subtracting any expenses, allowances for uncollectibles, or settlement payments and without making out-of-period adjustments. Therefore, do not enter negative numbers on any billed revenue lines on the Worksheet. *See* instructions for Lines 421 and 422 regarding uncollectibles.

IV. SPECIFIC INSTRUCTIONS

A. BLOCK 1: FILER IDENTIFICATION INFORMATION

Block 1 of the Telecommunications Reporting Worksheet reports identification information.

Line 101	499 Filer ID

USAC assigns an FCC Form 499 Filer ID number once a company completes the online registration process at <https://efile.universalservice.org/ContributorRegistration/V2/>. This number is then used for the company to file subsequent FCC Forms 499. Filer 499 ID numbers can be found at:

- FCC Form 499 Filer Database (<http://apps.fcc.gov/cgb/form499/499a.cfm>)
- Telecommunications Provider Locator (<https://www.fcc.gov/encyclopedia/telecommunications-provider-locator>)

Line 102	Legal Name of Filer

³⁵ See 47 U.S.C. § 218.

³⁶ See 47 CFR § 42.1.

³⁷ In addition, pursuant to the Debt Collection Improvement Act of 1996, the Commission shall withhold action on applications or other requests for benefits by delinquent debtors and dismiss those applications or other requests if the delinquent debt is not paid or satisfactory arrangement for payment is not made. *See* 47 CFR § 1.1910; *Amendment of Parts 0 and 1 of the Commission's Rules, Implementation of the Debt Collection Improvement Act of 1996 and Adoption of Rules Governing Applications or Requests for Benefits by Delinquent Debtors*, MD Docket No. 02-339, 19 FCC Rcd 6540 (2004).

³⁸ See 47 CFR § 54.713 (universal service); 47 CFR § 64.604(c)(5)(iii)(A) and (B) (TRS); *see also* 47 CFR § 52.17(b) (NANPA); 47 CFR § 52.32(c) (LNPA).

³⁹ See 47 CFR § 54.711.

Enter the legal name of the filer as it appears on articles of incorporation or articles of formation and other legal documents. Each legal entity must file a separate Worksheet unless affiliated entities are filing on a consolidated basis. *See* section III.B.

Line 103 IRS Employer Identification Number

Enter the Internal Revenue Service (IRS) employer identification number (EIN) for the filer, which should be the same EIN that the company uses to file any federal taxes, if the filer offers services subject to such taxes.

- Do not use individual social security numbers for the federal EIN.
- If a filer lacks an EIN (*i.e.* has no taxpayer identification number to provide other than an individual social security number), it should contact USAC (see section II for contact information) so that it can be assigned an alternative identification number.
- Consolidated filers must provide the EIN of the holding company.

Line 104 Doing Business As Name

Enter the principal name under which the filer conducts telecommunications activities, typically the name that appears on customer bills or the name used when service representatives answer customer inquiries.

Line 105 Telecommunications Activities of Filer

Mark the boxes that describe the telecommunications activity or activities of the filer. If more than one is appropriate, label the activities in order of importance to the filer's business. Enter a 1 in the box that is the most important activity, a 2 in the next most important, etc., but select no more than 5 categories. An explanation of the categories appears in Appendix B.

Line 106 Affiliated Filers/ Holding Company Information

Enter a common identifier for all affiliated filers (the "Affiliated Filers Name"). This is typically the name of the filer's holding company or controlling entity, if any. Amongst a large group of affiliates, this may be the name of the predominant commonly owned or controlled entity. All reporting affiliates or commonly owned entities should have the same Affiliated Filers Name and IRS employer identification number appearing on Line 106.1 and 106.2 respectively. For those entities also required to submit information to the Broadband Data Collection (BDC) system, use the same single name that is used on the Entity Information associated with the biannual submissions of BDC availability and/or FCC Form 477 subscription data to indicate common ownership or control.⁴⁰

- Unless otherwise specifically provided, an affiliate is a "person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person."⁴¹ For this purpose, the term 'owns' means "to own an equity interest (or the equivalent thereof) of more than 10 percent."⁴²
- If the filer has no affiliates, check the appropriate box on Line 106.

Line 107 FCC Registration Number

⁴⁰ The Commission adopted an Order ending the collection of broadband deployment data through the FCC Form 477 in December 2022. *See Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, paras. 11-10, Order, FCC 22-93 (rel. Dec. 9, 2022). Pursuant to the Order, the Commission continues to collect broadband and voice subscription data using the FCC Form 477, but filers submit such data solely through the BDC system. *Id.* at para. 13.

⁴¹ *See* 47 U.S.C. § 153(2).

⁴² *Id.*

Enter the FCC Registration Number (FRN) of the filer. The FRN is a ten-digit number that includes a check-digit and is used to identify an entity within all Commission Licensing/Filing systems and the Commission's Revenue Accounting Management Information System (RAMIS). The number is assigned by the Commission Registration System (CORES). For those filers also required to submit information to the BDC system, add the FRN(s) associated with this entity used in the biannual submission of BDC availability and/or FCC Form 477 subscription data. For more information, *see* <https://apps.fcc.gov/cores/userLogin.do>.

Line 108	Management Company

Enter the name of the management company if the filer is managed by an entity other than itself. If the filer and one or more telecommunications provider(s) are commonly managed, then each should show the same management company on Line 108. Filers need not be affiliated to have a common management company. The management company would typically be the point of contact for the administrators of the support mechanisms.

Line 109	Mailing Address of Corporate Headquarters

Enter the complete mailing address of the corporate headquarters of the filer.

Lines 110-111	Business Address/ Telephone Number for Customer Inquiries and Complaints

Line 110. — Enter a business address for the filer that could be used either for customer inquiries or that parties could use to contact the filer in order to resolve complaints. Check the box if this address is the same as the mailing address of the corporate headquarters on Line 109.

Line 111. — Enter a telephone number that can be used to resolve customer complaints, for customer service, or for billing inquiries, such as a customer toll-free number.

Line 112	Trade Names

Enter all names that the filer used in the past three years for providing telecommunications.

- Enter all names by which the filer would be known to customers, government bodies, creditors, the press, etc.
- Consolidated filers should provide all names used by all telecommunications affiliates covered by the filing.
- The list must include the filer's billing agents if those parties, rather than the filer, are identified on customer bills.
- The list should also include names of predecessor companies that would have contributed to universal service, TRS, NANP, or LNP or filed a Telecommunications Reporting Worksheet in the prior year. In such cases, include the prior Filer 499 ID as part of the name, as this information will be used by the administrators in instances where other information indicates that a non-filer might exist and also to ensure that entities are not billed improperly for predecessor companies that no longer exist.
- If there is insufficient space to enter all names, contact USAC.

B. BLOCK 2: CONTACT INFORMATION

Block 2 of the Telecommunications Reporting Worksheet reports contact information for regulatory and billing purposes.

1. BLOCK 2-A: REGULATORY CONTACT INFORMATION**Line 201 499 Filer ID**

Enter the Filer 499 ID from Line 101.

Line 202 Legal Name of Filer

Enter the legal name of the filer from Line 102.

Line 203-206 Person Who Completed This Worksheet/ Contact Information

Enter the name and telephone number of the person who filled out the FCC Form 499. An email address is also required and will not be publicly released. This person should be able to provide clarifications or additional information and, if necessary, serve as the first point of contact if either the Commission or an administrator should choose to verify or audit information provided in the Worksheet.

Line 207 Corporate Office to Which Correspondence Should Be Sent

Enter the contact person name, office name, and mailing address of a corporate office to which correspondence regarding this Worksheet should be sent. An email address is also required and will not be publicly released. USAC does NOT send Worksheets to this address; all Worksheets must be filed using USAC's electronic filing system. Failure to receive a Worksheet from an administrator or the FCC does not relieve the filer from its obligation to file in a timely fashion.

Line 208 Billing Contact Information

Line 208 — Enter a billing contact person name and address for administrators to send billing information for contributions. An email address is also required and will not be publicly released. Information on establishing electronic fund transfer and bills for universal service, TRS, NANPA, or LNPA contributions will be sent to this address unless other arrangements are made via written request.

Line 208.1 — An FCC ITSP regulatory fee bill, if due, will be sent to the email address specified on Line 208.1. FCC inquiries regarding ITSP regulatory fees will also be sent to this email address. Carrier questions regarding ITSP regulatory fee bills should be directed to the FCC Financial Operations Help Desk, 877-480-3201.

Although a filer may or may not use the same contact information for Lines 207 and 208, it is the filer's responsibility to ensure that accurate information is provided on both lines. A filer will be responsible for any late fees, interest or penalties incurred as a result of its failure to provide accurate contact information on this form.

2. BLOCK 2-B: AGENT FOR SERVICE OF PROCESS

Section 413 of the Act requires each common carrier "to designate in writing an agent in the District of Columbia" upon whom all notices, process, orders, and decisions made by the Commission may be served on behalf of that carrier in any proceeding pending before the Commission. The Commission has also extended this requirement to interconnected and non-interconnected VoIP providers.⁴³ Carriers that hold international section 214 authorizations must designate a U.S. citizen or U.S. lawful permanent resident as their agent for service of process.⁴⁴

⁴³ 47 U.S.C. § 413; *see* 47 CFR § 1.47(h) (interconnected VoIP providers); *Contributions to the Telecommunications Relay Services Fund*, CG Docket No. 11-47, Report and Order, 26 FCC Rcd 14352, 14542, para. 21 (2011) (non-interconnected VoIP providers).

⁴⁴ 47 U.S.C. § 413; *see* 47 CFR § 1.47(h); *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, Report and Order, 35 FCC Rcd 10927, 10951-52, paras. 68-69, (2020) (*Executive Branch Process Reform Report and Order*).

Lines 209-218**Agent for Service of Process**

Carriers, interconnected VoIP providers, and non-interconnected VoIP providers must enter the company name, contact person name, business address, telephone or voicemail number, and, if available, fax number and email address for their designated D.C. Agent.

Carriers, interconnected VoIP providers, and non-interconnected VoIP providers *must* designate a *single* agent for service of process in D.C. for all Commission business. Service of any notice, process, orders, decisions, and requirements of the Commission may be made upon the filer by leaving a copy thereof with this designated agent during normal business hours at the agent's office or other usual place of residence.

In addition to this information, the filer may elect to provide a local or alternate agent for service of process located outside D.C. Filers other than carriers, interconnected VoIP providers, and non-interconnected VoIP providers need only report one agent for service of process, whether located inside D.C. or otherwise. Although the FCC Form 499-A permits carriers, interconnected VoIP providers, and non-interconnected VoIP providers to designate a preferred alternate or local agents for service of process, each designated agent for a particular carrier, interconnected VoIP provider or non-interconnected VoIP provider must accept service for all purposes relating to Commission business. A carrier, interconnected VoIP provider or non-interconnected VoIP provider may not limit a designated agent's ability to accept service on behalf of the carrier, interconnected VoIP provider or non-interconnected VoIP provider by subject matter, jurisdiction, affiliate or any other grounds. The Commission may assume that the local or alternate agent is the filer's preferred destination for all service of process.

New carriers and VoIP providers (including interconnected and non-interconnected) must identify an agent for service of process, must register with the FCC within 30 days of providing service, and all carriers or VoIP providers (including interconnected and non-interconnected) must notify USAC within one week if the contact information changes for their D.C. Agent. *See* Table 2 for more information.

3. BLOCK 2-C: FCC REGISTRATION INFORMATION

New telecommunications carriers and other telecommunications providers must register with the Commission when they begin to provide service. Carriers and other telecommunications providers must update registration information within one week of a material change. Registration information includes information reported in Blocks 1 and 2 of the Telecommunications Reporting Worksheet.

Lines 219-226**FCC Registration Information**

As explained above, virtually all carriers filing the FCC Form 499 are considered to be interstate carriers. They, along with interconnected and non-interconnected VoIP providers, must provide the names and business addresses of their Chief Executive Officer, Chairman, and President.

Refer to the following list for instructions for different types of providers:

- If the filer does not have one or more of these officers, then names should be supplied for the three most senior-level officers of the filer
- If the same person occupies more than one position, then names should be supplied for the three most senior-level officers of the filer
- If the filer is a sole proprietorship, list only one name
- If the filer is a partnership, list the managing partner on Line 221
- If the filer is owned by two partners, list the second partner on Line 223

- If there are three or more partners, list information for the managing partner and the two other partners with the greatest financial interest in the partnership

For purposes of this filing, an officer is an occupant of a position listed in the article of incorporation, articles of formation, or other similar legal document.

Line 227	Jurisdictions in Which Filer Provided/ Will Provide Service

Check those jurisdictions where the filer provided telecommunications service or interconnected VoIP service in the past 15 months, and any additional jurisdictions in which the filer expects to provide such services in the next 12 months. Identify jurisdictions where customers physically obtain service, and for switched services, identify jurisdictions where customers can originate calls. For services where the called party pays, however, also identify jurisdictions where calls terminate.⁴⁵ For example, an operator service provider that handled inmate calls originating in New Jersey and terminating collect in New Jersey, New York, and Pennsylvania would identify those three states as jurisdictions served.

Line 228	Year and Month that Filer First Provided/ Will Provide Service

Enter the year and month that the filer first provided telecommunications or interconnected VoIP service. If not yet providing either type of service, then the filer should indicate the year and month it expects to begin operations. If operations began prior to January 1, 1999, the filer may so indicate by using the check box rather than entering the specific date.

C. BLOCKS 3 AND 4-A: FILER REVENUE INFORMATION

Blocks 3 and 4-A of the Telecommunications Reporting Worksheet report revenue information for calendar year 2022.

For most filers, completing Lines 303–314 and 403–418 is a three-step process.

First, the filer must assign its gross billed revenues to reporting categories (generally, the rows on Form 499-A), which includes allocating revenues from bundled services between their telecommunications and non-telecommunications components. *See* Section IV.C.2.

Second, the filer must attribute telecommunications revenues derived from sales to contributing resellers (Block 3 on Form 499-A) or from sales to end users (Block 4 on Form 499-A). *See* Section IV.C.4.

Third, the filer must apportion its telecommunications revenues between the intrastate, interstate, and international jurisdictions (generally, the columns on the FCC Form 499-A). *See* Section IV.C.5.

1. FILER IDENTIFICATION

Line 301	499 Filer ID
Line 401	

Enter the Filer 499 ID from Line 101.

Line 302	Legal Name of Filer
Line 402	

Enter the legal name of the filer from Line 102.

2. GROSS BILLED REVENUES – GENERAL

Report gross billed revenues as directed.

⁴⁵ Both parties to a collect call are “consumers.” 47 C.F.R. § 64.708; *see* 47 C.F.R. § 64.710(b)(1).

- Note on Gross Earned Revenues Reporting. — Filers that maintain records in accordance with Generally Accepted Accounting Principles and that record revenues when earned instead of when billed, may use earned revenues to represent billed revenues as long as they do so consistently from reporting period to reporting period. These revenues should not include amounts that cannot be billed to customers. Filers using earned revenues to represent billed revenues need not impute earned revenue for redeemed credits if no earned revenue is recorded when credits are redeemed. To the extent that earned revenues are net of any uncollectible amounts, these uncollectible amounts must not be included on Line 421 or Line 422.

Gross billed revenues include:

- Revenues from all sources, including non-regulated telecommunications offerings, information services, and other non-telecommunications services.
- Total revenues billed to customers during the filing period with no allowances for uncollectibles, settlements, or out-of-period adjustments.
- Gross billed revenues include:
 - Account set-up
 - Connection
 - Service restoration
 - Termination
 - Revenues derived from the activation and provision of interstate, international, and intrastate telecommunications and non-telecommunications services
 - Collection overages and unclaimed refunds for telecommunications and telecommunications services when not subject to escheats
 - Surcharges on telecommunications services or interconnected VoIP services that are billed to the customer and either retained by the filer or remitted to a non-government third party under contract
 - Any other non-recurring charges.

These charges should be reported on the same line that the filer reports any associated recurring revenue.

Gross billed revenues do NOT include:

- Deposits
- Amounts that cannot be billed to customers and may be distinct from booked revenues
- Taxes
- Surcharges that are not recorded on the company books as revenues and are remitted to government bodies
 - BUT any charge on a customer bill represented to recover or collect contributions to federal and state universal service support mechanisms must be shown separately on Line 403.

Special cases:

- National Exchange Carrier Association (NECA) pool companies should report the actual gross billed revenues (CABS Revenues) reported to the NECA pool and not settlement revenues received from the pool.
- Entities making consolidated filings must include in their FCC Form 499 Filings all revenue on the consolidated books of account.

- Credits should not be deducted from billed revenues when the credit is issued. Instead, filers should include redeemed credits with uncollectible amounts reported on Line 421 and Line 422.
- Mergers and acquisitions: When two filers merge, the successor company should report total revenues for the reporting period for all predecessor operations, unless the filers maintain separate corporate identities and both continue to operate. In that special case, each filer should continue to report its revenues separately.⁴⁶ Where an entity obtains, by any means whatsoever, the telecommunications operations or customer base of a filer, and the acquired company does not file its own FCC Form 499-A, the acquiring company must report all telecommunications revenues associated with such operations or customer base including revenues billed in the calendar year prior to the date of acquisition.
- International Services: For international services, gross billed revenues consist of gross revenues billed by U.S. telecommunications providers with no allowances for settlement or settlement-like payments. International settlement and settlement-like receipts for foreign-billed service should not be included in U.S. telecommunications revenues, but should be reported on Line 418.⁴⁷ Note that if the filer receives the foreign-bound traffic in the United States, then it is providing ordinary international service from the United States to a foreign point; receipts from the originating carrier should be reported as revenue on Line 414.
 - Revenue from circuits within the United States that connect a customer to an international circuit should be reported as interstate. Revenue from circuits that connect two foreign points should be reported on Line 418.
 - Reporting of international revenues should be consistent with the definitions provided in Appendix C below.⁴⁸

3. APPORTIONING REVENUES AMONG REPORTING CATEGORIES

a. General Information

Good-faith estimates

If revenue category breakout cannot be determined directly from corporate books of account or subsidiary records, filers may provide on the Worksheet a good-faith estimate of the breakout.

- Good-faith estimates should be based on information that is current for the filing period.
- Filers should maintain documentation for good-faith estimates and entities may not simply report all revenues on one of the “other revenue” lines.

Column (a) required

Filers with any revenues for Lines 303–314 and 403–420 may not omit the dollar amounts from column (a), even if all of the revenues are for interstate or international services.

Block 3 vs. Block 4 revenues

⁴⁶ See Section III.C.

⁴⁷ For example, if a filer receives payment from a foreign carrier for traffic that the filer receives outside of the United States, brings into the United States, and then reoriginates and carries to a foreign point, the filer would not include those settlement-like payments as revenues on Line 414 of the FCC Form 499-A. Instead, those amounts would be reported on Line 418.

⁴⁸ The definitions in Appendix C were derived from the 2016 Filing Manual for Section 43.62 Annual Reports, consistent with past FCC Form 499 filing requirements.

Filers may report revenues from contributing resellers (i.e., universal service contributors) on Lines 303 through 314 and must report all other revenues on Lines 403 through 418. *See* Section IV.C.4 for additional information on reporting revenues from resellers.

- In many cases, the line-item categories are duplicated in Block 3 and Block 4.
- *Intercarrier compensation and universal service support:* The following categories of revenues are not end-user revenue and are reported in Block 3. For these revenue items, the filer is not required to retain Filer 499 ID information or verify that the customer is a reseller.

Category of Revenue	Report on
Per-minute switched access charges and reciprocal compensation	Line 304
Revenues received from carriers as payphone compensation for originating toll calls	Line 306
Charges for physical collocation of equipment pursuant to 47 U.S.C. § 251(c)(6)	Line 307
Revenues that filers receive as universal service and other similar support from either states or the federal government	Line 308
Revenues received from another U.S. carrier for roaming service provided to customers of that carrier	Line 309

- *Carriers required to use the USOA:* Carriers that are required to use the Uniform System of Accounts (USOA) prescribed in Part 32 of the Commission's rules should base their responses on their USOA account data and supplemental records, dividing revenues into those received from universal service contributors and those received from end users and other non-contributors.⁴⁹
- *Certain international switched service revenues:* An underlying carrier also may include as carrier's carrier revenues any international switched service revenues received from another U.S. reselling carrier where that reselling carrier is using the underlying carrier's service to reoriginate the foreign-billed traffic of a foreign telephone operator. In this case, the reselling carrier must certify to the underlying carrier that it is using the resold international switched service to handle traffic that both originates and terminates in foreign points.

All filers should report revenues based on the following descriptions.

⁴⁹ *See* section IV.C.4.

b. Fixed local service revenue categories

Fixed local services connect a specific point to one or more other points. These services can be provided using either wireline, fixed wireless, or interconnected VoIP technologies and can be used for local exchange service, private communications, or access to toll services.

Line 303 (Carrier's carrier)	Monthly service, local calling including message and local toll charges, connection charges, vertical features, and other local exchange services
Line 404 (End user)	

Lines 303 and 404 should include the basic local service revenues, except for:

- local private line revenues (reported on Lines 305 and 406);
- business data services revenues (reported on Lines 305 and 406);
- revenues from providing mobile or cellular services (reported on lines 309, 409, and 410);
- subscriber line charges levied under a tariff filed by the filer or placed on customer bills as a pass-through of underlying carrier subscriber line charges (reported on line 405).

Lines 303 and 404 should include charges for:

- optional extended area service;
- dialing features;
- local directory assistance;
- added exchange services such as automatic number identification (ANI) or teleconferencing;
- LNP surcharges;
 - Revenues from federally tariffed LNP surcharges should be reported on Line 404, and should be identified as interstate revenues.
- connection charges;
- charges for connecting with mobile service; and
- local exchange revenue settlements.

Interconnected VoIP providers not reporting based on the safe harbor that bundle fixed local exchange service with interstate toll services at a unitary price must determine the appropriate portion of revenues to allocate to interstate and international toll service, in a manner that is consistent with their supporting books of account and records.

Filers should break out Line 303/404 revenues as follows:

Carrier's Carrier Revenue

Line 303.1	Revenues for services provided to carriers as unbundled network elements (UNEs).
Line 303.2	Revenues for services provided to carriers under tariffs or arrangements other than unbundled network elements (for example, resale). Line 303.2 should also include Presubscribed Interexchange Carrier Charge (PICC) charges levied on carriers.

End-User Revenue

Line 404.1	Local service portion of revenues from local exchange service plans (other than interconnected VoIP plans) that include interstate calling as part of the flat monthly fee.
Line 404.2	Toll portion of revenues from local exchange service plans (other than interconnected VoIP plans) that include interstate calling as part of the flat monthly fee. (Note: if the revenue from the toll portion of such service is attributed to an affiliate, that affiliate must report such revenues on Line 404.2, not on Line 414).
Line 404.3	Revenues from local exchange services plans (other than interconnected VoIP plans) that do not include interstate calling.
Line 404.4	Revenues from local service provided via interconnected VoIP service offered in conjunction with a broadband connection.
Line 404.5	Revenues from local service provided via interconnected VoIP service offered independent of the broadband connection. ⁵⁰

Line 404 should not include subscriber line charges levied under a tariff filed by the filer or placed on customer bills as a pass-through of underlying carrier subscriber line charges. Filers should instead report such revenues on line 405. Note that federal subscriber line charges typically represent the interstate portion of fixed local exchange service; these amounts are separate from toll revenues and correspond to the revenues received by incumbent telephone companies to recover part of the cost of networks that allow customers to originate and terminate interstate calls. Incumbent LEC filers without subscriber line charge revenue must identify the interstate portion of fixed local exchange service revenues in column (d) of the appropriate line 404.1–404.5.⁵¹ Line 404.1–404.5 should, however, include revenues from federally tariffed LNP surcharges, which should be identified as interstate revenues.

Line 304	Per-minute charges for originating or terminating calls

This line includes:

- Per-minute charges for originating or terminating calls, including charges related to originating or terminating VoIP-PSTN traffic.⁵²

⁵⁰ Bundled offerings include those offered directly by the filer and those offered by the filer through an affiliate.

⁵¹ See *Universal Service Contribution Methodology; Request for Review of Decision of the Universal Service Administrator by Mark Twain Telephone Company*, WC Docket Nos. 10-90, 06-122, Order, DA 22-757, at para. 18 & n.62 (WCB July 15, 2022).

⁵² See *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, 18005-08, paras. 940-42 (2011) (*USF/ICC Transformation Order*), *aff'd, sub nom.* In re: FCC 11-161, 753 F.3d 1015 (10th Cir. 2014) (setting forth default intercarrier compensation rates for VoIP-PSTN traffic); *Connect America Fund et al.*, WC Docket No. 10-90 *et al.*, Second Order on Reconsideration, 27 FCC Rcd 4648, 4659-4663, paras. 30-35 (2012) (the Commission allowed local exchange carriers (LECs) to tariff default rates equal to their intrastate originating access rates for originating intrastate toll VoIP traffic until June 30, 2014, after which time LECs are to tariff default rates for such traffic equal to their interstate originating access rates).

- Revenues to the local exchange carrier for messages between a cellular customer and another station within the mobile service area.
- Any other gross charges to other carriers for the origination or termination of toll or non-toll traffic.
- Direct trunk transport, port charges, mileage charges and rearrangement charges that are normally treated as access charge revenues.⁵³

Do not deduct or net payments to carriers for origination or termination of traffic on their networks.

This line does not include:

- International settlement or settlement-like receipts or transiting fees from international toll services.

Filers should break out Line 304 revenues as follows:

Line 304.1	Revenues for originating and terminating minutes provided <u>under state or federal access tariffs.</u>
Line 304.2	Revenues for originating and terminating minutes provided <u>as unbundled network elements or other contract arrangements.</u>

Line 405	Tariffed subscriber line charges, Access Recovery Charges, and PICC charges levied by a local exchange carrier on a no-PIC customer

Line 405 should include charges to end users specified in access tariffs, such as tariffed subscriber line charges (SLCs), Access Recovery Charges (ARCs),⁵⁴ and Primary Interexchange Carrier Charges (PICCs) levied by a local exchange carrier on customers that are not presubscribed to an interexchange carrier (i.e., a no-PIC customer). Note that federal SLCs are separate from toll revenues.

Line 405 should not include charges to end users for business data services (which are reported on Line 406).

The Commission does not regulate how non-incumbent LECs recover the costs of the local loop, nor does it require non-incumbents to assess a non-traffic sensitive charge for the costs of providing interstate or interstate access service from their customers through a separately stated end user charge. To the extent non-incumbent contributors choose to assess a separately stated charge for the interstate portion of fixed local exchange service or interstate exchange access, they should report such revenues on Line 405 and allocate those revenues to the interstate jurisdiction, for USF contribution reporting purposes, in a manner that is consistent with their supporting books of account and records.⁵⁵

⁵³ 47 CFR Part 69.

⁵⁴ The Commission allowed incumbent LECs to assess an ARC on certain wireline telephone customers, a rule adopted as part of comprehensive intercarrier compensation reform. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17956-17961, 17987-17994, paras. 847-853, 905-916. The ARC is tariffed separately from the SLC; however, the Commission permitted carriers to combine the ARC and SLC as a single line item on a customer bill. *Id.*, 26 FCC Rcd at 17958, para. 852. For purposes of reporting revenues on Line 405, incumbent LECs should include all revenues collected from ARCs.

⁵⁵ For example, to the extent that a contributor's tariff filing (or equivalent) indicates that a non-traffic sensitive charge is for interstate access, then revenues for such charge (or a portion thereof) must be allocated to interstate revenues for USF reporting purposes.

Telecommunications providers that do not have SLC, ARC or PICC tariffs on file with the Commission or with a state utility commission, that are not reselling such tariffed charges, or that do not have separately stated charges for the interstate portion of fixed local exchange service or interstate exchange access should report \$0 on Line 405.

Line 305 (Carrier's Carrier) Local Private Line and Business Data Service Line 406 (End User)

Line 406 should include:

- Revenues from providing local services that involve dedicated circuits, private switching arrangements, digital subscriber lines, and/or predefined transmission paths, including those services that provide dedicated point-to-point transmission of data at certain guaranteed speeds and service levels using high-capacity connections.
- Revenues from special access lines resold to end users unless the service is bundled with and charged as part of a toll service, in which case the revenues should be reported on the appropriate toll service line.
- Revenues from offering dedicated capacity between specified points even if the service is provided over local area switched, multi-protocol label switching (MPLS), asynchronous transfer mode (ATM), or frame relay networks.
- Revenue from broadband transmission service, including consumer broadband-only loop service, voluntarily provided on a common carrier basis to providers of retail broadband Internet access except as set forth below. This provision does not include revenue from broadband transmission service offered on a common-carrier basis by rate-of-return carriers that are exempt from the contribution obligations on those services pursuant to Commission order.⁵⁶
- Filers should report on Line 406 revenues derived from the sale of special access service on a common carrier basis to providers of retail broadband Internet access service.⁵⁷
- All other revenues from local private line service and business data service billed to end users must be reported on Line 406.
- Mixed-use private or WATS lines: If over ten percent of the traffic carried over a private or WATS line is interstate, then the revenues and costs generated by the entire line are classified as interstate and must be reported.⁵⁸

Line 418 should include:

- Revenues from the provision of broadband transmission service offered on a non-common-carrier basis to providers of broadband Internet access or

⁵⁶ See *Petition of NTCA – The Rural Broadband Association and the United States Telecom Association for Forbearance Pursuant to 47 U.S.C. § 160(c) from the Application of Contribution Obligations on Broadband Internet Access Transmission Services*, WC Docket No. 17-206, Order, FCC 18-75 (rel. June 8, 2018) (*Rate-of-Return Forbearance Order*).

⁵⁷ See *Universal Contribution Methodology, Application for Review of Decision of the Wireline Competition Bureau filed by Global Crossing Bandwidth, Inc., et al.*, WC Docket No. 06-122, Order, 27 FCC Rcd 13780, 13797, para. 39 n.109 (2012) (*2012 Wholesaler-Reseller Clarification Order*); *Wireline Broadband Internet Access Services Order*, 20 FCC Rcd at 14915-16, paras. 112-113 & n.357; *2006 Contribution Methodology Reform Order*, 21 FCC Rcd at 7549, para. 62 n.206.

⁵⁸ See *Universal Service Order*, 12 FCC Rcd at 9173, para. 778 (citing 47 CFR § 36.154(a)).

- Revenues from the provision of broadband transmission service offered on a common-carrier basis by rate-of-return carriers that are exempt from contribution obligations on those services pursuant to Commission order.⁵⁹

Amounts reported on Line 305 should be divided between:

Line 305.1	Revenues for service provided to contributing resellers for resale as telecommunications.
Line 305.2	Revenues for service provided to contributing resellers for resale as interconnected VoIP. Revenue should not include interconnected VoIP service provided by the Filer and resold as interconnected VoIP service by reseller customers of the Filer; however, it should include private line/business data service provided by the Filer and resold as interconnected VoIP service by reseller customers of the Filer.

Line 306 (Carrier's Carrier) Payphone Revenues Line 407 (End User)

Line 306 should include revenues received from carriers as payphone compensation for originating toll calls.

Line 407 should include revenues received from customers paid directly to the payphone service provider, including all coin-in-the-box revenues. Do not deduct commission payments to premises' owners.

Line 307 (Carrier's Carrier) Other Local Telecommunications Service Revenues Line 408 (End User)

Include local telecommunications service revenues that reasonably would not be included with one of the other fixed local service revenue categories. Report any revenues from offering switched capacity on local area data networks such as ATM or frame relay networks.

Line 307 should include charges for physical collocation of equipment pursuant to 47 U.S.C. § 251(c)(6).

Line 308 Universal Service and Similar Support Amounts Received from Federal or State Government Sources

- Universal service support revenues may include:
- Any amounts that filers receive as universal service support from either states or the federal government.
 - Filers may include the following as revenues on Line 308:
 - Lifeline and Link Up reimbursement from the Fund;
 - High Cost universal service support from the Fund;
 - Subsidy amounts for discounted services provided to schools, libraries, and rural healthcare providers. This includes (1) revenue received directly from the Fund and (2) revenue received from a school, library, or rural healthcare provider to

⁵⁹ *Rate-of-Return Forbearance Order.*

the extent such revenue is attributable to universal service subsidy amounts paid to the school, library, or rural healthcare provider.

- Include amounts received as cash as well as amounts received as credit against contribution obligations.
- Amounts received from the **federal** USF support mechanism should be attributed as either interstate or international revenues, as appropriate.
- Any non-universal service support amounts that filers receive as support from either the states or federal government.
 - Filers may include as revenues on Line 308:
 - Subsidy amounts from the Emergency Connectivity Fund, Emergency Broadband Benefit Program, and the COVID-19 Telehealth Program.

Do not include:

- Any amounts charged to customers to recover universal service or similar contributions.
- Any amounts schools, libraries, and rural health-care providers pay for the non-discounted portion of services. Such charges are properly reported as end user revenue.
- Any amounts end users pay for non-discounted portion of services. Such charges are properly reported as end user revenue.

c. Mobile service categories

Mobile services are wireless communications between mobile wireless equipment, such as cellular phones and other points.

Line 309 (Carrier's Carrier) Mobile Services Line 409 and 410 (End User)

Data reported on these lines should contain mobile service revenues, except:

- Toll charges to mobile service customers
 - Itemized toll charges to mobile service customers should be included in Lines 413 or 414, as appropriate.
- Charges associated with customer premises equipment
 - Itemized charges for customer premises equipment should be included in Line 418.3.
- Roaming charges for service provided by foreign carriers operating in foreign points. These charges are not U.S. telecommunications revenues and therefore should be reported on Line 418.

Filers should break out Line 309/409/410 revenues as follows:

Line 309	Revenues for all mobile service provided to contributing resellers, including revenues received from another U.S carrier for roaming service, whether or not it includes toll charges, provided to customers of that carrier.

Line 409 Revenues for mobile service provided to end users, including monthly charges, activation fees, service restoration, and service order processing charges, etc. End-user prepaid wireless service revenues attributable to activation and daily or monthly access charges should be reported on Line 409.

Line 410 Revenues for mobile service provided to end users, including any roaming charges assessed on customers for calls placed out of customers' home areas and local directory assistance charges. Revenues received from a foreign carrier for roaming services provided in the U.S. to customers of that carrier. End-user prepaid wireless service revenues attributable to airtime should be reported on Line 410.

d. Toll service revenue categories

Toll services are telecommunications services, wireline, wireless, or interconnected VoIP services, that enable customers to communicate outside of local exchange calling areas. Toll service revenues include intrastate, interstate, and international long-distance services.

For wireless providers, toll services are telecommunications services that enable customers to communicate outside the customer's plan-defined home calling area.⁶⁰ The term "home calling area" is used generally by wireless carriers to denote the plan-defined area in which a subscriber may make calls and incur no additional charges beyond the plan-specific per month charge, assuming the subscriber does not exceed the plan allotted minutes.⁶¹

Line 411	Prepaid Calling Cards

Include:

- Revenues from prepaid calling cards provided either to customers, distributors, or to retail establishments.
- Prepaid service where the customer utilizes the service provider's switching platform and a personal identification number (PIN) for purposes of verification and billing, even if the customer does not receive a physical card.⁶²

Gross billed revenues should represent the amounts actually paid by end user customers and not the amounts paid by distributors or retailers, and should not be reduced or adjusted for discounts provided to distributors or retail establishments. All prepaid card revenues are classified as end-user revenues. For purposes of completing this Worksheet, prepaid card revenues should be recognized when end-user customers purchase the cards.

Line 310 (Carrier's carrier)	Operator and toll calls with alternative billing arrangements
Line 413 (End User)	

Operator and toll calls with alternative billing arrangements should include:

- All calling card or credit card calls, person-to-person calls, and calls with alternative billing arrangements such as third-number billing, collect calls, and country-direct type calls that either originate or terminate in a U.S. point
- All charges from toll or long-distance directory assistance
- Revenues from all calls placed from all coin and coinless, public and semi-public, accommodation and prison telephones, except that:

⁶⁰ See *Universal Service Contribution Methodology, Petition for Declaratory Ruling of CTIA – The Wireless Association on Universal Service Contribution Obligations, Petition for Declaratory Ruling of Cingular Wireless, LLC*, WC Docket No. 06-122, Declaratory Order, 23 FCC Rcd 1411, 1414, para. 5 (2008) (*Separately Stated Toll Order*).

⁶¹ *Id.* at 1415, para. 7, n.28.

⁶² See *AT&T Corp. Petition for Declaratory Ruling Regarding Enhanced Prepaid Calling Card Services; Regulation of Prepaid Calling Card Services*, WC Docket Nos. 03-133, 05-68, Order and Notice of Proposed Rulemaking, 20 FCC Rcd 4826, 4827-4827, para. 3 (2005) (*AT&T Prepaid Calling Card Services Declaratory Ruling*); see also *Universal Service Contribution Methodology; Request for Review of Decision of the Universal Service Administrator by Network Enhanced Telecom, LLP*, WC Docket No. 06-122, Order, 25 FCC Rcd 14533, 14538-39, paras. 12-13 (Wireline Comp. Bur. 2010) (*Network IP Order*), *petition for partial reconsideration denied, Request for Review of a Decision of the Universal Service Administrator by Network Enhanced Telecom, LLP*, WC Docket No. 06-122, Order on Reconsideration, 26 FCC Rcd 6169 (Wireline Comp. Bur. 2011).

- Calls that are paid for via prepaid calling cards should be included on Line 411.
- Calls paid for by coins deposited in the phone should be included on Line 407.

Line 412	International Calls that Originate and Terminate in Foreign Points

International calls that traverse the United States but both originate and terminate in foreign points (“traditional transiting traffic” revenues) are excluded from the universal service contribution base.

- Carrier’s carrier (reseller) transit revenues should be reported on Line 311.
- End-user transit revenues should be segregated from other toll revenues by showing them on Line 412.

Telecommunications providers should only include traditional transiting revenues and should not report international settlement revenues from traditional settlement transiting traffic on the Worksheet

Line 311 (Carrier’s carrier)	Ordinary Long Distance
Line 414 (End User)	

Filers should report ordinary long distance revenues on these lines, including:

- Revenues from most toll calls placed for a fee
- Flat monthly charges billed to customers, such as account maintenance charges, PICC pass-through charges, and monthly minimums
- Ordinary message telephone service (MTS), WATS, subscriber toll-free, 900, “WATS-like,” and similar switched services
- Separately stated toll revenue from wireline, wireless, and interconnected VoIP services.⁶³

Do not include:

- Revenues for the toll portion of flat rated local service (other than interconnected VoIP service), regardless of whether this portion of revenue is reported by a local exchange carrier or by its toll affiliate. Report such revenues on Line 404.2.
- Revenue for the toll portion of flat rated interconnected VoIP local service. Report such revenues on Line 404.4 or Line 404.5, as appropriate.

Ordinary long distance revenues should be reported as follows:

Line 311	Ordinary long distance and long distance using interconnected VoIP provided to contributing resellers.
Line 414.1	Ordinary long distance provided to end users using technologies other than interconnected VoIP, including toll service that employs Internet Protocol but that is not provided on an interconnected VoIP basis. ⁶⁴
Line 414.2	Separately billed revenue for ordinary long distance provided to end users using interconnected VoIP.

Line 312 (Carrier’s Carrier)	Long Distance Private Line Services

⁶³ See 2006 Contribution Methodology Reform Order, 21 FCC Rcd at 7534, para. 29.

⁶⁴ See Petition for Declaratory Ruling that AT&T’s Phone-to-Phone IP Telephony Services are Exempt from Access Charges, WC Docket No. 02-361, Order, 19 FCC Rcd 7457 (2004) (AT&T IP-in-the-Middle Order).

Line 415 (End User)

Long distance private line service should include:

- Revenues from dedicated circuits, private switching arrangements, and/or predefined transmission paths, extending beyond the basic service area.
- Frame relay and similar services where the customer is provided a dedicated amount of capacity between points in different basic service areas.
- Revenues from the resale of business data services if they are included as part of a toll private line service.

For international private line services, U.S. providers must report on Line 415 or Line 312, as appropriate, revenues from the U.S. portion of the circuit to the theoretical midpoint of the circuit regardless of whether such revenues were billed to the customer by the reporting carrier or by a partner carrier in a foreign point.

Line 313 (Carrier's carrier) Satellite Services
Line 416 (End User)

Include:

- Revenues from providing space segment service and earth station link-up capacity used for providing telecommunications or telecommunications services via satellite.

Do not include:

- Revenues derived from the lease of bare transponder capacity.

Line 314 (Carrier's carrier) All Other Long-Distance Services
Line 417 (End User)

Include:

- All other revenues from providing long distance communications services.
- Toll teleconferencing.⁶⁵
- Switched data, frame relay and similar services where the customer is provided a toll network service rather than dedicated capacity between two points.

⁶⁵ Audio bridging service providers should report all audio bridging revenues as telecommunications revenues. *See Intercall Order*, 23 FCC Rcd at 10734, 10739, paras. 8, 25 - 26.

e. **Other revenue categories**

Line 403	Surcharges or other amounts on bills identified as recovering State or Federal universal service contributions

Itemized charges levied by the filer in order to recover contributions to state and federal universal service support mechanisms should be classified as end-user billed revenues and should be reported on Line 403.

- Any charge identified on a bill as recovering contributions to federal universal service support mechanisms must be shown on Line 403 and should be identified as either interstate or international revenues, as appropriate. Amounts billed to customers to recover federal universal service contribution obligations should be attributed as either interstate or international revenues, as appropriate, but may not be reported as intrastate revenues.
- Any charge identified on a bill as recovering contributions to state universal service support mechanisms must be shown on Line 403 and included in column (a) in the total.
- Filers should report intrastate revenues on line 403 only to the extent that actual payments to state universal service programs were recovered by pass-through charges itemized on customer bills.

Line 418	Other revenues that should not be reported in the contribution bases Non-interconnected VoIP revenues (TRS only)

Line 418 should include all non-telecommunications service revenues on the filer's books, including non-telecommunications service revenues received from contributing resellers, as well as some revenues that are derived from telecommunications-related functions, but that should not be included in the universal service or other fund contribution bases. Line 418.4 should include non-interconnected VoIP revenues, which are included in the TRS contribution base only.

Line 418 includes revenues from:

- Information services.
 - Information services offering a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications are not included in the universal service or other fund contribution bases. For example, wireless text messaging services including Short Message Service (SMS) and Multimedia Messaging Service (MMS), voice mail, call moderation, and call transcription services are information services. Information services do not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.
- The provision of broadband transmission offered on a non-common-carrier basis to providers of broadband Internet access
- The provision of broadband transmission service offered on a common-carrier basis by rate-of-return carriers that are exempt from contribution obligations on those services pursuant to Commission order
- The provision of broadband Internet access
- Published directory services
- Billing and collection services
- Inside wiring
- Inside wiring maintenance insurance

- Pole attachments
- Open video systems (OVS)
- Cable leased access
- Cable service
- Direct broadcast satellite (DBS) service
- The sale, lease, installation, maintenance, or insurance of customer premises equipment (CPE)
- The sale or lease of transmission facilities, such as dark fiber or bare transponder capacity, that are not provided as part of a telecommunications service or as a UNE.
- Late payment charges
- Charges imposed by the filer for customer checks returned for non-payment
- Revenues from telecommunications provided in a foreign country where the traffic does not transit the United States or where the provider is offering service as a foreign carrier, i.e., a carrier licensed in that country.

Revenue reported on Line 418 should be divided into four categories:

Line 418.1	Revenues from other non-telecommunications goods or services that are bundled with U.S. wireline or wireless circuit switched exchange access services.
Line 418.2	Revenues from other non-telecommunications goods or services that are bundled with U.S. interconnected VoIP service.
Line 418.3	All other revenues properly reported on line 418 except those reported in Lines 418.1, 418.2, and 418.4, including broadband Internet access service subject to forbearance and broadband transmission service provided on a non-common carrier basis to a broadband Internet access provider.
Line 418.4	Revenues from non-interconnected VoIP services sold to end users that are not otherwise includable on Lines 403 to 417. Non-interconnected VoIP service is defined in Appendix B, under non-interconnected VoIP service provider. ⁶⁶

⁶⁶ For TRS purposes, “providers of non-interconnected VoIP services that are offered with other (non-VoIP) services that generate end-user revenues [are required] to allocate a portion of those end-user revenues to the non-interconnected VoIP service in two circumstances: (1) when those providers also offer the non-interconnected VoIP service on a stand-alone basis for a fee; or (2) when those providers also offer the other (non-VoIP) services without the non-interconnected VoIP service feature at a different (discounted) price.” *See 2011 TRS Contributions Order*, 26 FCC Rcd at 14538-39, para. 15. For example, a video gaming service may integrate chat functions that utilize non-interconnected VoIP services, but use of such functions may not be readily identifiable or separable from the gaming service components. *Id.* at 14538-41, paras. 15-17.

f. Reporting revenues from bundled offerings

Allocation of revenues between either wireline or interconnected VoIP telecommunications and bundled non-telecommunications, such as information services and consumer premises equipment (CPE), are governed by the Commission's bundling rules.

The Commission adopted two safe harbor methods for allocating revenue when telecommunications services and CPE/enhanced services are offered as a bundled package.

- The first option is to report revenues from bundled telecommunications and CPE/enhanced service offerings based on the unbundled service offering prices, with no discount from the bundled offering being allocated to telecommunications services.
- Alternatively, filers may elect to treat all bundled revenues as telecommunications service revenues for purposes of determining their universal service obligations.

Filers may choose to use allocation methods other than the two described above. Filers should realize, however, that any other allocation method may not be considered reasonable and will be evaluated on a case-by-case basis in an audit or enforcement context.

Prepaid calling card providers may avail themselves of the bundled service safe harbors for separating revenue between telecommunications and information services.⁶⁷

Similarly, providers of non-interconnected VoIP services that are offered with end-user revenue generating (non-VoIP) services may avail themselves of the bundled service safe harbors for allocating revenue.⁶⁸

g. Notes for carriers that use the USOA

The revenue accounts in the USOA generally correspond to specific revenue lines in Block 3 and Block 4.

- For example, revenue amounts recorded in accounts 5001, 5002, 5050, 5060 and 5069 should be reported on Line 303 or Line 404, as appropriate.
- Similarly, revenues recorded in account 5280 should be reported on Line 407.

There are some exceptions.

- For example, local exchange carrier revenues from mobile carriers for calls between wireless and wireline customers should be reported on Line 304.
- Monthly and connection revenues from mobile services provided to end users in account 5004 should be reported on Line 409.
- Per-minute revenues from end users in account 5004 should be reported on Line 410. However, revenues in account 5004 from exchanging traffic with mobile service carriers should be reported on Line 304.

⁶⁷ *Policy and Rules Concerning the Interstate, Interexchange Marketplace; Implementation of Section 254(g) of the Communications Act of 1934, as Amended; 1998 Biennial Regulatory Review—Review of Customer Premises Equipment and Enhanced Services Unbundling Rules in the Interexchange, Exchange Access and Local Exchange Markets*, CC Docket Nos. 96-61, 98-183, Report and Order, 16 FCC Rcd 7418, 7446-48, paras. 47-54 (2001); *see Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling, Report and Order, 21 FCC Rcd 7290, 7298, para. 22 (2006) (*Prepaid Calling Card Services Order*), *vacated in part*, *Qwest Servs. Corp. v. FCC*, 509 F.3d 531 (D.C. Cir. 2007).

⁶⁸ *See 2011 TRS Contributions Order*, 26 FCC Rcd at 14538-41, paras. 15-17.

- Similarly, state per-minute access revenues recorded in account 5084 should be reported on Line 304; state special access revenues recorded in account 5084 should be reported on Line 305 and Line 406, as appropriate; and state subscriber line charge revenues recorded in account 5084 should be reported on Line 405.
- Uncollectible revenue recorded in account 5300 should be reported on Line 421. The portion of these revenues that correspond to contribution base revenues should be reported on Line 422.

Revenues classified in account 5200, miscellaneous revenues, should be divided into several lines for reporting purposes.

- For example, account 5200 includes revenues derived from unbundled network elements, which should be reported on Line 303 and, reciprocal compensation, which should be reported on Line 304.
- Some types of incidental regulated revenues contained in account 5200, miscellaneous revenues, will continue to be reported on Lines 403 through 408. These include collection overages and non-refundable prepaid amounts that are not used by the customer.
- Note that late payment charges, bad check penalties imposed by the company, enhanced services, billing and collection, customer premises equipment sale, lease or insurance, and published directory revenues should continue to be reported on Line 418.

Revenues recorded in account 5100, long distance network service revenues, should be reported on Line 310 through Line 314 and Line 411 through Line 417, as appropriate.

Revenues from account 5100, long distance message revenues, are normally revenues from ordinary long distance and other switched toll services and should be reported on Lines 311, 414.1, and 414.2 except for amounts properly reported on Lines 310, 407, 411, 412, and 413.

4. ATTRIBUTING REVENUES FROM CONTRIBUTING RESELLERS AND FROM END USERS

Filers must report revenues using two broad categories: (1) revenues reported in Block 3 (revenues from contributing resellers, intercarrier compensation, and universal service support) and (2) revenues reported in Block 4 (revenues from all other sources). Taken together, these revenues should include all revenues billed to customers and should include all revenues on the filers' books of account.

Except as noted below, most categories of revenues require the filer to determine whether the customer purchasing the telecommunications is a contributing reseller or instead an end user.⁶⁹ Revenues from services provided by underlying carriers to other entities that meet the definition of "reseller" (*see below*) are referred to herein as "carrier's carrier revenues" or "revenues from resellers." Revenues from all other sources consist primarily of revenues from services provided to end users, referred to here as "end-user revenues." This latter category includes foreign and non-telecommunications revenues.

⁶⁹ See 2012 *Wholesaler-Reseller Clarification Order*, 27 FCC Rcd at 13786-87, para. 12; *Changes to the Board of Directors of the National Exchange Carrier Association, Inc.*; *Federal-State Joint Board on Universal Service*, CC Docket Nos. 96-45, 97-21, Report and Order and Second Order on Reconsideration, 12 FCC Rcd 18400, 18507 (1997) ("For this purpose, a reseller is a telecommunications service provider that 1) incorporates purchased telecommunications services into its own offerings and 2) can reasonably be expected to contribute to support universal service based on revenues from those offerings"); *Federal-State Joint Board on Universal Service; Request for Review of Decision of the Universal Service Administrator by Global Crossing Bandwidth, Inc.*, CC Docket No. 96-45, Order, 24 FCC Rcd 10824, 10825-26, para. 5 (Wireline Comp. Bur. 2009) (*Global Crossing Order*).

a. Definition of “Reseller”

For purposes of completing Block 3, a “reseller” is a telecommunications carrier or telecommunications provider that: (1) incorporates purchased telecommunications into its own offerings; *and* (2) can reasonably be expected to contribute to federal universal service support mechanisms based on revenues from those offerings.⁷⁰ Specifically, a customer is a reseller if it incorporates purchased wholesale service into an offering that is, at least in part, assessable telecommunications and can be reasonably expected to contribute to the federal universal service support mechanisms for that portion of the offering.⁷¹

b. Revenues from Entities Exempt from USF Contributions

For the purposes of filling out this Worksheet—and for calculating contributions to the universal service support mechanisms—certain telecommunications carriers and other providers of telecommunications may be exempt from contribution to the universal service support mechanisms.

- These exempt entities, including “international only” and “intrastate only” providers and providers that meet the *de minimis* universal service threshold, should not be treated as contributing resellers for the purpose of reporting revenues in Block 3.
- That is, filers that are underlying carriers should report revenues derived from the provision of telecommunications to exempt carriers and providers (including services provided to entities that are *de minimis* for universal service purposes) on Lines 403–417 of Block 4 of the Telecommunications Reporting Worksheet, as appropriate.
 - Underlying carriers must contribute to the universal service support mechanisms on the basis of such revenues.
 - In Block 5, Line 511, however, filers may elect to report the amounts of such revenues (i.e., those revenues from exempt entities that are reported as end-user revenues) so that these revenues may be excluded for purposes of calculating contributions to TRS, LNPA, and NANPA.

c. “Reasonable Expectation” Standard

Pursuant to the *2012 Wholesaler-Reseller Clarification Order*, a filer may demonstrate that it has a “reasonable expectation” that a customer contributes to federal universal service support mechanisms based on revenues from the customer’s offerings by following the guidance in these instructions or by submitting other reliable proof.⁷²

Filers that comply with the procedures specified in this section of the instructions will be afforded a “safe harbor”—i.e., that filer will be deemed to have demonstrated a reasonable expectation. If a wholesale provider follows procedures that deviate in any way from the guidance in this section, the wholesale provider will have to demonstrate a reasonable expectation via “other reliable proof.”⁷³ USAC shall

⁷⁰ *2012 Wholesaler-Reseller Clarification Order*, 27 FCC Rcd at 13781-82, para.3.

⁷¹ Thus, for example, if a customer purchases a DSL line and incorporates that service into an offering of both telephone service and broadband Internet access service, it may certify that it is a reseller for purposes of that purchased service so long as it contributes on the assessable revenues from the telephone service. *See id.* at 13796, para. 34 n.98.

⁷² *2012 Wholesaler-Reseller Clarification Order*, 27 FCC Rcd at 13794, para. 32, and 13801-02, paras. 51-52; *see Global Crossing Order*, 24 FCC Rcd at 1028-29, para. 14.

⁷³ *See id.* at 13801-02, paras. 51-52.

evaluate the use of “other reliable proof” to demonstrate a “reasonable expectation” on a case-by-case basis, based on the reasonableness of the utilized method or proof.⁷⁴

Filers that do not comply with the safe harbor procedures or that do not otherwise meet the reasonable expectation standard will be responsible for any additional universal service assessments that result if their revenues must be reclassified as end user revenues.⁷⁵

d. Safe Harbor Procedures for Meeting the “Reasonable Expectation.”

Each filer should have documented procedures to ensure that it reports as “revenues from resellers” only revenues from entities that meet the definition of reseller. The procedures must include, at a minimum, the following information on resellers:

1. Filer 499 ID;⁷⁶
2. Legal name;
3. Legal address;
4. Name of a contact person;
5. Phone number of the contact person; and,
6. As described below, an annual certification by the reseller regarding its reseller status;

Filers shall provide this information to the Commission or the Administrator upon request.

e. Certifications

Annual Certificates. A filer may demonstrate that it had and has a reasonable expectation that a particular customer is a reseller with respect to purchased service(s) by providing a certificate signed each calendar year by the customer that:⁷⁷

- (1) specifies which services the customer is or is not purchasing for resale pursuant to the certificate;⁷⁸ and

⁷⁴ This requirement is further discussed in the *2012 Wholesaler-Reseller Clarification Order*, 27 FCC Rcd at 13801-2, para. 52.

⁷⁵ If a wholesale provider’s customer (or another entity in the downstream chain of resellers) actually contributed to the federal universal service support mechanisms for the relevant calendar year on offerings that incorporate purchased wholesale services, the wholesale provider will not be obligated to contribute on revenues for the wholesale services, even if the wholesale provider cannot demonstrate that it had a reasonable expectation that its customer would contribute when it filed its FCC Form 499-A for the relevant calendar year. *Id.* at 13799, paras. 43-44.

⁷⁶ Filer ID must be associated with an **active** 499 Filer to meet the “reasonable expectation” standard.

⁷⁷ Reseller certifications must be signed by the “customer” (*i.e.*, the resale provider itself rather than a third-party representative or consultant). *See, e.g., 2012 Wholesaler-Reseller Clarification Order.*

⁷⁸ At the filer’s discretion, the filer may, for example, rely on certificates that specify any of the following: (1) that all services purchased by the customer are or will be purchased for resale pursuant to the certificate (“entity-level certification”); (2) that all services associated with a particular billing account, the account number for which the customer shall specify, are or will be purchased for resale pursuant to the certificate (“account-level certification”); (3) that individual services specified by the customer are or will be purchased for resale pursuant to certification (“service-specific certification”); or (4) that all services except those specified either individually or as associated with a particular billing account, the account number(s) for which the customer shall specify, are or will be purchased for resale pursuant to the certificate. A customer may certify that additional services will be purchased

(continued . . .)

(2) is consistent with the following sample language:

*I certify under penalty of perjury that the company is purchasing service(s) for resale, at least in part, and that the company is incorporating the purchased services into its own offerings which are, at least in part, assessable U.S. telecommunications or interconnected Voice over Internet Protocol services. I also certify under penalty of perjury that the company either directly contributes or has a reasonable expectation that another entity in the downstream chain of resellers directly contributes to the federal universal service support mechanisms on the assessable portion of revenues from offerings that incorporate the purchased services.*⁷⁹

Services Purchased After Date of Annual Certificate. A filer may sell additional service(s) to a customer after the date that the annual certificate is signed. If the annual certificate does not cover those additional services, the filer may demonstrate a reasonable expectation that a customer is a reseller with respect to a service purchased after the date of the annual certificate signed by the customer by relying on either of these received prior to the filing of the applicable FCC Form 499-A:

- (1) a verifiable notification from the customer that the customer is purchasing the service for resale consistent with the valid, previously signed annual certificate, or
- (2) a subsequent certificate covering the purchased service signed by the customer.

5. ALLOCATING REVENUES BETWEEN THE JURISDICTIONS

Columns (b), (c), (d), and (e) are provided to identify the part of gross revenues that arise from interstate and international services for each entry on Lines 303 through 314 and Lines 403 through 417.

a. Definitions

Intrastate telecommunications means: communications or transmission between points within the same State, Territory, or possession of the United States, or the District of Columbia.

Interstate and international telecommunications means: communications or transmission between a point in one state, territory, possession of the United States or the District of Columbia and a point outside that state, territory, possession of the United States or the District of Columbia.

b. General Requirements

Where possible, filers should report their amount of total revenues that are intrastate, interstate, and international by using information from their books of account and other internal data reporting systems.

- Where a filer can determine the precise amount of revenues that it has billed for interstate and international services, it should enter those amounts in columns (d) and (e), respectively.
 - Total revenues entered in column (a) include revenues billed for intrastate service even though intrastate revenues are not reported separately on the FCC Form 499-A.

for resale pursuant to the certificate if the customer (or another entity in the downstream chain of resellers) will contribute to the federal universal service support mechanisms on revenues attributed to such services for the relevant calendar year.

⁷⁹ In some instances, reselling carriers are themselves selling the underlying service to another (non-contributing) reseller, which then sells the same service to another (non-contributing) reseller, and so on until the service is ultimately sold to an entity that is a contributing “reseller.” In these instances, an underlying carrier also may include as carrier’s carrier revenue any revenues received from service ultimately provided to entities that meet the definition of “reseller” for purposes of the FCC Form 499-A.

- If the allocation of revenues cannot be determined directly from corporate books of account or subsidiary records, filers may provide on the Worksheet good-faith estimates of these figures.
 - In such cases, the filer should determine the good-faith estimates of the interstate and the international revenues. Enter the interstate amount in column (d) and the international amount in column (e). Enter zero dollars in columns (d) and (e) if and only if there were no interstate or international revenues for the line for the reporting period.
 - A reporting entity may not submit a good-faith estimate lower than one percent unless the correct figure should be \$0.
 - Good-faith estimates must be based on information that is current for the filing period.
 - Information supporting good-faith estimates must be made available to either the FCC or to the administrators upon request.

For example, if a prepaid calling card provider collects a fixed amount of revenue per minute of traffic, and 65 percent of minutes are interstate, then interstate revenues would include 65 percent of the per-minute revenues. Similarly, if a local exchange carrier bills local measured service charges for calls that originate in one state and terminate in another, these billings should be classified as interstate even though the charges are covered by a state tariff and the revenues are included in a local service account.

c. Services Offered Under Interstate Tariffs

Revenues from services offered under interstate tariffs, such as revenues from federal subscriber line charges and from federally tariffed LNP surcharges, should be identified as interstate revenues. This includes amounts incorporated in or bundled with other local service charges.

d. Flat-rate Unbundled Network Access Elements

In general, flat-rated unbundled network access elements should be classified according to the regulatory agency that has primary jurisdiction over the contracts.

e. Mixed-Use Private or WATS Lines

If over ten percent of the traffic carried over a private or WATS line is interstate, then the revenues and costs generated by the entire line are classified as interstate.⁸⁰

f. Bundled Local and Toll Services

Many carriers and other providers of telecommunications now offer packages that bundle fixed local exchange service with interstate toll service (*i.e.*, voice long distance) for a single price.

- Revenues for the whole bundle, except for tariffed subscriber line, ARC and PICC charges, should be reported on Line 404, as described more fully above.
- The portion of revenues associated with interstate and international toll services must be identified in columns (d) and (e), respectively.⁸¹
- Filers should make a good-faith estimate of the amounts of intrastate, interstate, and international revenues from bundled local/toll service if they cannot otherwise determine these amounts from corporate records, and must make their methodology available to the Commission or the Administrator, upon request.

⁸⁰ See *Universal Service Order*, 12 FCC Rcd at 9173, para. 778 (citing 47 CFR § 36.154(a)).

⁸¹ See *Separately Stated Toll Order*, 23 FCC Rcd at 1414, para. 5 (defining “toll service”).

g. Safe Harbors

Wireless telecommunications providers, interconnected VoIP providers, and non-interconnected VoIP providers that choose to avail themselves of safe harbor percentages for interstate revenues may assume that the FCC will not find it necessary to review or question the data underlying their reported percentages.

Wireless Safe Harbor: The FCC provides the following safe harbor percentages of interstate revenues associated with Line 309, Line 409, and Line 410:⁸²

- 37.1% of cellular and broadband PCS telecommunications revenues
- 12.0% of paging revenues
- 1.0% of analog SMR dispatch revenues

These safe harbor percentages may not be applied to universal service pass-through charges, fixed local service revenues, or toll-service charges. All filers must report the actual amount of interstate and international revenues for these services. For example, toll charges for itemized calls appearing on mobile telephone customer bills should be reported as intrastate, interstate or international based on the origination and termination points of the calls.

Interconnected and Non-Interconnected VoIP Safe Harbor: The FCC provides the following safe harbor percentage of interstate revenues associated with Line 303.2, Line 311, Line 404.4, Line 404.5, Line 414.2, and Line 418.4:

- 64.9% of interconnected VoIP and non-interconnected VoIP telecommunications revenues⁸³

This safe harbor percentage may not be applied to universal service pass-through charges or other fixed local service revenues.

Single Election for Affiliated Entities: All affiliated wireless telecommunications providers and VoIP providers (including interconnected and non-interconnected) must make a single election, each quarter, whether to use a traffic study or to use the current safe harbor within the same safe harbor category.⁸⁴

- So, for example, if in a calendar quarter a wireless telecommunications provider uses a traffic study to report interstate revenues for its cellular and broadband PCS telecommunications services, all of its affiliated legal entities must also use traffic studies to report interstate telecommunications revenues for cellular and broadband PCS offerings.

⁸² See *2006 Contribution Methodology Reform Order*, 21 FCC Rcd at 7532–33, 7545–46, paras. 25–27, 53–55; *Federal-State Joint Board on Universal Service et al.*, CC Docket No. 96-45 *et al.*, Report and Order and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 24952 (2002) (*2002 Second Contribution Methodology Order and FNPRM*); see also *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 13 FCC Rcd 21252, 21258–60, paras. 11-15 (1998).

⁸³ *2006 Contribution Methodology Reform Order*, 21 FCC Rcd at 7545, para. 53; *2011 TRS Contributions Order*, 26 FCC Rcd at 14544, para. 25.

⁸⁴ See *Federal-State Joint Board on Universal Service et al.*, CC Docket No. 96-45 *et al.*, Order and Order on Reconsideration, 18 FCC Rcd 1421, 1424-25, para. 6 (2003) (“wireless telecommunications providers are ‘affiliated’ for purposes of making the single election whether to report actual interstate telecommunications revenues or use the applicable interim wireless safe harbor if one entity (1) directly or indirectly controls or has the power to control another, (2) is directly or indirectly controlled by another, (3) is directly or indirectly controlled by a third party or parties that also controls or has the power to control another, or (4) has an ‘identity of interest’ with another contributor”). See also 47 CFR § 1.2110(c)(5).

- The same wireless telecommunications provider and all affiliates, however, could use the safe harbor for paging services.

Same Methodology for the FCC Form 499-A and the FCC Form 499-Q: Filers should use the same methodology (traffic study or safe harbor) to report interstate and international jurisdictions on the FCC Form 499-A as used on the FCC Form 499-Qs to forecast revenue in each quarter of the applicable calendar year.

- For example, if a filer projected revenue based on a safe harbor for the first two quarters and based on traffic studies for the final two quarters, the amounts reported in the FCC Form 499-A for the first two quarters would be based on actual billings for those quarters and the relevant safe harbors, and the amounts reported for the final two quarters would be based on actual billings for those quarters and the traffic studies for those quarters.

Filers Not Required to File an FCC Form 499-Q: For filers who were not required to file the FCC Form 499-Q, the interstate and international jurisdictions reported on the FCC Form 499-A must be based on information that is current for the filing period.

h. Traffic Studies

Wireless telecommunications providers, interconnected VoIP providers, and non-interconnected VoIP providers may rely on traffic studies if they are unable to determine their actual interstate and international revenues.⁸⁵

- In developing their traffic studies, such providers may rely on statistical sampling to estimate the proportion of minutes that are interstate and international.
- Any revenues associated with charges on customer bills that are identified as interstate or international must effectively be accounted for (e.g., through proper weighting in a traffic study) as 100 percent interstate or international when reporting revenues.⁸⁶
- Sampling techniques must be designed to produce a margin of error of no more than one percent with a confidence level of 95%. If the sampling technique does not employ a completely random sample (e.g., if stratified samples are used), then the respondent must document the sampling technique and explain why it does not result in a biased sample.
- Traffic studies should include, at a minimum: (1) an explanation of the sampling and estimation methods employed and (2) an explanation as to why the study results in an unbiased estimate with the accuracy specified above.
- Mobile telecommunications providers, interconnected VoIP providers and non-interconnected VoIP providers should retain all data underlying their traffic studies as well as all documentation necessary to facilitate an audit of the study data and be prepared to make this data and documentation available to the Commission upon request.
- In addition, filers that rely on traffic studies must submit those studies to USAC at the time of the FCC Form 499-A filing. (See Table 3 for filing instructions – including address for filing traffic studies and filing deadlines). To enable USAC to match traffic studies filed by contributors with

⁸⁵ See *2006 Contribution Methodology Reform Order*, 21 FCC Rcd at 7534–36, 7547, paras. 29–33, 57; *2011 TRS Contributions Order*, 26 FCC Rcd at 14544, para. 25.

⁸⁶ See *Separately Stated Toll Order*, 23 FCC Rcd at 1418, para. 15. In developing traffic studies, toll service traffic must be identified and treated in a manner that recognizes that such traffic is more likely to be interstate or international than intrastate. See *id.* Additionally, appropriate weighting of the higher revenue that is often associated with toll service must be reflected in the traffic study or studies. See *id.*

their FCC Form 499 filings, include the following identifying information at the top of each page of the traffic study: Filer ID; Company Name; Affiliated Filers Name (where applicable).

D. BLOCK 4-B: TOTAL REVENUE AND UNCOLLECTIBLE REVENUE INFORMATION

The Administrator relies on the detail line information on the Worksheet to arrive at the totals shown in Block 4-B. The Administrator will attempt to resolve conflicts between any sums that differ from the information entered into the totals on Block 4-B.

Line 419 Gross Billed Revenues from All Sources

Gross billed revenues from all sources should equal the sum of revenues by type of service reported on Lines 303 through 314 and Lines 403 through 418.

Line 420 Gross Universal Service Contribution Base Amounts

Universal service contribution base revenues should equal the subtotal of Lines 403 through 411 and Lines 413 through 417 for each column. The totals on this line represent gross end-user revenues for the purpose of determining contributions to universal service support mechanisms. *See* section IV.E (Line 511 instructions).

Line 421 Uncollectible revenue/ bad debt associated with Line 419 (Gross Billed Revenues)

Show the uncollectible revenue/bad debt expense associated with gross billed revenues amounts reported on Line 419.

- For those using billed revenues, this line may include redeemed credits.
- Reported uncollectible amounts should:
 - Be the amount reported as bad debt expense in the filer's income statement for the year.
 - Cover uncollectibles associated with all revenue on the filer's books (Line 419), including uncollectible carrier's carrier revenues, end-user telecommunications revenues, and revenues reported on Line 418.
 - Represent the portion of gross billed revenues that the filer reasonably expects will not be collected.
- Uncollectibles may not include any amounts associated with unbillable revenues.⁸⁷
- Filers that operate on a cash basis should report \$0 on this line.
- Filers that used earned revenue to represent billed revenues should not report as uncollectible any billings that are not included in earned revenues.

Filers that maintain separate detail of uncollectibles by type of business should rely on those records in dividing uncollectible expense between carrier's carrier, contribution base and other revenues, and for dividing uncollectibles associated with contribution base revenues between intrastate, interstate and international categories. Filers that do not have such detail should make such assignments in proportion to reported gross revenues.

Line 422 Uncollectible revenue/ bad debt associated with Line 420 (Universal Service Contribution Base Amounts)

⁸⁷ *See 2002 Second Contribution Methodology Order and FNPRM*, 17 FCC Rcd at 24970 n.95.

Show the portion of the uncollectible revenue/bad debt expense reported on Line 421 that is associated with just the universal service contribution base amounts reported on Line 420.

- Filers that maintain separate detail of uncollectibles by type of business should rely on those records in determining the portion of gross uncollectibles reported on Line 421 that should be reported on Line 422.
- Filers that do not have such detail should make such assignments in proportion to reported gross revenues.
- Filers must be able to document how the amounts reported on Line 422 relate to the uncollectible revenue/bad debt expense associated with gross billed revenues reported on Line 421.

In exceptional circumstances, amounts reported on Line 422 may exceed amounts reported on Line 421 or either amount might actually be negative. These situations can arise where amounts previously written off as uncollectible subsequently are collected.

Filers that maintain separate detail of uncollectibles by type of business should rely on those records in dividing uncollectible expense between carrier's carrier, contribution base and other revenues, and for dividing uncollectibles associated with contribution base revenues between intrastate, interstate and international categories. Filers that do not have such detail should make such assignments in proportion to reported gross revenues.

Line 423	Net universal service contribution base revenues

Net universal service contribution base revenues should equal the amounts reported on Line 420 minus the amounts reported on Line 422.

E. BLOCK 5: ADDITIONAL REVENUE BREAKOUTS FOR NON-USF MECHANISMS

Line 501	Filer 499 ID

Enter the Filer 499 ID from Line 101.

Line 502	Legal Name of Filer

Enter the legal name of the filer from Line 102.

Line 503-510	Percentages of Telecommunications Revenues by LNPA Region

In these lines, filers should identify the percentages of their telecommunications revenues by LNPA region.

- Payphone service providers, private service providers, and shared-tenant service providers that have certified that they are exempt from contributing to the shared costs of LNP need not provide these breakdowns.

Carriers and interconnected VoIP providers should calculate or estimate the percentage of revenues that they billed in each region based on the amount of service they actually provided in the parts of the United States listed for each region.

- Customer billing addresses may be used to calculate or estimate this percentage.
- The percentages in column (a), representing Block 3 revenues billed in each region of the country, should add to 100% unless the filer did not provide any services for resale by other contributors to the federal universal service support mechanisms.

- The percentages in column (b), representing Block 4 telecommunications service revenues billed in each region of the country (excluding non-telecommunications revenues reported on Line 418) should add to 100% unless the filer did not provide any telecommunications services to end users or non-contributing carriers.
- Filers may use a proxy based on the percentage of subscribers a provider serves in a particular region for reaching an estimate for allocating their end-user revenues to the appropriate regional LNPA.

Line 511	Revenues from Resellers that Do Not Contribute to Universal Service Support Mechanisms and Are Included in Block 4

Identify revenues from resellers that do not contribute directly to universal service support mechanisms and that are included in Block 4. Revenues from resellers that do not contribute to universal service support mechanisms are included on Line 420 but may be excluded from a filer's TRS, NANPA, LNP, and FCC interstate telephone service provider regulatory fee contribution bases. To have these amounts excluded, the filer has the option of identifying such revenues on Line 511.

Line 420 may contain revenues from some FCC Form 499 filers that are exempt from contributing directly to universal service support mechanisms. For example, these would include filers that meet the universal service *de minimis* exception or that provide "international only" service. Since these universal service exempt entities generally do contribute directly to the TRS, LNP, and NANPA mechanisms, revenues from these entities need not be included in the underlying service provider contribution bases for those mechanisms. Filers choosing to report revenues on Line 511 must have the FCC Filer 499 ID for each customer whose revenues are so reported.

Line 512	Gross TRS Contribution Base Amounts

TRS contribution base revenues reportable on Line 512(a) should equal the subtotal of Lines 403(a) through 417(a) and Line 418.4(a) less Line 511(a).

TRS contribution base revenues reportable on Line 512(b) should equal the subtotal of Lines 403(d) through 417(d), Lines 403(e) through 417(e), Line 418.4(d), and Line 418.4(e) less Line 511(b). The totals on this line represent gross end-user revenues for the purpose of determining contributions to TRS.

Line 513	Uncollectible Revenue/ Bad Debt Expense Associated with TRS Contribution Base Amounts

Show the portion of the uncollectible revenue/bad debt expense reported on Line 421 that is associated with just the TRS contribution base amounts reported on Line 512.

- Filers that maintain separate detail of uncollectibles by type of business should rely on those records in determining the portion of gross uncollectibles reported on Line 421 that should be reported on Line 513.
- Filers that do not have such detail should make such assignments in proportion to reported gross revenues.

Filers must be able to document how the amounts reported on Line 513 relate to the uncollectible revenue/bad debt expense associated with gross billed revenues reported on Line 421.

- In exceptional circumstances, amounts reported on Line 513 may exceed amounts reported on Line 421 or either amount might actually be negative. These situations can arise where amounts previously written off as uncollectible subsequently are collected.

Line 514	Net TRS Contribution Base Revenues

Net TRS contribution base revenues should equal the amounts reported on Line 512 less the amounts reported on Line 513.

F. BLOCK 6: CERTIFICATION

Line 601 Filer 499 ID

Copy the Filer 499 ID from Line 101.

Line 602 Legal Name of Filer

Copy the legal name of the filer from Line 102.

Line 603 Certifications – Exemptions from Contribution Requirement(s)

In this line, filers may certify that they are exempt from one or more contribution requirement(s) by checking the box next to the mechanism(s) from which they are exempt.

- As explained above, the FCC Form 499 Telecommunications Reporting Worksheet enables telecommunications carriers and service providers to satisfy a number of requirements in one consolidated form.
- Not all entities that file the Telecommunications Reporting Worksheet must contribute to all of the support and cost-recovery mechanisms (universal service, LNP, TRS, and NANPA). For example, certain telecommunications providers that are not telecommunications carriers must contribute to the universal service support mechanisms, but not to the TRS, LNP, and NANPA mechanisms.
- Section III.A provides summary information on which filers must contribute and which filers are exempt from particular contribution requirements.

Filers that certify that they are exempt from one or more mechanism(s) should use the space provided on Line 603 to explain the exemption.

Note: It is not necessary for a filer to certify that it is *de minimis* for universal service purposes because the universal service administrator can determine whether a filer meets the contribution threshold from other information provided on the form. If, however, a reseller or other provider of telecommunications qualifies for the *de minimis* exemption, it must notify its underlying carriers that it is not contributing directly to universal service. Such a reseller or other provider of telecommunication must be treated as an end user when the underlying carrier(s) file an FCC Form 499.

Line 604 Regulatory Fee Exemptions

In this line, filers indicate whether they are exempt from FCC regulatory fees or the filer is an “exempt telecommunications company.”⁸⁸

- A state or local governmental entity is any state, possession, city, county, town, village, municipal corporation, or similar political organization.⁸⁹

⁸⁸ 47 CFR § 1.1162(c). The FCC will presume that otherwise exempt carriers prefer to pay FCC regulatory fees unless they check this box.

⁸⁹ 47 CFR § 1.1162(b).

- The second check box identifies organizations duly qualified as a nonprofit, tax exempt entity under section 501 of the Internal Revenue Code, 26 U.S.C. § 501 or by state certification.⁹⁰ These organizations typically qualify for non-profit status under sections 501(c)(3) or 501(c)(12).

Note that such entities are not exempt from universal service, TRS, LNP, or NANPA contributions unless they qualify under some other exemption (i.e., Interstate service providers that have mobile service or satellite service revenues but that do not have interstate local revenues or interstate toll revenues are exempt from payment of ITSP fees. Interstate service providers that provide service to only other carriers are also exempt from ITSP regulatory fees. Carriers whose total regulatory fee payment obligation is \$1,000 or less are also exempt).

Line 605**Request for Nondisclosure of Revenue Information**

Filers may use the box in Line 605 to request nondisclosure of the revenue information contained on the Telecommunications Reporting Worksheet.

- By checking this box, the officer of the company signing the Worksheet certifies that the information contained on the Worksheet is privileged or confidential commercial or financial information and that disclosure of such information would likely cause substantial harm to the competitive position of the company filing the Worksheet.
- This box may be checked in lieu of submitting a separate request for confidentiality pursuant to section 0.459 of the Commission's rules.⁹¹

All decisions regarding disclosure of company-specific information will be made by the Commission. The Commission regularly makes publicly available the names (and Block 1 and 2-B contact information) of the entities that file the Telecommunications Reporting Worksheet and information on which filers contribute to which funding mechanisms, including entities that checked the boxes in Line 603.

Line 606-611**Officer Certification**

An officer of the filer must examine the data provided in the Telecommunications Reporting Worksheet and certify that the information provided therein is accurate and complete.

- Officers of entities making consolidated filings should refer to Section III.B and must certify that they comply with the conditions listed in that section.
- An officer is a person who occupies a position specified in the corporate by-laws (or partnership agreement. Preferably, the signing officer would be a vice-president for finance, comptroller, treasurer, or a comparable officer holding a financial position. Alternatively, the officer signing the Form preferably would be the president or vice president of operations. If the filer is a sole proprietorship, the owner must sign the certification.

Capable filers must enter data, and verify, submit, and certify FCC Forms 499-A and 499-Q online via USAC's web-based data entry system, E-File.

- An electronic signature in the signature block of each form certified by that officer will be considered the equivalent to a handwritten signature on the form.

⁹⁰ 47 CFR § 1.1162(c).

⁹¹ 47 CFR § 0.459; see *Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, GC Docket No. 96-55, Report and Order, 13 FCC Rcd 24816 (1998) (listing the showings required in a request that information be withheld and stating that the Commission may defer action on such requests until a formal request for public inspection has been made).

- By entering his or her electronic signature into the signature block of each form, the officer, therefore, acknowledges that such electronic signature certifies his or her identity and attests under penalty of perjury as to the truth and accuracy of the information contained in each electronically signed form.
- Visit <https://www.usac.org/service-providers/contributing-to-the-usf/forms-to-file/> for more information and access to the online filing system.

A person who willfully makes false statements on the Worksheet can be punished by fine or imprisonment under Title 18 of the United States Code.⁹²

Line 612**Type of Filing**

Indicate whether this filing is an original filing for the year, due on April 1, a registration filing for a new service provider, a filing with revised registration information, or a filing with revised revenue information. See section III.D for information on the obligation to file revisions.

V. CALCULATION OF CONTRIBUTIONS

Filers do not calculate the amounts that they must contribute in this Worksheet. The administrators will use the revenue information on the Worksheet to calculate a funding base and individual contributions for each support mechanism. Individual contributions are determined by the use of “factors”—factors reflect the total funding requirement of a particular mechanism divided by the total contribution base for that mechanism. Information on the contribution bases and individual filer contributions are shown below in Table 4.

Table 4: Contribution Bases

Support Mechanism	Funding Basis
Universal service	less Line 423(d) + Line 423(e)* revenues corresponding to universal service contributions**
TRS (Filers with end-user revenues must pay a minimum of \$25)	Line 514(a) for contributions funding IP CTS, ⁹³ IP Relay, ⁹⁴ and VRS. ⁹⁵ Line 514(b) for contributions funding all other forms of TRS
NANPA (Filers with end-user revenues must pay a minimum of \$25. Filers with no end-user revenues must pay \$25.)	plus Line 420(a) less Line 412(a) less Line 511(a)
LNPA - by region (Filers with only carrier’s carrier revenue in a region must pay \$100 for that region)	plus Line 420(a) less Line 412(a) less Line 511(a) times percentages on Lines 503 through 509

⁹² See 18 U.S.C. § 1001.

⁹³ See 47 CFR 64.601(a)(22).

⁹⁴ See 47 CFR 64.601(a)(23).

⁹⁵ See 47 CFR 64.601(a)(50).

- * Line 423(e) is excluded from the contribution base if the total of amounts on Line 423(d) for the filer consolidated with all affiliates is less than 12% of the total of Line 423(d) + Line 423(e) for the filer consolidated with all affiliates. *See* 47 CFR § 54.706(c).
- ** The contribution base for an individual filer is the projected collected interstate and international revenues for the quarter, reduced by an imputed amount of universal service support pass-through charges, based on the actual factor for the quarter. *See Contribution Methodology Order*, 17 FCC Rcd 24952; *see, e.g.*, Proposed First Quarter 2004 Universal Service Contribution Factor, CC Docket No. 96-45, Public Notice, 18 FCC Rcd 25111 (2003). *See also* FCC, Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support, <https://www.fcc.gov/encyclopedia/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>.

Monthly billings for universal service are based on projected collected revenue information filed on the quarterly FCC Form 499-Q.

- Historical amounts reported on FCC Form 499-Q Line 116(b) and (c) correspond to FCC Form 499-A Line 420(d) and (e), respectively.
- Projected collected revenues on FCC Form 499-Q Line 120(b) and (c) correspond to net universal service base revenues on FCC Form 499-A Line 423(d) and (e), respectively.
- The FCC Form 499-Q provides instructions for projecting revenues, and for removing uncollectible amounts from billed revenue projections.
- The amounts filed on the FCC Form 499-A are used to review and true-up FCC Form 499-Q filings and associated contributions.

VI. ADDITIONAL INFORMATION

A. REMINDERS

- File the FCC Form 499-A online at <https://forms.universalservice.org>.
- Contributors are required to maintain records and documentation to justify information reported on the Telecommunications Reporting Worksheet for five years. *See* section III.E.
- Is the filer affiliated with another telecommunications provider? Each legal entity must file separately unless they qualify for filing on a consolidated basis. *See* section III.B. Each affiliate or subsidiary must show the same Affiliated Filers information on Lines 106.1 and 106.2.
- Provide data for all lines that apply. Show a zero for services for which the filer had no revenues for the filing period.
- Be sure to include on Line 112 all names by which the filer is known to customers, including the names of agents or billers if those names appear on customer bills.
- Telecommunications providers that are required to contribute to universal service support mechanisms must also file quarterly FCC Forms 499-Q. *See* section III.C.
- Wherever possible, revenue information should be taken from the filer's financial records.
- The Worksheet must be signed by an officer of the filer. An officer is a person who occupies a position specified in the corporate by-laws (or partnership agreement), and would typically be president, vice president for operations, comptroller, treasurer, or a comparable position.
- Do not mail the Worksheet to the FCC. *See* section III.C.

- Filers must re-file parts of the Worksheet if the Agent for Service of Process or FCC Registration information changes during the year.

FCC Form 499 is one of several forms that telecommunications carriers and other providers of interstate telecommunications may need to file. Information concerning common filing requirements for such providers may be found on the Commission's web site, at <https://www.fcc.gov/reports-research/guides/common-carrier-filing-requirements-information-firms-providing-telecommunications-services>.

B. PAPERWORK REDUCTION ACT NOTICE

Section 52.17 of the Federal Communications Commission's rules require all telecommunications carriers and interconnected VoIP providers to contribute to meet the costs of establishing numbering administration, and directs that contributions shall be calculated and paid in accordance with the FCC Form 499-A or Worksheet. 47 CFR § 52.17. Section 52.32 requires the local number portability administrators shall recover the shared costs of long-term number portability from all telecommunications carriers and interconnected VoIP providers. 47 CFR § 52.32. Sections 54.706, 54.711, and 54.713 require all interstate telecommunications carriers, interconnected VoIP providers, providers that offer interstate telecommunications for a fee on a non-common carrier basis, and payphone providers that are aggregators to contribute to universal service and file this Worksheet once a year and the FCC Form 499-Q four times a year. 47 CFR §§ 54.706, 54.711, 54.713. Section 64.604 requires that every common carrier, interconnected VoIP provider, and non-interconnected VoIP provider contribute to the TRS Fund on the basis of its relative share of end-user revenues that are subject to contributions based on information provided in this Worksheet. 47 CFR §§ 64.601(b), 64.604(c)(5)(iii)(A) and (B). Section 64.1195 and the Commission's orders require all telecommunications carriers and interconnected VoIP providers to register using the FCC Form 499-A. 47 CFR § 64.1195(a).

This collection of information stems from the Commission's authority under sections 151(i), 225, 251, 254, 258, and 715 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151(i), 225, 251, 254, 258, 616. The data in the Worksheet will be used to calculate contributions to the universal service support mechanisms, the TRS support mechanism, the cost recovery mechanism for numbering administration, and the cost recovery mechanism for shared costs of long-term number portability. Selected information provided in the Worksheet will be made available to the public in a manner consistent with the Commission's rules.

We have estimated that each response to this collection of information will take, on average, 13.5 hours. Our estimate includes the time to read the instructions, look through existing records, gather and maintain the required data, and actually complete and review the form or response. If you have any comments on this estimate, or how we can improve the collection and reduce the burden it causes you, you may write the Federal Communications Commission, AMD-PPM, Washington, D.C. 20554, Paperwork Reduction Project (3060-0855). We also will accept your comments via the Internet if you send them to pra@fcc.gov. DO NOT SEND COMPLETED WORKSHEETS TO THIS ADDRESS.

You are not required to respond to a collection of information sponsored by the federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid Office of Management and Budget (OMB) control number. This collection has been assigned an OMB control number of 3060-0855.

The Commission is authorized under the Communications Act to collect the information we request on this form. We will use the information that you provide to determine contribution amounts. If we believe there may be a violation or potential violation of a statute or a Commission regulation, rule, or order, your Worksheet may be referred to the Federal, state, or local agency responsible for investigating, prosecuting, enforcing, or implementing the statute, rule, regulation, or order. In certain cases, the information in your Worksheet may be disclosed to the Department of Justice, court, or other adjudicative

body when (a) the Commission; or (b) any employee of the Commission; or (c) the United States government, is a party to a proceeding before the body or has an interest in the proceeding.

With the exception of your employer identification number, if you do not provide the information we request on the Worksheet, the Commission may consider you in violation of rules 1.47, 52.17, 52.32, 54.713, 64.604, and 64.1195. 47 CFR §§ 1.47, 52.17, 52.32, 54.713, 64.604, 64.1195.

The foregoing notice is required by the Paperwork Reduction Act of 1995, P.L. No. 104-13, 44 U.S.C. § 3501, *et seq.*

Appendix A

How to determine if a filer met the universal service *de minimis* standard for calendar year 2023

(1)	<i>Interstate contribution base for filer</i> Enter Line 423(d) from FCC Form 499-A.	\$
(2)	<i>International contribution base for filer</i> Enter Line 423(e) from FCC Form 499-A.	\$
(3)	<i>Interstate contribution base for all affiliates*</i> Enter sum of Line 423(d) from FCC Forms 499-A of all affiliates.	\$
(4)	<i>International contribution base for all affiliates</i> Enter sum of Line 423(e) from FCC Forms 499-A of all affiliates.	\$
(5)	<i>Consolidated interstate contribution base</i> Enter Line (1) + Line (3).	\$
(6)	<i>Consolidated interstate and international contribution base</i> Enter Line (2) + Line (4) + Line (5).	\$
(7)	<i>Consolidated interstate contribution base as a percentage of consolidated interstate and international contribution base</i> Enter Line (5) / Line (6).	%
(8)	<i>LIRE Exemption **</i> If Line (7) > 12%, enter Line (2). If Line (7) ≤ 12%, enter \$0.	\$
(9)	<i>Contribution base to determine de minimis qualification</i> Enter Line (1) + Line (8).	\$
(10)	<i>2024 Form 499-A de minimis estimation factor</i>	0.256 ***
(11)	<i>Estimated annual contribution</i> Enter Line (9) x Line (10)	\$

* Unless otherwise specifically provided, an affiliate is a “person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person.” For this purpose, the term “owns” means to own an equity interest (or the equivalent thereof) of more than 10 percent. See 47 U.S.C. § 153(2).

** Line 423(e) is excluded from the contribution base if the total of amounts on Line 423(d) for the filer consolidated with all affiliates is less than 12% of the total of Line 423(d) + Line 423(e) for the filer consolidated with all affiliates. See 47 CFR § 54.706(c).

*** The estimation factor is based on a contribution factor of 0.344, which is higher than the contribution factor announced for any quarter of 2022, and a corresponding circularity factor of 0.255341. Actual contribution and circularity factors for calendar year 2023 may have increased or decreased depending on quarterly changes in program costs and the projected contribution base. Using the estimation factor, filers whose actual contribution requirements total less than \$10,000 for the calendar year will be treated as *de minimis* and will receive refunds, if necessary. Filers whose actual contribution requirements total \$10,000 or more are required to contribute directly to the universal service support mechanisms. Note that telecommunications carriers and interconnected VoIP service providers must file this Worksheet regardless of whether they qualify for the *de minimis* exemption. Telecommunications providers may qualify for one of the exemptions to filing as detailed in Sections II.A.2.

Appendix B

Explanation of categories listed in Line 105

CAP/CLEC (Competitive Access Provider/Competitive Local Exchange Carrier). — Competes with incumbent local exchange carriers (ILECs) to provide local exchange services, or telecommunications services that link customers with interexchange facilities, local exchange networks, or other customers, other than Coaxial Cable providers.

Cellular/PCS/SMR (Cellular, Personal Communications Service, and Specialized Mobile Radio). — Provides primarily wireless telecommunications services (wireless telephony). This category includes all providers of real-time two-way or push-to-talk switched voice services that interconnect with the public switched network, including providers of prepaid phones and public coast stations interconnected with the public switched network. *See* 47 CFR § 80.451. This category includes the provision of wireless telephony by resale. An SMR provider would select this category if it primarily provides wireless telephony rather than dispatch or other mobile services.

Coaxial Cable. — Uses coaxial cable (cable TV) facilities to provide local exchange services or telecommunications services that link customers with interexchange facilities, local exchange networks, or other customers.

ILEC (Incumbent Local Exchange Carrier). — Provides local exchange service. An incumbent LEC or ILEC generally is a carrier that was at one time franchised as a monopoly service provider or has since been found to be an incumbent LEC. *See* 47 U.S.C. § 251(h).

IXC (Interexchange Carrier). — Provides long distance telecommunications services substantially through switches or circuits that it owns or leases.

Interconnected VoIP Provider. — Provides “interconnected VoIP service,” which is a service that (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user’s location; (3) requires Internet protocol compatible customer premises equipment (CPE); and (4) permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

Local Reseller. — Provides local exchange or fixed telecommunications services by reselling services of other carriers.

Non-Interconnected VoIP Provider. — Provides non-interconnected VoIP service, which is a service that (i) enables real-time voice communications that originate from or terminate to the user’s location using Internet protocol or any successor protocol and (ii) requires Internet protocol compatible customer premises equipment, but (iii) is not an interconnected VoIP service.

Operator Service Provider (OSP). — Serves customers needing the assistance of an operator to complete calls or needing alternate billing arrangements such as collect calling.

Paging — Provides wireless paging or wireless services. This category includes the provision of paging services by resale.

Payphone Service Provider. — Provides customers access to telephone networks through payphone equipment, special teleconference rooms, etc. Payphone service providers also are referred to as payphone aggregators.

Prepaid Calling Card Provider. — Provides prepaid calling card services by selling prepaid calling cards to the public, to distributors or to retailers. Prepaid card providers provide consumers the ability to place long distance calls without presubscribing to an interexchange carrier or using a credit card. Prepaid card providers typically resell the toll service of other carriers and determine the price of the

service by setting the price of the card, assigning personal identification numbers (PINs) and controlling the number of minutes that the card can be used for. Companies who simply sell cards created by others are marketing agents and do not file.

Private Service Provider. — Offers telecommunications to others for a fee on a non-common carrier basis. This would include a company that offers excess capacity on a private system that it uses primarily for internal purposes. This category does not include SMR or Satellite Service Providers.

Satellite Service Provider. — Provides satellite space segment or earth stations that are used for telecommunications service.

Shared-Tenant Service Provider /Building LEC. — Manages or owns a multi-tenant location that provides telecommunications services or facilities to the tenants for a fee.

SMR (dispatch) (Specialized Mobile Radio Service Provider). — Primarily provides dispatch services and mobile services other than wireless telephony. While dispatch services may include interconnection with the public switched network, this category does not include carriers that primarily offer wireless telephony. This category includes LTR dispatch or community repeater systems.

Stand-Alone Audio Bridging Provider /Integrated Teleconferencing Service Provider. — Allows end users to transmit a call (using telephone lines), to a point specified by the user (the conference bridge), without change in the form or content of the information as sent and received (voice transmission).

Toll Reseller. — Provides long distance telecommunications services primarily by reselling the long distance telecommunications services of other carriers.

Wireless Data. — Provides mobile or fixed wireless data services using wireless technology. This category includes the provision of wireless data services by resale.

The Worksheet also provides boxes for “Other Local,” “Other Mobile,” and “Other Toll.” If one of these categories is checked, the filer should describe the nature of the service it provides under the check boxes. For example, filers that provide toll service that: (1) uses ordinary customer premises equipment with no enhanced functionality; (2) originates and terminates on the public switched telephone network and (3) undergoes no net protocol conversion and provides no enhanced functionality to end users due to the provider’s use of IP technology should enter “VoIP toll” in the explanation field.⁹⁶

Appendix C – Definitions for International Reporting

Country-Beyond Service is an International Calling Service (ICS) provided and billed by a U.S. International Service Provider to a customer located in a foreign point in which case the customer, using a credit card or calling card issued by the U.S. International Service Provider, calls a telephone number in another foreign point.

Country-Direct Service is ICS provided by a U.S. International Service Provider to a customer located in a foreign point in which case the customer, using a credit card or calling card issued by the U.S. International Service Provider, calls a telephone number in the United States.

Foreign-Billed (ICS) refers to ICS that originates or terminates with an end-user in the United States, and that is billed by a Foreign Service Provider.

Foreign Carrier refers to any entity that is authorized within a foreign country to engage in the provision of international telecommunications services offered to the public in that country within the meaning of

⁹⁶ See *AT&T IP-in-the-Middle Order*, 19 FCC Rcd 7457.

the International Telecommunication Regulations, see Final Acts of the World Administrative Telegraph and Telephone Conference, Melbourne, 1988 (WATTC-88), Art. 1, which includes entities authorized to engage in the provision of domestic telecommunications services if such carriers have the ability to originate or terminate telecommunications services to or from points outside their country. The term “Foreign Carrier” does not refer to the nationality of the employees or owners of a communications entity. An affiliate of a Foreign Carrier that operates in the United States as a common carrier is a U.S. Carrier.

Foreign Service Provider refers to a Foreign Carrier; or any person or entity in a foreign point that provides VoIP service connected to the PSTN in a foreign point or between a foreign point and the United States; or any person or entity in a foreign point that provides International Call Completion Service to a U.S. International Service Provider or obtains International Call Completion Service from a U.S. International Service Provider.

International Calling Service (ICS) refers to International Message Telephone Service (IMTS) and International VoIP Service Connected to the PSTN, including International Call Completion Service for IMTS or International VoIP Service Connected to the PSTN.

International VoIP Service Connected to the PSTN refers to service between the United States and any foreign point that: (1) enables real-time, two-way voice communications; (2) requires a broadband connection from the user’s location; (3) requires Internet Protocol-compatible customer premise equipment; and (4) permits users generally to receive calls that originate on the public switched telephone network (PSTN) or to terminate calls to the PSTN. International VoIP Service Connected to the PSTN consists of Interconnected VoIP Service and “one-way” VoIP services, between the United States and any foreign point. (One-way VoIP services enable users to terminate calls to the PSTN but do not permit users to receive calls that originate on the PSTN, or enable users to receive calls from the PSTN but do not permit the user to make calls terminating to the PSTN.) International Call Completion Service for International VoIP Service Connected to the PSTN is included within the definition of International VoIP Service Connected to the PSTN.

Re-originated Foreign ICS refers to ICS traffic from a foreign point that is transmitted to the United States for retransmission to a destination foreign point, but that is not handled as Traditional Transiting ICS.

Settlement Payout refers to the expense (including any transiting fees) that a U.S. International Service Provider incurs for International Call Completion Service to a foreign point obtained from a Foreign Service Provider.

Settlement Receipt refers to the revenue that a U.S. International Service Provider bills for International Call Completion Service to the United States provided to a Foreign Service Provider.

Traditional Transiting ICS refers to ICS from a foreign point that (a) transits the United States prior to completion at a foreign point and (b) is settled at a rate agreed upon by the Foreign Service Provider in the origination foreign point and the Foreign Service Provider in the destination foreign point. The U.S. International Service Provider that provides the transiting service is reimbursed for its handling and transmission of the traffic by the Foreign Service Provider in the origination foreign point.

U.S.-Billed Facilities ICS refers to U.S.-Billed ICS that a U.S. International Service Provider provides as Facilities ICS.

U.S.-Billed ICS refers to an ICS call that originates or terminates in the United States and that is billed by a U.S. International Service Provider to an end-user customer or to a U.S. International Service Provider that is taking the service for resale; or a Reoriginated Foreign ICS call that is billed by a U.S. International Service Provider to a Foreign Service Provider; or a country-beyond call.

FCC Form 499-Q Telecommunications Reporting Worksheet Quarterly Filing for Universal Service Contributors > Please read instructions before completing <			Approval by OMB 3060-0855		
Block 1: Contributor Identification Information			101 Filer 499 ID		
102 Legal name of reporting entity					
103 Filer's IRS employer identification number					
104 Name telecommunications provider is doing business as					
105 Affiliated Filers Name [All affiliated companies should show same name here. In most cases, the Affiliated Filers Name will be the holding company name]			Check if filer has no affiliates: ☐		
105.1 Affiliate Filers Name IRS employer identification number			[Enter 9 digit number]		
106 Filer's FCC Registration Number (FRN)			[Enter 10 digit number]		
107 Complete mailing address of reporting entity's corporate headquarters					
Block 2: Contact Information					
108 Person who completed this worksheet			First	MI	Last
109 Telephone number of this person			()	-	
110 Fax number of this person			()	-	
111 Email of this person					
112 Billing address and billing contact person: [Bills for Universal Service contributions will be sent to this address.]					
Block 3: Contributor Historical and Projected Revenue Information					
113 Indicate which quarterly filing this represents	<u>Filing due</u>	<u>Historical revenues (lines 115-118) for</u>	<u>Projected revenues (lines 119-120) for</u>		
☐ November 1, 2023		July 1 – September 30, 2023	January 1 – March 31, 2024		
☐ February 1, 2024		October 1 – December 31, 2023	April 1 – June 30, 2024		
☐ May 1, 2024		January 1 – March 31, 2024	July 1 – September 30, 2024		
☐ August 1, 2024		April 1 – June 30, 2024	October 1 – December 31, 2024		
114 Check if using safe harbor to allocate interstate/intrastate revenues for each of the following (as applicable): Cellular & broadband PCS: ☐ Paging: ☐ Analog SMR: ☐ Interconnected VoIP: ☐					
Historical billed revenues with no allowance or deductions for uncollectibles. See Instructions.			Total Revenues (a)	Interstate Revenues (b)	International Revenues (c)
115 Telecommunications provided to other universal service contributors for resale as telecommunications or as interconnected VoIP					
116 End-user telecommunications revenues including any pass-through charges for universal service contributions, but excluding international-to-international revenues					
117 All other goods and services			Column (b) and (c) not requested		
118 Gross-billed revenues from all sources [sum of above]			for Lines 117 and 118		
119 Projected gross-billed end-user interstate and international telecommunications revenues including any pass-through charges for universal service contributions, but excluding international-to-international revenues					
120 Projected collected end-user interstate and international telecommunications revenues including any pass-through charges for universal service contributions, but excluding international-to-international revenues					
Block 4: CERTIFICATION: to be signed by an officer of the reporting entity					
121 I certify that the revenue data contained herein are privileged and confidential and that public disclosure of such information would likely cause substantial harm to the competitive position of the company. I request nondisclosure of the revenue information contained herein pursuant to sections 0.459, 52.17, 54.711 and 64.604 of the Commission's Rules.					☐
I certify that I am an officer of the above-named reporting entity, that I have examined the foregoing report and to the best of my knowledge, information and belief, all statements of fact contained in this Worksheet are true, that said Worksheet is an accurate statement of the affairs of the above-named company for the quarter and that the projections of gross-billed and collected revenues represent a good-faith estimate based on company procedures and policies.					
122 Signature					
123 Printed name of officer			First	MI	Last
124 Position with reporting entity					
125 Email of officer (Required if available)					
126 Date					
127 This filing is: ☐ Original filing ☐ Revised filing [revisions due within 45 days of original filing deadline]					
File this form online https://forms.universalservice.org/portal/login For additional information regarding this worksheet contact: Telecommunications Reporting Worksheet Info: (888)641-8722 or via email: Form 499@usac.org					
PERSONS WILLFULLY MAKING FALSE STATEMENTS IN THE WORKSHEET CAN BE PUNISHED BY FINE OR IMPRISONMENT UNDER TITLE 18 OF THE UNITED STATES CODE, 18 U.S.C. §1001					
Save time, avoid problems – file electronically at http://forms.universalservice.org				FCC Form 499-Q / 2024	

Telecommunications Reporting Worksheet, FCC Form 499-Q 2024
Instructions for Completing the Quarterly
Worksheet for Filing Contributions
to Universal Service Support Mechanisms

* * * * *

NOTICE: Sections 54.706, 54.711, and 54.713 of the Federal Communications Commission's rules require all telecommunications carriers providing interstate telecommunications services, interconnected voice-over-Internet-protocol (VoIP) providers that provide interstate telecommunications, providers of interstate telecommunications that offer interstate telecommunications for a fee on a non-common carrier basis, and payphone providers that are aggregators to contribute to universal service and file this Telecommunications Reporting Worksheet (FCC Form 499-Q or Worksheet) on February 1, May 1, August 1, and November 1, each year. 47 CFR §§ 54.706, 54.711, 54.713. This collection of information stems from the Commission's authority under Sections 151(i) and 254 of the Communications Act of 1934, as amended (Communications Act or Act), 47 U.S.C. §§ 151(i), 254. The data in the Worksheet will be used to calculate contributions to the universal service support mechanisms. Selected information provided in the Worksheet will be made available to the public in a manner consistent with the Commission's rules.

We have estimated that each response to this collection of information will take, on average, 10.0 hours. Our estimate includes the time to read the instructions, look through existing records, gather and maintain the required data, project growth or decline in revenues, and actually complete and review the form or response. If you have any comments on this estimate, or how we can improve the collection and reduce the burden it causes you, you may write the Federal Communications Commission, AMD-PPM, Washington, D.C. 20554, Paperwork Reduction Project (3060-0855). We also will accept your comments via the Internet if you send them to PRA@FCC.gov. DO NOT SEND COMPLETED WORKSHEETS TO THIS ADDRESS.

Remember -- You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid Office of Management and Budget (OMB) control number. This collection has been assigned an OMB control number of 3060-0855.

The Commission is authorized under the Communications Act of 1934, as amended, to collect the information we request in this form. We will use the information that you provide to determine contribution amounts. If we believe there may be a violation or potential violation of a statute or a Commission regulation, rule, or order, your Worksheet may be referred to the Federal, state, or local agency responsible for investigating, prosecuting, enforcing, or implementing the statute, rule, regulation, or order. In certain cases, the information in your Worksheet may be disclosed to the Department of Justice, court, or other adjudicative body when (a) the Commission; or (b) any employee of the Commission; or (c) the United States government, is a party to a proceeding before the body or has an interest in the proceeding.

With the exception of your employer identification number, if you do not provide the information we request on the Worksheet, the Commission may consider you in violation of sections 1.47, 52.17, 52.32, 54.713, and 64.604 of the Commission's rules. 47 CFR §§ 1.47, 52.17, 52.32, 54.713, and 64.604.

The foregoing Notice is required by the Paperwork Reduction Act of 1995, P.L. No. 104-13, 44 U.S.C. §§ 3501, *et seq.*

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File FCC Form 499-Q online. http://forms.universalservice.org .

I. Introduction

As required under the Communications Act of 1934, as amended,¹ the Commission has established procedures to finance universal service support mechanisms. To accomplish this Congressionally-directed objective, contributions are collected from telecommunications carriers providing interstate telecommunications and certain other providers of interstate telecommunications (including interconnected VoIP providers). This Worksheet sets forth information that the contributor must submit, so that the administrator of the universal service support mechanisms may calculate and assess contributions.²

II. Filing Requirements and General Instructions

A. Who Must File

All providers of interstate telecommunications within the United States,³ with very limited exceptions, must file an FCC Form 499-Q Telecommunications Reporting Worksheet.⁴

For purposes of determining whether an entity provides telecommunications, the term "telecommunications" means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received. For the purpose of filing, the term "interstate telecommunications" includes, but is not limited to, the following types of services: wireless telephony, including cellular and personal communications services (PCS); paging services; dispatch services; mobile radio services;⁵ operator services; access to interexchange service; business data services; wide area telecommunications services (WATS); subscriber toll-free services; 900 services; message telephone services (MTS); private line; telex; telegraph; video services; satellite services; resale services; frame relay, asynchronous transfer mode (ATM) and Multi-Protocol Label Switching

¹ 47 U.S.C. §§ 151 *et seq.*

² On March 9, 2001, the Commission modified its rules to base universal service contributions on information reported on quarterly Telecommunications Reporting Worksheet filings, with an annual true-up based on information reported on annual Telecommunications Reporting Worksheets. *Federal-State Joint Board on Universal Service, Petition for Reconsideration filed by AT&T*, CC Docket No. 96-45, Report and Order and Order on Reconsideration, 16 FCC Rcd 5748 (2001) (*Quarterly Reporting Order*); *see also 1998 Biennial Regulatory Review -- Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Services, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms*, CC Docket No. 98-171, Report and Order, 14 FCC Rcd 16602 (1999) (*Consolidated Reporting Order*).

³ For this purpose, the United States is defined as the contiguous United States, Alaska, Hawaii, American Samoa, Baker Island, Guam, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Island, Navassa Island, the Northern Mariana Islands, Palmyra, Puerto Rico, the U.S. Virgin Islands, and Wake Island.

⁴ Section 254(d) applies not only to "every telecommunications carrier that provides interstate telecommunications services" but also to certain "other provider[s] of interstate telecommunications." 47 U.S.C. § 254(d) (emphasis added). For more information on these terms, *see* 47 U.S.C. §§ 153(50), (51); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776 (1997) (*Universal Service Order*); *Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 *et al.*, Report and Order and Notice of Proposed Rulemaking, 21 FCC Rcd 7518 (2006) (*2006 Contribution Methodology Reform Order*).

⁵ *See Request for Review by Waterway Communication System, LLC and Mobex Network Services, LLC of a Decision of the Universal Service Administrator*, WC Docket No. 06-122, Order, 23 FCC Rcd 12836 (Wireline Comp. Bur. 2008).

(MPLS); audio bridging services;⁶ and interconnected VoIP services.⁷ Note, for example, that all incumbent and competitive local exchange carriers provide access to an interstate public network and, therefore, provide interstate telecommunications. There are no exemptions for data or non-voice services.

Note also that entities must file this Worksheet, and are subject to universal service contribution requirements, if they offer interstate telecommunications for a fee to the public even if only a narrow or limited class of users could utilize the services. Included are entities that provide interstate telecommunications to entities other than themselves for a fee on a private, contractual basis. In addition, owners of pay telephones, sometimes referred to as "pay telephone aggregators," and interconnected VoIP providers must file this Worksheet if they do not qualify for the *de minimis* exemption under the Commission's universal service rules.

Marketing agents (i.e., entities that market services on behalf of a telecommunications provider) are not themselves telecommunications providers and are not required to file this Worksheet. The amounts remitted to or retained by the marketing agent are treated as expenses of the underlying provider and may not be deducted from underlying carrier revenues. A reseller is not a marketing agent.

The following three sections list types of telecommunications providers that are not required to file the FCC Form 499-Q. Note that such entities are treated as end users by their underlying carriers and therefore may be subject to pass-through charges.

1. Universal service exemption for *de minimis* telecommunications providers

Section 54.708 of the Commission's rules states that telecommunications carriers and telecommunications providers are not required to contribute directly to the universal service support mechanisms for a given year if their contribution for that year is less than \$10,000.⁸ Thus, potential contributors whose contribution to the universal service support mechanisms would be *de minimis* under the universal service rules are not required to file the Worksheet (FCC Form 499-Q) or contribute directly to universal service. Telecommunications carriers and other telecommunications providers should complete the table contained in Figure 1 to determine whether they meet the *de minimis* standard. To complete Figure 1, potential filers and all affiliates must first complete block 3 of the Worksheet and enter the amounts from Line 120(b) and 120(c) in Figure 1.

Telecommunications providers that do not file this Worksheet because they are *de minimis* for purposes of universal service contributions (and need not file for any other purpose) should retain Figure 1 and documentation of their contribution base revenues nonetheless for five years and may be required to provide it to the FCC, the FCC's Data Collection Agent or the Universal Service Administrative Company (USAC) upon request.⁹

⁶ See *Request for Review by InterCall, Inc. of Decision of Universal Service Administrator*, CC Docket No. 96-45, Order, 23 FCC Rcd 10731, 10737-38, para. 22 (2008), *petition for reconsideration denied, Petitions for Reconsideration and Clarification of the InterCall Order*, WC Docket No. 06-122, CC Docket No. 96-45, Order on Reconsideration, 28 FCC Rcd 898 (2012), *subsequent history omitted*.

⁷ See 47 CFR § 9.3 (defining interconnected VoIP service).

⁸ 47 CFR § 54.708.

⁹ See *Comprehensive Review of the Universal Service Fund Management, Administration, and Oversight*, WC Docket No. 05-195, Report and Order, 22 FCC Rcd 16372, 16386-87, para. 27 (2007) (codified at 47 CFR § 54.706(e)) (*USF Comprehensive Review Order*).

Figure 1
Table to determine if a contributor meets the *de minimis* standard
for purposes of universal service contribution during 2024

1	Interstate contribution base for the quarter for filer (amount reportable on filer's FCC Form 499-Q; Line 120(b))	\$
2	International contribution base for the quarter for filer (amount reportable on filer's FCC Form 499-Q; Line 120(c))	\$
3	Interstate contribution base for the quarter for all affiliates* (total of amounts reportable on FCC Form 499-Q; Line 120(b) for all affiliates of the filer)	\$
4	International contribution base for the quarter for all affiliates (total of amounts reportable on FCC Form 499-Q; Line 120(c) for all affiliates of the filer)	\$
5	Consolidated interstate contribution base: Line (1) + Line (3)	\$
6	Consolidated international contribution base: Line (2) + Line (4)	\$
7	Total potential contribution base for filer and its affiliates: Line (5) + Line (6)	\$
8	Combined interstate contribution base as a percentage of total potential contribution base: Line (5) / Line (7)	%
9	Interstate contribution base for filer from Line (1)	\$
10	If the amount in Line (8) is equal to or greater than 12%, enter into Line (10) the international contribution base for the filer from Line (2). If the amount on Line (8) is less than 12%, enter \$0 (See 47 CFR § 54.706(c))	\$
11	Revenue base for the filer for the quarter for determining contributions to universal service support mechanisms: Line (9) + Line (10)	\$
12	If the projected revenues on Lines (1) and (2) include projected pass-through charges for contributions to federal universal service support mechanisms, enter the total amount of projected pass-through charges. If the projected revenues on Lines (1) and (2) do not include any universal service pass-through charges, enter \$0.	\$
13	Contribution base; Line (11) – Line (12)	\$
14	Annualizing multiplier	4
15	Annualized contribution base; Line (13) multiplied by Line (14)	
16	2024 Estimation factor for determining whether to file a 499-Q	0.239 **
17	Estimated annual contribution: amount in Line (15) multiplied by Line (16)	\$
* Unless otherwise specifically provided, an affiliate is a "person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person." For this purpose, the term 'owns' means to own an equity interest (or the equivalent thereof) of more than 10 percent. See 47 U.S.C. § 153(2). ** The estimation factor is based on a contribution factor of 0.313, which is the average of the four contribution factors announced for 2023, and a corresponding circularity factor of 0.237454. The public notices announcing the quarterly contribution factors are available at http://www.fcc.gov/encyclopedia/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support. <u>Note:</u> Actual contribution factors for future quarters may increase or decrease depending on quarterly changes in program costs and the contribution base. Filers whose actual contribution requirements total less than \$10,000 for the calendar year will be treated as <i>de minimis</i> and will receive refunds, if necessary. Filers whose actual contribution requirements total \$10,000 or more are required to contribute to the universal service support mechanisms and must file this Worksheet.		

2. Exception for government, broadcasters, schools, and libraries

Certain entities are explicitly exempted from contributing directly to the universal service support mechanisms and need not file this Worksheet. Government entities that purchase telecommunications services in bulk on behalf of themselves, *e.g.*, state networks for schools and libraries, are not required to file or contribute directly to universal service. Public safety and local governmental entities licensed under Subpart B of Part 90 of the Commission's rules are not required to file or contribute directly to universal service. Similarly, if an entity provides interstate telecommunications exclusively to public safety or government entities and does not offer services to others, that entity is not required to file or contribute directly to universal service. In addition, broadcasters, non-profit schools, non-profit libraries, non-profit colleges, non-profit universities, and non-profit health care providers are not required to file the Worksheet or contribute directly to universal service. As explained above, these non-contributors must be treated as end users by their underlying carriers and therefore may end up contributing indirectly as a result of pass-through charges.

3. Exception for systems integrators and self-providers

Systems integrators that derive less than five percent of their systems integration revenues from the resale of telecommunications are not required to file or contribute directly to universal service. Systems integrators are providers of integrated packages of services and products that may include the provision of computer capabilities, interstate telecommunications services, remote data processing services, back-office data processing, management of customer relationships with underlying carriers and vendors, provision of telecommunications and computer equipment, equipment maintenance, help desk functions, and other services and products. Legal entities that provide services only to themselves or to commonly-owned affiliates need not file.

B. Filing by Legal Entity

Each legal entity that provides interstate telecommunications service for a fee, or that provides interstate interconnected VoIP service, including each affiliate or subsidiary of an entity, must complete separately and file a copy of the attached Telecommunications Reporting Worksheet, except as provided for below. Entities that have distinct articles of incorporation, articles of formation or similar legal documents are separate legal entities. Each affiliate or subsidiary should identify their ultimate controlling parent or entity on Block 1 Line 105 – Affiliated Filers Name.

Consolidated filing will be permitted only if the filing entity certifies that all of the following conditions are met:¹⁰

- (1) A single entity oversees the management of the affiliated systems;
- (2) A single entity sends bills to customers and these bills identify a single entity (or trade name) as the service provider, rather than identifying the individual legal entities;
- (3) All revenues are posted to a single general ledger;¹¹
- (4) To the extent that separate revenue and expense accounts exist, they are derived from one consolidated set of books and the consolidated filing must cover all revenues contained in the consolidated books;
- (5) Customers have a single point of contact;

¹⁰ *Federal-State Joint Board on Universal Service et al*, CC Docket No. 96-45 *et al.*, Further Notice of Proposed Rulemaking and Report and Order, 17 FCC Rcd 3752 (2002) (2002 *First Contribution Methodology Order and FNPRM*).

¹¹ The FCC Form 499 Filings for the consolidated filer must reflect all revenues in this general ledger.

- (6) The consolidated filer acknowledges that process served on the consolidated filer would represent process served on any or all of the affiliated legal entities;
- (7) The consolidated filer agrees to document and resolve all slamming complaints that might be served on either the filing entity or any of the affiliated legal entities;¹²
- (8) The consolidated filer obtains a separate FCC Registration Number (FRN) from those assigned to its affiliated legal entities;
- (9) The consolidated filer acknowledges that its obligations with regard to universal service, Telecommunications Relay Services, Local Number Portability, the North American Numbering Plan, and regulatory fees will be based on the data provided in consolidated Worksheet filings, that it bears the responsibility to satisfy those obligations, and that all legal entities covered by the filing are jointly and severally liable for such obligations; and
- (10) The consolidated filer acknowledges that it: (A) was not insolvent on the date it undertook to make payments on a consolidated basis or on the date of actual payments to universal service, Telecommunications Relay Services, Local Number Portability, the North American Numbering Plan, and regulatory fees, and did not become insolvent as a result of such undertaking or payments; (B) was not left with unreasonably small capital as a result of such undertaking or payments; and (C) was not left unable to pay debts as they matured as a result of such undertaking or payments.¹³

Each year, entities choosing to file on a consolidated basis must file a statement with the Commission's Data Collection Agent certifying that they meet all of the above conditions.¹⁴ Such certification also must include: (1) a list of the legal names of all legal entities that are covered by the filing; (2) the FCC Form 499 identification numbers of all legal entities that are covered by the filing; (3) the consolidated filer's FRN; and (4) for wireless carriers, a list of all radio licenses (call signs) issued to each legal entity covered by the filing. Consolidated filers should file this certification with the Commission's Data Collection Agent (*see* address in Figure 2). Furthermore, a contributor choosing to file on a consolidated basis should recognize that any penalties associated with failure to pay or with underpayment of any of its obligations will be assessed on the total revenue reported on the consolidated basis, rather than on a separate legal entity basis.

C. When and Where to File

Filers are required to file this form electronically, effective April 1, 2015. Figure 2 provides the filing schedule and relevant filing addresses. If a filing date is a holiday (as defined in Section 1.4(e)(1) of the Commission's rules), Worksheets are due the next business day. There is no fee to file this form.

¹² A Commercial Mobile Radio Service (CMRS) carrier that is not subject to certain slamming regulations is not required to certify that it will document and resolve all slamming complaints that might be served on either the filing entity or any of its affiliated legal entities that also are not subject to the slamming regulations.

¹³ For purposes of this certification, the term "insolvent" means either unable to pay debts when due or having liabilities greater than assets. *See* 11 U.S.C. § 101(32).

¹⁴ *See* address in Figure 2 (Filing Schedule).

Figure 2: Filing schedule

What to file	When to file	Where to file **
Completed FCC Form 499-A	April 1	http://forms.universalservice.org
Completed FCC Form 499-Q (universal service contributors only) *	February 1 May 1 August 1 November 1	http://forms.universalservice.org
Consolidated filer certification <i>See section II.B for format and content requirements for consolidated filer certification</i>	April 1	<u>Data Collection Agent</u> c/o Universal Service Administrative Company form499@usac.org
* February 1: FCC Form 499-Q containing revenue information for October 1 through December 31 of the prior calendar year and projections for April 1 through June 30. May 1: FCC Form 499-Q containing revenue information for January 1 through March 31 and projections for July 1 through September 30. August 1: FCC Form 499-Q containing revenue information for April 1 through June 30 and projections for October 1 through December 31. November 1: FCC Form 499-Q containing revenue information for July 1 through September 30 and projections for January 1 through March 31 of the coming year.		
** The universal service administrator will calculate the amount of contribution due and send a bill to the billing contact person and billing address identified in Line (112) of the FCC Form 499-Q.		

For information on filing electronically, go to <http://forms.universalservice.org/>

Filers may file the consolidated filer certifications, and traffic studies by submitting electronic copies to: form499@usac.org.

D. Rounding of Numbers and Negative Numbers

Dollar Amounts. Reported revenues in Block 3 that are greater than a thousand dollars may be rounded to the nearest thousand dollars. **Dollar amounts may be reported in whole dollars.** For example, \$2,271,881.93 could be reported as \$2,271,882 or as \$2,272,000, but could not be reported as \$2272 thousand, or \$2.272 million. Enter \$0 in any line for which the contributor had no revenues for the period being reported.

Negative Numbers. Contributors are directed to provide billed revenues on Lines 115 through 119 without subtracting any expenses, allowances for uncollectibles or settlement payments and without making out-of-period adjustments. The amount of projected uncollectibles (the difference between Line 119 and Line 120) cannot exceed projected billings. Therefore, do not enter negative numbers on the form.

E. Obligation to File Revisions

A contributor must file a revised 499-Q Worksheet if it discovers an error in the data that it reports, i.e., if the filer discovers that it omitted or misclassified a major category of revenue. However, revised filings must be made within 45 calendar days of the original filing date. In general, the historical revenues contained in

the quarterly filings will be based on unaudited books from a point in time and the projections will represent the filer's expectations as of a point in time. Contributors need not file revisions to the FCC Form 499-Q as a result of ordinary accounting adjustments such as out-of-period adjustments. Revenue information from the FCC Form 499-A will be used to ensure that contributions for the whole year are based on all subject revenues for the year.

Filers should not file revised revenue information to reflect mergers, acquisitions, or sales of operating units. In the event that a filer that submitted an FCC Form 499-Q no longer exists, the successor company to the contributor's assets or operations is responsible for continuing to make assessed contribution or true-up payments, if any, for the funding period and must notify USAC, the Form 499 Data Collection Agent.

F. Record Keeping

Filers shall maintain records and documentation to justify information reported in the Telecommunications Reporting Worksheet, including the methodology used to determine projections and to allocate interstate revenues, for five years.¹⁵ Additionally, filers must make available all documents and records that pertain to them, including those of contractors and consultants working on their behalf, to the Commission's Office of Inspector General, to the USF Administrator, and to their auditors upon request.¹⁶ Review by the Commission or the Administrator may cover any existing corporate records, not just those specifically maintained for the five year period.¹⁷ Entities that acquire carrier operations through acquisition of property, consolidation, merger, etc., must maintain the records of the acquired entity.¹⁸

G. Compliance

Failure to file the Telecommunications Reporting Worksheet or to pay contributions in a timely fashion may subject entities to the enforcement provisions of the Communications Act and any other applicable law.¹⁹ In addition, entities may be billed by the administrators for reasonable costs, including interest and administrative costs that are caused by late, inaccurate, or untruthful filing of the Worksheet or overdue contributions.²⁰ Inaccurate or untruthful information contained in the Telecommunications Reporting Worksheet may lead to prosecution under the criminal provisions of Title 18 of the United States Code.²¹

III. Specific Instructions

A. Block 1: Contributor Identification Information

Block 1 of the Telecommunications Reporting Worksheet requires identification information.

¹⁵ See *USF Comprehensive Review Order*, 22 FCC Rcd at 16386-87, para. 27 ("These documents and records should include without limitation the following: financial statements and supporting documentation; accounting records; historical customer records; general ledgers; and any other relevant documentation").

¹⁶ See *id.* Administrator refers to the Universal Service Administrative Company.

¹⁷ See 47 U.S.C. § 218.

¹⁸ See 47 CFR § 42.1.

¹⁹ In addition, pursuant to the Debt Collection Improvement Act of 1996, the Commission shall withhold action on applications or other requests for benefits by delinquent debtors and dismiss those applications or other requests if the delinquent debt is not paid or satisfactory arrangement for payment is not made. See 47 CFR § 1.1910; *Amendment of Parts 0 and 1 of the Commission's Rules, Implementation of the Debt Collection Improvement Act of 1996 and Adoption of Rules Governing Applications or Requests for Benefits by Delinquent Debtors*, MD Docket No. 02-339, 19 FCC Rcd 6540 (2004).

²⁰ See 47 CFR § 54.713 (universal service); 47 CFR § 64.604(c)(5)(iii)(B) (TRS); see also 47 CFR § 52.17(b) (NANPA); 47 CFR § 52.32(c) (LNPA).

²¹ See 47 CFR § 54.711.

Line 101 – enter the "Filer 499 ID" number for the filing entity. This code is assigned by the Commission's Data Collection Agent after a company files its first FCC Form 499-A. Filer 499 IDs for current filers can be found at <http://apps.fcc.gov/cgb/form499/499a.cfm> or in the FCC report *Telecommunications Provider Locator*, which is available on the Commission's web site at <http://www.fcc.gov/wcb/iatd/lec.html>. This code should be entered at the top of any cover letter or supporting documentation. New filers are assigned Filer 499 ID numbers after a completed FCC Form 499-A Telecommunications Reporting Worksheet is received by the Data Collection Agent.

Line 102 – enter the legal name of the filer as it appears on articles of incorporation and other legal documents. Each legal entity must file a separate Worksheet unless affiliated entities are filing on a consolidated basis.²²

Line 103 – provide the Internal Revenue Service (IRS) employer identification number (EIN) for the filer. This should be the same EIN that the company uses to file any federal taxes, if the filer offers services subject to those taxes. Do not use individual social security numbers for the federal EIN. If a filer lacks an EIN (*i.e.* has no taxpayer identification number to provide other than an individual social security number), it should contact USAC (see section IV.B for contact information) so that it can be assigned an alternative identification number. Consolidated filers must provide the EIN associated with the Affiliated Filers Name.

Line 104 – provide the principal name under which the company conducts telecommunications activities. This would typically be the name that appears on customer bills, or the name used when service representatives answer customer inquiries.

Lines 105 and 105.1 – use this block to provide a common identifier for all affiliated filers (the "Affiliated Filers Name"). This is typically the name of the filer's holding company or controlling entity, if any. Amongst a large group of affiliates, this may be the name of the predominant commonly owned or controlled entity. The common name used by all affiliates need not be a common carrier. All reporting affiliates or commonly controlled entities should have the same Affiliated Filers Name and IRS EIN associated with the Affiliated Filers Name appearing on Line 105 and Line 105.1. For those entities also required to submit information to the Broadband Data Collection (BDC) system, use the same single name that is used the Entity Information associated with the biannual submissions of BDC availability and/or FCC Form 477 subscription data to indicate common ownership or control.²³

■ Unless otherwise specifically provided, an affiliate is a "person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person."²⁴ For this purpose, the term 'owns' means "to own an equity interest (or the equivalent thereof) of more than 10 percent."²⁵

■ If the filer has no affiliates, check the appropriate box on Line 105.

Line 106 – provide the filer's FCC Registration Number (FRN). The FRN is a ten digit number that includes a check-digit. The FRN is used to identify an entity within all Commission Licensing/Filing systems and RAMIS (the Commission's Revenue Accounting Management Information System.) This

²² See section II-B, page 6, for information on making consolidated filings.

²³ The Commission adopted an Order ending the collection of broadband deployment data through the FCC Form 477 in December 2022. See *Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, paras. 11-10, Order, FCC 22-93 (rel. Dec. 9, 2022). Pursuant to the Order, the Commission continues to collect broadband and voice subscription data using the FCC Form 477, but filers submit such data solely through the BDC system. *Id.* at para. 13.

²⁴ See 47 U.S.C. § 153(2).

²⁵ *Id.*

number is assigned by CORES (the Commission Registration System) and can be obtained at <https://apps.fcc.gov/cores/userLogin.do>. For those filers also required to submit information to the BDC system, add the FRN(s) associated with this entity used in the biannual submission of BDC availability and/or FCC Form 477 subscription data. For assistance, contact the CORES help desk at (877) 480-3201 or by e-mail at CORES@fcc.gov.

Line 107 – enter the complete mailing address of the corporate headquarters of the reporting entity.

B. Block 2: Contact Information

Lines 108-111 – enter the name, telephone number, fax number, and email address of the person who filled out the FCC Form 499-Q. This should be a person who can provide clarifications or additional information, and, if necessary, who could serve as the first point of contact in the event that either the Commission or an administrator should choose to verify or audit information provided in the Telecommunications Reporting Worksheet. Email addresses must be provided if available. Email addresses, other than those for agents for service of process, will not be shared with parties other than the Commission or the Administrator.

Line 112 – provide a billing contact person name and address for administrators to send billing information for contributions to the universal service fund. Information on establishing electronic fund transfer and bills for universal service will be sent to this address unless other arrangements are made via written request.

C. Block 3: Contributor Revenue Information

Line 113 – Check the appropriate filing due date corresponding to the historical and projected revenue you are reporting.

Lines 114-120– Provide detailed revenue data.

1. Separating Telecommunications Revenues from Service Provided to Other Contributors to the Federal Universal Service Support Mechanisms for Resale [Line 115] from Telecommunications Revenues from Service Provided to End Users [Line 116] (carrier's carrier vs. end-user)

In the Telecommunications Reporting Worksheet, filers must report revenues using two broad categories: (1) revenues from contributing resellers, intercarrier compensation, and universal service support and (2) revenues from all other sources. Taken together, these revenues should include all revenues billed to customers and should include all revenues on the reporting entities' books of account. The FCC Form 499-A instructions provide more extensive information about each of these categories and are incorporated by reference in these instructions. Filers who are not familiar with the more explicit descriptions provided in Section IV.C.4 of the annual Telecommunications Reporting Worksheet (FCC Form 499-A) instructions should familiarize themselves with those instructions before completing this form.

Revenues from services provided by underlying carriers to other entities that meet the definition of "reseller" (*see below*) are referred to herein as "carrier's carrier revenues" or "revenues from resellers." Revenues from all other sources consist primarily of revenues from services provided to end users, referred to here as "end-user revenues." This latter category includes foreign and non-telecommunications revenues.

Revenues from Resellers -- For the purpose of completing Line 115, a "reseller" is a telecommunications carrier or telecommunications provider that: (1) incorporates purchased telecommunications into its own offerings; and (2) can reasonably be expected to contribute to federal universal service support mechanisms based on revenues from those offerings.²⁶ Specifically, a customer is a reseller if it

²⁶ *Universal Contribution Methodology, Application for Review of Decision of the Wireline Competition Bureau filed by Global Crossing Bandwidth, Inc., et al.*, WC Docket No. 06-122, Order, 27 FCC Rcd 13780, 13781-82, para.3 (2012) (*2012 Wholesaler-Reseller Clarification Order*).

incorporates purchased wholesale service into an offering that is, at least in part, assessable telecommunications and can be reasonably expected to contribute to the federal universal service support mechanisms for that portion of the offering.²⁷

Each filer should have documented procedures to ensure that it reports as “revenues from resellers” only revenues from entities that meet the definition of reseller. The requirements for those procedures are described in Section IV.C.4 of the FCC Form 499-A instructions. Filers that do not comply with the standard described therein will be responsible for any additional universal service assessments that result if their revenues must be reclassified as end-user revenues.

Revenues from Entities Exempt from USF Contributions -- For the purposes of filling out this Worksheet -- and for calculating contributions to the universal service support mechanisms -- certain telecommunications carriers and service providers may be exempt from contribution to the universal service support mechanisms. These exempt entities, including “international only” and “intrastate only” providers and providers that meet the *de minimis* universal service threshold, should not be treated as resellers for the purpose of reporting revenues on Line 115. That is, filers that are underlying carriers should report revenues derived from the provision of telecommunications to exempt carriers and providers (including services provided to entities that are *de minimis* for universal service purposes) on Line (116). Underlying carriers must contribute to the universal service support mechanisms on the basis of such revenues.

2. Column (a) - total revenues

The reporting entity must report gross revenues from all sources, including nonregulated and non-telecommunications services on Lines 115 through 117 and these must add to total gross revenues as reported on Line 118. Gross revenues include account set-up, connection, service restoration, termination and other non-recurring charges. These charges should be reported on the same line that the filer reports any associated recurring revenue. For example, an early termination charge to an end user for an interstate private line service would be reported as interstate revenue on Line 116. Deposits are not revenue. Gross revenues should include revenues derived from the activation and provision of interstate, international, and intrastate telecommunications and non-telecommunications services. Gross revenues consist of total revenues billed to customers during the filing period with no allowances for uncollectibles, settlements, or out-of-period adjustments. Gross revenues do not include amounts that cannot be billed to customers. Gross revenues should include collection overages and unclaimed refunds for telecommunications and telecommunications services when not subject to escheats. Gross billed revenues may be distinct from booked revenues. National Exchange Carrier Association (NECA) pool companies should report the actual gross billed revenues (CABS Revenues) reported to the NECA pool and not settlement revenues received from the pool. Entities making consolidated filings must include in their FCC Form 499 Filings all revenue on the consolidated books of account.²⁸

Where two contributors have merged prior to the filing date, the successor company should report total revenues for the reporting period for all predecessor operations. The two contributors, however, should continue to report separately if each maintains separate corporate identities and continues to operate.²⁹ Where an entity obtains, through purchase, merger or transfer, the telecommunications operations or customer base of a telecommunications provider during a quarter, the acquiring company must report all

²⁷ Thus, for example, if a customer purchases a DS1 line and incorporates that service into an offering of both telephone service and broadband Internet access service, it may certify that it is a reseller for purposes of that purchased service so long as it contributes on the assessable revenues from the telephone service. *See id.* at 13796, para. 34 n.98.

²⁸ For additional information regarding the reporting of revenues filers should refer to the FCC Form 499-A Instructions. *FCC Form 499-A Instructions* at 15-30.

²⁹ *See also* section II-E above.

telecommunications revenues associated with such operations or customer base including revenues billed in the quarter prior to the date of acquisition.

Gross revenues also should include any surcharges on telecommunications services or interconnected VoIP services that are billed to the customer and either retained by the contributor or remitted to a non-government third party under contract. Gross revenues should exclude taxes and any surcharges that are not recorded on the company books as revenues but which instead are remitted to government bodies. Note that any charge included on the customer bill and represented to recover or collect contributions to federal or state universal service support mechanisms must be included in Line 116. Filers should report as intrastate revenues state universal service charges only to the extent that actual payments to state universal service programs were recovered by pass-through charges itemized on customer bills. Other surcharges treated as revenue should be included in the revenue categories on which the surcharges were levied.

For international services, gross revenues consist of gross revenues billed by U.S. contributors with no allowances for settlement payments. International settlement receipts for foreign billed service should not be included in U.S. telecommunications revenues.³⁰ Note that if the filer receives the traffic in the United States, then it is providing ordinary international service from the United States to a foreign point and receipts from the originating carrier would be reported as revenue on Line 116 (c).

For FCC Form 499 purposes, credits that are issued by the filer may be recognized only when redeemed. In Form 499 worksheets, filers that use earned revenue to represent billed revenue may recognize credits when redeemed but may not report negative revenues. Other filers should include credits in uncollectibles, when earned.

For international private line services, U.S. providers must report on Line 116 revenues from the U.S. portion of the circuit to the theoretical midpoint of the circuit regardless of whether such revenues were billed to the customer by the filer or by a partner provider in a foreign point. Revenues from circuits within the United States that connect a customer to an international circuit should be reported as interstate on Line 116.

Revenues from circuits that connect two foreign points should be reported on Line 118.

For purposes of completing this Worksheet, prepaid card revenues should be recognized when end-user customers purchase the cards.

If you have any revenue for Lines 115 and 116, you may not omit the dollar amounts from column (a) even if 100% of the revenue is for interstate or international service.

3. Column (b) and (c) - interstate & international

Columns (b) and (c) are provided to identify the part of gross revenues that arise from interstate and international services for Lines 115 and 116. Intrastate telecommunications means communications or transmission between points within the same State, Territory, or possession of the United States, or the District of Columbia. Interstate and international telecommunications means communications or transmission between a point in one State, Territory, possession of the United States or the District of Columbia and a point outside that State, Territory, possession of the United States or the District of Columbia. Revenues from services offered under interstate tariffs, such as revenues from federal subscriber line charges and from federally tariffed local number portability surcharges, should be identified as interstate revenues. This includes amounts incorporated in or bundled with other local service charges.

For example, if a prepaid calling card provider collects a fixed amount of revenue per minute of traffic, and 65 percent of minutes are interstate, then interstate revenues would include 65 percent of the end-user

³⁰ For example, if a filer receives payment from a foreign carrier for traffic that the filer receives outside of the United States, brings into the United States, and then reoriginates and carries the traffic to a foreign point, the filer would not include those settlement-like payments as revenues on the FCC Form 499-Q.

revenues. Similarly, if a local exchange carrier bills local measured service charges for calls that originate in one state and terminate in another, these billings should be classified as interstate even though the charges are covered by a state tariff and the revenues are included in a local service account. If over ten percent of the traffic carried over a private or WATS line is interstate, then the revenues and costs generated by the entire line are classified as interstate.³¹ In general, flat-rated unbundled network access elements should be classified according to the regulatory agency that has primary jurisdiction over the contracts.

To the extent that contributors recover a non-traffic sensitive charge for the interstate portion of fixed local exchange service or for providing interstate or interstate access service from their customers through a subscriber line charge or access recovery charge, they must allocate those revenues to the interstate jurisdiction, for USF contribution reporting purposes, in a manner that is consistent with their supporting books of accounts and records.³²

Amounts billed to customers to recover federal universal service contribution obligations should be attributed as either interstate or international revenues, as appropriate, on Line 116 but may not be reported as intrastate revenues.

Note: Where possible, filers should report their amount of total revenues that are interstate and international by using information from their books of account and other internal data reporting systems. Where a filer can determine the precise amount of revenues that it has billed for interstate and international services, it should enter those amounts in columns (b) and (c), respectively. Total revenues entered in column (a) include revenues billed for intrastate service even though intrastate revenues are not reported separately on the Form 499-Q.

If interstate and international revenues cannot be determined directly from corporate books of account or subsidiary records, filers provide on the Worksheet good-faith estimates of these figures. Good-faith estimates must be based on information that is current for the filing period. Information supporting good-faith estimates must be made available to either the FCC, data collection agent, or to the Administrator upon request. For convenience, calculated interstate and international revenue amounts that are greater than one thousand dollars may be rounded to the nearest thousand dollars. Enter zero dollars in column (b) or column (c) if, and only if, there were no interstate or international revenues for the line for the reporting period.

Safe Harbors -- Note that the FCC provides the following safe harbor percentages of interstate wireless revenues associated with Lines 115, 116, 119 and 120:³³

37.1% of cellular and broadband PCS telecommunications revenues

12% of paging revenues

1% of analog SMR dispatch revenues

These safe harbor percentages may not be applied to universal service pass-through charges, fixed local service revenues, or toll service charges. **All filers must report the actual amount of interstate and international revenues for these services.** For example, toll charges for itemized calls appearing on

³¹ See *Universal Service Order*, 12 FCC Rcd at 9173, para. 7788776 (1997) (citing 47 CFR § 36.154(a)).

³² For example, to the extent that a contributor's tariff filing (or equivalent) indicates that a non-traffic sensitive charge is for interstate access, then revenues for such charge (or a portion thereof) must be allocated to interstate revenues for USF reporting purposes.

³³ See *Federal-State Joint Board on Universal Service et al.*, CC Docket No. 96-45 *et al.*, Report and Order and Second Further Notice of Proposed Rulemaking, 17 FCC Rcd 24952 (2002) (*2002 Second Contribution Methodology Order and FNPRM*); see also *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 13 FCC Rcd 21252, 21258-60, paras. 11-15 (1998) (*Wireless Safe Harbor Order*).

mobile telephone customer bills should be reported as intrastate, interstate or international based on the origination and termination points of the calls.

The FCC provides the following safe harbor percentage of interstate interconnected VoIP revenues associated with Line 115, 116, 119 and 120:³⁴

64.9% of interconnected VoIP telecommunications revenues

These safe harbor percentages may not be applied to universal service pass-through charges or other fixed local service revenues.

Wireless telecommunications providers and interconnected VoIP providers that choose to avail themselves of these safe harbor percentages for interstate revenues may assume that the FCC will not find it necessary to review or question the data underlying their reported percentages. All affiliated wireless telecommunications providers and interconnected VoIP providers must make a single election, each quarter, whether to report actual revenues or to use the current safe harbor within the same safe harbor category.³⁵ So, for example, if in a calendar quarter a wireless telecommunications provider reports actual interstate revenues for its cellular and broadband PCS telecommunications services, all of its affiliated legal entities must also report actual interstate telecommunications revenues for cellular and broadband PCS offerings. The same wireless telecommunications provider and all affiliates, however, could use the safe harbor for paging services.

Note: Filers should use the same methodology (traffic study or safe harbor) to report interstate and international jurisdictions on the FCC Form 499-A as used on the FCC Form 499-Qs to forecast revenue in each quarter of the applicable calendar year. For example, if a filer projected revenue based on a safe harbor for the first two quarters and based on traffic studies for the final two quarters, the amounts reported in the FCC Form 499-A for the first two quarters would be based on actual billings for those quarters and the relevant safe harbors, and the amounts reported for the final two quarters would be based on actual billings for those quarters and the traffic studies for those quarters.

Many carriers and other providers of telecommunications now offer packages that bundle fixed local exchange service with interstate toll service (*i.e.*, voice long distance) for a single price. Revenues for the whole bundle, except for tariffed subscriber line and PICC charges, should be reported on Line 116, as described more fully below. The portion of revenues associated with interstate and international toll services must be identified in columns (d) and (e), respectively.³⁶ Filers should make a good faith estimate of the amounts of interstate and international revenues from bundled local/toll service if they cannot otherwise determine these amounts from corporate records, and must make their methodology available to the Commission or the Administrator, upon request.

³⁴ See *2006 Contribution Methodology Reform Order* at 7532-33, 7545-46, paras. 25-27, 53-55.

³⁵ See *Federal-State Joint Board on Universal Service et al.*, CC Docket No. 96-45 *et al.*, Order and Order on Reconsideration, 18 FCC Rcd 1421, 1424-25, para. 6 (2003) (“wireless telecommunications providers are ‘affiliated’ for purposes of making the single election whether to report actual interstate telecommunications revenues or use the applicable interim wireless safe harbor if one entity (1) directly or indirectly controls or has the power to control another, (2) is directly or indirectly controlled by another, (3) is directly or indirectly controlled by a third party or parties that also controls or has the power to control another, or (4) has an ‘identity of interest’ with another contributor”). See also 47 CFR § 1.2110(c)(5).

³⁶ See *Universal Service Contribution Methodology, Petition for Declaratory Ruling of CTIA – The Wireless Association on Universal Service Contribution Obligations, Petition for Declaratory Ruling of Cingular Wireless, LLC*, WC Docket No. 06-122, Declaratory Order, 23 FCC Rcd 1411, 1414, para. 5 (2008) (defining “toll service”) (*Separately Stated Toll Order*).

Interconnected VoIP and CMRS providers may rely on traffic studies if they are unable to determine their actual interstate and international revenues.³⁷ In developing their traffic studies, interconnected VoIP and CMRS providers may rely on statistical sampling to estimate the proportion of minutes that are interstate and international. Any revenues associated with charges on customer bills that are identified as interstate or international must effectively be accounted for (e.g., through proper weighting in a traffic study) as 100 percent interstate or international when reporting revenues.³⁸ Sampling techniques must be designed to produce a margin of error of no more than one percent with a confidence level of 95%. If the sampling technique does not employ a completely random sample (e.g., if stratified samples are used), then the respondent must document the sampling technique and explain why it does not result in a biased sample. Traffic studies should include, at a minimum: (1) an explanation of the sampling and estimation methods employed and (2) an explanation as to why the study results in an unbiased estimate with the accuracy specified above. Mobile wireless providers and interconnected VoIP providers should retain all data underlying their traffic studies as well as all documentation necessary to facilitate an audit of the study data and be prepared to make this data and documentation available to the Commission upon request. In addition, CMRS and interconnected VoIP providers that rely on traffic studies must submit those studies to USAC (*see* Figure 2 for filing instructions – including address for filing traffic studies, and filing deadlines). To enable USAC to match traffic studies filed by contributors with their FCC Form 499 filings, include the following identifying information at the top of each page of the traffic study: Filer ID; Company Name; Affiliated Filers Name (where applicable).

4. Explanation of historical revenue categories

Total gross revenue reported on Line 118 should equal the total of the detail amounts reported on Lines 115 through 117.

Line 114 – Use this line to indicate if filer is using safe harbors to allocate revenues (in Lines 119 and 120) between interstate and intrastate jurisdictions. Select all that apply. See instructions above for the use of safe harbors.

Line 115 – Revenues from services provided to other universal service contributors for resale. This line should contain revenues from telecommunications services provided to resellers (*i.e.*, telecommunications revenue derived from other universal service contributors). This category comprises what is commonly-referred to as “carrier’s carrier revenues.” Filers may wish to consult the instructions for FCC Form 499-A, Lines 303 through 314, when calculating this figure.

Line 116 – Universal service contribution base revenues. This line should contain end-user telecommunications revenues (*i.e.*, telecommunications revenues derived from entities that do not contribute directly to universal service), except for revenue from international calls that both originate and terminate in foreign points. Filers should consult the instructions for FCC Form 499-A, Line 420, when calculating this figure.

Line 117 – Other revenue that should not be reported in the universal service contribution base, including revenues for telecommunications services subject to forbearance from a contribution obligation. This line

³⁷ See *2006 Contribution Methodology Reform Order*, 21 FCC Rcd at 7534-36, 7547, paras. 29-33, 57; *see also* *Policy and Rules Concerning the Interstate, Interexchange Marketplace; Implementation of Section 254(g) of the Communications Act of 1934, as Amended; 1998 Biennial Regulatory Review – Review of Customer Premises Equipment and Enhanced Services Unbundling Rules in the Interexchange, Exchange Access and Local Exchange Markets*, CC Docket Nos. 96-61, 98-183, Report and Order, 16 FCC Rcd 7418, 7446-48, paras. 47-51 (2001) (*CPE Bundling Order*).

³⁸ See *Separately Stated Toll Order*, 23 FCC Rcd at 1418, para. 15. In developing traffic studies, toll service traffic must be identified and treated in a manner that recognizes that such traffic is more likely to be interstate or international than intrastate. *See id.* Additionally, appropriate weighting of the higher revenue that is often associated with toll service must be reflected in the traffic study or studies. *See id.*

should contain revenue from international calls that both originate and terminate in foreign points and revenues that are reportable on FCC Form 499-A, Line 418.

Line 117 should include all non-telecommunications service revenues on the reporting entity's books as well as some revenues that are derived from telecommunications-related functions but that should not be included in the universal service or other fund contribution bases. For example, information services offering a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications are not included in the universal service or other fund contribution bases. Information services do not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service. Information services also are called enhanced services because they are offered over transmission facilities used in interstate communications and employ computer processing applications that act on the format, content, code, protocol, or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information. For example, call moderation and call transcription services are information services. These services are exempt from contribution requirements and should be reported on Line 117. Line 117 should include revenues from published directory and carrier billing and collection services. Line 117 should include revenues from the sale, lease, installation, maintenance, or insurance of customer premises equipment (CPE). Line 117 should include inside wiring charges and inside wiring maintenance insurance. Line 117 should include the sale or lease of transmission facilities, such as dark fiber or bare transponder capacity, that are not provided as part of a telecommunications service or as a UNE. Line 117 should include pole attachment revenues. Line 117 should include revenues from providing open video systems (OVS), cable leased access, cable service, and direct broadcast satellite (DBS) services. Line 117 should include late payment charges and charges (penalties) imposed by the company for customer checks returned for non-payment. Line 117 should include revenues from telecommunications services provided in a foreign country where the traffic does not transit the United States or where the carrier is providing service as a foreign carrier, i.e., a carrier licensed in that country. Line 117 should include revenues from the provision of broadband Internet access services.

The Commission adopted two “safe harbor” methods for allocating revenue when telecommunications and CPE/enhanced services are offered as a bundled package.³⁹ The first option is to report revenues from bundled telecommunications and CPE/enhanced service offerings based on the unbundled service offering prices, with no discount from the bundled offering being allocated to telecommunications. Alternatively, contributors may elect to treat all bundled revenues as telecommunications revenues for purposes of determining their universal service obligations. Filers may choose to use allocation methods other than the two described above. Filers should realize, however, that any other allocation methods may not be considered reasonable, and will be evaluated on a case-by-case basis in an audit or enforcement context. Prepaid calling card providers may avail themselves of the bundled service safe harbors for separating revenue between telecommunications and information services.⁴⁰

Line 118 – Gross billed revenues from all sources. This line should equal the sum of revenues by type of service reported on Lines 115 through 117.

As noted above, for further detail on the types of revenues that should be reported on Lines 115 through 117, filers may wish to consult the Instructions for the FCC Form 499-A, available on USAC's web site (<https://www.usac.org/service-providers/resources/forms/>).

³⁹ *CPE Bundling Order*, 16 FCC Rcd 7418 at 7447-48, paras. 50-52.

⁴⁰ *See Regulation of Prepaid Calling Card Services*, WC Docket No. 05-68, Declaratory Ruling, Report and Order, 21 FCC Rcd 7290, 7298, para. 22 (2006), *vacated in part, Qwest Servs. Corp. v. FCC*, 509 F.3d 531 (D.C. Cir. 2007).

5. Projected gross billed end-user interstate and international revenues

The projection quarter is the calendar quarter that starts two months after the filing date and finishes five months after the filing date. Line 119 should contain projected gross-billed end-user interstate and international revenues, including any pass-through charges for federal universal service contributions. These amounts should be the amounts that the filer anticipates reporting on Line 116, column (b) and column (c), in the FCC Form 499-Q filing due six months after the present filing date. In order to estimate these amounts, the filer could review the amounts they are reporting on Line 116 in the current filing and amounts reported in recent filings. In addition, filers could take into account general business conditions, new contracts covering the projection period, pricing trends, marketing programs, expansion plans, and other relevant information. Filers must develop good faith projections based on company procedures and policies. If the filer anticipates that revenues are as likely to increase as decrease, then it may copy the historic values from Line 116 to use as its projections for Line 119 or it could develop projections by trending historic values from previous quarterly filings. Filers need not make projections for Line 119 column (a).

6. Projected collected end-user interstate and international revenues

Line 120 should show the interstate and international revenues that the filer anticipates collecting from customers during the projection quarter. For this purpose “collected end-user” revenues refers to gross-billed end-user interstate and international telecommunications revenues, including any pass-through charges for federal universal service contributions, less estimated uncollectibles.⁴¹ We define uncollectibles as the percentage of interstate and international telecommunications revenues that the contributor anticipates will not be collected from end-user customers. This percentage should be calculated in accordance with Generally Accepted Accounting Principles.⁴² Thus, uncollectibles should represent the portion of gross billed revenues that the contributor reasonably expects will not be collected. Filers that use the accrual method of accounting should use the percentage of billed revenues that they recognize currently as a reserve for uncollectibles in their books of accounts. Filers that use the cash method of accounting should base this percentage on a comparison of actual collections and billed revenues, with the periods chosen to allow for the average delay between when services are billed and when payments are received. The amounts shown on Line 120 should be the amounts on Line 119 reduced by the percentage of uncollectibles.

Filers will be billed based on the amounts reported on Line 120. Any revisions to these amounts must be filed within 45 calendar days. No adjustments to billings will be made during the quarter to reflect actual levels of billed service and actual collection rates. The Administrator will use the actual revenue data provided by contributors on the FCC Form 499-A to perform annual true-ups to the quarterly projected revenue data submitted by contributors during the prior calendar year.⁴³ As necessary, the administrator will then refund or collect from contributors any over-payments or under-payments. If the combined quarterly projected revenues reported by a contributor are greater than those reported on its annual revenue report (FCC Form 499-A), then a refund will be provided to the contributor based on an average of the two lowest contribution factors for the year. If the combined quarterly projected revenues reported by a contributor are less than those reported on its annual revenue report (FCC Form 499-A), then the

⁴¹ *Wireless Safe Harbor Order*, 13 FCC Rcd at 21258-60, paras. 11-15; *2002 Second Contribution Methodology Order and FNPRM*, 17 FCC Rcd at 24970, para. 32.

⁴² General Accepted Accounting Principles (GAAP) encompasses the conventions, rules, and procedures necessary to define accepted practice in the preparation of financial statements in the United States. The Financial Accounting Standards Board (FASB) is currently the primary authority to establish GAAP for all companies. Carriers subject to the Uniform System of Accounts would derive this figure from the amount recorded in Account 5301, Uncollectible Revenue - Telecommunications.

⁴³ See Telecommunications Reporting Worksheet, FCC Form 499-A, OMB 3060-0855 (*FCC Form 499-A*).

administrator will collect the difference from the contributor using an average of the two highest contribution factors from that year.

D. Block 4: Certification.

Line 121 – Filers may use the box in Line 121 to request nondisclosure of the revenue information contained on the Telecommunications Reporting Worksheet. By checking this box, the officer of the company signing the Worksheet certifies that the information contained on the Worksheet is privileged or confidential commercial or financial information and that disclosure of such information would likely cause substantial harm to the competitive position of the company filing the Worksheet. This box may be checked in lieu of submitting a separate request for confidentiality pursuant to section 0.459 of the Commission's rules.⁴⁴ All decisions regarding disclosure of company-specific information will be made by the Commission. The Commission regularly makes publicly available the names (and Block 1 and 2 contact information) of the entities that file the Telecommunications Reporting Worksheet.

Lines 122 through 126 – An officer of the reporting entity must examine the data provided in the Telecommunications Reporting Worksheet and certify that the information provided therein is accurate and that projections provided therein represent good faith estimates based on company procedures and policies. An officer is a person who occupies a position specified in the corporate by-laws (or partnership agreement), and would typically be president, vice president for operations, vice president for finance, comptroller, treasurer, or a comparable position. If the reporting entity is a sole proprietorship, the owner must sign the certification. The signature on Line 122 must be in ink unless you are a company officer who has previously filed a signed paper form, in which case you may certify your form online.

Reporting entities have the opportunity to enter data, verify, submit and certify FCC Forms 499-A and 499-Q online via a web-based data entry system. Company officers, who have previously filed a signed paper form, may certify subsequent forms online without being required to submit signed paper forms. For those officers, an electronic signature in the signature block of each form certified by that officer will be considered the equivalent to a handwritten signature on the form. By entering his or her electronic signature into the signature block of each form, the officer, therefore, acknowledges that such electronic signature certifies his or her identity and attests under penalty of perjury as to the truth and accuracy of the information contained in each electronically signed form. Visit <https://www.usac.org/service-providers/contributing-to-the-usf/forms-to-file/> for more information and access to the online filing system.

A person who willfully makes false statements on the Worksheet can be punished by fine or imprisonment under title 18 of the United States Code.⁴⁵

Line 127 – Indicate whether this filing is an original filing or a revised filing.⁴⁶

IV. Additional Information

A. Reminders

- Filers are required to maintain records and documentation to justify information reported on the Telecommunications Reporting Worksheet for five years. Filers also must maintain records detailing the methodology used to determine projections reported on the Telecommunications

⁴⁴ 47 CFR § 0.459. See also *Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, GC Docket No. 96-55, Report and Order, 13 FCC Rcd 24816 (1998) (listing the showings required in a request that information be withheld and stating that the Commission may defer action on such requests until a formal request for public inspection has been made).

⁴⁵ See 18 U.S.C. § 1001.

⁴⁶ See section II-E.

Reporting Worksheet. Upon request, filers may be required to provide such records and documentation to the Commission or to the administrator.

- Is the filer affiliated with another telecommunications provider? Each legal entity must file separately unless they qualify for filing on a consolidated basis. *See* section II-B. Each affiliate or subsidiary must show the Affiliate Filers Name on Line 105.
- For information on filing electronically, go to <http://forms.universalservice.org/>.
- Provide data for all lines that apply. Show a zero for services for which the contributor had no revenues for the filing period.
- Contributors to universal service support mechanisms must make five FCC Form 499 filings each year. *See* Figure 2.
- Wherever possible, revenue information should be taken from the contributors' financial records. Filers also must provide projected revenue information on Line 119 through Line 120.
- The Worksheet must be signed by an officer of the reporting entity. An officer is a person who occupies a position specified in the corporate by laws (or partnership agreement), and would typically be president, vice president for operations, comptroller, treasurer, or a comparable position.
- Do not mail the Worksheet to the FCC. *See* section II-C for filing instructions.
- Note that FCC Form 499 is one of several forms that telecommunications carriers and other providers of interstate telecommunications may need to file. Information concerning common filing requirements for such providers may be found on the FCC web site, at <http://forms.universalservice.org/>.

B. Contact Information

If you have questions about the Worksheet or the instructions, you may contact:

Universal Service Administrator	form499@usac.org (888) 641-8722

If you have questions regarding contribution amounts, billing procedures, or the support and cost recovery mechanisms, you may contact:

Universal Service Administrator	(888) 641-8722

- FCC -



PUBLIC NOTICE

Federal Communications Commission
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Washington, DC 20554

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DA 23-1025

Released: October 30, 2023

WIRELINE COMPETITION BUREAU AUTHORIZES 368 COMPANIES IN 44 STATES TO RECEIVE ENHANCED ALTERNATIVE CONNECT AMERICA COST MODEL SUPPORT TO EXPAND RURAL BROADBAND

WC Docket No. 10-90

Consistent with the Commission's *Enhanced A-CAM Order*, the Wireline Competition Bureau (Bureau) authorizes 368 rate-of-return companies that elected offers of Enhanced Alternative Connect America Cost Model (Enhanced A-CAM) support to receive model-based support.¹ Authorization Report 1, released today, shows the authorization amount and initial deployment obligations for each carrier that elected an offer.² The authorizations specify support to the electing companies for a 15-year period beginning January 1, 2024, in exchange for these companies committing to deploy broadband service of at least 100/20 Mbps service to over 700,000 unserved locations across the United States, and maintain or improve existing 100/20 Mbps service to approximately 2 million locations.

The Bureau authorizes and directs the Universal Service Administrative Company (USAC) to obligate and disburse the annual support amounts over a 15-year term, from January 1, 2024 to December 31, 2038, for each carrier that has accepted the offer of Enhanced A-CAM support in the states identified in Authorization Report 1.³ Current A-CAM I and A-CAM II recipients are authorized to receive approximately \$866.5 million per year, while current legacy support recipients will receive approximately \$385.4 million in frozen support in 2024 and transition toward the model-calculated support amounts over the term of support. The Enhanced A-CAM support authorized totals \$18,284,094,870 over the full 15-year term. The Bureau also authorizes and directs USAC to obligate and disburse the appropriate

¹ See *Connect America Fund; ETC Annual Reports and Certifications; Telecommunications Carriers Eligible to Receive Universal Service Support; Connect America Fund – Alaska Plan; Expanding Broadband Service Through the ACAM Program*, WC Docket Nos. 10-90, 14-58, 09-197, and 16-271; RM-1168, Report and Order, Notice of Proposed Rulemaking, and Notice of Inquiry, FCC 23-60, at 42, para. 98 (July 24, 2023) (*Enhanced A-CAM Order*).

² The report is available at <https://www.fcc.gov/document/enhanced-cam-authorization-report> (Authorization Report 1). Based on this list of authorizations, current A-CAM recipients that elected Enhanced A-CAM have 646,394 “required locations” (i.e., locations to which the Enhanced A-CAM recipient must deploy at least 100/20 Mbps service because they are not currently served with 100/20 Mbps or faster service or subject to an enforceable commitment to deploy such service). Authorization Report 1, at Table 1.1. Those required locations are approximately 72% of the 893,334 required locations for all eligible companies that currently receive A-CAM I or A-CAM II. See *Enhanced A-CAM Offer Report 2.0* (available at <https://docs.fcc.gov/public/attachments/DOC-397100A1.xlsx>), at Table 2.2. Accordingly, the threshold for establishing the Enhanced A-CAM program set by the Commission has been met. *Enhanced A-CAM Order* at 43, para. 101 (stating that the Enhanced A-CAM program will not proceed “if existing A-CAM participants collectively choose to accept Enhanced A-CAM offers that in total cover less than 50% of the unserved locations that are eligible for support across all the offers to current A-CAM recipients”).

³ As noted below, disbursements may not occur until USAC has confirmed that the carrier has notified the National Exchange Carrier Association (NECA) that it is withdrawing from the Common Line pool.

transition payments to those carriers eligible for such support as determined by the Commission.⁴ To the extent that companies currently receiving CAF BLS support are subject to true-ups for past year's support, those amounts will be offset against the Enhanced A-CAM and transitional support authorized here.

Consistent with the *Enhanced A-CAM Order*,⁵ we are making publicly available carriers' election letters, grouped by state, at <https://www.fcc.gov/general/rate-return-resources>. This information will facilitate coordination with other funding programs and help avoid duplicative funding.⁶ This will allow states and other entities to review all of the information regarding deployment technologies provided by Enhanced A-CAM carriers. To further aid coordination with other funding programs, we are adding Enhanced A-CAM carrier study areas to the Broadband Funding Map⁷ so that it will be clear which areas are included in this program.

All of the carriers authorized to receive model-based support are subject to defined deployment obligations, with annual reporting of their progress.⁸ Specifically, Enhanced A-CAM carriers are required to deploy 100/20 Mbps or faster service to every location in their study areas which do not currently have such service or for which there is not an existing enforceable commitment to deploy such service and to maintain service to those locations already served with speeds of at least 100/20 Mbps. As noted in the Commission's *Enhanced A-CAM Order*, although an initial estimate of the number of "required locations" to which deployment is required is included in Authorization Report 1, Table 1.2, a final list of locations an Enhanced A-CAM carrier is required to serve is subject to an adjustment process that will be completed no later than December 31, 2025.⁹ The Bureau is currently determining the best method of incorporating the use of Broadband Serviceable Location (BSLs) identifiers used in the Broadband Serviceable Location Fabric (Fabric) and the Broadband Data Collection (BDC) into the High Cost Universal Broadband (HUBB) portal. Until the Bureau announces the process for reporting BSLs into the HUBB, carriers shall continue to report locations to which they have deployed broadband service in both the HUBB under their existing support program, i.e., A-CAM I, A-CAM II, or CAF BLS, and the BDC. Similarly, Enhanced A-CAM carriers shall continue to conduct performance testing in their existing support programs until the Bureau has confirmed that the carrier is in compliance with its obligations under that program because results for performance testing conducted in 2023 are not due until July 1, 2024. Continuing reporting and testing under existing programs will allow the Bureau to determine if Enhanced A-CAM carriers are in compliance with their deployment and performance obligations under their existing programs.¹⁰

⁴ As shown in Authorization Report 1.1, transition support varies depending upon whether the carrier is already receiving transition support for A-CAM I or II, the carrier currently receives Connect America Fund Broadband Loop Support (CAF BLS) support, and the difference between the carrier's current support and its Enhanced A-CAM support. See 47 CFR § 54.311(e),(f). Transition support for current A-CAM I and A-CAM II carriers will continue to be paid from USAC's high-cost reserve account, as previously specified by the Commission. See *Connect America Fund et al.*, WC Docket Nos. 10-90 et al., Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087, 3111 n.130 (2016).

⁵ See *Enhanced A-CAM Order* at 43, para. 100.

⁶ See *id.*

⁷ The Broadband Funding Map is available at <https://www.fcc.gov/economics-analytics/funding-map>.

⁸ See 47 CFR §§ 54.311(d), 54.320(d).

⁹ *Enhanced A-CAM Order* at 16-17, 19-22, paras. 34, 40-44. The Bureau anticipates that this adjustment process will occur in multiple steps, and the Bureau will announce an anticipated schedule prior to initiating the process.

¹⁰ See *Enhanced A-CAM Order* at 23-24, 40-41, paras. 49, 92-95. Existing CAF BLS carriers that have elected Enhanced A-CAM support will be subject to support recovery under Section 54.320(d) for that program if they have not met their deployment and performance obligations because their final milestone for their existing five-year term ends on December 31, 2023.

We remind the carriers authorized to receive Enhanced A-CAM support of their requirements related to tariffs. Legacy rate-of-return carriers electing Enhanced A-CAM support must exit the National Exchange Carrier Association, Inc. (NECA) common line tariff pool before they will be authorized to receive model-based support.¹¹ These carriers, however, may continue to tariff non-pool rates for common line and consumer broadband-only loops pursuant to NECA tariffs. These carriers must coordinate with NECA to make any required tariff filings to effectuate these requirements. NECA carriers electing Enhanced A-CAM support must notify NECA by November 17, 2023 that they will no longer participate in the NECA common line tariff pool, effective January 1, 2024.¹² USAC may disburse Enhanced A-CAM support once it confirms that the electing Enhanced A-CAM carrier notified NECA that it will exit the NECA common line tariff pool.¹³

Enhanced A-CAM support recipients that have not already done so are also eligible to transition certain business data service (BDS) offerings to incentive regulation under section 61.50 of the Commission's rules.¹⁴ NECA carriers accepting Enhanced A-CAM support and electing BDS incentive regulation must notify NECA by March 1, 2024 that they will not participate in the NECA traffic-sensitive tariff pool for their BDS offerings effective July 1, 2024.¹⁵ These carriers may continue to participate in the NECA traffic sensitive pool and tariff for access services other than BDS.¹⁶ Additionally, Enhanced A-CAM carriers electing BDS incentive regulation must notify the Bureau of their BDS election by May 1, 2024 to be effective concurrent with the July 2024 annual access charge tariff filing.¹⁷ These carriers should file a letter in WC Docket No. 17-144 notifying the Bureau of their BDS election including the carrier name, study area, state, and study area code.¹⁸ In its notices to NECA and the Bureau, each carrier should specify whether it is choosing to update its separation category relationships.¹⁹ Enhanced A-CAM carriers that elect BDS incentive regulation may begin detariffing their BDS offerings after the effective date of their BDS election but must detariff their BDS offerings within 36 months after the effective date of their election of BDS incentive regulation.²⁰ Specifically, Enhanced A-CAM carriers electing BDS incentive regulation may begin de-tariffing certain BDS offerings—packet-based BDS, time division multiplexed (TDM)-based BDS above a DS3 bandwidth, and TDM-based end user channel termination BDS at or below a DS3 bandwidth in study areas deemed

¹¹ *Id.* at 39, para. 91 (citing *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3159-60, paras. 194-96). NECA Tariff F.C.C. No. 5 covers the carrier common line tariff pool.

¹² See 47 CFR § 69.3(e)(9).

¹³ *Enhanced A-CAM Order* at 39, para. 91.

¹⁴ 47 CFR § 61.50; *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, 10421-22, para. 44 (2018) (*Rate-of-Return BDS Order*).

¹⁵ See 47 CFR § 69.3(i)(1); see also *id.* § 69.3(e)(6); *Rate-of-Return BDS Order*, 33 FCC Rcd at 10445, para. 119. The NECA traffic-sensitive pool is contained in NECA F.C.C. Tariff No. 5.

¹⁶ 47 CFR § 61.50(d).

¹⁷ 47 CFR § 61.50(l)(3); *Rate-of-Return BDS Order*, 33 FCC Rcd at 10445, para. 119.

¹⁸ See *Wireline Competition Bureau Announces Rate-of-Return Carriers Electing Incentive Regulation for their Business Data Services*, WC Docket No. 17-144, Public Notice, 35 FCC Rcd 7037, 7037 (WCB 2020) (a total of 136 rate-of-return carriers serving 227 study areas in 40 states and one territory elected BDS incentive regulation).

¹⁹ *Rate-of-Return BDS Order*, 33 FCC Rcd at 10445, para. 119.

²⁰ 47 CFR § 61.50(k)(3) (“A rate-of-return carrier electing incentive regulation for its business data services must detariff: (i) All packet-based and time division multiplexed business data services above a DS3 bandwidth within thirty-six months after the effective date of its election of incentive regulation; and (ii) All time division multiplexed end user channel termination business data services at or below a DS3 bandwidth in any study area deemed competitive by the competitive market test within thirty-six months after such services shall be deemed competitive in a study area.”).

competitive—beginning in tariff filings effective July 1, 2024 and must de-tariff such services no later than July 1, 2027.²¹

For additional information on this proceeding, contact Stephen Wang (Stephen.Wang@fcc.gov) of the Wireline Competition Bureau, Telecommunications Access Policy Division, (202) 418-7400.

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²¹ See 47 CFR § 61.50(k)(3) (BDS offerings provided by rate-of-return carriers electing BDS incentive regulation that are subject to mandatory detariffing); *id.* § 61.50(j) (competitive market test for rate-of-return carriers electing BDS incentive regulation).



PUBLIC NOTICE

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PROCEDURES FOR MOBILE NETWORK COVERAGE AND MILESTONE TESTING IN PUERTO RICO AND THE UNITED STATES VIRGIN ISLANDS

WC Docket No. 18-143

I. INTRODUCTION

1. In this Public Notice, the Wireline Competition Bureau (Bureau or WCB) and the Office of Economics and Analytics (OEA) announce approved parameters and a testing methodology that mobile support recipients of the Bringing Puerto Rico Together Fund and the Connect USVI Fund (collectively, the PR-USVI Funds) may use to submit network data to verify that they have met their deployment obligations.¹ Alternatively, in accordance with the *2019 PR-USVI Order*, recipients may elect to employ alternative testing procedures, subject to review and final approval by the Bureau, to demonstrate that they have met their network coverage and performance commitments. The Bureau will use these drive and drone test results to ensure that mobile support recipients met their performance commitments required by the *2019 PR-USVI Order*.

II. BACKGROUND

2. In 2017, Hurricanes Irma and Maria caused massive devastation to Puerto Rico and the United States Virgin Islands (collectively, Territories). As part of the Commission's restoration efforts, in 2019, the Commission adopted Stage 2 of the Bringing Puerto Rico Together Fund and the Connect USVI Fund, which authorized approximately \$385.9 million in universal service support to facilitate the hardening and deployment of advanced broadband networks in the Territories. More than \$258 million of this funding was dedicated to support the expansion and hardening of 4G long term evolution (4G-LTE) and 5G-New Radio (5G-NR) technologies for voice and broadband services in the Territories over a three-year period.² Nearly all of the eligible mobile providers elected to receive Stage 2 mobile support from the PR-USVI Funds to support state-of-the-art 4G-LTE and 5G-NR communication networks.³

¹ 47 CFR §§ 54.1513, 54.1514(a), (b); *The Uniendo a Puerto Rico Fund and the Connect USVI Fund*, WC Docket Nos. 18-143, 10-90, Report and Order and Order on Reconsideration, 34 FCC Rcd 9109, 9110, paras. 1-3 (2019) (*2019 PR-USVI Order*).

² *2019 PR-USVI Order*, 34 FCC Rcd at 9162-63, paras. 101-102.

³ See *Wireline Competition Bureau Authorizes Stage 2 Mobile Support for Certain Providers Participating in the Uniendo a Puerto Rico Fund and the Connect USVI Fund*, WC Docket Nos. 18-143, 10-90, Public Notice, 35 FCC Rcd 6321, 6324, Attach. A (WCB 2020); *Wireline Competition Bureau Authorizes Stage 2 Mobile Support for T-Mobile in Puerto Rico*, WC Docket Nos. 18-143, 10-90, Public Notice, 35 FCC Rcd 10303, 10305, Attach. A (WCB 2020); *Wireline Competition Bureau Authorizes Stage 2 Mobile Support for Viya in the U.S. Virgin Islands*, WC Docket Nos. 18-143, 10-90, Public Notice, 35 FCC Rcd 11555, 11557, Attach. A (WCB 2020) (collectively, *Mobile Authorization Notices*).

3. As a condition of receiving mobile support, the Commission required that providers meet interim and final network coverage area milestones and network performance speeds.⁴ At the end of the three-year term of support, each mobile support recipient must have restored its mobile network coverage to an area that is equal to or greater than 100% of its pre-hurricane network coverage.⁵

4. In addition to the full restoration of mobile coverage, the Commission targeted high-cost support towards advanced mobile services. The Commission observed that consumers increasingly relied on greater performing networks, including faster data transfer speeds, and the rapid investment in 5G deployment across the country.⁶ Therefore, the Commission found it was in the public interest to ensure that universal service funds were directed to support 4G-LTE and more advanced technologies.⁷

5. The Commission adopted minimum service requirements for 4G-LTE and 5G-NR technologies to promote efficient use of support and to encourage rapid deployment of advanced, high-quality, storm-hardened networks. For 4G-LTE, the Commission required support recipients to meet minimum baseline performance requirements in data speeds, data latency, and data allowances. By the end of the three-year support term, recipients must demonstrate that the 4G-LTE network areas where they used support offer at least 10 Mbps download speed and 1 Mbps upload speed by the end of the three-year support term. For latency, the required measurement must have a data latency of 100 milliseconds or less round trip.⁸ Similarly, for the support used to deploy 5G-NR networks, the Commission adopted 35 Mbps as the minimum download speed and 3 Mbps as the minimum upload speed for Stage 2 mobile support recipients.⁹

6. The Commission adopted reporting requirements to ensure compliance with section 254(e) of the Act and to monitor the restoration and performance of supported mobile networks.¹⁰ Specifically, mobile support recipients must file FCC Form 477 network deployment data for their final 100% network coverage submission.¹¹ Mobile support recipients must demonstrate, by no later than January 30, 2024, that they fully restored or expanded on their coverage prior to the 2017 hurricanes.¹² As directed by the Commission, the final network coverage area report shall be based on FCC Form 477 data and reflect the network coverage area for a provider as of the end of its three-year Stage 2 support term.¹³

7. Mobile participants must certify their final milestone submission and network performance commitments.¹⁴ The certification must be accompanied by drive, drone, or scattered site test

⁴ 47 CFR §§ 54.1513, 54.1514(a), (b); *2019 PR-USVI Order*, 34 FCC Rcd at 9172-74, paras. 126-30.

⁵ 47 CFR § 54.1513(b).

⁶ *2019 PR-USVI Order*, 34 FCC Rcd at 9170-71, para. 121.

⁷ *Id.* at 9170-71, para. 121.

⁸ *Id.* at 9171, para. 122.

⁹ *Id.* at 9172, para. 124.

¹⁰ *Id.* at 9172-74, paras. 126-32.

¹¹ *Id.* at 9173, para. 128.

¹² 47 CFR § 54.1514(a).

¹³ The end of each mobile recipient's three-year support term is determined based on the date it was authorized to receive high-cost mobile support. *See supra* note 3.

¹⁴ 47 CFR § 54.1514(a)-(c).

data.¹⁵ The test data must show mobile transmissions to and from the network that meet or exceed the minimum speeds for 4G-LTE and 5G-NR set out by the *2019 PR-USVI Order*.¹⁶

8. In the March 27, 2023 Public Notice, the Bureau and OEA directed providers to file mobile data consistent with previous FCC Form 477 instructions using the special collections portal of the Broadband Data Collection (BDC).¹⁷ Because the FCC Form 477 portal does not accept filing of data after June 30, 2022, the Bureau and OEA provided data specifications, attached hereto as Appendix A, necessary for submitting the requisite data through the BDC special collections portal;¹⁸ the public notice further stated that separate instructions would be provided for filing drive, drone, and/or scattered site test data.¹⁹ Based on the final network coverage data to be submitted by providers, the Bureau and OEA will provide an approved sample of locations where carriers must conduct drive and drone tests for network coverage and network performance as part of the final 100% milestone report.²⁰ A recipient will have the option to perform the approved drive and drone testing methodology we announce in this Public Notice, or it may propose its own methodology to the Bureau for approval. A recipient must submit the test results pursuant to section 54.1514, regardless of the methodology used, to demonstrate its final milestone and network performance commitments have been met.²¹

III. DISCUSSION

9. Appendices A-C set forth the parameters and methodology that providers should use in their network coverage and performance testing in order to enable the Commission to determine whether recipients have met their commitments. In particular, we provide parameters that service providers may use in conducting drive and drone testing, which includes two tests in each sampling unit in a statistically significant sample of the network coverage areas. Our methodology selects random geographies inside the coverage maps submitted by PR-USVI mobile providers purporting to reflect their final milestone coverages. Providers will conduct drive or drone testing in random locations within the specific geographies selected by OEA. WCB and OEA will analyze the data from the test results submitted by providers and calculate a point estimate to determine whether or not each mobile provider met its network coverage and speed commitments.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Comment Sought on Continued Filing of Alaska Plan FCC Form 477 Mobile Deployment Data; Waiver of Interim PR-USVI Mobile Milestone Filing and Information Provided for Final Milestone Filing*, WC Docket Nos. 16-271; 18-143; 19-195, Public Notice, -- FCC Rcd --, para. -- (2023).

¹⁸ *See generally Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Order, FCC 22-93 (rel. Dec. 9, 2022) (*Form 477 Sunset Order*) (discussing the effort to replace FCC Form 477 deployment data with Broadband Data Collection data); *see also Connect America Fund—Alaska Plan; Establishing the Digital Opportunity Data Collection*, WC Docket Nos. 16-271, 19-195, Order, DA 23-699, Appx. (WTB, OEA rel. Aug. 15, 2023) (providing a data specification for FCC Form 477 type of mobile coverage filings).

¹⁹ In the *2019 PR-USVI Order*, the Commission provided that carriers may use propagation studies or scattered site testing to demonstrate that network speed and latency meet or exceed minimum service requirements where drive or drone testing is not feasible. *2019 PR-USVI Order*, 34 FCC Rcd at 9174, n.431. Consistent with the *2019 PR-USVI Order*, the Bureau provides the approved methodology for drive and drone testing in this Public Notice based on our expectation that recipients will be capable of performing drive or drone testing because of their familiarity with and use of a substantially similar test methodology as part of the Broadband Data Collection reporting requirements. As discussed in this Public Notice, a recipient may otherwise propose to the Bureau the use of a scattered site test where drive or drone testing is not feasible. *See infra* Section B; *see also* 47 CFR § 54.1514(a)(1)(iii).

²⁰ 47 CFR § 54.1514(a)-(b).

²¹ *Id.* § 54.1514(a)-(c).

A. Network Coverage and Drive/Drone Test Parameters

10. The parameters we adopt in this Public Notice are similar to drive and drone test methodologies adopted in other Commission proceedings, such as the BDC, to minimize the reporting burden on providers.²² The parameters specify the categories of data to be collected, as well as the data structure and format in which the data must be reported. We approve these parameters and data specifications to aid in our understanding of the data derived from testing based on the Commission's experience with the BDC.

11. As provided by the *2019 PR-USVI Order* and the Commission's rules, providers must submit data demonstrating that they have met their final network coverage area milestone and network performance speeds for 4G-LTE and 5G-NR technologies following the end of the support term.²³ As with former FCC Form 477 data submissions, recipients will report broadband deployment coverage areas using polygons defined by the accessible, open-source H3 geospatial indexing system representing the geographic coverage for each technology specifically deployed in Puerto Rico or the U.S. Virgin Islands. The data associated with each polygon should indicate the provider's minimum advertised upstream and downstream data speeds associated with that network technology, and the coverage area should depict the boundaries where users should expect to receive those advertised speeds consistent with the data specifications found in Appendix A to this Public Notice.²⁴ Recipients should also submit separate polygons showing the coverage areas where Stage 2 mobile support was used to expand, restore, or upgrade 4G-LTE and 5G-NR technologies. A change in technology or speed will require a recipient to submit a separate polygon.

12. Concurrent with the submission of network coverage data, we require providers to notify the Bureau via electronic mail to ConnectAmerica@fcc.gov whether it will use the approved testing procedures provided in this Public Notice or seek approval of an alternative testing methodology. If the mobile support recipient intends to utilize the Bureau's approved testing methodology, the recipient should also provide notice whether network testing will be done by drive or drone testing. Based on a recipient's election and reported network coverage data, OEA will provide the recipient with a random sample of locations for the approved drive or drone testing detailed herein and for the completion and submission of these test results using the BDC Mobile Verification module. Alternatively, a recipient may elect to utilize an alternative testing methodology that requires approval from the Bureau and also submit its test results using the BDC Mobile Verification module to show that it has met its Stage 2 mobile commitments.

13. The approved drive and drone test model uses simple random sampling to determine test locations within a nested hexagon system based on each recipient's reported coverage area. OEA will prepare a list of eligible areas for random drive and drone testing to create the sample frame. The sample frame will be unique to each recipient, taking into account mergers and acquisitions since the adoption of the *2019 PR-USVI Order*. In other words, if a provider servicing Puerto Rico or the U.S. Virgin Islands acquired another provider also serving some of the same area, the frame will be the combined coverage of the 2017 FCC Form 477 filings of both providers, at the highest mobile technology for any given location.

²² *Establishing the Digital Opportunity Data Collection*, Order, 37 FCC Rcd 3007 (2022) (*BDC Mobile Technical Requirements Order*).

²³ 47 CFR §§ 54.1513, 54.1514(a), (b); *2019 PR-USVI Order*, 34 FCC Rcd at 9172-74, paras. 126-30.

²⁴ *Infra* Appx. A.

14. We will use hexagons at resolution 8 (hex-8s) as the geographic sampling unit for our methodology.²⁵ To allow flexibility for service providers to choose drive or drone²⁶ testing, a hexagon will be considered as a valid sample if the hex-8 lies inside both the provider's FCC Form 477 coverage map as of June 2017 and its current coverage map as submitted for the BDC. For both drone testing and drive testing, we will randomly select the testing location (a hex-9) within the hex-8. Providers must perform one mobile²⁷ and one stationary test for each selected test location. Similar to other testing parameters adopted by the Commission, we require both testing while in motion and stationary testing because it strikes a balance of ensuring that drive tests sufficiently represent the environments in which consumers use their mobile devices.²⁸ Tests conducted in motion further ensure that testing is conducted in multiple locations within the hexagon. In the event providers have recently conducted testing or started testing prior to the release of this Notice, we permit providers to submit a complete set of tests already performed if the selected sample area is the same as selected by OEA. To be considered valid, a prior test performed by the provider must (a) have occurred within the 12 months prior to the January 30, 2024 deadline for submission of the final milestone test results, (b) must align with the sample provided by OEA, and (c) must meet the data specifications described in Appendix C.

15. Following the completion of drive and drone tests, all mobile support recipients will submit the data to the Commission using the BDC Mobile Verification module. We will evaluate the test results for each sampling unit on whether the provider delivers the coverage at the minimum speeds to which it committed for Stage 2 mobile support. We will conclude that a provider has met its commitment in a hex-8 if: (1) both tests show measurements that are greater than zero indicating the newest technology was present in their June 2017 FCC Form 477 submission; and (2) at least one test measures the greatest minimum upload and download speeds reported in their June 2017 FCC Form 477 submission. In other words, both tests must demonstrate that the technology is present, and at least one test must show that the prior level of service has been fully restored or improved upon.

B. Alternative Testing Submitted by Mobile Recipients

16. We believe the approved parameters described above for demonstrating network coverage and performance provide a reasonable methodology to demonstrate providers' fulfillment of Stage 2 commitments. This simplified testing methodology provides a uniform means by which the Commission can objectively and fairly evaluate all support recipients, rather than through varied, *ad hoc* procedures for each provider. Nevertheless, as provided in the *2019 PR-USVI Order*, the Commission granted mobile providers the flexibility to choose alternative parameters and sampling methodology for

²⁵ We will use Uber H3 hexagons, which are an open-source geospatial indexing system developed by Uber Technologies, Inc. It utilizes a nesting cell structure, such that a larger hexagon, or a "parent" fits approximately 7 of the next size smaller hexagons, or "children") within it. See Isaac Brodsky, *H3: Uber's Hexagonal Hierarchical Spatial Index*, (Jun 27, 2018), <https://eng.uber.com/h3/>. For reference, hex-8s are approximately 0.74 sq. km. and hex-9s are approximately 0.11 sq. km. in size.

²⁶ Providers that choose to use drones—also known as unmanned aircraft systems (UAS)—for drive testing may need to seek waivers regarding airborne restrictions. See, e.g., *Connect America Fund—Alaska Plan*; *GCI Communication Corp. Petition for Limited Waiver in the Alaska Plan to Permit use of Unmanned Aircraft Systems for Drive-Test Data Collection*; *GCI Communication Corp. Request for Limited Waiver of 47 CFR § 22.295*, WC Docket No. 16-271, Order, DA 22-921, at 5-6, paras. 10-12 (WTB rel. Sept. 1, 2022) (granting a waiver of Section 22.295 restricted airborne usage of 800 MHz).

²⁷ Consistent with the approach for the Alaska Plan, a mobile test should initiate when moving away from the location of a stationary test after having reached the speed of the surrounding traffic or a safe and reasonable operating speed in the event no traffic is present. See *Connect America Fund—Alaska Plan*, WC Docket No. 16-271, Order and Request for Comment, 37 FCC Rcd 5882, Appx. B (WTB 2022). In motion tests that are deemed to have been conducted at an unreasonably slow speed are subject to a failed score or retesting.

²⁸ *BDC Mobile Requirements Order*, 37 FCC Rcd at 3030-31, 34-35, 85, paras. 38, 47, Appx. A & n.7.

network coverage and network performance.²⁹ The Commission also made clear, however, that any proposed alternative parameters and methodology will be subject to review and approval by the Bureau.³⁰

17. We expect any proposed alternative methodology submitted to the Bureau for approval to fully describe in detail the testing parameters to be employed. The Bureau and OEA will review the proposal to determine whether the proposed sampling methodology includes a statistically valid sample of tests of network coverage areas, including areas where recipients have used Stage 2 mobile support to restore, harden, and expand 4G-LTE and 5G-NR technologies. Recipients proposing an alternative sampling methodology that is based on the H3 system should include sample data that follows data specifications for hex-8 and hex-9 polygons using the Commission's data template for Puerto Rico or the U.S. Virgin Islands.³¹ When providing the relevant H3 template data, a recipient should identify the hex-8s polygons where it plans to conduct testing with a value of "1" in the corresponding "sampled_flag" column of the template and enter the child hex-9s in which it will conduct drive or drone tests. If a recipient proposes to perform its own sampling and does not use the H3 system, the recipient should provide the Bureau with a detailed narrative of the proposed methodologies used to collect their data, including information where it proposes to conduct or has already conducted speed tests. In analyzing a proposal, staff may request additional information or seek modifications to a proposed methodology as may be necessary to ensure the reliability and accuracy of the data prior to approval.

18. The Bureau and OEA will review proposals to determine whether the alternate methodology will sufficiently sample coverage areas to determine that a recipient has met its commitments for Stage 2. Recipients must file their proposed methodology in **WC Docket No. 18-143** using the Commission's Electronic Comment Filing System³² and email a copy to ConnectAmerica@fcc.gov. Recipients must submit their proposed methodology to the Bureau at least two weeks prior to the January 30, 2024 deadline for submitting final milestone results to provide sufficient time for review and approval of the proposed testing. The Bureau or OEA will notify the provider of the determination on the recipient's proposed alternative methodology.

C. Testing Period and Data Submission

19. Lastly, we again remind all recipients that their final network coverage data must be submitted to the Bureau through the BDC special collections portal and use the data specification format provided in Appendix A. The window for submitting the required coverage data will be open beginning on December 1, 2023, and close at 11:59 p.m. Eastern Time (ET) on January 30, 2024.

20. For network performance testing, all recipients will have 60 calendar days to complete and submit the network performance testing regardless of the methodology selected. A recipient that elects to utilize the approved drive or drone test consistent with the parameters in this Public Notice must complete its drive or drone tests and submit the test data no more than 60 calendar days after OEA provides the recipient with its random test sample from the BDC Mobile Verification module. The 60-day testing window begins the day immediately following the day OEA provides the test sample to a recipient. Similarly, for a recipient that proposes an alternative testing methodology, its 60-day testing window will begin the day immediately after the Bureau or OEA approves an alternative methodology and provides a Mobile Verification request to the mobile recipient. For any methodology used, if the 60th day falls on a non-business day, the due date for that particular recipient shall be the next business day. A

²⁹ 2019 PR-USVI Order, 34 FCC Rcd at 9173-74, para. 130.

³⁰ *Id.* at 9173-74, para. 130.

³¹ The Commission's H3 system data templates for Puerto Rico or the U.S. Virgin Islands are available at <https://us-fcc.box.com/v/Template-PR-Hex8s> and <https://us-fcc.box.com/v/Template-USVI-Hex8s>, respectively.

³² A recipient may electronically file its proposed methodology through the Commission's Electronic Comment Filing System (ECFS) at <https://www.fcc.gov/ecfs/>.

recipient must submit the test data by 11:59 p.m. ET on the due date. All recipients will submit drive or drone test data using the BDC portal regardless of the testing method it selected.

IV. PROCEDURAL MATTERS

A. Legal Authority

21. We establish procedures for the milestone and performance reporting for Stage 2 mobile support recipients pursuant to the authority contained in sections 1, 2, 4(i), 214, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 214, 254, 301, 303(r), 332, and 403 and sections 1.1, 1.3, and 1.425 of the Commission's rules, 47 CFR §§ 1.1, 1.3, and 1.425.

B. Paperwork Reduction Act Analysis

22. This document implements the information collections adopted in the *2019 PR-USVI Order* and does not contain any additional information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, the reporting parameters and methodology we release today specifically apply only to the four existing recipients of Stage 2 mobile support in Puerto Rico and the USVI.³³ The reporting and recordkeeping requirements are imposed on fewer than ten persons and are not subject to the Paperwork Reduction Act.³⁴ Therefore, this document 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 107-198.³⁵

C. Supplemental Regulatory Flexibility Analysis

23. The Regulatory Flexibility Act of 1980, as amended (RFA),³⁶ requires that a regulatory flexibility analysis be prepared for rulemaking proceedings, unless the agency certifies that “the rule will not have a significant economic impact on a substantial number of small entities.”³⁷ The RFA generally defines “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”³⁸ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.³⁹ 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).⁴⁰

24. In the *PR-USVI Stage 2 Order*, the Commission conducted a Final Regulatory Flexibility Analyses (FRFAs) as required by the Regulatory Flexibility Act of 1980, as amended (RFA).⁴¹ The

³³ *Transitional Support FNPRM* at 11, para. 27, n.75.

³⁴ 44 U.S.C. § 3502(3)(A)(i), (10).

³⁵ See 44 U.S.C. § 3506(c)(4).

³⁶ The RFA, see 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).

³⁷ 5 U.S.C. § 605(b).

³⁸ *Id.* § 601(6).

³⁹ *Id.* § 601(3) (incorporating by reference the definition of “small business concern” in 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.”

⁴⁰ Small Business Act, 15 U.S.C. § 632.

⁴¹ *2019 PR-USVI Order*, 34 FCC Rcd at 9186, paras. 163-66.

Commission anticipated that the Order would not affect a substantial number of carriers and, therefore, certified the Order would not affect a substantial number of small entities.⁴²

25. This Public Notice establishes reporting and approved testing parameters for mobile support recipients of the Bringing Puerto Rico Together Fund and the Connect USVI Fund. The procedures established in this Public Notice are consistent with the *2019 PR-USVI Order* and a RFA is not required for this Public Notice.

D. Congressional Review Act

26. 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 this Public Notice to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

⁴² *Id.* at 9186, para. 165.

APPENDIX A

Mobile Broadband Coverage Data Specification

Field	Data Type	Example	Description / Notes
brandname	String	Acme Wireless	Name of the entity or service advertised or offered to consumers.
technology	Integer	400	Code for the technology used for the deployed service. ⁴³ - <i>Value must be one of the following codes:</i> 200 – 2G 300 – 3G 400 – 4G LTE 500 – 5G-NR
mindown	Decimal (5,3)	10.0	The minimum advertised downstream bandwidth, or the downstream speed users should expect to receive in the coverage area, in Mbps with a precision of three decimal digits. - <i>Value must be greater than or equal to 0.</i>
minup	Decimal (5,3)	1.0	The minimum advertised upstream bandwidth, or the upstream speed users should expect to receive in the coverage area, in Mbps with a precision of three decimal digits. - <i>Value must be greater than or equal to 0.</i>

⁴³ For commitments made using older technology codes of FCC Form 477, for technology codes 85 (CDMA) and 86 (GSM), enter them as 200 (2G); for 80 (WCDMA/UMTS/HSPA), 81 (HSPA+), and 82 (EVDO/EVDO Rev A), enter them as 300 (3G); for 83 (LTE), enter as 400 (4G). See Instructions For Filings Through June 30, 2019 at 30, <https://us-fcc.app.box.com/v/Form477InstThruJune19>.

APPENDIX B

Technical Appendix: Verification of Coverage Restoration or Upgrade in Puerto Rico and the U.S. Virgin Islands

I. BACKGROUND

Under Stage 2 of the Bringing Puerto Rico Together Fund and the Connect USVI Fund, participating service providers in Puerto Rico and the U.S. Virgin Islands must demonstrate that by the end of the support period, they provide the same or better mobile network coverage as was available prior to the 2017 hurricanes. Providers are required to report their network coverage information and certification by January 30, 2024. Additionally, providers must demonstrate that their 4G-LTE and 5G-NR networks constructed with this funding meet speeds of at least 10/1 and 35/3, respectively, with no more than 100 milliseconds of latency.

In this Appendix, the Wireline Competition Bureau (WCB) and the Office of Economics and Analytics (OEA) provide a statistically valid methodology that can verify whether these service providers have met this requirement. The methodology is a simplified version of drive and drone testing methodologies we have adopted in similar proceedings.⁴⁴ That is, we first select random geographies inside the coverage maps submitted by these providers purporting to reflect their current coverage, and then providers will conduct drive or drone testing in random locations within the selected random geographies. We next analyze the data from these tests and calculate a point estimate that determines whether or not the requirement has been met.

II. GEOGRAPHIC SAMPLING UNIT

We will use Uber H3 hexagons⁴⁵ at resolution 8 (hex-8s) as the geographic sampling unit for our methodology.⁴⁶ To allow flexibility for service providers to choose drive or drone testing, hex-8s will be included as sampling units for a particular provider as long as the centroid of the hex-8 lies inside both the provider's FCC Form 477 coverage map as of June 2017 (for testing coverage restoration) and its current coverage maps as submitted for the BDC (for both coverage restoration and 4G-LTE and 5G-NR testing), regardless of whether there are enough drivable roads in the hex-8. If the provider chooses to conduct drive testing only, hex-8s that do not have enough drivable roads will be excluded. For both drone testing and drive testing, we will randomly select one child hex-9 as the testing location within the hex-8.

III. SAMPLING FRAME

Before we can select random hex-8s for drive or drone testing, we will need to prepare a list of all hex-8s that are eligible for selection. This list is called the sampling frame. We will construct separate sampling frames based on region, service provider, and technology. We will also distinguish the frames for testing coverage restoration ("restoration frame") and for testing new 4G-LTE or 5G-NR coverage ("supported construction frame"), if any. In cases where a provider has built both 4G-LTE and 5G-NR networks, we will take the union of the areas covered by these two networks and consider it as the single supported construction frame. If the restoration frame and the testing frame intersect for the same provider and technology, we will divide both the restoration frame and the supported construction testing frame into

⁴⁴ See, e.g., *Establishing the Digital Opportunity Data Collection*, Order, 37 FCC Rcd 3007, Appx. A (WTB/OEA/OET Mar. 9, 2022) (*BDC Mobile Requirements Order*) (establishing statistical methodologies for drive testing used for the verification of wireless service providers' mobile networks).

⁴⁵ Uber H3 hexagons are an open-source geospatial indexing system developed by Uber Technologies, Inc. It utilizes a nesting cell structure, such that a larger hexagon, or a "parent" fits approximately 7 of the next size smaller hexagons, or "children" within it. See Isaac Brodsky, *H3: Uber's Hexagonal Hierarchical Spatial Index*, (June 27, 2018), <https://eng.uber.com/h3/>.

⁴⁶ For reference, hex-8s are approximately 0.74 sq. km. and hex-9s are approximately 0.11 sq. km. in size.

two parts: (1) the part that does not include the intersection with the other frame; and (2) the intersection with the other frame.

We construct the sampling frames so that the geographic areas covered by the hex-8s therein take into account mergers and acquisitions that have occurred since the 2017 hurricanes. In other words, if a provider servicing Puerto Rico or the U.S. Virgin Islands acquired another provider also serving some of the same area, the frame for the testing of coverage restoration will be the combined coverage of the 2017 FCC Form 477 filings of both providers, at the highest technology for any given location.

IV. SAMPLE DESIGN AND SAMPLE SIZE CALCULATION

We will use simple random sampling and calculate the minimum sample size for the coverage restoration frame using the standard formula for estimating a proportion or rate. The sample size formula is given by:⁴⁷

$$n = \frac{z_{\alpha}^2 p (1 - p)}{\delta^2}$$

The formula requires three parameters:

- an assumed value, p , for the proportion of covered areas that met or exceeded the minimum download and upload requirements before the hurricanes (the “status quo”);
- an absolute margin of error, δ ; and
- a critical value, z_{α} , corresponding to a desired confidence interval.⁴⁸

For our purpose, we will set the values of these parameters as follows:

- $p = 0.95$;
- $\delta = 0.03$; and
- $z_{\alpha} = 1.645$ (corresponding to a one-sided 95% confidence interval)⁴⁹

With these parameter values, the sample size is:

$$n = \frac{z_{\alpha}^2 p (1 - p)}{\delta^2} = \frac{1.645^2 \times 0.95 \times (1 - 0.95)}{0.03^2} = 143$$

We will determine the sample size for the supported construction frame based on the size of the intersection between the restoration frame and the supported construction frame.

For providers subject to testing on both coverage restoration and supported construction, we will select the coverage restoration sample proportionally from the hex-8s both inside and outside the intersection of the coverage restoration and supported construction frames. For example, if 25% of the coverage restoration frame intersects the supported construction frame, then 25% of the coverage restoration sample would be drawn from the intersection and 75% of the sample would be drawn from the complement. If the number of hex-8s drawn from the intersection is greater than 30, we will then use the

⁴⁷ William G. Cochran, *Sampling Techniques*, ch. 4 (3d ed. 1977).

⁴⁸ As noted in section I, only the point estimate will be used to evaluate compliance with the program’s requirements. We specify these three parameters for the purpose of calculating the appropriate sample size.

⁴⁹ The value $p = 0.95$ is derived from the Wireless Benchmarking Project: Puerto Rico and US Virgin Islands, which is the most reliable, independent source of information on the status quo for broadband service in these areas. We will be using this value for all providers. The values $\delta = 0.03$ and $z_{\alpha} = 1.645$ for a 95% confidence interval are typical values used in general-purpose simple random sample designs.

selection from the intersection as the complete sample from the supported construction frame. If fewer than 30 hex-8s were selected from the intersection, we will select additional hex-8s until the total sample for the supported construction frame is at least 30.⁵⁰ In this way, selecting from the intersection will reduce the burden on the providers subject to testing on both coverage restoration and supported construction.

V. DRIVE TESTING/DATA COLLECTION

We require service providers to perform two tests in a single randomly selected hex-9 within a hex-8. For drive testing only, the hex-9 must contain at least 200 meters of covered roads with the following TIGER classifications: S1100, S1200, and S1400.⁵¹

Service providers must perform one mobile and one stationary test in each selected hex-9. In the unlikely event that a selected hex-8 has no eligible hex-9s, we will instead produce a proxy hex-8 as a replacement for providers to test. This hex-8 will be the unselected hex-8 that is nearest to the selected hex-8 and contains eligible hex-9s. Consistent with the rest of this methodology, this proxy hex-8 will have a randomly selected child hex-9 for providers to test.

Providers may have already commenced testing prior to the publication of this methodology, including in some areas that would be randomly selected for testing. In order to prevent providers from revisiting areas they have already tested, it will be possible in some cases for providers to use these previously collected data as part of this testing. Providers will have the option of submitting the complete set of tests they have already performed within the selected hex-8s and hex-9s in lieu of retesting these locations. The Bureau will evaluate the first two valid test results, ordered chronologically. To be considered valid, a prior test performed by the provider must a) have occurred within the 12 months prior to the January 30, 2024 deadline for submission of the final milestone test results, b) must align with the sample provided by OEA, and c) must meet the data specifications described in Appendix C.

Additionally, some hexes will be selected for more than one frame; in other words, the hexes will be tested for both the restoration testing and the supported construction testing. In this case, the results of a single pair of tests can be used for both the restoration testing and the 4G-LTE/5G-NR testing. If, for example, a provider demonstrates that it has 5G-NR service with at least 35/3 speeds in a hex-8, then it would necessarily have demonstrated that it has restored service in the same hex-8, and not need to conduct additional testing. Similarly, if a provider tested for 5G-NR and found speeds less than 35/3, but greater than or equal to its reported speeds in June 2017, it would pass for the restoration coverage testing even if it failed the 5G-NR supported construction testing in the same area. In this manner we hope to reduce burden on providers so that they are less likely to need to conduct multiple tests for the same area. Note, however, that the 4G-LTE and 5G-NR networks have separate requirements. Accordingly, in areas with this funding overlap where the recipient constructed networks, it is possible that the same hexagon will be selected for both. In this case, a successful 5G-NR test would not necessarily demonstrate that the LTE network also passed, and separate testing is required of the LTE network.

VI. COVERAGE ESTIMATION

We propose that a sampled hex-8 will have passed the restoration testing if: (1) both tests have positive measurements, in other words, speed tests that are greater than 0 for both download and upload, of a

⁵⁰ In the unlikely event that the supported construction frame contains 30 or fewer hex-8s, we will select every hex-8 for testing.

⁵¹ Note, however, that a test need only begin in the selected hex-9. A provider does not need to confine itself to testing only in the hex-9 areas here described if it determines that such restrictions would not be possible for its testers.

technology (2G, 3G, 4G-LTE, 5G-NR) of at least the newest generation represented in the provider's June 2017 FCC Form 477 submission that covered the centroid of the selected hex-8; and (2) at least one test measuring at least the greatest minimum upload and download speeds as reported in the provider's June 2017 FCC Form 477 filing that covered the centroid of the selected hex-8.⁵² For the supported construction testing, a sampled hex-8 will have passed if: (1) both tests have positive measurements of the given technology (i.e., 4G-LTE or 5G-NR); and (2) at least one test measuring at least 10 Mbps download, 1 Mbps upload and a maximum latency of 100 milliseconds in the case of 4G-LTE testing, or at least 35 Mbps download, 3 Mbps upload, and a maximum 100 milliseconds latency in the case of 5G-NR. Passing hex-8s will be assigned a value of 1; failing hex-8s will be assigned a value of 0.

We will estimate the prevalence of restored coverage, $\hat{p}_r$ and the prevalence of supported coverage $\hat{p}_s$ as the proportion of passing hex-8s relative to the number of sampled hex-8s from the respective frames.

$$\hat{p}_r = \frac{k_r}{n_r}$$

Where k_r is the total number of passing hex-8s, and n_r is the number of sampled hex-8s for coverage restoration testing.

$$\hat{p}_s = \frac{k_s}{n_s}$$

Where k_s is the total number of passing hex-8s, and n_s is the number of sampled hex-8s for coverage supported construction testing.

VII. TESTING EVALUATION

We will use the point estimates of $\hat{p}_r$ and $\hat{p}_s$ obtained in Section VI of this Appendix as our estimate of the coverage rates of hex-8s covered in both 2017 and today. Additionally, when evaluating restored coverage, we will account for any hex-8s that were not covered in both 2017 and the current coverage by multiplying $\hat{p}_r$ by the ratio of the number of hex-8s in the restored coverage frame and in the FCC Form 477 2017 coverage. The percentage of locations with restored or improved coverage and the percentage of locations with supported coverage are represented by the following equations:

$$\% \text{ of Restored Coverage} = \hat{p}_r \left(\frac{\# \text{ of Hexagons in Restoration Sample Frame}}{\text{Total Covered Hexagons in June 2017}} \right)$$

$$\% \text{ of Supported Coverage} = \hat{p}_s$$

⁵² For example, a provider may have shown both 2G and 3G coverage in the centroid of a hex-8 in 2017, with 3G speeds at a minimum download of 1 Mbps and a minimum upload of 0.5 Mbps. The provider would get credit for covering this hex if both tests demonstrated coverage at 3G or newer technologies (i.e. LTE or 5G), and if at least one of the tests demonstrated speeds of at least 1 Mbps download and 0.5 Mbps upload.

APPENDIX C

Mobile Speed Test Data Specifications

1. Overview

The verification of the restoration of network coverage in Puerto Rico and the U.S. Virgin Islands requires providers to conduct and report speed tests of their networks. If a provider uses the methodology described in this Public Notice and appendices, it should follow the instructions presented in Appendix B that describe the methodology for the restoration and data collection and the format in which it is to be reported. In this Appendix C, we specifically describe the data structure for the submission of mobile speed test data..

2. Sample Data

```
{
  "submission_type": "Provider Response",
  "submissions": [
    {
      "test_id": "1599236609",
      "device_type": "Android",
      "manufacturer": "Google",
      "model": "PIXEL 6",
      "operating_system": "Android 12",
      "device_tac": "35142059",
      "app_name": "FCC Speed Test app",
      "app_version": "2.0.4058",
      "provider_name": "T-Mobile",
      "tests": {
        "download": {
          "timestamp": "2023-11-08T09:02:42-08:00",
          "warmup_duration": 3000622,
          "warmup_bytes_transferred": 31900808,
          "duration": 4997185,
          "bytes_transferred": 97382448,
          "bytes_sec": 19487461,
          "locations": [
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              "timestamp": "2023-11-08T09:02:42-08:00",
              "latitude": 18.470820,
              "longitude": -66.123860,
              "horizontal_accuracy": 2.0,
              "speed": 0,
              "speed_accuracy": 1.0
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              "timestamp": "2023-11-08T09:02:47-08:00",
              "latitude": 18.470820,
              "longitude": -66.123860,
              "horizontal_accuracy": 2.0,
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      }
    }
  ]
}
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],
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    "network_subtype": "LTE",
    "rssi": -77.1,
    "rsrp": -95.2,
    "rsrq": -16.5,
    "sinr": 11.9,
    "ec_io": -8.3,
    "rcsp": -84.2,
    "cqi": 10,
    "spectrum_band": 66,
    "spectrum_bandwidth": 20,
    "arfcn": 66786
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    "cell_id": 10283265,
    "physical_cell_id": 101,
    "cell_connection": 2,
    "network_generation": "4G",
    "network_subtype": "LTE",
    "rssi": -77.1,
    "rsrp": -97.2,
    "rsrq": -10.1,
    "sinr": 21.2,
    "ec_io": -8.3,
    "rcsp": -84.2,
    "cqi": 10,
    "spectrum_band": 71,
    "spectrum_bandwidth": 15,
    "arfcn": 68686
  }
],
"success_flag": true
},
"upload": {
  "timestamp": "2023-11-08T09:02:51-08:00",
  "warmup_duration": 3000213,
  "warmup_bytes_transferred": 8337402,
  "duration": 5000085,
  "bytes_transferred": 15129062,
  "bytes_sec": 3025761,
  "locations": [
    {
      "timestamp": "2023-11-08T09:02:51-08:00",
      "latitude": 18.470820,
```

```
"longitude": -66.123860,
"horizontal_accuracy": 2.0,
"speed": 0,
"speed_accuracy": 1.0
},
{
  "timestamp": "2023-11-08T09:02:56-08:00",
  "latitude": 18.470820,
  "longitude": -66.123860,
  "horizontal_accuracy": 2.0,
  "speed": 0,
  "speed_accuracy": 1.0
}
],
"cells": [
  {
    "cell_id": 32193025,
    "physical_cell_id": 192,
    "cell_connection": 1,
    "network_generation": "4G",
    "network_subtype": "LTE",
    "rssi": -77.1,
    "rsrp": -96.2,
    "rsrq": -9.1,
    "sinr": 10.5,
    "ec_io": -8.3,
    "rcsp": -84.2,
    "cqi": 10,
    "spectrum_band": 66,
    "spectrum_bandwidth": 20,
    "arfcn": 66786
  },
  {
    "cell_id": 35988099,
    "physical_cell_id": 192,
    "cell_connection": 2,
    "network_generation": "4G",
    "network_subtype": "LTE",
    "rssi": -71.1,
    "rsrp": -99.1,
    "rsrq": -6.9,
    "sinr": 9.7,
    "ec_io": -8.3,
    "rcsp": -84.2,
    "cqi": 10,
    "spectrum_band": 41,
    "spectrum_bandwidth": 20,
    "arfcn": 39874
  }
],
"success_flag": true
```

```

    }
  }
]
}

```

3. Mobile Speed Test Data

This section details the data structure common for all mobile speed test data in the Puerto Rico and U.S. Virgin Islands restoration. This file contains records of each mobile speed test in JavaScript Object Notation (JSON) format matching the specification in the table and sections below:

Field	Data Type	Example	Description / Notes
submission_type	Enumerated	Provider Response	Type of data submission. - <i>Value must be "Provider Response".</i>
submissions	Array [Submission Object]		List of drive-test data submissions. <i>Note: the specification for the Submission Object is described in Section a.</i>

a. Submission Object

Field	Data Type	Example	Description / Notes
test_id	String	1599236609	Unique identifier used by the app or entity to differentiate tests. - <i>Value must be unique across all data submitted by the same entity.</i>
device_type	Enumerated	Android	Type of device. - <i>Value must be "Android".</i>
manufacturer	String	Google	Name of the device manufacturer.
model	String	PIXEL 6	Name of the device model.
operating_system	String	Android 12	Name and version of the device operating system.
device_tac	String	35142059	8-digit Type Allocation Code of the device. - <i>Value may be null if the device does not return a valid value or else returns a value of unknown.</i>
app_name	String	FCC Speed Test app	Name of the mobile speed test app.
app_version	String	2.0.4058	Version of the mobile speed test app.
provider_name	String	T-Mobile	Name of the mobile service provider.
tests	Test Object		Information about the test metrics. <i>Note: the specification for the Test Object is described in Section b.</i>

b. Test Object

Field	Data Type	Example	Description / Notes

Field	Data Type	Example	Description / Notes
download	Download Test Object		Information about the download test metric. <i>Note: the specification for the Download Test Object is described in Section c.</i>
upload	Upload Test Object		Information about the upload test metric. <i>Note: the specification for the Upload Test Object is described in Section d.</i>

c. Download Test Object

Field	Data Type	Example	Description / Notes
timestamp	Datetime	2023-11-08T09:02:42-08:00	Timestamp of the time at which the test metric commenced. - <i>Value must match valid ISO-8601 format, including seconds and timezone offset, i.e.: YYYY-MM-DD[T]hh:mm:ss±hh:mm</i>
warmup_duration	Integer	3000622	Duration in microseconds that connection took to stabilize (e.g., TCP slow start) before the test metric commenced.
warmup_bytes_transferred	Integer	31900808	Measured total amount of data in bytes that were transferred during the period the connection took to stabilize (e.g., TCP slow start) before the test metric commenced.
duration	Integer	4997185	Duration that the test metric took to complete in microseconds.
bytes_transferred	Integer	97382448	Measured total amount of data in bytes that the test metric transferred.
bytes_sec	Integer	19487461	Measured number of bytes per second that the test metric transferred.
locations	Array [Location Object]		List of geographic coordinates of the locations measured during the speed test. <i>Note: the specification for each Location Object element is described in Section e.</i>
cells	Array [Cell Object]		List of cellular telephony information measured during the speed test. - <i>Value may be null or an empty array if the test fails (i.e., success_flag is False).</i> <i>Note: the specification for each Cell Object element is described in Section f.</i>
success_flag	Boolean	True	Boolean flag indicating whether the test completed successfully and without a change in state or connectivity.

d. Upload Test Object

Field	Data Type	Example	Description / Notes
timestamp	Datetime	2023-11-08T09:02:51-08:00	Timestamp of the time at which the test metric commenced. - <i>Value must match valid ISO-8601 format, including seconds and timezone offset, i.e.: YYYY-MM-DD[T]hh:mm:ss±hh:mm</i>
warmup_duration	Integer	3000213	Duration in microseconds that connection took to stabilize (e.g., TCP slow start) before the test metric commenced.
warmup_bytes_transferred	Integer	8337402	Measured total amount of data in bytes that were transferred during the period the connection took to stabilize (e.g., TCP slow start) before the test metric commenced.
duration	Integer	5000085	Duration that the test metric took to complete in microseconds.
bytes_transferred	Integer	15129062	Measured total amount of data in bytes that the test metric transferred.
bytes_sec	Integer	3025761	Measured number of bytes per second that the test metric transferred.
locations	Array [Location Object]		List of geographic coordinates of the locations measured during the speed test. <i>Note: the specification for each Location Object element is described in Section e.</i>
cells	Array [Cell Object]		List of cellular telephony information measured during the speed test. - <i>Value may be null or an empty array if the test fails (i.e., success_flag is False).</i> <i>Note: the specification for each Cell Object element is described in Section f.</i>
success_flag	Boolean	True	Boolean flag indicating whether the test completed successfully and without a change in state or connectivity.

e. Location Objects

Each element of the “locations” array contains the geographic coordinates of the locations measured at the start and end of the speed test, as well as during the test (if measured).

Field	Data Type	Example	Description / Notes
timestamp	Datetime	2023-11-08T09:02:58-08:00	Timestamp of the time at which the location was recorded. - <i>Value must match valid ISO-8601 format, including seconds and timezone offset, i.e.: YYYY-MM-DD[T]hh:mm:ss±hh:mm</i>

Field	Data Type	Example	Description / Notes
latitude	Numeric	18.470820	Unprojected (WGS-84) geographic coordinate latitude in decimal degrees of the reported location where the test was conducted. - Value must have minimum precision of 6 decimal places.
longitude	Numeric	-66.123860	Unprojected (WGS-84) geographic coordinate longitude in decimal degrees of the reported location where the test was conducted. - Value must have minimum precision of 6 decimal places.
horizontal_accuracy	Numeric	2.0	Horizontal accuracy of the location, radial, in meters measured from the device. - Value may be null if the device does not return a valid value or else returns a value of unknown.
speed	Numeric	0	Speed in meters per second measured from the device. - Value may be null if the device does not return a valid value or else returns a value of unknown.
speed_accuracy	Numeric	1.0	Speed accuracy in meters per second measured from the device. - Value may be null if the device does not return a valid value or else returns a value of unknown.

f. Cell Objects

Each element of the “cells” array contains telephony information about the cell / carrier.

Field	Data Type	Example	Description / Notes
timestamp	Datetime	2023-11-08T09:02:42-08:00	Timestamp of the time at which the cell information was measured. - Value must match valid ISO-8601 format including seconds and timezone offset, i.e.: YYYY-MM-DD[T]hh:mm:ss±hh:mm
cell_id	Numeric	32193025	Measured cell identifier. - Value may be null if the device does not return a valid value or else returns a value of unknown.
physical_cell_id	Integer	192	Measured Physical Cell Identity (PCI) of the cell. - Value is only required for tests with a network generation of 4G or 5G and must be null for all other network generations.
cell_connection	Enumerated	1	Connection status of the cell. - Value must be one of the following codes: 0 – Not Serving 1 – Primary Serving

Field	Data Type	Example	Description / Notes
			2 – Secondary Serving - Value may be null if the device does not return a valid value or else returns a value of unknown.
network_generation	Enumerated	4G	String representing the network generation of the cell. - Value must be one of the following: {2G 3G 4G 5G Other}
network_subtype	Enumerated	LTE	String representing the network subtype of the cell. - Value must be one of the following: {1X EVDO WCDMA GSM HSPA HSPA+ LTE NRSA NRNSA}
rsi	Decimal	-57.2	Measured Received Signal Strength Indication (RSSI) in dBm of the cell. - Value is required for all network generations and subtypes.
rxlev	Decimal	-80.2	Measured Received Signal Level in dBm of the cell. - Value is only required for tests with a network generation of 2G and network subtype of GSM, and must be null for all other network generations or network subtypes.
rsrp	Decimal	-92.1	Measured Reference Signal Received Power (RSRP) in dBm of the cell. - Value is only required for tests with a network generation of 4G or 5G and must be null for other network generations. - Note: this value represents the Synchronization Signal (SS) for 5G-NR tests and the Channel-specific Reference Signal (CRS) for 4G LTE tests.
rsrq	Decimal	-12.5	Measured Reference Signal Received Quality (RSRQ) in dB of the cell. - Value is only required for tests with a network generation of 4G or 5G and must be null for other network generations. - Note: this value represents the Synchronization Signal (SS) for 5G-NR tests and the Channel-specific Reference Signal (CRS) for 4G LTE tests.
sinr	Decimal	21.3	Measured Signal to Interference and Noise Ratio (SINR) in dB of the cell. - Value is only required for tests with a network generation of 4G or 5G and may be null for other network generations. - Note: this value represents the Synchronization Signal (SS) for 5G-NR tests and the Channel-specific Reference Signal (CRS) for 4G LTE tests.
rxqual	Integer	3	Measured Received Signal Quality of the cell

Field	Data Type	Example	Description / Notes
			- Value must be between 0 and 7. - Value is only required for tests with a network generation of 2G and network subtype of GSM, and must be null for all other network generations or network subtypes.
ec_io	Decimal	-8.3	Measured Energy per Chip to Interference Power Ratio in dB of the cell. - Value is only required for CDMA 1X, EVDO, WCDMA, HSPA, and HSPA+ network subtypes, and must be null for all other network subtypes.
rscp	Decimal	-87.2	Measured Received Signal Code Power in dBm of the cell. - Value is only required for WCDMA, HSPA, and HSPA+ network subtypes, and may be null for all other network subtypes.
cqi	Integer	11	Measured Channel Quality Indicator (CQI) of the cell. - Value is only required for WCDMA, HSPA, HSPA+, LTE, and NR network subtypes, and may be null for all other network subtypes.
spectrum_band	Integer	66	Spectrum band used by the cell. - Value may be null for tests with a network generation of 2G or 3G. - Value may be null if the device does not return a valid value or else returns a value of unknown. - Note: the reported band value corresponds to the Operating Bands tables as follows: - 4G LTE: 3GPP TS 36.101 section 5.5 - 5G-NR: 3GPP TS 38.101 table 5.2-1
spectrum_bandwidth	Numeric	15	Total amount of spectral bandwidth used by the cell in MHz. - Value may be null if the device does not return a valid value or else returns a value of unknown.
arfcn	Integer	66786	Absolute radio-frequency channel number, measured absolute physical RF channel number of the cell.

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

In the Matter of	)	
	)	
Clear Rate Communications	)	Complaint No. 6538624
	)	
Complaint Regarding	)	
Unauthorized Change of	)	
Subscriber's Telecommunications Carrier	)	

ORDER

Adopted: October 31, 2023

Released: October 31, 2023

By the Acting Chief, Consumer Policy Division, Consumer and Governmental Affairs Bureau:

1. In this Order, we consider a complaint alleging that Clear Rate Communications (Clear Rate) changed Complainant's telecommunications service provider without obtaining authorization and verification from Complainant as required by the Commission's rules.¹ We conclude that Clear Rate's actions violated the Commission's slamming rules, and we therefore grant Complainant's complaint.

2. Section 258 of the Communications Act of 1934, as amended (the Act), prohibits the practice of "slamming," the submission or execution of an unauthorized change in a subscriber's selection of a provider of telephone exchange service or telephone toll service.² The Commission's implementing rules require, among other things, that a carrier receive individual subscriber consent before a carrier change may occur.³ Specifically, a carrier must: (1) obtain the subscriber's written or electronically signed authorization in a format that satisfies our rules; (2) obtain confirmation from the subscriber via a toll-free number provided exclusively for the purpose of confirming orders electronically; or (3) utilize an appropriately qualified independent third party to verify the order.⁴ The Commission has also adopted rules to limit the liability of subscribers when an unauthorized carrier change occurs, and to require carriers involved in slamming practices to compensate subscribers whose carriers were changed without authorization.⁵

3. The Commission's slamming rules prohibit misrepresentations on sales calls to further reduce the incidence of slamming.⁶ Under the rules, upon a finding of material misrepresentation during

¹ See Informal Complaint No. 6538624 (filed Oct. 24, 2023); *see also* 47 CFR §§ 64.1100 – 64.1190.

² 47 U.S.C. § 258(a).

³ See 47 CFR § 64.1120.

⁴ See *id.* § 64.1120(c). Section 64.1130 details the requirements for letter of agency form and content for written or electronically signed authorizations. *Id.* § 64.1130.

⁵ These rules require the unauthorized carrier to absolve the subscriber where the subscriber has not paid his or her bill. If the subscriber has not already paid charges to the unauthorized carrier, the subscriber is absolved of liability for charges imposed by the unauthorized carrier for service provided during the first 30 days after the unauthorized change. See *id.* §§ 64.1140, 64.1160. Any charges imposed by the unauthorized carrier on the subscriber for service provided after this 30-day period shall be paid by the subscriber to the authorized carrier at the rates the subscriber was paying to the authorized carrier at the time of the unauthorized change. *Id.* Where the subscriber has paid charges to the unauthorized carrier, the Commission's rules require that the unauthorized carrier pay 150 percent of those charges to the authorized carrier, and the authorized carrier shall refund or credit to the subscriber 50 percent of all charges paid by the subscriber to the unauthorized carrier. See *id.* §§ 64.1140, 64.1170.

⁶ *Id.* § 64.1120(a)(1)(i)(A).

the sales call, the consumer's authorization to change carriers will be deemed invalid even if the carrier has some evidence of consumer authorization of a carrier switch, e.g., a third-party verification (TPV) recording. Sales misrepresentations may not be cured by a facially valid TPV.⁷ The rule provides that a consumer's credible allegation of misrepresentation shifts the burden of proof to the carrier to provide evidence to rebut the consumer's claim regarding misrepresentation. The Commission made clear that an accurate and complete recording of the sales call may be the carrier's best persuasive evidence to rebut the consumer's claim that a misrepresentation was made on the sales call.⁸

4. We received Complainant's complaint alleging that his grandmother's telecommunications service provider had been changed without her authorization.⁹ In the complaint, Complainant states that his 84-year old grandmother received an unsolicited call from a telemarketer who said they were part of Verizon and that they were calling in regard to her landline business phone service. "As they were pretending to be Verizon, they proceeded to tell [my grandmother] that they had been losing a lot of customers lately and they were calling existing customers to provide them some savings by lowering their phone bill in order to help prevent them from losing more customers."¹⁰ Complainant explained that his grandmother has been a Verizon customer for approximately 30 years and "absolutely did not want or intend to change her telephone carrier."¹¹ Complainant further alleged that the telemarketer from Clear Rate "was pretending to be a representative from Verizon the entire time and they did not tell my grandmother that they were actually another carrier. They also did not make it clear that they would be switching her phone service to another carrier."¹²

5. Pursuant to our rules, we notified Clear Rate of the complaint.¹³ Clear Rate responded, stating that Complainant's grandmother agreed to and authorized the carrier switch, and that the terms and conditions of service were described in detail for her on the TPV call.¹⁴ Clear Rate provided two audio recordings—the TPV recording and a recording Clear Rate characterized as a "quality assurance call."¹⁵ Clear Rate did not provide a recording of the sales call or any other evidence related to the sales call.

6. Based on the evidence in the record, we find Complainant's allegation of a sales call misrepresentation to be credible. We further find that Clear Rate has failed to provide persuasive evidence to rebut Complainant's misrepresentation claim and therefore that Complainant's authorization to change carriers is invalid. As the Commission stated in the *2018 Slamming Order*, "[w]hen a

⁷ See *Protecting Consumers from Unauthorized Carrier Changes and Related Unauthorized Charges*, 33 FCC Rcd 5773, 5778-80, paras. 17-19 (2018) (*2018 Slamming Order*); 47 CFR § 64.1120(a)(1)(i)(A).

⁸ See *2018 Slamming Order*, 33 FCC Rcd at 5781, para. 23. The Commission also stated that a carrier is uniquely positioned via its access to sales scripts, recordings, training, and other relevant materials relating to sales calls to proffer evidence to rebut a consumer's claims. *Id.*

⁹ See Informal Complaint No. 6538624.

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ 47 CFR § 1.719 (Commission procedure for informal complaints filed pursuant to section 258 of the Act); *id.* § 64.1150 (procedures for resolution of unauthorized changes in preferred carrier). In the notification, we directed Clear Rate to respond to the specific misrepresentation allegation and to provide any evidence to rebut it.

¹⁴ See Clear Rate Response to Informal Complaint No. 6538624 (filed Oct. 27, 2023); see also 47 CFR § 64.1160.

¹⁵ We note that on the "quality assurance call," the Clear Rate representative states that "you will not have any interruptions in your service. This is through a contract agreement between Verizon and Clear Rate. Clear Rate just provides the billing at a wholesale rate and manages your customer service needs in a more timely manner." The Clear Rate representative also states that "Clear Rate is one of the many rate carriers contracted by Verizon to give small businesses like yours a wholesale rate."

consumer's decision to switch carriers is predicated on false information provided in a sales call, that consumer's authorization to switch carriers can no longer be considered binding."¹⁶ We therefore find that Clear Rate's actions resulted in an unauthorized change in Complainant's telecommunications service provider, as defined by the rules, and we discuss Clear Rate's liability below.¹⁷

7. Clear Rate must remove all charges incurred for service provided to Complainant for the first 30 days after the alleged unauthorized change in accordance with the Commission's liability rules.¹⁸ We have determined that Complainant is entitled to absolution for the charges incurred during the first 30 days after the unauthorized change occurred and that neither the Complainant's authorized carrier nor Clear Rate may pursue any collection against Complainant for those charges.¹⁹ Any charges imposed by Clear Rate on the Complainant for service provided after this 30-day period shall be paid by the Complainant to the authorized carrier at the rates the Complainant was paying the authorized carrier at the time of the unauthorized change of their telecommunications service provider.²⁰

8. Accordingly, IT IS ORDERED that, pursuant to section 258 of the Communications Act of 1934, as amended, 47 U.S.C. § 258, and sections 0.141, 0.361, and 1.719 of the Commission's rules, 47 CFR §§ 0.141, 0.361, 1.719, the complaint filed against Clear Rate Communications IS GRANTED.

9. IT IS FURTHER ORDERED that, pursuant to section 64.1170(d) of the Commission's rules, 47 CFR § 64.1170(d), Complainant is entitled to absolution for the charges incurred during the first thirty days after the unauthorized change occurred and that Clear Rate Communications may not pursue any collection against Complainant for those charges.

10. IT IS FURTHER ORDERED that this Order is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Kristi Thornton
Acting Chief
Consumer Policy Division
Consumer and Governmental Affairs Bureau

¹⁶ 2018 *Slamming Order*, 33 FCC Rcd at 5779, para. 18 (citing *Advantage Forfeiture Order*, 32 FCC Rcd 3723, 3725-30, paras. 7-13 (2017) (finding that the carrier's TPV recordings did not disprove that unlawful misrepresentations were made during the telemarketing calls and further, that questions posed during the separate TPV calls did not cure those misrepresentations)).

¹⁷ If Complainant is unsatisfied with the resolution of the complaint, the Complainant may file a formal complaint with the Commission pursuant to Section 1.721 of the Commission's rules, 47 CFR § 1.721. Such filing will be deemed to relate back to the filing date of Complainant's informal complaint so long as the formal complaint is filed within 45 days from the date this order is mailed or delivered electronically to Complainant. *See id.* § 1.719.

¹⁸ *See id.* § 64.1160(b).

¹⁹ *See id.* § 64.1160(d).

²⁰ *See id.* § 64.1140, 64.1160.

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

In the Matter of	)	
	)	
Clear Rate Communications	)	Complaint No. 6529386
	)	
Complaint Regarding	)	
Unauthorized Change of	)	
Subscriber's Telecommunications Carrier	)	

ORDER

Adopted: October 31, 2023**Released: October 31, 2023**

By the Acting Chief, Consumer Policy Division, Consumer and Governmental Affairs Bureau:

1. In this Order, we consider a complaint alleging that Clear Rate Communications (Clear Rate) changed Complainant's telecommunications service provider without obtaining authorization and verification from Complainant as required by the Commission's rules.¹ We conclude that Clear Rate's actions violated the Commission's slamming rules, and we therefore grant Complainant's complaint.

2. Section 258 of the Communications Act of 1934, as amended (the Act), prohibits the practice of "slamming," the submission or execution of an unauthorized change in a subscriber's selection of a provider of telephone exchange service or telephone toll service.² The Commission's implementing rules require, among other things, that a carrier receive individual subscriber consent before a carrier change may occur.³ Specifically, a carrier must: (1) obtain the subscriber's written or electronically signed authorization in a format that satisfies our rules; (2) obtain confirmation from the subscriber via a toll-free number provided exclusively for the purpose of confirming orders electronically; or (3) utilize an appropriately qualified independent third party to verify the order.⁴ The Commission has also adopted rules to limit the liability of subscribers when an unauthorized carrier change occurs, and to require carriers involved in slamming practices to compensate subscribers whose carriers were changed without authorization.⁵

3. The Commission's slamming rules prohibit misrepresentations on sales calls to further reduce the incidence of slamming.⁶ Under the rules, upon a finding of material misrepresentation during

¹ See Informal Complaint No. 6529386 (filed Oct. 19, 2023); *see also* 47 CFR §§ 64.1100 – 64.1190.

² 47 U.S.C. § 258(a).

³ See 47 CFR § 64.1120.

⁴ See *id.* § 64.1120(c). Section 64.1130 details the requirements for letter of agency form and content for written or electronically signed authorizations. *Id.* § 64.1130.

⁵ These rules require the unauthorized carrier to absolve the subscriber where the subscriber has not paid his or her bill. If the subscriber has not already paid charges to the unauthorized carrier, the subscriber is absolved of liability for charges imposed by the unauthorized carrier for service provided during the first 30 days after the unauthorized change. See *id.* §§ 64.1140, 64.1160. Any charges imposed by the unauthorized carrier on the subscriber for service provided after this 30-day period shall be paid by the subscriber to the authorized carrier at the rates the subscriber was paying to the authorized carrier at the time of the unauthorized change. *Id.* Where the subscriber has paid charges to the unauthorized carrier, the Commission's rules require that the unauthorized carrier pay 150 percent of those charges to the authorized carrier, and the authorized carrier shall refund or credit to the subscriber 50 percent of all charges paid by the subscriber to the unauthorized carrier. See *id.* §§ 64.1140, 64.1170.

⁶ *Id.* § 64.1120(a)(1)(i)(A).

the sales call, the consumer's authorization to change carriers will be deemed invalid even if the carrier has some evidence of consumer authorization of a carrier switch, e.g., a third-party verification (TPV) recording. Sales misrepresentations may not be cured by a facially valid TPV.⁷ The rule provides that a consumer's credible allegation of misrepresentation shifts the burden of proof to the carrier to provide evidence to rebut the consumer's claim regarding misrepresentation. The Commission made clear that an accurate and complete recording of the sales call may be the carrier's best persuasive evidence to rebut the consumer's claim that a misrepresentation was made on the sales call.⁸

4. We received Complainant's complaint alleging that her business's telecommunications service provider had been changed without her authorization.⁹ In the complaint, Complainant states that she received a call from someone claiming to be with Verizon, her business's current carrier, and offering her better rates. "They asked a couple of questions and then were able to take our number and we had no service for a day."¹⁰ Complainant further states that they then received a bill from Clear Rate, although they "always wanted to stay with Verizon."¹¹

5. Pursuant to our rules, we notified Clear Rate of the complaint.¹² Clear Rate responded, stating that Complainant agreed to and authorized the carrier switch, and that the terms and conditions of service were described in detail for her on the TPV call.¹³ Clear Rate provided two audio recordings—the TPV recording and a recording Clear Rate characterized as a "quality assurance call."¹⁴ Clear Rate did not provide a recording of the sales call or any other evidence related to the sales call.

6. Based on the evidence in the record, we find Complainant's allegation of a sales call misrepresentation to be credible. We further find that Clear Rate has failed to provide persuasive evidence to rebut Complainant's misrepresentation claim and therefore that Complainant's authorization to change carriers is invalid. As the Commission stated in the *2018 Slamming Order*, "[w]hen a consumer's decision to switch carriers is predicated on false information provided in a sales call, that consumer's authorization to switch carriers can no longer be considered binding."¹⁵ We therefore find that Clear Rate's actions resulted in an unauthorized change in Complainant's telecommunications service

⁷ See *Protecting Consumers from Unauthorized Carrier Changes and Related Unauthorized Charges*, 33 FCC Rcd 5773, 5778-80, paras. 17-19 (2018) (*2018 Slamming Order*); 47 CFR § 64.1120(a)(1)(i)(A).

⁸ See *2018 Slamming Order*, 33 FCC Rcd at 5781, para. 23. The Commission also stated that a carrier is uniquely positioned via its access to sales scripts, recordings, training, and other relevant materials relating to sales calls to proffer evidence to rebut a consumer's claims. *Id.*

⁹ See Informal Complaint No. 6529386.

¹⁰ *Id.*

¹¹ *Id.*

¹² 47 CFR § 1.719 (Commission procedure for informal complaints filed pursuant to section 258 of the Act); *id.* § 64.1150 (procedures for resolution of unauthorized changes in preferred carrier). In the notification, we directed Clear Rate to respond to the specific misrepresentation allegation and to provide any evidence to rebut it.

¹³ See Clear Rate Response to Informal Complaint No. 6529386 (filed Oct. 25, 2023); *see also* 47 CFR § 64.1160.

¹⁴ We note that on the "quality assurance call," the Clear Rate representative states that "[y]ou will not have any interruptions in your service. This is through a contract agreement between Verizon and Clear Rate. Clear Rate just provides the billing at a wholesale rate and manages your customer service needs in a more timely manner." The Clear Rate representative also states that "Clear Rate is one of the many rate carriers contracted by Verizon to finally give small businesses like yours a wholesale rate."

¹⁵ *2018 Slamming Order*, 33 FCC Rcd at 5779, para. 18 (citing *Advantage Forfeiture Order*, 32 FCC Rcd 3723, 3725-30, paras. 7-13 (2017) (finding that the carrier's TPV recordings did not disprove that unlawful misrepresentations were made during the telemarketing calls and further, that questions posed during the separate TPV calls did not cure those misrepresentations)).

provider, as defined by the rules, and we discuss Clear Rate's liability below.¹⁶

7. Clear Rate must remove all charges incurred for service provided to Complainant for the first 30 days after the alleged unauthorized change in accordance with the Commission's liability rules.¹⁷ We have determined that Complainant is entitled to absolution for the charges incurred during the first 30 days after the unauthorized change occurred and that neither the Complainant's authorized carrier nor Clear Rate may pursue any collection against Complainant for those charges.¹⁸ Any charges imposed by Clear Rate on the Complainant for service provided after this 30-day period shall be paid by the Complainant to the authorized carrier at the rates the Complainant was paying the authorized carrier at the time of the unauthorized change of their telecommunications service provider.¹⁹

8. Accordingly, IT IS ORDERED that, pursuant to section 258 of the Communications Act of 1934, as amended, 47 U.S.C. § 258, and sections 0.141, 0.361, and 1.719 of the Commission's rules, 47 CFR §§ 0.141, 0.361, 1.719, the complaint filed against Clear Rate Communications IS GRANTED.

9. IT IS FURTHER ORDERED that, pursuant to section 64.1170(d) of the Commission's rules, 47 CFR § 64.1170(d), Complainant is entitled to absolution for the charges incurred during the first thirty days after the unauthorized change occurred and that Clear Rate Communications may not pursue any collection against Complainant for those charges.

10. IT IS FURTHER ORDERED that this Order is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Kristi Thornton
Acting Chief
Consumer Policy Division
Consumer and Governmental Affairs Bureau

¹⁶ If Complainant is unsatisfied with the resolution of the complaint, the Complainant may file a formal complaint with the Commission pursuant to Section 1.721 of the Commission's rules, 47 CFR § 1.721. Such filing will be deemed to relate back to the filing date of Complainant's informal complaint so long as the formal complaint is filed within 45 days from the date this order is mailed or delivered electronically to Complainant. *See id.* § 1.719.

¹⁷ *See id.* § 64.1160(b).

¹⁸ *See id.* § 64.1160(d).

¹⁹ *See id.* § 64.1140, 64.1160.



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 23-1029

Released: October 31, 2023

WIRELINE COMPETITION BUREAU EXTENDS EMERGENCY CONNECTIVITY FUND OCTOBER 30, 2023 INVOICE DEADLINE

WC Docket No. 21-93

The Wireline Competition Bureau (Bureau) is extending the deadline for Emergency Connectivity Fund (ECF) program participants with an October 30, 2023 invoice filing deadline due to a technical issue that might have prevented parties from timely filing.¹ Entities and service providers with an October 30, 2023 invoice filing deadline now have until 7:59 p.m. ET on Friday, November 3, 2023, to submit requests for reimbursement.

On October 31, 2023, the Bureau learned that the ECF Invoice Portal was improperly rejecting timely efforts to submit requests for reimbursement from ECF applicants and service providers with an October 30, 2023 invoice deadline because of a time zone error. Because of this unanticipated technical issue that might have prevented parties from timely submitting requests for reimbursement, the Bureau extends the October 30, 2023 deadline until 7:59 p.m. ET on Friday, November 3, 2023.

For more information, please contact Kate Dumouchel, Telecommunications Access Policy Division, Wireline Competition Bureau at (202) 418-7400 or (202) 418-0484 (TTY), or at kate.dumouchel@fcc.gov.

¹ The Commission has delegated authority to the Chief of the Wireline Competition Bureau to resolve unanticipated technical and operational issues relating to the universal service mechanisms (including the E-Rate program) that may arise. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Third Report and Order, 12 FCC Rcd 22485, 22488-89, para. 6 (1997). See also *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8922, para. 133 (2014) (reaffirming this delegation of authority to the Bureau).

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

In the Matter of	)	
	)	
Amendment of Section 73.622(j),	)	MB Docket No. 23-296
Table of TV Allotments, Television Broadcast	)	RM-11964
Stations (Des Moines, Iowa)	)	
	)	

**REPORT AND ORDER
(Proceeding Terminated)**

Adopted: November 1, 2023

Released: November 1, 2023

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 Petition for Rulemaking filed by Iowa Public Broadcasting Board (Petitioner),² the licensee of noncommercial educational television PBS member station KDIN-TV (KDIN-TV or Station), channel *11, Des Moines, Iowa (Des Moines). The Petitioner has requested the substitution of channel *34 in place of channel *11 at Des Moines in the Table of TV Allotments,³ and requested that we delete vacant channel *34, Ames, Iowa (Ames) and substitute it with the allotment of vacant channel *21 to Ames. Petitioner filed comments in support of the petition, as required by the Commission's rules (rules),⁴ reaffirming its commitment to apply for channel *34.⁵ No other comments were received.

2. We find the public interest would be served by substituting channel *34 for channel *11 at Des Moines. Petitioner asserts that the channel substitution from a VHF to UHF channel would serve the public interest by resolving viewer reception challenges and significantly improving the Station's over-the-air service to the viewers in its existing service area.⁶ Petitioner includes with its Petition a number of viewer complaints highlighting current reception problems.⁷ Petitioner states that the Commission has recognized that VHF channels pose challenges for their use in providing digital television service, including propagation characteristics that allow undesired signals and noise to be receivable at relatively far distances and large variability in the performance of indoor antennas available

¹ *Amendment of Section 73.622(j), Table of TV Allotments, Television Broadcast Stations (Des Moines, Iowa)*, MB Docket No. 23-296, Notice of Proposed Rulemaking, DA 23-774 (rel. Aug. 29, 2023) (*NPRM*).

² Petition of Iowa Public Broadcasting Board for Rulemaking, LMS File No. 0000210675 (filed Feb. 13, 2023), as amended Aug. 2, 2023 (Petition). Noncommercial educational television stations are identified in the Table of TV Allotments by an asterisk to indicate they are reserved for noncommercial educational use. 47 CFR §73.622(a).

³ 47 CFR § 73.622(j).

⁴ 47 CFR §§ 1.415, 1.419; *see also Buffalo, Iola, Normangee, and Madisonville, Texas*, MB Docket No. 07-279, Report and Order, 24 FCC Rcd 8192, 8194, para. 9 (MB 2009).

⁵ Comments of Iowa Public Broadcasting Board at 1 (filed Oct. 3, 2023) (IPBB Comments).

⁶ *NPRM* at para. 2.

⁷ *See id.* at para. 2; Petition at Exhibit B.

to viewers, with most antennas performing very poorly on high VHF channels.⁸ An engineering statement provided by the Petitioner confirms that the proposed channel *34 contour would provide full principal community coverage to Des Moines.⁹ The proposed move from channel *11 to channel *34 is also predicted not to create a loss of service to any viewers,¹⁰ and according to the engineering statement, “will actually increase the area covered while serving the population with higher signal levels.”¹¹

3. Petitioner acknowledges that the proposed channel substitution would not meet the distance separation requirements regarding the vacant channel *34 allotment at Ames.¹² As a result, Petitioner requests that simultaneously with the substitution of channel *34 at Des Moines, we delete the vacant channel *34 allotment at Ames and substitute it with the allotment of vacant channel *21 to Ames.¹³ As stated in its supplemental engineering statement, the proposed channel *21 is described as meeting the distance criteria found in section 73.623(d) of the rules, and an analysis using the Commission’s *TVStudy* software is provided showing no interference to any other station or allotment.¹⁴

4. As proposed, channel *34 can be substituted for channel *11 at Des Moines in compliance with the principal community coverage requirements of section 73.625(a) of the rules,¹⁵ at coordinates 41° 48’ 33.0” N and 93° 36’ 54.0” W. In addition, we find that this channel change meets the technical requirements set forth in sections 73.616 and 73.623 of the rules.¹⁶ The proposal also will not result in any loss of service to existing viewers. Thus, we substitute channel *34 in place of channel *11 for KDIN-TV

⁸ Petition at 3-4 (citing *Innovation in the Broadcast Television Bands: Allocations, Channel Sharing and Improvements to VHF*, ET Docket No. 10-235, Notice of Proposed Rulemaking, 25 FCC Rcd 16498, 16511-2, paras. 42, 44 (2010)).

⁹ Petition at Exhibit A.

¹⁰ *Id.* at 2 and Exhibit A.

¹¹ *Id.* at Exhibit A. Petitioner states that the proposed channel substitution is in the public interest because the Station’s operations on channel *34 would reach 10,904 people not currently served by the station’s channel *11 facilities. IPBB Comments at 1.

¹² *Id.* at 3. See 47 CFR § 73.623(d)(2).

¹³ Petition at 3.

¹⁴ *Id.* at 3, Exhibit A, and Exhibits at 21-30. Petitioner also asserts that channel *21 is a suitable allotment substitution for channel *34 at Ames because it is technically superior since the proposed allotment could serve almost twice the area and almost two hundred thousand additional persons. In arriving at this conclusion, Petitioner compared the proposed channel *21 allotment to the last-licensed facilities on channel *34 at Ames, Iowa in Appendix B of the *Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service*, MM Docket No. 87-268, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order, 13 FCC Rcd 7418 (1998). See Petition at 3 and n.6. Notwithstanding that we generally consider that service to more persons than fewer is in the public interest and agree that the showing indicates this is the case for the proposed allotment, we conclude that no weight should be given to the Petitioner’s assertions that the allotment would serve more people as we cannot know at this time what a potential applicant would ultimately construct at the proposed allotment.

¹⁵ 47 CFR § 73.625(a). The Commission recently amended its rules to create a new section 73.618 (Antenna location and principal community coverage), which relocates, verbatim, the language from section 73.625(a) (DTV coverage of principal community and antenna system). See *Amendment of Part 73 of the Commission’s Rules to Update Television and Class A Television Broadcast Station Rules, and Rules Applicable to All Broadcast Stations*, MB Docket No. 22-227, Report and Order, FCC 23-72 at para. 37 (rel. Sept. 19, 2023) (*Part 73 Amendment R&O*). The amended rules are not effective as of the date of release of this Report and Order, and, as such, we continue to make reference to 47 CFR § 73.625(a).

¹⁶ 47 CFR §§ 73.616, 73.623.

with the following specifications:¹⁷

<u>City and State</u>	<u>Channel</u>	<u>Power (kW)</u>	<u>Antenna HAAT (m)</u>	<u>Service Pop.</u>
Des Moines, Iowa	*34	1000	600	1,098,901

5. As proposed, we also delete vacant channel *34, Ames and substitute it with the allotment of vacant channel *21 to Ames. Channel *21 can be substituted in place of channel *34 at Ames, as proposed, in compliance with the principal community coverage requirements of section 73.625(a)¹⁸ of the rules, at coordinates 41° 58' 49.0" N and 93° 44' 24.0" W. We also find that this proposed channel change meets the technical requirements set forth in sections 73.616 and 73.623 of the rules.¹⁹ Thus, we allot vacant channel *21 in place of channel *34 with the following specifications:

<u>City and State</u>	<u>Channel</u>	<u>Power (kW)</u>	<u>Antenna HAAT (m)</u>
Ames, Iowa	*21	1000	365

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.²⁰ An expedited effective date is necessary in this case to ensure that KDIN-TV can operate with improved service to its viewers as quickly as possible.

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 ORDERED**, That effective immediately upon the date of publication in the Federal Register, the Table of Allotments, section 73.622(j) of the Commission's rules, 47 CFR § 73.622(j), **IS AMENDED**, with respect to the communities listed below, to read as follows:

<u>City and State</u>	<u>Channel No.</u>
Ames, Iowa	5, *21, 23
Des Moines, Iowa	8, 13, 16, 19, *34

8. **IT IS FURTHER ORDERED**, That within 10 days of the effective date of this Report and Order, Iowa Public Broadcasting Board shall submit to the Commission a minor change application for a construction permit (Form 2100, Schedule A) specifying channel *34.

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. 23-296 and RM-11964 **SHALL BE TERMINATED** and its docket closed.

¹⁷ *Id.* The Commission also recently amended its rules, including combining parts of sections 73.616(a) (Post-transition DTV station interference protection), 73.622(a), and 73.623(a) into one rule that includes all requirements for modifying a television allotment, modified section 73.622(a) (Table of TV allotments). *Part 73 Amendment R&O* at para. 38. The adopted order also relocated section 73.616(c), specifying the protected facilities of TV allotments, to new section 73.619(d). *Part 73 Amendment R&O* at para. 37. As such, we continue to make reference to 47 CFR §§ 73.616 and 73.623.

¹⁸ 47 CFR § 73.625(a).

¹⁹ 47 CFR §§ 73.616, 73.623.

²⁰ 5 U.S.C. § 553(d)(3).

11. **IT IS FURTHER ORDERED**, That the newly allotted channel *21 at Ames, Iowa, **SHALL BE AUTHORIZED** pursuant to the Commission's application and selection procedures for reserved noncommercial educational television channels, 47 CFR §§ 73.7000 *et seq.*

12. For further information concerning the proceeding listed above, contact Emily Harrison, Video Division, Media Bureau, Emily.Harrison@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau



Federal Communications Commission
Washington, D.C. 20554

November 1, 2023

DA 23-1031

Mr. Carlos Cuellar
Chief Engineer
UniPlex Telecom Technologies, Inc.
848 Brickell Avenue, Suite 1120
Miami, FL 33131

Via First Class Mail and Certified Mail, Return Receipt Requested

Re: Potential Reclamation of UniPlex Telecom Technologies, Inc.'s International Signaling Point Code, 3-028-5 (Miami, FL)

Dear Mr. Cuellar:

By this letter, the Telecommunications and Analysis Division of the Office of International Affairs (OIA) informs you of our intent to reclaim the above-captioned International Signaling Point Code (ISPC), which was provisionally assigned to UniPlex Telecom Technologies, Inc. (UniPlex) on December 8, 2000.¹ We will take this action unless you respond to this letter within thirty (30) days, by **December 1, 2023**, and indicate whether UniPlex is still using the code.

The Federal Communications Commission (Commission), as the Administrator for the United States, assigns ISPCs for Signaling System No. 7 networks under ITU-T Recommendation Q.708.² The Commission has explained that ISPCs are a scarce resource and “[a]s a result, code assignments are conditional upon their being used within one year lead time, so that the Commission can reassign unused codes to another carrier.”³ Finally, ITU-T Recommendation Q.708 provides that the Commission should withdraw an ISPC assignment if the code is “no longer in use or required” by the operator, among other reasons.⁴

¹ UniPlex Telecom Technologies, Inc., File No. SPC-NEW-20001208-00074 (filed Dec. 8, 2000) (UniPlex ISPC Application); Letter from Cathy Hsu, FCC to Mr. Carlos Cuellar, Chief Engineer, UniPlex Telecom Technologies, Inc. (Dec. 8, 2000) (UniPlex Grant Letter).

² International Telecommunication Union (ITU), ITU-T Recommendation Q.708 (03/99), Series Q: Switching and Signalling, Specifications of Signalling System No. 7—Message Transfer Part (MTP), Assignment procedures for international signalling point codes, <https://www.itu.int/rec/recommendation.asp?lang=en&parent=T-REC-Q.708-199903-I> (ITU-T Recommendation Q.708).

³ *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, Notice of Proposed Rulemaking, 19 FCC Rcd 6460, 6474, para. 36, n.83 (2004); see also *China Telecom (Americas) Corporation, GN Docket No. 20-109 et al.*, Order Instituting Proceedings on Revocation and Termination and Memorandum Opinion and Order, 35 FCC Rcd 15006, 15040, para. 58 (2020) (“ISPCs are a scarce resource that are used by international Signaling System 7 (SS7) gateways as addresses for routing domestic voice traffic to an international provider and anyone seeking an ISPC assignment is required by rule to file an application with the Commission and comply with its procedures.”).

⁴ ITU-T Recommendation Q.708 at 6.

In its letter granting the provisional assignment of ISPC 3-028-5 to UniPlex, the Telecommunications Division (Division) of the International Bureau (Bureau) of the Federal Communications Commission required UniPlex to inform the Division of the date the code was implemented.⁵ In granting the UniPlex ISPC Application, the Division also stated that requests for ISPCs must “strictly fit the [ITU-T Recommendation Q.708] guidelines and that ‘warehousing’ of ISPC assignments be avoided. . . .”⁶ Additionally, UniPlex was subject to annual traffic and revenue reporting requirements at the time of its ISPC assignment.⁷ We have no record that UniPlex informed the Division of the date the code was implemented or filed any international Traffic and Revenue reports for the years 2007-2015.⁸

In March 2020, Division staff⁹ made several attempts to contact UniPlex to ascertain whether it is using its assigned ISPC. On March 5, 2020, the staff sent an inquiry to the email address on file, which was returned due to an unknown user error.¹⁰ Additionally, on March 5, 2020 and November 16, 2021, the staff called UniPlex’s phone number on record, but the call could not be completed.¹¹ The FCC 499 Filer Database indicates that UniPlex has not been active since November 30, 2006, and that it “has gone out of business in it’s [sic] entirety (no sale of assets involved).”¹² Finally, according to Florida’s Department of State, Division of Corporations website, UniPlex has been inactive since 2008, when it was dissolved.¹³ Based on our inability to contact a representative of UniPlex, our records, and the

⁵ UniPlex Grant Letter at 2.

⁶ *Id.* at 1.

⁷ See generally *Amendment of Section 43.61 of the Commission’s Rules*, CC Docket No. 91-22, Report and Order, 7 FCC Rcd 1379 (1992) (establishing the traffic and revenue reporting requirements that were in effect at the time of UniPlex’s ISPC assignment).

⁸ In 2017, the Commission eliminated the requirement that U.S. providers of international telecommunications services file annual Traffic and Revenue Reports. See *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 (2017). Providers, including UniPlex, were required to file the final traffic and revenue data for calendar year 2015.

⁹ The Telecommunications Division, also known in the past as the Policy Division, was renamed the Telecommunications and Analysis Division in 2015 as a result of an International Bureau reorganization. See *International Bureau Reorganization*, FCC New Release, December 14, 2015 (<https://docs.fcc.gov/public/attachments/DOC-336832A1.pdf>). In 2023, the Commission adopted an order that reorganized the International Bureau into: (1) a Space Bureau and (2) an Office of International Affairs (OIA). 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*, Order, MD Docket No. 23-12, FCC 23-1 (rel. Jan. 9, 2023). As a result of this reorganization, the Telecommunications and Analysis Division became a division within OIA.

¹⁰ Email from Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau, to Cecilia Zurita, UniPlex Telecom Technologies, Inc. (lwhan@uniplex.net) (March 5, 2020, 6:14 PM); Return email from Mail Delivery Subsystem to Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau (March 5, 2020, 6:15 PM). These emails are reprinted in the Attachment.

¹¹ Staff called the following telephone number: (305) 858-6700.

¹² FCC Form 499 Filer Database, UniPlex Telecom Technologies, Inc., <https://apps.fcc.gov/cgb/form499/499detail.cfm?FilerNum=819879> (last visited Oct. 11, 2023).

¹³ See Florida, Department of State, Division of Corporations, Search Records, <https://dos.myflorida.com/sunbiz/search/> (last visited Oct. 11, 2023).

records of Florida's Department of State, we believe UniPlex may no longer be providing service and is no longer using its assigned ISPC.

We request that you respond to this letter by **December 1, 2023**, and indicate the date the code was implemented and describe the current use of UniPlex's ISPC (3-028-5). A failure to respond to this letter will serve as confirmation that UniPlex is no longer using its provisionally assigned ISPC and has failed to comply with our ISPC requirements. If you fail to respond to this letter as requested, we will reclaim the ISPC (3-028-5) and immediately thereafter make the code available for reassignment consistent with the terms of ITU-T Recommendation Q.708. We are addressing this letter to the most recent contacts and addresses of record provided by UniPlex.

If you have any questions, please contact me at (202) 418-7370 or Francis.Gutierrez@fcc.gov or my colleague Arthur Lechtman at (202) 418-1465 or Arthur.Lechtman@fcc.gov.

Sincerely,

/Francis Gutierrez/

Francis Gutierrez
Deputy Chief, Telecommunications and Analysis
Division
Office of International Affairs

cc:

Leonard Whan
Ramon Ramirez
848 Brickell Avenue, Suite 1120
Miami, FL 33131

Washington Vasconez
Cecilia Zurita
UniPlex Telecom Technologies, Inc.
168 S.E. 1st Street, Suite 1101
Miami, FL 33131

National Registered Agents, Inc.
c/o UniPlex Telecom Technologies, Inc.
1090 Vermont Avenue NW, Suite 910
Washington, DC 20005

Attachment

Email Exchange with UniPlex Telecom Technologies, Inc.

-----Original Message-----

From: Mail Delivery Subsystem <MAILER-DAEMON@mx0a-0024ed01.pphosted.com>
Sent: Thursday, March 5, 2020 6:15 PM
To: prvs=0333312e3c=arthur.lechtman@fcc.gov
Subject: Returned mail: see transcript for details

The original message was received at Thu, 5 Mar 2020 23:13:53 GMT from m0102173.pops.net [127.0.0.1]

----- The following addresses had permanent fatal errors ----- <lwhan@uniplex.net>
(reason: 550 No Such User Here)

----- Transcript of session follows ----- ... while talking to mail.uniplex.net.:
>>> DATA
<<< 550 No Such User Here
550 5.1.1 <lwhan@uniplex.net>... User unknown <<< 503-All RCPT commands were rejected with this error:
<<< 503-No Such User Here
<<< 503 Valid RCPT command must precede DATA

###

From: Arthur Lechtman <Arthur.Lechtman@fcc.gov>
Sent: Thursday, March 5, 2020 6:14 PM
To: lwhan@uniplex.net
Cc: Francis Gutierrez <Francis.Gutierrez@fcc.gov>; Stacey Ashton <Stacey.Ashton@fcc.gov>
Subject: UniPlex ISPC inquiry

Hello-

I am writing to inquire whether UniPlex Telecom Technologies is still using the international signaling point code that it was assigned in 2000 (3-028-5). Please let me know by email or call me at the number below if you have any questions. Thank you,

Artie Lechtman

Federal Communications Commission
International Bureau
202.418.1465



Federal Communications Commission
Washington, D.C. 20554

November 1, 2023

DA 23-1033

Mr. Jaemin Bark
Vice President
SK Telink America, Inc.
110 E. 55th St., 18th Floor
New York, NY 10022

Via First Class Mail and Certified Mail, Return Receipt Requested

Re: Potential Reclamation of SK Telink America, Inc.'s International Signaling Point Code, 3-183-6 (Jersey City, NJ)

Dear Mr. Bark:

By this letter, the Telecommunications and Analysis Division of the Office of International Affairs (OIA) informs you of our intent to reclaim the above-captioned International Signaling Point Code (ISPC), which was provisionally assigned to SK Telink America, Inc. (SK Telink) on January 13, 2000.¹ We will take this action unless you respond to this letter within thirty (30) days, by **December 1, 2023**, and indicate whether SK Telink is still using the code.

The Federal Communications Commission (Commission), as the Administrator for the United States, assigns ISPCs for Signaling System No. 7 networks under ITU-T Recommendation Q.708.² The Commission has explained that ISPCs are a scarce resource and “[a]s a result, code assignments are conditional upon their being used within one year lead time, so that the Commission can reassign unused codes to another carrier.”³ Finally, ITU-T Recommendation Q.708 provides that the Commission should withdraw an ISPC assignment if the code is “no longer in use or required” by the operator, among other reasons.⁴

¹ SK Telink America, Inc., File No. SPC-NEW-20000112-00001 (filed Jan. 12, 2000) (SK Telink ISPC Application); Letter from Cathy Hsu, Telecommunications Division, International Bureau, FCC to Mr. Jaemin Bark, Vice President, SK Telink America, Inc. (Jan. 13, 2000) (SK Telink Grant Letter).

² International Telecommunication Union (ITU), ITU-T Recommendation Q.708 (03/99), Series Q: Switching and Signalling, Specifications of Signalling System No. 7—Message Transfer Part (MTP), Assignment procedures for international signalling point codes, <https://www.itu.int/rec/recommendation.asp?lang=en&parent=T-REC-Q.708-199903-I> (ITU-T Recommendation Q.708).

³ *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, Notice of Proposed Rulemaking, 19 FCC Rcd 6460, 6474, para. 36, n.83 (2004); see also *China Telecom (Americas) Corporation*, GN Docket No. 20-109 *et al.*, Order Instituting Proceedings on Revocation and Termination and Memorandum Opinion and Order, 35 FCC Rcd 15006, 15040, para. 58 (2020) (“ISPCs are a scarce resource that are used by international Signaling System 7 (SS7) gateways as addresses for routing domestic voice traffic to an international provider and anyone seeking an ISPC assignment is required by rule to file an application with the Commission and comply with its procedures.”).

⁴ ITU-T Recommendation Q.708 at 6.

In its letter granting the provisional assignment of ISPC 3-183-6 to SK Telink in 2000, the Telecommunications Division (Division) of the International Bureau (Bureau) of the Federal Communications Commission required SK Telink to inform the Division of the date the code was implemented, and to do so within 12 months of the assignment (i.e., by January 13, 2001).⁵ In granting the SK Telink ISPC Application, the Division also stated that requests for ISPCs must “strictly fit the [ITU-T Recommendation Q.708] guidelines and that ‘warehousing’ of ISPC assignments be avoided. . . .”⁶ Additionally, SK Telink was subject to annual traffic and revenue reporting requirements at the time of its ISPC assignment.⁷ We have no record that SK Telink informed the Division of the date the code was implemented or filed any international Traffic and Revenue reports for the years 2004-2015.⁸

Since March 2020, Division staff⁹ made several attempts to contact SK Telink to ascertain whether it is using its assigned ISPC. On March 5, 2020, the staff sent an inquiry by email to SK Telink which was unanswered.¹⁰ That same day, the staff called SK Telink’s phone number on record, which was no longer in service.¹¹ On October 27, 2021, the staff sent an email inquiry to another email address on file for SK Telink, and it was returned as undeliverable.¹² The staff also called additional SK Telink

⁵ SK Telink Grant Letter at 2.

⁶ *Id.* at 1.

⁷ See generally *Amendment of Section 43.61 of the Commission’s Rules*, CC Docket No. 91-22, Report and Order, 7 FCC Rcd 1379 (1992) (establishing the traffic and revenue reporting requirements that were in effect at the time of SK Telink’s ISPC assignment).

⁸ In 2017, the Commission eliminated the requirement that U.S. providers of international telecommunications services file annual Traffic and Revenue Reports. See *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 (2017). Providers, including SK Telink, were required to file the final traffic and revenue data for calendar year 2015.

⁹ The Telecommunications Division, also known in the past as the Policy Division, was renamed the Telecommunications and Analysis Division in 2015 as a result of an International Bureau reorganization. See *International Bureau Reorganization*, FCC New Release, December 14, 2015 (<https://docs.fcc.gov/public/attachments/DOC-336832A1.pdf>). In 2023, the Commission adopted an order that reorganized the International Bureau into: (1) a Space Bureau and (2) an Office of International Affairs (OIA). 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*, Order, MD Docket No. 23-12, FCC 23-1 (rel. Jan. 9, 2023). As a result of this reorganization, the Telecommunications and Analysis Division became a division within OIA.

¹⁰ Email from Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau, to Jaemin Bark, SK Telink America, Inc. (jbark@ocmp.com) (Mar. 5, 2020, 3:54 PM); Return email/delivery notification from Microsoft Outlook to Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau (Mar. 5, 2020, 3:54 PM). These emails are reprinted in the Attachment.

¹¹ Staff called the following telephone number: (212) 906-8181.

¹² Email from Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau, to Jaemin Bark, SK Telink America, Inc. (jbark@ocmp.com, info@sktamerica.com, info@sktamerica.com) (Oct. 27, 2021, 12:11 PM); Return email from Mail Delivery Subsystem to Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau (Oct. 27, 2021, 12:11 PM). These emails are reprinted in the Attachment.

telephone numbers on file, and these numbers were also not in service or no one answered.¹³ The FCC 499 Filer Database further indicates that SK Telink has not been active since July 1, 2003 and that SK Telink “has filed for Chapter 7 bankruptcy protection.”¹⁴ SK Telink also surrendered its international section 214 authority on December 18, 2003.¹⁵ In surrendering its section 214 authorization, SK Telink noted that it terminated service on June 1, 2003, but did not mention the disposition of its ISPC.¹⁶ Finally, according to New York’s Department of State, Division of Corporations’ website, SK Telink has been inactive since May 7, 2004.¹⁷ Based on our inability to contact a representative of SK Telink, our records, and the records of New York’s Department of State, we believe SK Telink may no longer be providing service and is no longer using its assigned ISPC.

We request that you respond to this letter by **December 1, 2023**, and indicate the date the code was implemented and describe the current use of SK Telink’s ISPC (3-183-6). A failure to respond to this letter will serve as confirmation that SK Telink is no longer using its provisionally assigned ISPC and has failed to comply with our ISPC requirements. If you fail to respond to this letter as requested, we will reclaim the ISPC (3-183-6) and immediately thereafter make the code available for reassignment consistent with the terms of ITU-T Recommendation Q.708. We are addressing this letter to the most recent contacts and addresses of record provided by SK Telink.

If you have any questions, please contact me at (202) 418-7370 or Francis.Gutierrez@fcc.gov or my colleague Arthur Lechtman at (202) 418-1465 or Arthur.Lechtman@fcc.gov.

Sincerely,

/Francis Gutierrez/
Francis Gutierrez
Deputy Chief, Telecommunications and Analysis
Division
Office of International Affairs

¹³ Staff called the following telephone numbers: (212) 906-8009; (201) 613-8000; (201) 613-8009; (800) 341-0774; (201) 363-1600.

¹⁴ FCC Form 499 Filer Database, SK Telink America, Inc., <https://apps.fcc.gov/cgb/form499/499detail.cfm?FilerNum=820950> (last visited Mar. 17, 2022).

¹⁵ See Letter from Craig L. Sheldon, Assistant General Counsel, SK USA Inc., to Marlene Dortch, Secretary, and International Bureau, Federal Communications Commission (Dec. 18, 2003), File No. ITC-214-19991104-00698 (noted in *International Authorizations Granted*, Public Notice, DA No. 04-216, Report No. TEL-00754, 19 FCC Rcd. 1453 (January 29, 2004)).

¹⁶ *Id.*

¹⁷ See New York, Department of State, Division of Corporations, Corporation and Business Entity Database, <https://apps.dos.ny.gov/publicInquiry/>.

cc:

Craig L. Sheldon, Esq.
Assistant General Counsel
OCMP, Inc.
110 East 55th Street
New York, NY 10022

Craig L. Sheldon
Assistant General Counsel
SK USA, Inc.
400 Kelby Street, 17th Floor
Fort Lee, NJ 07024

Jeong Soo Kim
Chief Executive Officer
SK Telink America, Inc.
400 Kelby Street, 9th Floor
Fort Lee, NJ 07024

Attachment

Email Exchange 1

From: Microsoft Outlook <MicrosoftExchange329e71ec88ae4615bbc36ab6ce41109e@fccoffice.onmicrosoft.com>
Sent: Thursday, March 5, 2020 3:54 PM
To: Arthur Lechtman <Arthur.Lechtman@fcc.gov>
Subject: Relayed: ISPC inquiry

Delivery to these recipients or groups is complete, but no delivery notification was sent by the destination server:

jbark@ocmp.com (jbark@ocmp.com)

Subject: ISPC inquiry

###

From: Arthur Lechtman
Sent: Thursday, March 5, 2020 3:54 PM
To: jbark@ocmp.com
Cc: Francis Gutierrez <Francis.Gutierrez@fcc.gov>; Stacey Ashton <Stacey.Ashton@fcc.gov>
Subject: ISPC inquiry

Hello Mr. Bark-

I am writing to inquire whether SK Telink is still using the international signaling point code that it was assigned in 2000 (3-183-6). Please let me know by email or call me at the number below if you have any questions. Thank you,

Artie Lechtman

Federal Communications Commission
International Bureau
202.418.1465

Email Exchange 2

-----Original Message-----

From: Mail Delivery Subsystem <MAILER-DAEMON@mx0a-0024ed01.pphosted.com>
Sent: Wednesday, October 27, 2021 12:11 PM
To: prvs=9934e2c74b=arthur.lechtman@fcc.gov
Subject: [EXTERNAL]: Returned mail: see transcript for details

The original message was received at Wed, 27 Oct 2021 16:10:51 GMT from m0102172.pops.net [127.0.0.1]

----- The following addresses had permanent fatal errors ----- <Info@sktamerica.com>
(reason: 554 delivery error: dd No valid recipients found - atlas108.ptnr.mail.gq1.yahoo.com)
<info@sktamerica.com>
(reason: 554 delivery error: dd No valid recipients found - atlas108.ptnr.mail.gq1.yahoo.com)

----- Transcript of session follows ----- ... while talking to mx-biz.mail.am0.yahoodns.net.:
>>> DATA
<<< 554 delivery error: dd No valid recipients found - atlas108.ptnr.mail.gq1.yahoo.com
554 5.0.0 Service unavailable

###

From: Arthur Lechtman <Arthur.Lechtman@fcc.gov>
Sent: Wednesday, October 27, 2021 12:11 PM
To: Info@sktamerica.com; info@sktamerica.com; jbark@ocmp.com
Cc: Francis Gutierrez <Francis.Gutierrez@fcc.gov>; Stacey Ashton <Stacey.Ashton@fcc.gov>
Subject: SK Telink America, Inc. international signaling point code (ISPC)

Hello-

Last year we tried to contact Mr. Bark regarding the above-referenced matter (see also the email below) and did not get a response. Please contact me with any information you may have about SK Telink America and its use of ISPC 3-183-6 (Jersey City, NJ). Thank you for your assistance,

Arthur Lechtman
International Bureau/TAD
Federal Communications Commission
202.418.1465

From: Arthur Lechtman
Sent: Thursday, March 5, 2020 3:54 PM
To: jbark@ocmp.com
Cc: Francis Gutierrez <Francis.Gutierrez@fcc.gov>; Stacey Ashton <Stacey.Ashton@fcc.gov>
Subject: ISPC inquiry

Hello Mr. Bark-

I am writing to inquire whether SK Telink is still using the international signaling point code that it was assigned in 2000 (3-183-6). Please let me know by email or call me at the number below if you have any questions. Thank you,

Artie Lechtman

Federal Communications Commission
International Bureau
202.418.1465



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 23-1034

Released: November 1, 2023

WIRELINE COMPETITION BUREAU ANNOUNCES AFFORDABLE CONNECTIVITY PROGRAM HIGH-COST AREA BENEFIT APPLICATION SUBMISSION TIMING AND PROCESSES

WC Docket No. 21-450

In the *ACP Sixth Report and Order*, the Federal Communications Commission (Commission), as required by the Infrastructure Investment and Jobs Act (Infrastructure Act), established a mechanism by which a participating provider in the Affordable Connectivity Program (ACP) can apply to offer an enhanced monthly discount of up-to-\$75 for broadband services to ACP-enrolled households in a high-cost area, upon the provider's showing of particularized economic hardship.¹ Through this Public Notice, the Wireline Competition Bureau (Bureau) provides additional information on the application process and announces that ACP providers may begin submitting applications on Wednesday, January 17, 2024 seeking approval to offer the high-cost area benefit in a given area.²

As directed by the Infrastructure Act and set forth in the *ACP Sixth Report and Order*, providers that seek to offer the high-cost area benefit must be facilities-based providers³ operating in a high-cost area designated by the National Telecommunications and Information Administration (NTIA).⁴ In applying to offer the high-cost area benefit, providers must submit to the Universal Service Administrative Company (USAC) documentation demonstrating particularized economic hardship in the high-cost area(s) where they are seeking to offer the high-cost area benefit. This documentation includes an income statement, a supporting affidavit, and any applicable federal tax filings or returns

¹ 47 U.S.C. § 1752(a)(7)(B) (directing the Commission to establish a mechanism by which a provider can offer the ACP high-cost area benefit); *Affordable Connectivity Program*, WC Docket No. 21-450, Sixth Report and Order, FCC 23-62, at 1, para. 1 (rel. Aug. 4, 2023) (*ACP Sixth Report and Order*) (noting that “[t]he Infrastructure [Investment and Jobs] Act recognizes that in certain high-cost areas of the country, offering broadband service to ACP eligible households at the standard up-to-\$30 monthly benefit level could lead providers to experience particularized economic hardship such that the provider may not be able to maintain the operation of part or all of its broadband network”).

² The Commission directed the Wireline Competition Bureau to announce within 90 days of the release of the high-cost areas by the National Telecommunications and Information Administration (NTIA) the date at which ACP participating providers may begin submitting applications for offering the high-cost area benefit. *ACP Sixth Report and Order* at 12, para. 31. NTIA posted the high-cost areas on its website on August 3, 2023. See NTIA, BEAD Allocation Methodology, <https://internetforall.gov/program/broadband-equity-access-and-deployment-bead-program/bead-allocation-methodology> (last visited Oct. 26, 2023).

³ *ACP Sixth Report and Order* at 7-8, para. 18 (defining facilities-based provider consistent with the Commission's rules regarding the Form 477 collection to include provider-owned physical facilities and wireless spectrum); see 47 CFR § 1.7001(a)(2)(i)-(v) (defining facilities-based provider).

⁴ 47 CFR § 54.1814(b).

demonstrating operating loss in the high-cost area.⁵ The supporting affidavit must include revenue and cost allocations and a description of the methodology employed consistent with Commission rules.⁶ A participating provider's application must also include certifications from a company officer with knowledge of the provider's cost and revenues.⁷ A provider will also need to specify whether it has previously applied for federal financial assistance in the three fiscal years prior to the provider's application.⁸ Providers will be required to submit an application form alongside the supporting affidavit, income statements, and other required documents via e-mail to USAC. USAC will provide additional information about the application process and required documentation, including training and educational materials, prior to the January 17, 2024, start date for accepting applications. Providers will be required to certify to the accuracy of any statements or documents submitted as part of the ACP high-cost area benefit application process. As required under the *Sixth Report and Order*, USAC will inform providers in writing about the determination on their application and will also publicly issue information on which providers are approved to offer the high-cost area benefit and the high-cost areas where they are approved to offer it.⁹

We remind providers that the Commission may suspend or remove a participating provider from the ACP for a variety of reasons, including violations of the rules or requirements of the ACP or any action that indicates a lack of business integrity or undermines the integrity of the program.¹⁰

For further information about the *Public Notice*, contact Travis Hahn, Attorney Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau at (202) 418-7400 or by email at Travis.Hahn@fcc.gov.

- FCC -

⁵ *Id.* at § 54.1814(b)(2).

⁶ *Id.*

⁷ *Id.* at § 54.1814(b)(3).

⁸ 47 CFR § 54.1814(b)(1)(i).

⁹ *ACP Sixth Report and Order* at 12, paras. 31-32.

¹⁰ *See* 47 CFR § 54.1801(e)(2).



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 23-1035

Released: November 2, 2023

**THE FEDERAL COMMUNICATIONS COMMISSION AND U.S. DEPARTMENT OF HEALTH
AND HUMAN SERVICES ANNOUNCE NOVEMBER 17, 2023 ROUNDTABLE ON THE
CONNECTED FUTURE OF MATERNITY CARE: INTERSECTING MATERNAL HEALTH
AND BROADBAND DATA**

GN Docket No. 23-309

The Federal Communications Commission (FCC) in partnership with the U.S. Department of Health and Human Services today announced a joint Roundtable titled *The Connected Future of Maternity Care: Intersecting Maternal Health and Broadband Data*. The hybrid event will be held November 17, 2023, from 10:30am—4:00pm EST at FCC Headquarters and will be streamed online at www.fcc.gov/live.

The Roundtable will gather public and private sector thought leaders from a variety of disciplines on the front lines of the maternal health crisis, including telecommunications, public health, research, and data analytics experts, to explore the intersection of broadband connectivity and maternal health. Participants will also explore the role of broadband as a social determinant of health and the implications of this framework to improve maternal health outcomes and inform broadband and health policies. Improving maternal health equity through increased access to broadband-enabled health technologies, tools, and solutions is a critical priority and will be an overarching theme of the event. Finally, participants will help accelerate a cross-agency, cross-sector dialogue on more fully leveraging broadband to help address the maternal health crisis facing our nation. An agenda for the Roundtable will be released separately.

The Roundtable complements the Commission's ongoing work at the intersection of broadband connectivity and maternal health, including a June 2023 update to the [Mapping Broadband Health in America](#) platform, which now includes maternal mortality and severe maternal morbidity data, and allows users to visualize the intersection of connectivity and maternal health at the county level. In addition, on October 19, 2023, the Commission adopted a [Notice of Inquiry](#) to solicit public input on future enhancements to the mapping platform, and the Commission's efforts to leverage broadband to address the maternal health crisis. Public comments can be submitted in GN Docket No. 23-309.

- WHAT:** Interagency Roundtable: *The Connected Future of Maternity Care: Intersecting Maternal Health and Broadband Data*
- WHEN:** Friday, November 17, 2023, from 10:30am—4:00pm EST
- WHERE:** The Roundtable is a hybrid event. Attendees can join either in-person at the Commission Meeting Room, FCC Headquarters, 45 L Street NE, Washington, D.C., or via livestream at www.fcc.gov/live.
- WHO SHOULD ATTEND:** Policymakers, public health experts, clinicians, researchers, community organizations, innovators, telecommunications and broadband service providers, and other people interested in the intersection of broadband and maternal health.

ATTENDANCE:

This Roundtable is open to the public and will be available via live feed from the FCC's web page at www.fcc.gov/live. In-person event attendees are advised to bring a driver's license or other valid identification and to arrive approximately 30 minutes prior to the start of the Roundtable to allow sufficient time to go through security. Additional requirements related to visiting the FCC's facility may be provided to in-person attendees after registration. You may attend in person or via the webcast; preregistration is encouraged for both. Please pre-register by completing the [registration form](#) no later than November 15, 2023. The Roundtable will be recorded and publicly available at <https://www.fcc.gov/news-events/events/archived> and at <https://fcc.gov/health> after the event.

ACCESSIBILITY:

Open captioning will be provided for this event. Reasonable accommodations for people with disabilities are available upon request. Request for such accommodations should be submitted via email 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 fill the request. Last minute requests will be accepted, but it may not be possible to accommodate the request.

The Connect2Health^{FCC} Task Force is a senior-level, multi-disciplinary team designed to move the needle on broadband and advanced health care technologies. Recognizing that technology innovations in clinical practice and care delivery are fundamentally changing the face of health care, the Task Force is charged with exploring the intersection of broadband, advanced technology, and health. Additional information about the Task Force and its innovative work is available at www.fcc.gov/health.

For additional information or questions, contact the Connect2Health^{FCC} Task Force by email at engageC2H@fcc.gov and insert "Roundtable Question" in the subject line. For press inquiries, please contact Katie Gorscak, FCC Office of Media Relations, by email at Katie.Gorscak@fcc.gov.

-FCC-



Federal Communications Commission
Washington, D.C. 20554

November 1, 2023

DA 23-1037

Mr. Timothy Tribbett
Director of Network Engineering
c/o Mr. Mark Rosenthal
Sakon, LLC
8400 River Road
North Bergen NJ 07047

Via First Class Mail and Certified Mail, Return Receipt Requested

Re: Potential Reclamation of Sakon, LLC's International Signaling Point Code, 3-187-5 (Holmdale, NJ)

Dear Messrs. Tribbett and Rosenthal:

By this letter, the Telecommunications and Analysis Division of the Office of International Affairs (OIA) informs you of our intent to reclaim the above-captioned International Signaling Point Code (ISPC), which was provisionally assigned to Sakon, LLC (Sakon) on July 17, 2000.¹ We will take this action unless you respond to this letter within thirty (30) days, by **December 1, 2023**, and indicate whether Sakon is still using the code.

The Federal Communications Commission (Commission), as the Administrator for the United States, assigns ISPCs for Signaling System No. 7 networks under ITU-T Recommendation Q.708.² The Commission has explained that ISPCs are a scarce resource and “[a]s a result, code assignments are conditional upon their being used within one year lead time, so that the Commission can reassign unused codes to another carrier.”³ Finally, ITU-T Recommendation Q.708 provides that the Commission should withdraw an ISPC assignment if the code is “no longer in use or required” by the operator, among other reasons.⁴

¹ Sakon, LLC, File No. SPC-NEW-20000717-00040 (filed July 17, 2000) (Sakon ISPC Application); Letter from Cathy Hsu, Telecommunications Division, International Bureau, FCC to Mr. Timothy Tribbett, Director of Network Engineering, c/o Mr. Mark Rosenthal, Sakon, LLC (July 17, 2000) (Sakon Grant Letter).

² International Telecommunication Union (ITU), ITU-T Recommendation Q.708 (03/99), Series Q: Switching and Signalling, Specifications of Signalling System No. 7—Message Transfer Part (MTP), Assignment procedures for international signalling point codes, <https://www.itu.int/rec/recommendation.asp?lang=en&parent=T-REC-Q.708-199903-I> (ITU-T Recommendation Q.708).

³ *Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, Notice of Proposed Rulemaking, 19 FCC Rcd 6460, 6474, para. 36, n.83 (2004); see also *China Telecom (Americas) Corporation, GN Docket No. 20-109 et al.*, Order Instituting Proceedings on Revocation and Termination and Memorandum Opinion and Order, 35 FCC Rcd 15006, 15040, para. 58 (2020) (“ISPCs are a scarce resource that are used by international Signaling System 7 (SS7) gateways as addresses for routing domestic voice traffic to an international provider and anyone seeking an ISPC assignment is required by rule to file an application with the Commission and comply with its procedures.”).

⁴ ITU-T Recommendation Q.708 at 6.

In its letter granting the provisional assignment of ISPC 3-187-5 to Sakon, the Telecommunications Division (Division) of the International Bureau (Bureau) of the Federal Communications Commission required Sakon to inform the Division of the date the code was implemented, and to do so within 12 months of the assignment (i.e., by July 17, 2001).⁵ In granting the Sakon ISPC Application, the Division also stated that requests for ISPCs must “strictly fit the [ITU-T Recommendation Q.708] guidelines and that ‘warehousing’ of ISPC assignments be avoided. . . .”⁶ Additionally, Sakon was subject to annual traffic and revenue reporting requirements at the time of its ISPC assignment.⁷ We have no record that Sakon informed the Division or the Bureau of the date the code was implemented or filed any international Traffic and Revenue reports for the years 2004-2015.⁸

Since March 2020, Division staff⁹ have made several attempts to contact Sakon to ascertain whether it is using its assigned ISPC. On March 5, 2020, October 26, 2021, and November 18, 2021, staff called Sakon’s phone numbers on record and determined that the numbers are no longer in service.¹⁰ On February 7, 2022, staff sent an email to the addresses on record for a company affiliated with Sakon (i.e., Sakon Calling Cards, LLC). One recipient of that email was a former counsel who indicated he has not worked for Sakon in many years. The email sent to the other recipient, Mark Rosenthal, was returned as undeliverable.¹¹ The FCC 499 Filer Database indicates that Sakon has not been active since April 12,

⁵ Sakon Grant Letter at 2.

⁶ Sakon Grant Letter at 1.

⁷ See generally *Amendment of Section 43.61 of the Commission’s Rules*, CC Docket No. 91-22, Report and Order, 7 FCC Rcd 1379 (1992) (establishing the traffic and revenue reporting requirements that were in effect at the time of Sakon’s ISPC assignment).

⁸ In 2017, the Commission eliminated the requirement that U.S. providers of international telecommunications services file annual Traffic and Revenue Reports. See *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 (2017). Providers, including Sakon, were required to file the final traffic and revenue data for calendar year 2015.

⁹ The Telecommunications Division, also known in the past as the Policy Division, was renamed the Telecommunications and Analysis Division in 2015 as a result of an International Bureau reorganization. See *International Bureau Reorganization*, FCC New Release, December 14, 2015 (<https://docs.fcc.gov/public/attachments/DOC-336832A1.pdf>). In 2023, the Commission adopted an order that reorganized the International Bureau into: (1) a Space Bureau and (2) an Office of International Affairs (OIA). 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*, Order, MD Docket No. 23-12, FCC 23-1 (rel. Jan. 9, 2023). As a result of this reorganization, the Telecommunications and Analysis Division became a division within OIA.

¹⁰ Staff called the following telephone numbers: (732) 673-2774, (201) 346-6191, (978) 367-6339, and (888) 277-2566.

¹¹ Email from Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau, to Mark Rosenthal, Sakon LLC, and Lance Steinhart, Regulatory Counsel (mrosenthal@sakon.com and lsteinhart@telecomcounsel.com) (Feb. 7, 2022, 1:07 PM); Return email from postmaster@sakon.com to Arthur Lechtman, Attorney-Advisor, Telecommunications and Analysis Division, International Bureau (Feb. 7, 2022, 1:33 PM). These emails are reprinted in the Attachment below.

2004, when it apparently went of business.¹² Finally, according to the Secretary of the Commonwealth of Massachusetts' website on corporate records, Sakon was dissolved on April 30, 2009.¹³ Based on our inability to contact a representative of Sakon, our records, and the Commonwealth of Massachusetts' records, we believe Sakon may no longer be providing service and is no longer using its assigned ISPC.

We request that you respond to this letter by **December 1, 2023**, and indicate the date the code was implemented and describe the current use of Sakon's ISPC (3-187-5). A failure to respond to this letter will serve as confirmation that Sakon is no longer using its provisionally assigned ISPC and has failed to comply with our ISPC requirements. If you fail to respond to this letter as requested, we will reclaim the ISPC (3-187-5) and immediately thereafter make the code available for reassignment consistent with the terms of ITU-T Recommendation Q.708. We are addressing this letter to the most recent contacts and addresses of record provided by Sakon.

If you have any questions, please contact me at (202) 418-7370 or Francis.Gutierrez@fcc.gov or my colleague Arthur Lechtman at (202) 418-1465 or Arthur.Lechtman@fcc.gov.

Sincerely,

/Francis Gutierrez/

Francis Gutierrez
Deputy Chief, Telecommunications and Analysis
Division
Office of International Affairs

cc: Andrew Goorno, Chief Executive Officer
SAKON, LLC
35 Forest Ridge Road
Concord, MA 01742

Amine Doukkali
SAKON, LLC
35 Forest Ridge Road, Suite 500
Concord, MA 01742

Mark Rosenthal
Sakon, LLC
Two Executive Drive, Suite 500
Fort Lee, NJ 07024

¹² FCC Form 499 Filer Database, SAKON, LLC, <https://apps.fcc.gov/cgb/form499/499detail.cfm?FilerNum=820480> (last visited Oct. 11, 2023). The 499 database also provides a Massachusetts address for Sakon. *Id.*

¹³ See Secretary of the Commonwealth of Massachusetts, Corporations Search, <https://www.sec.state.ma.us/cor/corsearch.htm> (last visited Oct. 11, 2021).

Corporation Service Company
c/o Sakon, LLC
1090 Vermont Ave., NW,
Suite 430
Washington, DC 20005

Attachment

From: postmaster@sakon.com <postmaster@sakon.com>
Sent: Monday, February 7, 2022 1:08 PM
To: prvs=3037c44ba7=arthur.lechtman@fcc.gov
Subject: [EXTERNAL]: Undeliverable: Sakon, LLC International Signaling Point Code, 3-187-5



Your message to mrosenthal@sakon.com couldn't be delivered.

mrosenthal wasn't found at **sakon.com**.

**prvs=3037c44ba7=a
rth. . .**

Office 365

mrosenthal
Recipient

Action Required

Unknown To address

From: Arthur Lechtman <Arthur.Lechtman@fcc.gov>
Sent: Monday, February 7, 2022 1:07 PM
To: lsteinhart@telecomcounsel.com; mrosenthal@sakon.com
Cc: Stacey Ashton <Stacey.Ashton@fcc.gov>; Francis Gutierrez <Francis.Gutierrez@fcc.gov>
Subject: Sakon, LLC International Signaling Point Code, 3-187-5

Mr. Rosenthal and Mr. Steinhart-

My office in the FCC's International Bureau is reviewing international signaling point code (ISPC) records. The International Bureau provisionally assigned ISPC 3-187-5 (Holmdale, NJ) to Sakon, LLC in 2000 (see IBFS file no. file number SPC-NEW-20000717-00040). I obtained your contact information from an international Section 214 application filed in 2002 by Sakon Calling Cards, LLC, which at that time was majority-owned by Sakon, LLC (see IBFS file number ITC-214-20021113-00540).

Is Sakon, LLC or any other entity to your knowledge currently using ISPC 3-187-5? As these codes are a scarce resource, we reclaim them when not in use so that they may be available for re-assignment to other operators. If you do not know the status of 3-187-5, but have other contact information for Sakon (names, email addresses, phone numbers), that would also be helpful. Please let me know the status of this ISPC by email or call me at the number below if you have any questions. Thank you,

Arthur Lechtman
International Bureau/TAD
Federal Communications Commission
202.418.1465

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

In re Application of	)	
	)	
Town of Coulee City	)	Facility ID Nos. 198094, 198096, 198095
	)	NAL/Acct. No. MB-202341420021
For Renewal of License for	)	FRN: 003768173
Stations K10RA-D, K11WY-D, and K12RD-D	)	File No. 0000205717
Coulee City, Washington	)	

FORFEITURE ORDER

Adopted: November 2, 2023

Released: November 2, 2023

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. In this *Forfeiture Order*, we issue a monetary forfeiture in the amount of four thousand five hundred dollars (\$4,500) to Town of Coulee City (Licensee), licensee of TV translator stations K10RA-D, K11WY-D, and K12RD-D, all licensed to Coulee City, Washington (Stations). We find that the Licensee willfully violated section 73.3539(a) of the Commission's rules (Rules) by failing to timely file license renewal applications for the Stations.¹

II. BACKGROUND

2. Section 73.3539(a) of the Rules requires that applications for renewal of license for broadcast stations must be filed "not later than the first day of the fourth full calendar month prior to the expiration date of the license sought to be renewed."² Applications for renewal of the Stations' licenses should have been filed by October 3, 2022, the first day of the fourth full calendar month prior to the Station's license expiration date of February 1, 2023.³ The Application was not filed until December 19, 2022. The Licensee provided no explanation for its untimely filing of the Applications.

3. Accordingly, on June 21, 2023, we released a *Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture (NAL)* that proposed a forfeiture of four thousand five hundred dollars (\$4,500).⁴ The *NAL* gave the Licensee thirty days to pay the full amount of the proposed forfeiture, or file a written statement seeking reduction or cancellation of the proposed forfeiture.⁵ To date, the Licensee has neither paid the proposed forfeiture nor filed a written statement in response to the

¹ Application of Town of Coulee City for Renewal of License, LMS File No. 0000205717 (filed Dec. 19, 2022) (Application). K10RA-D, K11WY-D, and K12RD-D are each digital television translators. In this case, as is permitted, the Licensee filed for renewal of the licenses of the Stations in a single renewal application.

² *Id.*

³ See 47 CFR §§ 73.1020, 73.3539(a); Media Bureau Announces Procedures for 2020-2023 Television License Renewal Cycle, Public Notice, 35 FCC Rcd 3656 (MB 2020). Because the first day of the month was Saturday, October 1, 2022, the application was not due until the next business day, which was Monday, October 3, 2022. See 47 CFR § 1.4(j) (permitting the filing of documents the next business day if the filing date falls on a holiday, which includes weekends).

⁴ *Town of Coulee City*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, DA 23-535 (MB June 21, 2023) (*NAL*).

⁵ *Id.* at para. 9.

NAL. A copy of the *NAL* was received by the Licensee on July 18, 2023.⁶

III. DISCUSSION

4. The forfeiture amount proposed in this case was assessed in accordance with section 503(b) of the Communications Act of 1934, as amended (the Act),⁷ section 1.80 of the Rules,⁸ and the Commission's Forfeiture Policy Statement.⁹ In assessing forfeitures, section 503(b)(2)(E) of the Act requires that we take into account 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.¹⁰

5. The Application was due on October 3, 2022, but was not filed until December 19, 2022 – over two months late. The Licensee was afforded an opportunity to either pay or respond to the *NAL* pursuant to section 1.80 of the Rules,¹¹ but has neither paid the proposed forfeiture or sought reduction or cancellation of it within the time period set forth in the *NAL*. Accordingly, we conclude that the Licensee willfully violated section 73.3539(a) of the Rules and we issue a forfeiture in the amount of \$4,500, as proposed in the *NAL*.¹² This amounts to \$1,500 per station.¹³

IV. ORDERING CLAUSES

6. **IT IS ORDERED**, pursuant to section 503(b) of the Communications Act of 1934, 47 U.S.C. § 503(b), as amended, and sections 0.283 and 1.80 of the Commission's rules, 47 CFR §§ 0.283 and 1.80, that Town of Coulee City, **IS LIABLE FOR A MONETARY FORFEITURE** in the amount of four thousand five hundred dollars (\$4,500) for its apparent willful violation of section 73.3539(a) of the Commission's rules, 47 CFR § 73.3539(a).

7. Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using the Commission's CORES (the Commission's online payment system),¹⁴ or by wire transfer. The Commission no longer accepts forfeiture payments by check or money order. Upon payment, Licensee must send notice that payment has been made to VideoNAL@fcc.gov. Below are instructions that payors should follow based on the form of payment selected:¹⁵

⁶ A copy of the signed delivery receipt can be found under LMS File No. 0000205717.

⁷ 47 U.S.C. § 503(b).

⁸ 47 CFR § 1.80.

⁹ *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).

¹⁰ 47 U.S.C. § 503(b)(2)(E).

¹¹ 47 CFR § 1.80(g)(3).

¹² We reaffirm our prior statements in the *NAL* relating to the Stations' Applications and will proceed with grant by separate action upon the conclusion of this forfeiture proceeding if there are no issues other than those set forth in this *Forfeiture Order* that would preclude grant of the Applications. See *NAL* at para. 8.

¹³ See e.g., *Tutt Media Group, Inc.*, Notice of Apparent Liability for Forfeiture, 36 FCC Rcd 9038 (13) (MB 2021) (assessing a forfeiture of \$4,500 for a late filed renewal application that covered three stations) (paid Jun. 4, 2021); *Full Gospel Outreach, Inc.*, Notice of Apparent Liability for Forfeiture, 37 FCC Rcd 6381 (8) (MB 2022) (assessing a forfeiture of \$6,000 for a late filed renewal application that covered four stations) (paid Jun. 10, 2022).

¹⁴ Payments made using the Commission's CORES system do not require the submission of an FCC Form 159.

¹⁵ 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.

- 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).¹⁶ 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. 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/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 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.

8. Requests for full payment of the forfeiture proposed in this *Order* under an installment plan should be sent to: Associate Managing Director-Financial Operations, 45 L Street, NE, Washington, DC 20554.¹⁷ 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.

9. **IT IS FURTHER ORDERED** that a copy of this *Forfeiture Order* shall be sent by First Class and Certified Mail, Return Receipt Requested, to Town of Coulee City, c/o 501 W. Main, P.O. Box

¹⁶ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

¹⁷ See 47 CFR § 1.1914.

398, Coulee City, Washington 99115, and to its contact representative, Susan Hansen, by e-mail to stcl@comcast.net.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

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

In the Matter of	)	
	)	
Palm Television, L.P. and Johnstown (WWCP-TV)	)	CSR 9010-N
Licensee, Inc., Johnstown-Altoona-State College,	)	MB Docket No. 23-183
Pennsylvania	)	
Petition for Waiver of Sections 76.92(f) and	)	
76.106(a) of the Commission's Rules	)	

MEMORANDUM OPINION AND ORDER

Adopted: November 1, 2023

Released: November 2, 2023

By the Senior Deputy Chief, Policy Division, Media Bureau:

I. INTRODUCTION

1. Palm Television, L.P. (Palm), licensee of television station WATM-TV (ABC), Altoona, Pennsylvania (Facility ID 20287), and Johnstown (WWCP-TV) Licensee, Inc. (WWCP Licensee), licensee of WWCP-TV, Johnstown, Pennsylvania (Facility ID 20295) (collectively Petitioners or Palm/WWCP Licensee) filed the above-captioned petition¹ seeking a waiver of the significantly viewed exception to the network non-duplication and syndicated exclusivity rules.² The Petitioners seek this waiver in order for WATM-TV to exercise its network non-duplication and syndicated exclusivity rights against WTAE-TV (ABC), Pittsburgh, Pennsylvania (Facility ID 65681) in the following Pennsylvania cable communities: Johnstown, Ebensburg, and Mineral Point in Cambria County, and Boswell, Friedens, Rockwood, and Stoystown in Somerset County (the Communities).³ The Petitioners state that the Communities are served by two cable providers, Cogeco US (Penn), LLC, d/b/a Breezeline and Comcast of Colorado/Pennsylvania/West Virginia, LLC.⁴ The Petition is unopposed. For the reasons discussed below, we grant in part and deny in part Palm/WWCP Licensee's Petition. The Petition is granted as to the Communities of Johnstown, Ebensburg, Boswell, and Friedens and denied as to Mineral Point, Rockwood, and Stoystown.

II. BACKGROUND

2. If a local television station has exclusive rights to distribute a network or syndicated program under the Commission's rules, cable operators generally are precluded from carrying a duplicating program broadcast by a distant station.⁵ However, the Commission's rules also provide that a

¹ See *Palm Television, L.P. and Johnstown (WWCP-TV) Licensee, Inc. for Waiver of Sections 76.92(f) and 76.106(a) of the Commission's Rules for WATM-TV, Altoona, PA*, Petition for Special Relief, MB Docket No. 23-183 (filed May 31, 2023) (Petition). The Media Bureau placed the Petition on public notice and sought comment. *Special Relief and Show Cause Petitions*, Public Notice, Report No. 0507 (MB June 2, 2023) (*Public Notice*).

² 47 CFR §§ 76.92(f), 76.106(a) (significantly viewed exception to the cable network non-duplication and syndicated exclusivity rules). Palm and WWCP Licensee are parties to a grandfathered Time Brokerage Agreement whereby WWCP Licensee brokers time on WATM-TV. Petition at 2. Therefore, Palm and WWCP Licensee argue that they both have an interest in WATM-TV's ability to exercise its network nonduplication and syndicated exclusivity rights against out of market stations. *Id.*

³ Petition at 1-2.

⁴ *Id.* at n.1.

⁵ See 47 CFR §§ 76.92, 76.101.

signal that otherwise would be considered “distant” is exempt from application of both the network non-duplication and syndicated exclusivity rules, and therefore may be carried by cable operators, if it is “significantly viewed” in the relevant community.⁶ The significantly viewed exception to the exclusivity rules is based on a demonstration that an otherwise distant station receives a “significant” level of over-the-air viewership in a subject community. If the requisite viewership level is met, the station is no longer considered distant for purposes of the exclusivity rules because it has established that it is viewed over-the-air in the subject community.⁷

3. Stations may seek to reinstate their exclusivity rights vis-à-vis a significantly viewed station by seeking a waiver of the significantly viewed exception.⁸ In order to obtain a waiver, a petitioner must submit viewership surveys showing that an otherwise distant station does not meet the definition of “significantly viewed” under our rules. A network station qualifies as significantly viewed if over-the-air viewership surveys demonstrate that it exceeds a three percent share of total viewing hours and a net weekly circulation of 25 percent, by at least one standard error.⁹ In *KCST-TV, Inc.*,¹⁰ the Commission held that waiver applicants would be required to demonstrate for two consecutive years that a station was no longer significantly viewed, based either on community-specific or system-specific over-the-air viewing data, following the methodology set forth in the rules.¹¹

4. In pertinent part, the rules state that significant viewing “may be demonstrated by an independent professional audience survey of [over-the-air] television homes that covers at least two weekly periods separated by at least thirty (30) days but no more than one of which shall be a week between the months of April and September.”¹² Nielsen Company (Nielsen) is a primary organization selling television viewership surveys. Historically, Nielsen, which routinely surveys television markets to obtain television stations’ viewership, conducted four-week audience surveys four times a year (*i.e.*, February, May, July, and November “sweep periods”). In applying the requirements articulated in *KCST-TV, Inc.*, it has been acceptable to replacing each week required in the analysis with a sweep period.¹³ The replacement of a sweep period could even add to the accuracy of the audience statistics because of the increased sample size.¹⁴ Accordingly, a petitioner seeking to show that a station is no longer significantly

⁶ 47 CFR §§ 76.92(f), 76.122(j) (network non-duplication exception for cable and satellite carriers); *see* 47 CFR §§ 76.5(i), 76.54.

⁷ 47 CFR §§ 76.106(a), 76.123(k) (significantly viewed exception for cable and satellite carriers).

⁸ The Commission has found that the definition of “significantly viewed” in section 76.5(i) is equally applicable for waivers of the syndicated exclusivity exemption. *See Chambers Cable of Oregon, Inc.*, 5 FCC Rcd 5640, 5640-41 at para. 6 (1990).

⁹ 47 CFR § 76.5(i).

¹⁰ *KCST-TV, Inc.*, 103 FCC 2d 407, 412 at para. 10 & n.9 (1986).

¹¹ 47 CFR § 76.54(b).

¹² *Id.* The criteria set forth in *KCST-TV, Inc.* require that two separate surveys be performed pursuant to section 76.54(b) in consecutive years. The provisions of section 76.54(b) therefore apply to each year’s survey. Because we require independent surveys, it should be noted that these surveys cannot be performed by the affected television station, cable system, or satellite operator. *See In the Matter of Gulf-California Broadcast Company*, 23 FCC Rcd 7400, 7401 at para. 4, n.11 (2008).

¹³ The term “sweeps” dates from 1954, when Nielsen collected diaries from households in the Eastern United States first; from there they would “sweep” west. Seven day diaries (or eight day diaries in homes with DVRs) were mailed to homes to keep a tally of what was watched on each television set and by whom.
https://en.wikipedia.org/wiki/Nielsen_ratings.

¹⁴ Although, in general, petitioners are prohibited from using two surveys between April and September (*i.e.*, May or July sweeps), we have not ruled out a petitioner providing all sweeps periods in a year where more than two are submitted. *See WTNH Broadcasting, Inc. and K-W TV, Inc.*, 16 FCC Rcd 6781, 6784 at para. 7 (CSB 2001) (concluding that, if a petitioner were to submit both May and July data, it would be necessary to provide individual

(continued....)

viewed could rely on Nielsen data reflecting the results from two sweep periods in two years and survey data could be prepared on either a community-specific or system-specific basis.¹⁵ In order to produce the data required for exclusivity waivers, Nielsen re-tabulated the over-the-air data that it collects for its routine audience sweep periods, selecting in-tab diaries from its database from the area served by a cable system or an individual cable community.¹⁶

5. In 2019, Nielsen changed the way it measures television viewing in its 210 designated market areas (DMAs), replacing the paper diaries that Nielsen families used to record what they watched on television in the smallest 140 DMAs entirely with electronic measurement.¹⁷ Now Nielsen uses a combination of people meters, set meters, code readers, and return path data (RPD) from cable and satellite set-top boxes to measure television viewing.¹⁸ Additionally, Nielsen now provides electronic measurements every month of the year instead of only four times per year during sweep months.¹⁹

6. *The Palm/WWCP Licensee Petition.* In this case Palm/WWCP Licensee seeks to reinstate their exclusivity rights vis-à-vis significantly viewed station WATM-TV by seeking a waiver of the significantly viewed exception. In their waiver request, the Petitioners state that ABC affiliate WATM-TV, which is in the Johnstown-Altoona-State College Nielsen DMA (Johnstown DMA), acquired network nonduplication and syndicated exclusivity rights by contract with the ABC Network and certain syndicators.²⁰ As the Petitioners assert, licensees are generally entitled to exercise contractually acquired network non-duplication rights²¹ and syndicated exclusivity rights within their

survey period results so that we could determine the effect of the third and fourth sweep periods). If a petitioner is purchasing survey data on a system-specific basis where two or more communities are involved, the proportion of diaries from each community surveyed must be approximately the same as the proportion of the population for each community served by the cable system. 47 CFR § 76.54(b). Proportionality based on population ensures that more weight is given to larger communities. While there must be at least one diary from each community in each survey, there is no minimum sample size since the standard error allows us to be sure that there is a high probability that the reported result meets or falls below our criteria. Because Nielsen is able to weight its sampling, they can provide such proportionality.

¹⁵ Despite the fact that a petitioner is purchasing a re-tabulation of data that has already been collected, it is still obligated to notify interested parties prior to the purchase of such data, pursuant to the requirements set forth in section 76.54(c) of the Commission's rules. 47 CFR § 76.54(c). The Petitioners here state that as required by 47 CFR § 76.54(c), WATM-TV sent letters via certified mail, return receipt requested, notifying all relevant entities more than 30 days before purchasing the studies of WTAE-TV. Petition at 6-7 and Exhibit B (Declaration of Keri Rhodes, Manager of Palm Television, L.P.). It is noted in the Declaration that notice was sent via certified mail to WTAE-TV on March 16, 2023, but returned to sender as "unclaimed." The notice was subsequently re-delivered via Fed Ex and the Station Manager of WATM-TV states successful delivery was confirmed. Declaration of Keri Rhodes at n.1.

¹⁶ We expect petitioners who commission such data to include, along with the survey data itself, a description of the procedures used to re-tabulate the data, which data base it is using, what communities (or zip codes) are covered, the station(s) surveyed, and time periods covered. See e.g., *Radio Perry, Inc.*, 11 FCC Rcd 10564, 10568-69 at para. 10 (CSB 1996); *Gulf-California Broadcast Company*, 21 FCC Rcd 3476, 3479-80 at para 8 (MB 2006).

¹⁷ See *Significantly Viewed Stations, Modernization of Media Regulation Initiative*, Notice of Proposed Rulemaking, 35 FCC Rcd 3215, 3220, para. 7 (2020) (*Significantly Viewed Notice*).

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ Petition at 2 and Exhibit B.

²¹ Petition at 3; see 47 CFR §§ 76.92 and 76.93. Generally, cable systems serving cable communities located in a station's geographic zone of protection are required to "black out" duplicative network programming. See 47 CFR § 76.92.

geographic zone of protection.²² According to the Petitioners, ABC affiliate WTAE-TV, which is in the Pittsburgh DMA, is carried on cable systems serving the Communities and it airs network and syndicated programming that duplicates programming locally broadcast by WATM-TV and carried on those systems.²³ The Petitioners assert that each of the Communities is located in the Johnstown DMA and is within WATM-TV's 35-mile geographic zone of exclusivity protection.²⁴ Specifically, the Petitioners state that WATM-TV's market designation for application of the geographic zone,²⁵ is Johnstown-Altoona, Pennsylvania.²⁶ Accordingly, the Petitioners contend that WATM-TV is "entitled to exclusivity within the 35-mile zone of each of Johnstown and Altoona."²⁷ The Petitioners note that as a named community in the hyphenated market, Johnstown is, on its face, within the zone of exclusivity protection.²⁸ Further, the Petitioners assert that each of the other Communities is also within the zone of protection because the coordinates for each Community's U.S. Post Office are within 35 miles of the reference coordinates as listed in section 76.53 of the Commission's Rules for Johnstown and Altoona.²⁹

7. As noted above, the significantly viewed exception permits otherwise "distant" stations with duplicative network and/or syndicated programming to be carried on cable systems within a station's protected zone if certain criteria are met.³⁰ As the Petitioners observe, to be significantly viewed in a particular community, a station must have been included on the Commission's 1972 list or demonstrate that it meets certain minimum viewing standards.³¹ In that regard, the Petitioners state that according to the Commission's original 1972 designation, WTAE-TV is currently considered significantly viewed in the Communities.³² Petitioners argue, however, that the Bureau should waive the station's significantly viewed exception to the network non-duplication and syndicated exclusivity rules because the data submitted demonstrates that this station that was once considered significantly viewed no longer meets these minimum viewing requirements.³³ That data is considered below.

III. DISCUSSION

8. We find that Palm/WWCP Licensee have demonstrated that WTAE-TV no longer meets the minimum viewing requirements by having no measurable viewing during the survey periods presented and the station no longer satisfies the significantly viewed standard in the Communities of

²² *Id.*; see 47 CFR § 76.103(a). Generally, cable systems located within the geographic zone of protection of a television station may not carry syndicated programming that duplicates syndicated programming of a station with exclusivity rights within that community. See 47 CFR § 76.101 and note.

²³ *Id.*

²⁴ *Id.*

²⁵ 47 CFR § 76.51.

²⁶ Petition at 3.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*; see <https://tools.usps.com/find-location.htm>. The Petitioners note that the 35-mile geographic zone of all major markets extends from the reference point of the community of license of the television station. Those reference points are listed in section 76.53 of the Commission's rules. Where a community's reference point is not given, the geographic coordinates of the main post office in the community shall be used. See 47 CFR §§ 73.658 and 76.53. *Id.* at n.4.

³⁰ *Id.* at 4; see 47 CFR §§ 76.92(f) and 76.106(a).

³¹ *Id.*; see *Amendment of Part 74, Subpart K, of the Commission's Rules and Regulations Relative to Community Antenna Systems*, Memorandum Opinion and Order on Reconsideration of the Cable Television Report and Order, 36 FCC 2d 326, App. B (1972) (list) (1972 Order); 47 CFR § 76.5(i) (significant viewing standards).

³² Petition at 4.

³³ *Id.*, citing 47 CFR §§ 76.5(i) and 76.54.

Johnstown, Ebensburg, Boswell, and Friedens. However, we cannot conclude the same for the Communities of Mineral Point, Rockwood, and Stoystown. Accordingly, we grant WATM-TV's request for a waiver of the significantly viewed exception to the network nonduplication and syndicated exclusivity rules regarding WTAE-TV in the Communities of Johnstown, Ebensburg, Boswell, and Friedens, and we deny the request with regard to the Communities of Mineral Point, Rockwood, and Stoystown.

9. As determined in *KSCT-TV, Inc.*, waivers of the significantly viewed exception may be granted if petitioner can show that, in each of two consecutive years, a station no longer meets the threshold significantly viewed requirements in a cable community or communities.³⁴ The Petitioners state that in markets such as the Johnstown DMA, Nielsen uses the RPD+ methodology which incorporates set-top box data that captures cable and satellite viewing and code readers that capture over-the-air viewing.³⁵ Consistent with this practice, the Petitioners submit data that represents recent over-the-air only RPD+ data for two consecutive years.³⁶ Specifically, the Petitioners requested that Nielsen tabulate over-the-air RPD+ data from the periods November 2021 and February 2022 (combined) and November 2022 and February 2023 (combined) for the Communities' zip codes.³⁷ Table 1 and Table 2, below, present Nielsen's report for Year 1 (November 2021 and February 2022) and Year 2 (November 2022 and February 2023).³⁸ As the Tables indicate, Nielsen reports that the shares of viewing hours and the average weekly circulation are both zero for all the Communities and for the years represented. Additionally, Nielsen reports that the standard errors for these measures are also zero. We note, however, that the number of households (Number in Tab) is small for these geographic Communities. For three of the Communities and the zip codes represented the Number in Tab is 1, including Mineral Point (15942), Rockwood (15557), and Stoystown (15563). It has previously been determined that one household is insufficient to estimate a viewing average for a community in a community-based survey.³⁹ Additionally, we note that the formulas that Nielsen uses to compute standard errors require a number of households greater than 1.⁴⁰

³⁴ See *KCST-TV, Inc.*, 103 FCC 2d at 412, 413, paras. 10-11. While the Commission considers changes in methodologies for significantly viewed cases in its *Significantly Viewed Notice*, the standards established in *KCST-TV, Inc.* remain in effect.

³⁵ Petition at 6.

³⁶ *Id.* at 7 and Exhibit A (Nielsen Significant Viewing Study).

³⁷ *Id.* and Exhibit B.

³⁸ See Exhibit A. These Tables include the number of in-tab households, the average share viewing hours, the standard error of the average share viewing hours, the average share viewing hours with one standard error, the average net weekly circulation, the average net weekly circulation standard error, and the average net weekly circulation with one standard error.

³⁹ See *United Communications Corporation WWNY-TV, Carthage NY*, 33 FCC Rcd 8048, para. 13 (2018); *Virginia Broadcasting Corporation*, 22 FCC Rcd 18109, 18117-18, paras. 12-13 (2007) (denying a request for a waiver of the significantly viewed exception to the network nonduplication and syndicated exclusivity rules in communities for which the reported data for one survey year was based on one in-tab household, and thus could not be the average of the reported audience for two survey periods).

⁴⁰ For example, the formula that Nielsen uses to compute the Share Standard Error (shown in Exhibit A) includes the term $n/(n - 1)$, where n equals the number of households. To avoid 0 in the denominator of this expression, n must be greater than 1.

Table 1: November 2021/ February 2022

Community and Zip Codes	Number in Tab	Average Share Viewing Hours	Average Share Standard Error	Average View Shares w/1 Standard Error	Average Net Weekly Standard Circ.	Average Net Weekly Standard Error	Average Net Weekly Circ. w/1 Standard Error
Johnstown, PA 15901, 15902, 15904, 15905, 15906, 15909	5	0.0	0.0	0.0	0.0	0.0	0.0
Ebensburg, PA 15931	2	0.0	0.0	0.0	0.0	0.0	0.0
Mineral Point, PA 15942	1	0.0	0.0	0.0	0.0	0.0	0.0
Boswell, PA 15531	4	0.0	0.0	0.0	0.0	0.0	0.0
Friedens, PA 15541	2	0.0	0.0	0.0	0.0	0.0	0.0
Rockwood, PA 15557	1	0.0	0.0	0.0	0.0	0.0	0.0
Stoystown, PA 15563	1	0.0	0.0	0.0	0.0	0.0	0.0

Table 2: November 2022/ February 2023

Community and Zip Codes	Number in Tab	Average Share Viewing Hours	Average Share Standard Error	Average View Shares w/1 Standard Error	Average Net Weekly Standard Circ.	Average Net Weekly Standard Error	Average Net Weekly Circ. w/1 Standard Error
Johnstown, PA 15901, 15902, 15904, 15905, 15906, 15909	5	0.0	0.0	0.0	0.0	0.0	0.0
Ebensburg, PA 15931	2	0.0	0.0	0.0	0.0	0.0	0.0
Mineral Point, PA	1	0.0	0.0	0.0	0.0	0.0	0.0

15942							
Boswell, PA	4	0.0	0.0	0.0	0.0	0.0	0.0
15531							
Friedens, PA	2	0.0	0.0	0.0	0.0	0.0	0.0
15541							
Rockwood, PA	1	0.0	0.0	0.0	0.0	0.0	0.0
15557							
Stoystown, PA	1	0.0	0.0	0.0	0.0	0.0	0.0
15563							

10. When standard errors are added to the reported audience shares, WTAE-TV does not meet the criteria for significantly viewed status for a network affiliate in Johnstown, Ebensburg, Boswell, and Friedens. In each case, the reported audience statistic plus one standard error is less than the required audience share to establish significantly viewed status for a network affiliate (*i.e.*, a 3 share of total weekly viewing hours and a 25 net weekly circulation share) set forth in section 76.5(i).⁴¹ Indeed, in these Communities the reported statistics indicate that WTAE-TV had no measurable viewing and is therefore no longer significantly viewed.

11. We cannot conclude based on the data provided that WTAE-TV is not significantly viewed in Mineral Point, Rockwood, and Stoystown. Because the reported data for the survey years was based on only one in-tab household that data is insufficient to estimate a viewing average for a community in a community-based survey and does not allow us to make the determination that WTAE-TV is no longer significantly viewed in these Communities.

12. Accordingly, we conclude that the Petitioners have met their burden and demonstrate that WTAE-TV fails to meet the requirements to maintain its status as significantly viewed in the Communities of Johnstown, Ebensburg, Boswell, and Friedens. The Petitioners, however, have failed to meet that burden with regard to the Communities of Mineral Point, Rockwood, and Stoystown.

IV. ORDERING CLAUSES

13. Accordingly, **IT IS ORDERED**, pursuant to sections 76.92(f) and 76.106(a) of the Commission's rules, 47 CFR §§ 76.92(f) and 76.106(a), that the captioned Petition for Special Relief (MB Docket No. 23-183, CSR 9010-N) filed by Palm Television, L.P. and Johnstown (WWCP-TV) Licensee, Inc. **IS GRANTED IN PART AND DENIED IN PART** as discussed herein.

14. This action is taken pursuant to authority delegated under section 0.283 of the Commission's Rules.⁴²

FEDERAL COMMUNICATIONS COMMISSION

Steven A. Broeckart
Senior Deputy Chief, Policy Division
Media Bureau

⁴¹ 47 CFR § 76.5(i).

⁴² 47 CFR § 0.283.

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of	)	
	)	
Y2K, Inc.	)	Facility ID 53550
Licensee of KSLQ-FM,	)	
Washington, Missouri	)	FRN: 0010065928

ORDER TO PAY OR TO SHOW CAUSE

Adopted: November 2, 2023**Released: November 2, 2023**

By the Chief, Media Bureau and the Managing Director, Office of Managing Director:

I. INTRODUCTION

1. By this Order to Pay or to Show Cause, we initiate a proceeding to revoke the license held by Y2K, Inc. (Licensee) for KSLQ-FM, Washington, Missouri (Station) for failure to pay delinquent regulatory fees and associated interest, administrative costs, and penalties owed to the Federal Communications Commission (Commission). For the reasons set forth below, we direct Licensee to pay the overdue regulatory fees, including any associated interest, penalties, and administrative costs, or show cause why the payment demanded is inapplicable or should otherwise be waived or deferred.

II. DISCUSSION

2. Under section 9 of the Communications Act of 1934, as amended (Act), and section 1.1151 of the Commission's rules (Rules), the Commission is required to "assess and collect regulatory fees" to recover the cost of carrying out the functions of the Commission."¹ When the required payment is received late or is incomplete, the Commission must assess a penalty equal to "25 percent of the amount of the fee which was not paid in a timely manner."²

3. For fiscal year (FY) 2010, the deadline for paying regulatory fees was August 31, 2010;³ for fiscal year FY 2011, it was September 14, 2011;⁴ for FY 2012, it was September 13, 2012;⁵ for FY 2013, it was September 20, 2013;⁶ for FY 2014, it was September 23, 2014;⁷ for FY 2015, it was

¹ 47 U.S.C. § 159(a)(1); 47 CFR § 1.1151.

² 47 U.S.C. § 159A(c)(1); 47 CFR § 1.1164.

³ *Payment Methods and Procedures for Fiscal Year 2010 Regulatory Fees*, Public Notice, DA 10-1450, 25 FCC Rcd 10670 (OMD August 9, 2010).

⁴ *Payment Methods and Procedures for Fiscal Year 2011 Regulatory Fees*, Public Notice, DA 11-1418, 26 FCC Rcd 11371 (OMD August 17, 2011).

⁵ *Payment Methods and Procedures for Fiscal Year 2012 Regulatory Fees*, Public Notice, DA 12-1294, 27 FCC Rcd 9204 (OMD August 13, 2012).

⁶ *Payment Methods and Procedures for Fiscal Year 2013 Regulatory Fees*, Public Notice, DA 13-1796, 28 FCC Rcd 12635 (OMD September 4, 2013).

⁷ *Payment Methods and Procedures for Fiscal Year 2014 Regulatory Fees*, Public Notice, DA 14-1283, 29 FCC Rcd 10500 (OMD September 5, 2014).

September 24, 2015;⁸ for FY 2016, it was September 27, 2016;⁹ for FY 2017, it was September 26, 2017;¹⁰ for FY 2018, it was September 25, 2018;¹¹ for FY 2019, it was September 27, 2019;¹² for FY 2020, it was September 28, 2020;¹³ for FY 2021, it was September 24, 2021;¹⁴ for FY 2022, it was September 30, 2022,¹⁵ and for FY 2023 it was September 20, 2023.¹⁶ When Licensee failed to pay or only partially paid its regulatory fees by these deadlines, the Commission assessed charges that included the statutory late payment penalty required by the Act¹⁷ and section 1.1164 of the Rules,¹⁸ and interest, penalties, and administrative costs required by section 3717 of the Debt Collection Improvement Act of 1996 (the DCIA), section 9A(c)(2) of the Act and section 1.1940 of the Rules.¹⁹

4. The Commission's records show that Licensee currently has unpaid regulatory fee debt of \$2,137.41 for FY 2010; \$623.37 for FY 2011; \$2,007.83 for FY 2012; \$1,628.75 for FY 2013; \$1,895.39 for FY 2014; \$1,784.51 for FY 2015; \$1,921.54 for FY 2016; \$1,775.48 for FY 2017; \$1,733.35 for FY 2018; \$1,999.30 for FY 2019; \$2,061.58 for 2020; \$2,059.41 for FY 2021; \$2,228.48 for FY 2022, and \$2,037.50 for FY 2023, for a grand total of \$25,893.90. Additional charges will continue to accrue on these debts until they are paid in full. The Commission sent Licensee demand letters in accordance with the requirements of the DCIA demanding payment of Licensee's delinquent regulatory fees.²⁰ When Licensee did not pay these regulatory fee debts, the Commission transferred the debts to the United States Department of Treasury for collection.²¹ At the Commission's request, the United States Department of

⁸ *Payment Methods and Procedures for Fiscal Year 2015 Regulatory Fees*, Public Notice, DA 15-1013, 30 FCC Rcd 9941 (OMD September 11, 2015).

⁹ *Payment Methods and Procedures for Fiscal Year 2016 Regulatory Fees*, Public Notice, 2016 WL 4625515 (OMD September 6, 2016).

¹⁰ *Payment Methods and Procedures for Fiscal Year 2017 Regulatory Fees*, Public Notice, 2017 WL 3953380 (OMD September 6, 2017).

¹¹ *Payment Methods and Procedures for Fiscal Year 2018 Regulatory Fees*, Public Notice (OMD August 30, 2018), available at <https://docs.fcc.gov/public/attachments/DOC-353883A1.pdf>.

¹² *Regulatory Fee Filing Window Extended to Friday, September 27, 2019*, Public Notice, DA 19-941, 34 FCC Rcd 8580 (OMD September 23, 2019).

¹³ *Regulatory Fee Filing Window is Extended to Monday, September 28, 2020*, Public Notice, DA 20-1131, 35 FCC Rcd 10466 (OMD September 24, 2020).

¹⁴ *Payment Methods and Procedures for Fiscal Year 2021 Regulatory Fees*, Public Notice, DA 21- 1112, 36 FCC Rcd 13423 (OMD September 7, 2021).

¹⁵ *Fiscal Year 2022 Regulatory Fee Filing Deadline Extended to Friday, September 30, 2022, for All Regulatory Fee Payors*, Public Notice, DA 22-1023, 2022 WL 4597483 (OMD September 28, 2022).

¹⁶ *Payment Methods and Procedures for Fiscal Year 2023 Regulatory Fees*, Public Notice, DA 23-765, 2023 WL 5541802 (OMD August 23, 2023).

¹⁷ 47 U.S.C. § 159(c)(3) (1993); 47 U.S.C. § 159A(c)(1) (2018). The RAY BAUM'S Act, Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018, Pub. L. No. 115-141, 132 Stat. 348, 1095, modified section 9 of the Act and added a new section 9A. Prior to October 1, 2018, when the RAY BAUM'S Act became effective, section 9(c)(1) set forth the penalties for late payment of regulatory fees. As amended by the RAY BAUM's Act, section 9A(c)(1) now sets forth those penalties.

¹⁸ 47 CFR § 1.1164.

¹⁹ 31 U.S.C. § 3717; 47 U.S.C. § 159A(c)(2); 47 CFR § 1.1940.

²⁰ See 31 U.S.C. § 3711; 31 CFR § 901.2. In addition to the demand letters, the Media Bureau notified Licensee of its delinquency in paying the Station's regulatory fees. Email from Alexander Sanjenis, Audio Division, FCC Media Bureau, to Brad Hildebrand (Apr. 8, 2022 12:07 PM EDT). Although, at the time, Licensee was on a payment plan with the U.S. Treasury, Licensee has since defaulted on its payment agreement.

²¹ See 31 U.S.C. § 3711(g); 31 CFR §§ 285.12(c), 901.1; 47 CFR § 1.1917.

Treasury has returned the FYs 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, and 2023 regulatory fee debts to the Commission for further collection.

5. The Commission has authority under section 9A(c)(4) of the Act and section 1.1164(f) of the Rules to revoke licenses and authorizations for failure to pay regulatory fees (or related interest and penalties) in a timely fashion. Accordingly, we require Licensee to file with the Media Bureau documented evidence within sixty (60) calendar days of the date of this Order that full payment of all outstanding regulatory fee debt has been made or show cause why the payment is inapplicable or should be waived or deferred.²² Licensee is hereby notified that failure to provide such evidence of payment or to show cause within the time specified may result in revocation of Licensee's license for the Station.

6. Under section 9A(c)(4)(C) of the Act and section 1.1164(f) of the Rules,²³ an adjudicatory hearing will not be designated unless Licensee presents a substantial and material question of fact. Further, disposition of any adjudicatory hearing will be based upon written evidence only, and Licensee will bear the burden to introduce evidence and to provide proof in any such hearing.²⁴ Unless the Licensee substantially prevails in the hearing, the Commission may assess the Licensee for the costs of such hearing.²⁵

7. To the extent that Licensee is a respondent in other administrative proceedings, both before this agency and other federal agencies, action in this proceeding is without prejudice to action in those proceedings. Further, the existence of any such proceedings and matters raised therein are not considered in this proceeding.

III. ORDERING CLAUSES

8. Accordingly, **IT IS ORDERED** that, pursuant to section 9A(c)(4) of the Act and sections 0.11, 0.61, 0.231, 0.283 and 1.1164(f) of the Rules, Y2K, Inc., is hereby **ORDERED TO PAY TO THE FEDERAL COMMUNICATIONS COMMISSION** within sixty (60) calendar days of the date of this Order the outstanding regulatory fees for FYs 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022 and 2023, **OR SHOW CAUSE** to the Commission within sixty (60) calendar days of the date of this Order why these regulatory fees are inapplicable or should otherwise be waived or deferred.

9. **IT IS FURTHER ORDERED** that payment of the delinquent regulatory fee debt must be made through the Commission's Registration System (CORES)²⁶ or by wire transfer, and must include the FRNs referenced above. Additional wire transfer instructions are as follows:

ABA Routing Number 021030004

Receiving Bank:
TREAS NYC
33 Liberty St.
New York, NY 10045

²² The Commission may waive, reduce, or defer payment of fee debt where good cause is shown and where waiver, reduction or deferral would promote the public interest. The Commission interprets this provision narrowly, granting relief only when a requesting party has shown extraordinary circumstances outweighing the public interest in recovering the cost of the Commission's regulatory services. A party seeking a waiver for financial hardship must conclusively prove financial hardship, providing copies of all such financial documents as are necessary to show that it lacks sufficient funds to pay its regulatory fees and maintain its service to the public. *Assessment and Collection of Regulatory Fees for Fiscal Year 2019*, MD Docket 19-105, Report and Order and Further Notice of Proposed Rulemaking, 34 FCC Rcd 8189, 8207-08, paras. 49-51 (2019).

²³ 47 U.S.C. § 159A(c)(4)(C)(i); 47 CFR § 1.1164(f)(1).

²⁴ 47 U.S.C. § 159A(c)(4)(C)(ii); 47 CFR § 1.1164(f)(2).

²⁵ 47 U.S.C. § 159A(c)(4)(C)(ii)(iii); 47 CFR § 1.1164(f)(3).

²⁶ <https://apps.fcc.gov/cores/userLogin.do>

(BNF) Beneficiary: FCC
Account #: 27000001
OBI Field (skip one space between each information item)

Y2K, Inc., must provide the Payer FRN (if different than the FRN referenced above) and a contact phone number.

Y2K, Inc., must fax a copy of the wire transfer confirmation to the FCC at (202) 418-2843 or send the wire transfer confirmation copy to the FCC via email to RROGWireFaxes@fcc.gov on the same day the wire transfer is initiated.

10. **IT IS FURTHER ORDERED** that Y2K, Inc., must submit a completed FCC Form 159 (Remittance Advice) at the time of payment. The FCC Form 159 must be faxed to the FCC at (202) 418-2843. An FCC Form 159 and detailed instructions for completing the form may be obtained at http://www.fcc.gov/Forms/Forms_159/159.pdf. When completing the FCC Form 159, Y2K, Inc. must enter its FRN in block number 23A (call sign/other ID) and enter the following payment codes for the fiscal years involved in block number 24A (payment type code): 1042 (for FY 2010); 1142 (for FY 2011); 1242 (for FY 2012); 1342 (for FY 2013); 1442 (for FY 2014); 1542 (for FY 2015); 1642 (for FY 2016); 1742 (for FY 2017); 1842 (for FY 2018); 1942 (for FY 2019), 2042 (for FY 2020); 2142 (for FY 2021), 2242 (for FY 2022) and 2342 (for FY 2023).

11. Any written response must include a detailed factual statement supported by appropriate documentation and affidavits pursuant to section 1.16 of the Commission's rules.²⁷ The written response must be filed with the Office of the Secretary, Federal Communications Commission, 45 L Street NE, Washington DC 20554, ATTN: Albert Shuldiner, Chief, Audio Division, Media Bureau. 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.²⁸ A copy must be emailed to Alexander.Sanjenis@fcc.gov and Olivia.Hill@fcc.gov.

- 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.

²⁷ 47 CFR § 1.16.

²⁸ 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 Filing*, Public Notice, 35 FCC Rcd 2788 (2020).

12. **IT IS FURTHER ORDERED** that a copy of this Order shall be sent by registered mail, return receipt requested, to Y2K, Inc. c/o Brad Hildebrand, P.O. Box 1111, Washington, MO 63090, and to its counsel, Richard J. Hayes, Jr., Attorney at Law, 8404 Lee's Ridge Road, Warrenton, VA 20186.

FEDERAL COMMUNICATIONS COMMISSION

Holly Saurer
Chief, Media Bureau

Mark Stephens,
Managing Director, Office of Managing Director

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

In the Matter of	)	
	)	
GPR, Inc. Request for Waiver of the Commission's	)	ET Docket No. 19-241
Part 15 Rules Applicable to Ultra-Wideband	)	
Devices	)	

ORDER

Adopted: November 2, 2023

Released: November 2, 2023

By the Chief, Office of Engineering and Technology:

I. INTRODUCTION

1. By this Order, we grant a request for a limited waiver of Sections 15.509(b) and 15.525 of the Commission's rules filed by GPR, Inc. (GPR) to permit the marketing and operation of GPR's driver-assistance safety technology which uses ultra-wideband (UWB) ground penetrating radar to read subterranean information that is used to help keep vehicles in lane under different driving conditions, and thus increase vehicle safety. For the reasons discussed below, we find that there is good cause to grant GPR's request for waiver.

II. BACKGROUND

2. GPR states that its driver-assistance technology relies on UWB ground penetrating radar to enable active lanekeeping in challenging environmental conditions, such as in snow or fog.¹ It describes its technology as enabling precise vehicle positioning by using a downward-facing UWB radar to measure and map a road's subsurface features, such as changes in soil type/density, roots, rocks, and cavities. When a vehicle drives over a previously mapped road, GPR's technology uses algorithms that match the current radar scan with previously captured data to determine the vehicle's position with high accuracy.

3. In its July 25, 2019 filing, GPR requested waivers of Sections 15.509(b) and 15.525 of the rules to permit the use of its UWB ground penetrating radar system operating between 103-403 MHz by the general public without the need for coordination with federal users.² Section 15.509 permits the operation of ground penetrating radar on frequencies below 10.6 GHz, but paragraph (b) of this section limits such operation to entities involved in law enforcement, firefighting, emergency rescue, scientific research, commercial mining, or construction.³ In addition, Section 15.525 requires the operator of a UWB imaging system to coordinate with federal users through the Commission's Office of Engineering

¹ GPR, Inc. Request for Waiver of the Commission's Part 15 Rules Applicable to Ultra-Wideband Devices, filed July 25, 2019 (GPR Waiver Request). The request was originally filed by WaveSense, Inc., which has undergone a corporate name change with no change of control and is now operating as GPR, Inc. Its counsel requests that the Commission substitute GPR, Inc. for WaveSense, Inc. with respect to the pending waiver petition. Letter from Michele C. Farquhar, Counsel to GPR, Inc., Hogan Lovells US LLP, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-241, at 1 (filed Sept. 23, 2021). We grant this request and use the name GPR, Inc. throughout this document.

² GPR Waiver Request.

³ 47 CFR § 15.509(a)-(b).

and Technology (OET).⁴ As an alternative to its requested waiver of Section 15.525, GPR states that the Commission could permit it to coordinate use of its ground penetrating radar technology on a one-time basis as the operator of that technology.⁵

4. In response to OET's request for comment on GPR's waiver request, Aviation Spectrum Resources, Inc. (ASRI) and GPS Innovation Alliance (GPSIA) filed comments and GPR filed reply comments.⁶ ASRI initially opposed the request, arguing that grant of the waiver would result in a proliferation of devices that could cause interference to the 117.975-137 MHz Aeronautical Mobile (Route) Service (AM(R)S) in the United States that is used by both the Federal Aviation Administration and commercial aviation service providers to transmit air traffic control and other safety and flight messages.⁷

5. While it "recognizes the promise that [GPR's] system may hold for advancing vehicular automation, GPSIA raised several matters that it says must be addressed before the Commission acts on the request.⁸ Specifically, it asks for confirmation that the GPR device's modulation would comply with the definition of UWB, along with documentation of equipment measurements at GPS frequencies.⁹ It asserts that GPR must also ask for a waiver of Section 15.503 of the rules because it does not believe that the GPR device will comply with the 20% (0.20) minimum fractional bandwidth limit in that rule.¹⁰ It states that the Commission should authorize a limited number of units as evaluation kits for a period of two or three years as opposed to granting a blanket waiver.¹¹ Lastly, it claims that a waiver grant we previously issued for an agricultural purpose that GPR cites cannot be relied on as a basis for waiving Section 15.509(b) because the use cases are "fundamentally different."¹²

6. In reply comments, GPR refutes the arguments raised by ASRI and GPSIA. Specifically, it asserts that a waiver limited to 2-3 years for a restricted number of units would undermine the commercial viability of the GPR ground penetrating radar and that the requested waiver is consistent with the Commission's waiver standard and would not undermine the purpose of those rules, which it argues is to protect authorized users from harmful interference, not to limit proliferation.¹³ It also argues that the waiver request's technical information is sufficient for the Commission to grant the request and that GPR's ground penetrating radar does not require a waiver of Section 15.503.¹⁴ GPR provided measurement results for equipment at frequencies which include the GPS bands.¹⁵ In a filing submitted after the comment deadline, Cisco and Hewlett Packard Enterprise object to the Commission handling

⁴ 47 CFR § 15.525.

⁵ GPR Waiver Request at 7 (stating that GPR believes that it is best positioned to serve as the "operator" if the Commission determines that federal coordination under this rule is required).

⁶ *Office of Engineering and Technology Seeks Comment on WaveSense, Inc. Request for Waiver of Sections 15.509(b) and 15.525 of the Rules for Use of Ground-Penetrating Radar in Driver-Assistance Safety Technology*, ET Docket No. 19-241, Public Notice, 34 FCC Rcd 7759 (OET 2019).

⁷ ASRI Comments at 2-3.

⁸ GPSIA Comments at 2.

⁹ GPSIA Comments at 2-3.

¹⁰ GPSIA Comments at 3-4.

¹¹ GPSIA Comments at 4-5.

¹² GPSIA Comments at 4 (citing Headsight, Inc. Request for Waiver of Part 15 of the Commission's Rules Applicable to Ultra-Wide Band Devices, Order, 32 FCC Rcd 1511 (OET 2017) (*Headsight Waiver*)).

¹³ GPR Reply at 2-10.

¹⁴ GPR Reply at 10-12.

¹⁵ GPR Reply at Appendix 3.

this and other waiver requests involving UWB applications on an ad-hoc basis, noting the objections raised by ARSI and GPSIA and arguing that the waiver request raises issues of general applicability that are better resolved through a more comprehensive proceeding.¹⁶

7. GPR subsequently amended its waiver request to limit its UWB ground penetrating radar to two frequency bands: 137-328.6 MHz and 335.4-400 MHz, which would eliminate operation in the AM(R)S band for which ASRI expressed concern.¹⁷ It states that the GPR ground penetrating radar will avoid intentional emissions at frequencies below 137 MHz, in the band 328.6-335.4 MHz, and above 400 MHz, and specified the emission mask that the equipment will meet in the 328.6-335.4 MHz band.¹⁸ ASRI withdrew its opposition to the GPR waiver request, provided any waiver grant limits GPR's ground penetrating radar technology to operate and emit in frequencies above 137 MHz, specifically 137.0-328.6 MHz and 335.4-400.0 MHz as set forth in GPR's amendment.¹⁹ GPR further amended its waiver request after consultation with the National Telecommunications and Information Administration (NTIA) and requested that the lower frequency band of operation be slightly reduced to 137-322 MHz and that emissions within the band 322-335.4 MHz be limited to 10 dB below the Section 15.209 limit.²⁰ GPR stated that it would limit sales to 31,000 units per year and that it would report any incidents of interference to the Commission and NTIA and provide the Commission and NTIA with a report containing details of its U.S. deployments within 60 days of December 31, 2024.²¹

III. DISCUSSION

8. We are authorized to grant a waiver under Section 1.3 of the Commission's rules if the petitioner demonstrates good cause for such action.²² Good cause, in turn, may be found and a waiver granted "where particular facts would make strict compliance inconsistent with the public interest."²³ To make this public interest determination, the waiver cannot undermine the purposes of the rule, and there must be a stronger public interest benefit in granting the waiver than in applying the rule.²⁴

¹⁶ Letter from Mary Brown, Cisco Systems and Chuck Lukaszewski, Hewlett Packard Enterprise Company to Marlene Dortch, Secretary, FCC, ET Docket Nos. 19-241, 19-242, 19-246, 19-155, 19-217, 19-89, 18-284, 18-295, and GN Docket No. 17-183, (filed Nov. 13, 2019) (Cisco/HPE UWB Letter).

¹⁷ Letter from Michele C. Farquhar, Counsel to GPR, Inc., Hogan Lovells US LLP, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-241, at 1 (filed Dec. 4, 2020) (GPR Dec. 4, 2020 *Ex Parte*).

¹⁸ *Id.*

¹⁹ Letter from Edward A. Yorkgitis, Jr., Counsel for Aviation Spectrum Resources, Inc., Kelley Drye & Warren LLP, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-241, at 2 (filed Jan. 13, 2021) (ASRI Jan 13, 2021 *Ex Parte*).

²⁰ Letter from Michele C. Farquhar, Counsel to GPR, Inc., Hogan Lovells US LLP, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-24, at 1 (filed Jul. 28, 2023) (GPR Jul. 28, 2023 *Ex Parte*). GPR requests that in the 1.4-megahertz segments outside each edge of this band (i.e., in the 320.6-322.0 MHz and 335.4-336.8 MHz bands), the GPR device's emissions limits be linearly interpolated between the Section 15.209(a) limit and a level 10 dB below this limit.

²¹ GPR Jul. 28, 2023 *Ex Parte* at 1-2.

²² 47 CFR § 1.3. *See also* *ICO Global Communications (Holdings) Limited v. FCC*, 428 F.3d 264 (D.C. Cir. 2005); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

²³ *Northeast Cellular*, 897 F.2d at 1166; *see also* *ICO Global Communications*, 428 F.3d at 269 (quoting *Northeast Cellular*); *WAIT Radio*, 418 F.2d at 1157-59.

²⁴ *See, e.g., WAIT Radio*, 418 F.2d at 1157 (stating that even though the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule);

(continued....)

9. We conclude that, with appropriate operational and technical restrictions to prevent harmful interference to authorized services, granting GPR's request for waiver of the eligibility and frequency coordination requirements for operating a UWB ground penetrating radar does not undermine the purpose of the rules. The UWB technical and operational standards in Part 15 were adopted to ensure that UWB devices, including ground penetrating radars, do not cause harmful interference to authorized radio services, including Federal services.²⁵ In particular, the rules reflected a "a cautious approach to the standards for UWB devices," and Section 15.509(b) was written to include specific eligibility and use restrictions because doing so was "[o]ne method of reducing interference potential."²⁶

10. GPR's technology is designed to comply with the existing power levels for UWB ground penetrating radars. Moreover, we agree that the automobiles in which its technology will be deployed will provide additional shielding from its downward-facing lower power radar transmissions. In the technical appendix associated with its waiver request, GPR analyzes the potential for its technology to cause harmful interference, addressing aggregate interference, distinct use situations, and interference considerations for both GPS and aviation interests. With regard to aggregate interference, GPR calculates that the probability that emissions from multiple devices located in close proximity (e.g., five meters) would simultaneously fall within an assumed receiver bandwidth of 120 kHz is a very small fraction of a percent.²⁷

11. GPR subsequently provided additional information to show that interference to GPS is unlikely and amended its waiver request to further reduce the likelihood of harmful interference to aeronautical services.²⁸ In a subsequent *ex parte* filing, GPR submitted the results of measurements performed in an anechoic chamber showing that all emissions from the device that fall in the GPS bands are significantly below the Part 15 limits.²⁹ GPSIA did not dispute GPR's results. Based on those results and the fact that the GPR operating frequency range is well below the GPS bands, we conclude that the likelihood of the GPR device causing harmful interference specifically to GPS is low. Furthermore, ASRI withdrew its objection to the GPR waiver request after GPR amended the request to modify the device's frequency range and eliminate operation below 137 MHz, in the band 328.6-335.4 MHz, and above 400 MHz.³⁰ We agree that this change will help protect aeronautical services, and the technical parameters described in GPR's July 28, 2023 filing will provide at least the same level of protection to aeronautical services as those in its December 4, 2020 filing that ASRI cited in withdrawing its objection to grant of the waiver.³¹ As suggested by GPR and ASRI, we are conditioning grant of this waiver on the GPR UWB device not operating in these frequency bands. For these reasons, we find that the technical information GPR supplied initially in its waiver request, and subsequently in its reply comments and *ex*

Northeast Cellular, 897 F.2d at 1166 (stating that in granting a waiver, an agency must explain why deviation from the general rule better serves the public interest than would strict adherence to the rule).

²⁵ *Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems*, First Report and Order, ET Docket No. 98-153, 17 FCC Rcd 7435 (2002) (*UWB First R&O*).

²⁶ *UWB First R&O*, 17 FCC Rcd 7435, 7499 para. 185 (2002). In the *Headsight Waiver*, for example, the applicant asserted that Section 15.509(b) did not expressly authorize ground imaging devices for agricultural use only because agricultural use was never raised or discussed during the rulemaking. *Headsight Waiver*, 32 FCC Rcd at 1514.

²⁷ GPR Waiver Request Technical Appendix at 1.

²⁸ GPR Reply at Appendix 3; GPR December 4, 2020 *Ex Parte* at 1.

²⁹ GPR Reply at Appendix 3.

³⁰ ASRI Jan 13, 2021 *Ex Parte* at 2.

³¹ GPR December 4, 2020 *Ex Parte* at 1; ASRI Jan 13, 2021 *Ex Parte* at 2; GPR Jul. 28, 2023 *Ex Parte* at 1. In both its December 4, 2020 and July 28, 2023 filings, GPR indicates that its device will not produce intentional emissions below 137 MHz, which avoids operation of the GPR device in the 117.975-137 MHz band for which ASRI expressed concern. ASRI Comments at 2-3.

parte filings, demonstrates that harmful interference to existing services is unlikely. It is on this basis that we conclude that a grant of a waiver to GPR will not undermine the purpose of the rule.³²

12. We find that GPR promises to deliver a significant new public interest benefit in the developing field of subterranean driver-assistance technologies. Because the system relies on locating underground features that are not obscured by weather conditions and that do not change significantly with time, it can increase the reliability and safety of driver-assistance technologies and autonomous vehicle navigation. GPR's request is narrowly tailored, can be granted without raising the potential for causing harmful interference to authorized services, and can help realize important benefits to the public at large. Because subterranean road mapping to augment vehicular driving uniquely relies on ground penetrating radar technology, we do not see any ready alternatives by which GPR can provide its services.

13. We also find good cause to grant the GPR waiver request without first resolving the issues Cisco and Hewlett Packard have raised in their letter.³³ The GPR technology will be used for a specific purpose and, while it potentially will be widely available to consumers through the purchase of automobiles, it will have little or no utility except when used for its intended purpose on designated roads and in conjunction with GPR's mapping software. Accordingly, this is the type of narrow request that is well suited for consideration under the waiver process and does not represent an expansion of our ground penetrating radar rules to promote open-ended use by the general public. Accordingly, the general questions of Commission practice and policy that Cisco and Hewlett Packard raise will remain available for our consideration later and in an appropriate context.

14. Because we find there is a low likelihood of interference, we see no value in limiting sales of the devices to a limited number of evaluation kits (e.g., 2,000 units) for 2-3 years as suggested by GPSIA.³⁴ We agree with GPR that such a restriction could create regulatory uncertainty about the device and limit its commercial viability, which we believe would undermine the public interest benefits of the waiver.³⁵ We therefore decline to limit marketing of the GPR device in the manner suggested by GPSIA. We note, however, that GPR, after consultation with NTIA has requested a limit of up to 31,000 units of the device with the potential to increase this number in the future.³⁶ As discussed below we will condition grant of this waiver on the marketing limits requested by GPR.

15. Finally, we are confident that GPR's technology will both meet the definition of UWB and comply with the Section 15.503 minimum fractional bandwidth limit requirement. As noted above, GPSIA expresses concerns about these issues and requests that GPR supply information on whether the Linear Frequency Modulated (LFM) waveforms its device uses would meet the definition of UWB, and states the device does not appear to meet the minimum fractional bandwidth required by Section 15.503(d), so a waiver of that section should be required.³⁷ With respect to the type of modulation used,

³² The *Headsight Waiver* discussed by GPR and GPSIA involved an agricultural application that could satisfy the waiver standard because it was sufficiently analogous to the other types of uses and users already authorized by the rule. Here, we look at whether grant of a waiver would undermine the core purpose of the rule – i.e. to mitigate the risk of ground penetrating radar devices from causing harmful interference.

³³ Cisco/HPE UWB Letter at 5-7.

³⁴ GPSIA Comments at 4-5.

³⁵ GPR Reply at 3.

³⁶ GPR July 28, 2023 *Ex Parte* at 1. GPR requests that we permit up to 30,000 vehicles to be equipped with the GPR device, with up to 1,000 of these vehicles equipped with two units, for a total of 31,000 units.

³⁷ GPSIA Comments at 3-4; 47 CFR § 15.503(d). Section 15.503(d) states that a UWB transmitter must have either a bandwidth of greater than 500 MHz, or a fractional bandwidth of 0.20 or greater. The fractional bandwidth is defined as $2(f_H - f_L) / (f_H + f_L)$, where f_H and f_L are the highest and lowest frequencies respectively. Since the GPR device has a bandwidth of less than 500 MHz, it has to comply with the fractional bandwidth limit in order to meet the definition of a UWB transmitter.

GPS supplied a copy of correspondence from OET which states that because the rules do not require any particular type of modulation for UWB devices, a device which uses LFM can be considered a UWB device if it meets all of the technical requirements in the rules.³⁸ We support our previous interpretation of this rule.

16. With respect to the fractional bandwidth limit, GPR amended its waiver request to revise the frequency range of operation to 137-400 MHz.³⁹ Using the formula for calculating fractional bandwidth, $2(f_H - f_L) / (f_H + f_L)$, where f_H and f_L are the highest and lowest frequencies respectively, we calculate that the device has a fractional bandwidth of 0.98, which significantly exceeds the minimum requirement of 0.20. We note that the GPR device incorporates a notch filter to block the 322-335.4 MHz portion of the 137-400 MHz band to reduce the likelihood of harmful interference to aeronautical and radio astronomy services, which effectively splits the transmission in the 137-400 MHz band into two segments, the upper of which would not comply with the fractional bandwidth limit if we calculate the fractional bandwidth independently over each segment.⁴⁰ However, the GPR device actually transmits a single signal that complies with the fractional bandwidth limit, with only a small portion blocked for the purpose of reducing the likelihood of harmful interference to authorized services. We therefore find that, as operated, it effectively complies with the fractional bandwidth limit based upon the total operating range of 137-400 MHz. Thus, we will not require a waiver of the Section 15.503(d) fractional bandwidth limit for this particular use case.

17. *Coordination requirement.* Section 15.525 requires each UWB operator to coordinate use of a UWB imaging system through OET, which in turn, coordinates with the Federal Government through the NTIA.⁴¹ We agree with GPR that individual operators of driver-assisted and autonomous vehicles that utilize its technology cannot reasonably be expected to coordinate their devices, and that application of Section 15.525 to individual vehicle operators would represent an extreme administrative burden for both the operators and the Commission.⁴² Further, because of the low interference potential of the GPR device, we do not believe that an individual operator coordination requirement is necessary in this case. Accordingly, we waive the requirements of Section 15.525. This does not mean, of course, that the Federal Government has not thoroughly considered GPR's proposed operations. GPR has engaged in ongoing discussions with NTIA over the course of this proceeding, and we in turn have coordinated our decision with NTIA through the well-established inter-agency coordination process.

18. *Waiver conditions.* We are placing conditions on the grant of waiver to help limit the potential for harmful interference from the GPR system while still allowing for its deployment in vehicular applications. Specifically, we will limit the device's operating frequency range and emissions in bands adjacent to its operating frequencies as described in GPR's *ex parte* filings.⁴³ We establish operational conditions that permit the device to operate only when pointed at the ground and not when a vehicle is stopped or the ignition is turned off and require that when more than one device is installed on a vehicle, the devices must operate independently, e.g., non-synchronously. To help ensure compliance with these operational conditions, we will require GPR to include them in its sales contracts with vehicle manufacturers or research organizations that use the equipment. As suggested by GPR, we will limit

³⁸ GPR Reply at 12, Appendix 2.

³⁹ GPR Dec. 4, 2020 *Ex Parte* at 1; GPR Jul. 28, 2023 *Ex Parte* at 1. In its July 28, 2023 filing, GPR specified a slightly wider band where emissions will be attenuated to at least 10 dB below the limit, but indicated again that its device will operate in the 137-400 MHz band.

⁴⁰ The fractional bandwidth of the 137-322 MHz band is 0.806, and the fractional bandwidth of the 335.4-400 MHz band is 0.176.

⁴¹ 47 CFR § 15.525(a)-(b).

⁴² GPR Waiver Request at 7.

⁴³ GPR Dec. 4, 2020 *Ex Parte* at 1; GPR Jan. 5, 2021 *Ex Parte* at 1-2; GPR Jul. 28, 2023 *Ex Parte* at 1.

sales to 30,000 vehicles, of which 1,000 will be permitted to incorporate two units, for a total of 31,000 units, and will consider increasing this limit after 2024 with the concurrence of NTIA.⁴⁴ We will also require GPR to promptly report any incidents of interference attributable to the GPR system to the Commission and NTIA and to provide a report containing details of U.S. deployments of its system to the Commission and NTIA within 60 days after December 31, 2024.⁴⁵ Additionally, we will require that GPR obtain certification of the equipment from a designated Telecommunication Certification Body (TCB) prior to marketing and operation.

19. Accordingly, pursuant to the delegated authority in Sections 0.31 and 0.241 of the Commission's rules, we waive the operational limitations and frequency coordination requirements of Sections 15.509(b) and 15.525 of our rules to permit the certification, marketing and operation of the GPR ultra-wideband ground penetrating radar device. This waiver is subject to the following conditions:

- 1) The GPR system shall be certified by a designated Telecommunication Certification Body and must comply with the technical specifications applicable to operation under Part 15 of 47 CFR, except as permitted below:
 - a) The operational limitations in 47 CFR § 15.509(b) are waived to permit the operation of the GPR system by the general public.
 - b) The requirement in 47 CFR § 15.525 requiring coordination of devices with the federal government through the Office of Engineering and Technology prior to operation is waived.
- 2) The GPR device shall operate only in the bands 137-322 MHz and 335.4-400 MHz. It shall not produce intentional emissions below 137 MHz, above 400 MHz or in the 322-335.4 MHz band. Emissions below 137 MHz and above 400 MHz must comply with the applicable limits, e.g., those in Section 15.209 at frequencies at or below 960 MHz and those in Section 15.509 at frequencies above 960 MHz.
- 3) Emissions from the GPR device in the following bands shall not exceed the following limits, measured using a CISPR quasi-peak detector as specified in Section 15.209(d):
 - a) 320.6-322 MHz: linearly interpolated between the Section 15.209(a) limit at the lower end of the band and 10 dB below the Section 15.209(a) limit at the upper end of the band.
 - b) 322-335.4 MHz: 10 dB below the Section 15.209(a) limit.
 - c) 335.4-336.8 MHz: linearly interpolated between 10 dB below the Section 15.209(a) limit at the lower end of the band and the Section 15.209(a) limit at the upper end of the band.
- 4) The GPR device shall comply with all other technical and operational requirements applicable to UWB ground penetrating radar devices under Part 15, Subpart F of the Commission's rules.
- 5) The GPR device may operate only when mounted under a vehicle and pointed at the ground.
- 6) The GPR device must cease operation when the vehicle comes to a stop.
- 7) The GPR device may not operate when the vehicle ignition is turned off.
- 8) If more than one GPR device is installed on a vehicle, the devices must transmit independently (e.g., non-synchronously).
- 9) GPR shall include conditions 5-8 above in its sale contracts with its customers.

⁴⁴ GPR Jul. 28, 2023 *Ex Parte* at 1.

⁴⁵ GPR Jul. 28, 2023 *Ex Parte* at 1-2.

- 10) Sales of the GPR device authorized under this waiver grant shall be limited to 30,000 vehicles, of which up to 1,000 vehicles shall be permitted to incorporate two GPR units, for a total of up to 31,000 GPR units. Deployments of the GPR device after 2024 may be increased subject to agreement with the Commission and the concurrence of NTIA.
- 11) GPR shall promptly report any incidents of interference attributable to the GPR device to the Commission and shall provide a copy of such report to NTIA.
- 12) Within 60 days after December 31, 2024, GPR shall file with the Commission a report containing the details of its U.S. deployments of the GPR device. A copy of such report shall be provided to NTIA. The report may include information about deployments of the GPR device outside the United States.
- 13) The waiver conditions granted herein are not transferable to any third party via §2.933 or any other means of technology transfer.
- 14) This waiver and its conditions shall apply only to the UWB devices described herein and are not to be considered to apply generally to any other UWB operations where further analysis would be necessary to assess the potential for impact to other authorized users.
- 15) A copy of this Order shall be provided with the application for certification of the device.

IV. ORDERING CLAUSES

20. Accordingly, pursuant to authority delegated in Sections 0.31 and 0.241 of the Commission's rules, 47 CFR §§ 0.31, 0.241, and Section 1.3 of the Commission's rules, 47 CFR § 1.3, IT IS ORDERED that the Request for Waiver filed by GPR, Inc. on July 25, 2019 as amended on December 4, 2020, January 5, 2021 and July 28, 2023 IS GRANTED consistent with the terms of this Order. This action is taken pursuant to Sections 4(i), 302, 303(e), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 302, 303(e), and 303(r). This action is effective upon release of this Order.

21. IT IS FURTHER ORDERED that, if no applications for review are timely filed, this proceeding SHALL BE TERMINATED, and the docket CLOSED.

FEDERAL COMMUNICATIONS COMMISSION

Ronald T. Repasi
Chief
Office of Engineering and Technology

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

In the Matter of	)	
	)	
Facilitating Shared Use in the 3100-3550 MHz	)	WT Docket No.19-348
Band	)	
	)	
	)	
	)	
	)	

ORDER

Adopted: November 2, 2023

Released: November 2, 2023

By the Chief, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. With this Order, the Wireless Telecommunications Bureau (the Bureau) determines that the selection by the search committee appointed by the Bureau of Summit Ridge Group, LLC (Summit Ridge Group) to serve as the 3.45 GHz Band Reimbursement Clearinghouse (Clearinghouse) satisfies the criteria set forth in our rules,¹ and as described in the *3.45 GHz Second Report and Order*² and in the *3.45 GHz Clearinghouse Selection Process Order*.³

II. BACKGROUND

2. On September 30, 2020, the Commission adopted rules to make 100 megahertz of mid-band spectrum available for flexible use throughout the contiguous United States and determined that secondary, non-federal radiolocation licensees in the band would be relocated to the 2.9-3.0 GHz band in order to facilitate this goal.⁴ In the *3.45 GHz Second Report and Order*, the Commission required “new flexible-use licensees in the 3.45 GHz Service to reimburse secondary, non-federal radiolocation licensees for reasonable costs related to the relocation of those operations to the 2.9-3.0 GHz band, including the costs of a relocation clearinghouse’s administration of the reimbursement.”⁵ Specifically, each new 3.45 GHz Service licensee “will be responsible for reimbursement of a pro rata share of reasonable relocation

¹ 47 CFR § 27.1605.

² *Facilitating Shared Use in the 3100-3550 MHz Band*, WT Docket No. 19-348, Second Report and Order, Order on Reconsideration, and Order of Proposed Modification, 36 FCC Rcd 5987 (2021) (*3.45 GHz Band Second R&O*).

³ *Facilitating Shared Use in the 3100-3550 MHz Band*, WT Docket No. 19-348, Order, 37 FCC Rcd 13264 (WTB 2022) (*3.45 GHz Clearinghouse Selection Process Order*).

⁴ *Facilitating Shared Use in the 3100-3550 MHz Band*, WT Docket No. 19-348, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 11078, 11086, para. 20 (2020) (*3.45 GHz Band R&O and FNPRM*).

⁵ *3.45 GHz Band Second R&O*, 36 FCC Rcd at 6042, para. 155. The Commission “anticipate[d] clearinghouse costs to be minimal, given the limited number of licensees being relocated and relatively small estimated cost of their transition. The radiolocation service incumbents will initially fund the clearinghouse and can request reimbursement from new flexible-use licensees for the clearinghouse costs.” *Id.* at 6042, para. 155, n.386.

costs of non-federal radiolocation operations.”⁶

3. The Bureau specified the duties of the Clearinghouse in detail in the *3.45 GHz Clearinghouse Selection Process Order*, including (1) collecting from the two incumbent radiolocation operators a showing of their relocation costs for the transition as well as a demonstration of the reasonableness of those costs, (2) apportioning costs among 3.45 GHz Service licensees and distributing payments to incumbent radiolocation licensees pursuant to the cost allocation structure established in the *3.45 GHz Band Second R&O* and the Commission’s rules, and (3) providing detailed information and reports to the Commission and the Bureau to facilitate oversight of the transition process.⁷

4. To select the Clearinghouse, the Bureau appointed a search committee composed of four entities that the Bureau found, collectively, reasonably represented the interests of stakeholders in the transition.⁸ The Bureau required the search committee to convene no later than January 5, 2023, and to submit detailed selection criteria to the Bureau by March 6, 2023.⁹ The Bureau directed the search committee to select, no later than May 2, 2023, an entity that demonstrated its ability to perform the duties of the Clearinghouse, including: (1) engaging in strategic planning and adopting goals and metrics to evaluate its performance; (2) adopting internal controls for its operations; (3) using enterprise risk management practices; and (4) using best practices to protect against improper payments and to prevent fraud, waste, and abuse in its handling of funds.¹⁰

5. Further, the Bureau required the tentative Clearinghouse selectee to enter into contracts with both incumbents and sufficient licensees that hold the majority of 3.45 GHz Service licenses and to submit such contracts to the search committee by July 3, 2023.¹¹ The Bureau directed the search committee to review the contracts and notify the Bureau by August 1, 2023, whether or not the contracts were approved and whether or not the search committee’s selection of the Clearinghouse was finalized.¹²

6. The Bureau also required the search committee, in notifying the Bureau of its selection for the Clearinghouse, to: (a) fully disclose any actual or potential organizational or personal conflicts of interest or appearance of such conflict of interest of the Clearinghouse or its officers, directors, employees, and/or contractors; and (b) detail the salary and benefits associated with each position.¹³

7. On May 2, 2023, the search committee unanimously tentatively selected Summit Ridge Group as the 3.45 GHz Clearinghouse.¹⁴ The final selection was contingent on Summit Ridge Group entering into contracts with the incumbents and a sufficient number of licensees, which hold the majority

⁶ *Id.* at 6044, para. 161. As the Commission explained, “the total relocation costs will be divided by the number of 3.45 GHz Service licenses and each licensee will be required to pay their share based on the number of licenses they hold.” *Id.*; see also 47 CFR § 27.1604.

⁷ 47 CFR § 27.1605(a)(2); *3.45 GHz Selection Process Order*, 37 FCC Rcd at 13272-13275, paras. 31-40.

⁸ *3.45 GHz Selection Process Order*, 37 FCC Rcd at 13264, 13267 paras. 1, 7. The search committee is composed of four entities that the Commission found, collectively, reasonably represent the interests of stakeholders: the incumbents (NBCUniversal and Nexstar) and the new entrants, represented by CCA and CTIA. See also *3.45 GHz Band Second R&O*, 36 FCC Rcd at 6045, para. 163 (delegating such authority to Bureau).

⁹ *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd at 13272, para. 29.

¹⁰ *Id.* at 13269, para. 18.

¹¹ *Id.* at 13270, 13272, paras. 20-21, 29.

¹² *Id.* at 13272, para. 29.

¹³ *Id.* at 13272, para. 25.

¹⁴ Letter from Angela Y. Ball, et al., Members of 3.45 GHz Clearinghouse Search Committee, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-348 (filed May 2, 2023) (May 2, 2023 Search Committee Letter).

of 3.45 GHz Service licenses.¹⁵ On May 5, 2023, the search committee also provided additional hourly fee and rate information in support of its tentative selection.¹⁶

8. On August 1, 2023, the search committee announced that it had finalized its selection of Summit Ridge Group after it had reviewed and approved each executed contract.¹⁷ The search committee also submitted Summit Ridge Group's response to its Request for Proposal (RFP) and the executed contracts to the Bureau for review.¹⁸

9. On September 23, 2023, the Bureau issued a Public Notice seeking comment on whether Summit Ridge Group satisfied the selection criteria established in the Commission's rules, *3.45 GHz Second Report and Order*, and *3.45 GHz Clearinghouse Selection Process Order*.¹⁹ Comments and replies were due on October 10 and 20, 2023, respectively.²⁰ No comments or replies were filed in response to the Public Notice.

III. DISCUSSION

10. In the *3.45 GHz Second Report and Order*, the Commission delegated authority to the Bureau to implement a clearinghouse process similar to the process used in the 3.7 GHz proceeding.²¹ Pursuant to this authority, the Bureau assigned responsibility for finding, evaluating, and selecting a qualified clearinghouse to the search committee.²² The Bureau's role in the selection process is limited to determining whether the criteria for the Clearinghouse either have or have not been satisfied.²³

11. The search committee fulfilled its responsibility when it unanimously selected Summit Ridge Group to serve as the Clearinghouse and provided the Bureau with detailed information regarding Summit Ridge Group's qualifications and compliance with the selection criteria.²⁴ We find that the search committee's letters and attachments in the record clearly demonstrate that Summit Ridge Group satisfies the selection criteria set forth in 47 CFR § 27.1605, the *3.45 GHz Second Report and Order*, and in the *3.45 GHz Clearinghouse Selection Process Order*.²⁵

12. In its filings, Summit Ridge Group described, in detail, its qualifications to support every aspect of the Clearinghouse's role in the transition.²⁶ Summit Ridge Group submitted a detailed response to the search committee's RFP, which explained how it would perform the duties of the Clearinghouse,

¹⁵ See *id.*; *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd at 13270, para. 20.

¹⁶ See Letter from Angela Y. Ball, et al., Members of the 3.45 GHz Clearinghouse Search Committee, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 19-348 (filed May 5, 2023) (May 5, 2023 Search Committee Letter).

¹⁷ See Letter from Angela Y. Ball, et al., Members of 3.45 GHz Clearinghouse Search Committee, to Joel Taubenblatt, Chief, FCC, WT Docket No. 19-348 (filed August 1, 2023) (August Search Committee Letter).

¹⁸ See *id.*

¹⁹ *Wireless Telecommunications Bureau Seeks Comment on Whether Proposed 3.45-3.55 GHz Band Reimbursement Clearinghouse Satisfies Selection Criteria*, WT Docket 19-348, Public Notice, DA 23-895 (WTB Sept. 23, 2023).

²⁰ *Id.*

²¹ *3.45 GHz Band Second R&O*, 36 FCC Rcd at 6045, para. 163.

²² See generally *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd 13264.

²³ *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd at 13271-13272, para. 27.

²⁴ See August Search Committee Letter; May 2, 2023 Search Committee Letter; May 5, 2023 Search Committee Letter.

²⁵ 47 CFR § 27.1605; *3.45 GHz Band Second R&O*, 36 FCC Rcd at 6045, para. 163; *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd at 13270-13272, paras. 20-28.

²⁶ See August Search Committee Letter, Attachment 2.

including its relevant experience providing reimbursement-related services in the 600 MHz transition.²⁷ Summit Ridge Group detailed how it would adopt and follow all relevant industry best practices to facilitate the transition of the 3.45 GHz band.²⁸ Summit Ridge Group also explained how it would incorporate robust privacy and data security best practices into its operations as Clearinghouse.²⁹

13. We note that section 27.1605(a)(1) of the Commission's rules requires the clearinghouse to be "a neutral, independent entity with no conflicts of interest (as defined in § 27.1414(b)), on the part of the organization or its officers, directors, employees, contractors, or significant subcontractors."³⁰ When the search committee tentatively selected Summit Ridge Group as the Clearinghouse, it informed the Bureau that "Summit Ridge Group disclosed that it provides reimbursement support services to NE Colorado Wireless Inc., a new flexible-use licensee, as part of the Commission's Remove, Replace and Destroy program."³¹ The search committee also informed the Bureau that NE Colorado Wireless Inc. had won 18 (out of 4041 total) licenses in Auction 110.³² Further, in its response to the RFP, Summit Ridge Group committed to develop an Independence Management Plan that will detail its conflicts of interest review and assessment procedures and "describe the service restrictions Team Summit Ridge will put in place for the duration of the contract."³³ The search committee finalized its unanimous decision to select Summit Ridge Group as the Clearinghouse on August 1, 2023.³⁴

14. Additionally, as required by the *3.45 GHz Clearinghouse Selection Process Order*, Summit Ridge Group entered into contracts with the incumbents and a sufficient number of licensees which hold the majority of the 3.45 GHz Service licenses.³⁵ These contracts were reviewed and approved by the search committee.³⁶

15. After thorough review of the record and given the totality of factors presented here, we find that Summit Ridge Group's qualifications, experience, commitment to implement measures preventing conflicts of interest and promoting neutrality and independence, and executed contracts satisfy the Clearinghouse selection criteria set forth in 47 CFR § 27.1605, the *3.45 GHz Second Report and Order*, and the *3.45 GHz Clearinghouse Selection Process Order*.³⁷

IV. ORDERING CLAUSES

16. ACCORDINGLY, IT IS ORDERED, that Summit Ridge Group, LLC satisfies the selection criteria established by the Commission and the Bureau and will serve as the Clearinghouse for the 3.45-3.55 GHz band transition process.

17. IT IS FURTHER ORDERED that, pursuant to sections 1.2, 1.4(b) and 1.103 of the Commission's rules, 47 CFR §§ 1.2, 1.4(b), 1.103, and paragraph 163 of the *3.45 GHz Second Report and*

²⁷ See *id.*, Attachment 2 at 5.

²⁸ See *id.*, Attachment 2 at 4, 21, 22-25, 25-26, 27, 28-29, 32-33, 35.

²⁹ See *id.*, Attachment 2 at 5-7, 9, 26-27.

³⁰ 47 CFR § 27.1605(a)(1).

³¹ May 2, 2023 Search Committee Letter at 1.

³² May 5, 2023 Search Committee Letter at 2.

³³ August Search Committee Letter, Attachment 2 at 28; see also *id.* at 13-14 (noting that such plan will document restrictions and associated procedural safeguards to "ensure and manage the Clearinghouse's independence").

³⁴ *Id.* at 1.

³⁵ *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd at 13270, para. 20.

³⁶ August Search Committee Letter at 1.

³⁷ 47 CFR § 27.1605; *3.45 GHz Band Second R&O*, 36 FCC Rcd at 6045, para. 163; *3.45 GHz Clearinghouse Selection Process Order*, 37 FCC Rcd at 13270-13272, paras. 20-28.

Order and paragraphs 31-39 of the *3.45 GHz Clearinghouse Selection Process Order*, this Order SHALL BE EFFECTIVE upon release.

FEDERAL COMMUNICATIONS COMMISSION

Joel Taubenblatt
Chief
Wireless Telecommunications Bureau

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

In re Application of	)	
	)	
His Word Broadcasting Co.	)	Facility ID No. 27268
	)	NAL/Acct. No. 202341420029
For Renewal of License for	)	FRN: 0011489424
Low Power Television Station KHWB-LD	)	File No. 0000204237
Eugene, Oregon	)	

FORFEITURE ORDER

Adopted: November 2, 2023

Released: November 2, 2023

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. In this *Forfeiture Order*, we issue a monetary forfeiture in the amount of one thousand five hundred dollars (\$1,500) to His Word Broadcasting Co. (Licensee), licensee of low power television station KHWB-LD Eugene, Oregon (Station). We find that the Licensee willfully violated section 73.3539(a) of the Commission's rules (Rules) by failing to timely file a license renewal application for the Station.¹

II. BACKGROUND

2. Section 73.3539(a) of the Rules requires that applications for renewal of license for broadcast stations must be filed "not later than the first day of the fourth full calendar month prior to the expiration date of the license sought to be renewed."² An Application for renewal of the Station's license should have been filed by October 3, 2022, the first day of the fourth full calendar month prior to the Station's license expiration date of February 1, 2023.³ The Application was not filed until November 25, 2022. At the time of filing, the Licensee provided no explanation for its untimely filing of the Application. However, in a subsequent amendment to the Application, the Licensee noted that the late filing "was purely an oversight."⁴

3. Accordingly, on August 11, 2023, we released a *Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture (NAL)* that proposed a forfeiture of one thousand five hundred dollars (\$1,500).⁵ The *NAL* gave the Licensee thirty days to pay the full amount of the proposed

¹ Application of His Word Broadcasting Co. for Renewal of License, LMS File No. 0000204237 (filed Nov. 25, 2022; amended Aug. 30, 2023) (Application).

² *Id.*

³ See 47 CFR §§ 73.1020, 73.3539(a); Media Bureau Announces Procedures for 2020-2023 Television License Renewal Cycle, Public Notice, 35 FCC Rcd 3656 (MB 2020). Because the first day of the month was Saturday, October 1, 2022, the application was not due until the next business day, which was Monday, October 3, 2022. See 47 CFR § 1.4(j) (permitting the filing of documents the next business day if the filing date falls on a holiday, which includes weekends).

⁴ Application at KHWB Renewal Statement.

⁵ *His Word Broadcasting Co.*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, DA 23-682 (MB Aug. 11, 2023) (*NAL*).

forfeiture, or file a written statement seeking reduction or cancellation of the proposed forfeiture.⁶ To date, the Licensee has neither paid the proposed forfeiture nor filed a written statement in response to the *NAL*. A copy of the *NAL* was received by the Licensee on August 15, 2023.⁷

III. DISCUSSION

4. The forfeiture amount proposed in this case was assessed in accordance with section 503(b) of the Communications Act of 1934, as amended (the Act),⁸ section 1.80 of the Rules,⁹ and the Commission's Forfeiture Policy Statement.¹⁰ In assessing forfeitures, section 503(b)(2)(E) of the Act requires that we take into account 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.¹¹

5. The Application was due on October 3, 2022, but was not filed until November 25, 2022 – over one month late. The Licensee was afforded an opportunity to either pay or respond to the *NAL* pursuant to section 1.80 of the Rules,¹² but has failed to either pay the proposed forfeiture or seek reduction or cancellation of it within the time period set forth in the *NAL*. Accordingly, we conclude that the Licensee willfully violated section 73.3539(a) of the Rules and we issue a forfeiture in the amount of \$1,500 as proposed in the *NAL*.¹³

IV. ORDERING CLAUSES

6. **IT IS ORDERED**, pursuant to section 503(b) of the Communications Act of 1934, 47 U.S.C. § 503(b), as amended, and sections 0.283 and 1.80 of the Commission's rules, 47 CFR §§ 0.283 and 1.80, that His Word Broadcasting Co., **IS LIABLE FOR A MONETARY FORFEITURE** in the amount of one thousand five hundred dollars (\$1,500) for its apparent willful violation of section 73.3539(a) of the Commission's rules, 47 CFR § 73.3539(a).

7. Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using the Commission's CORES (the Commission's online payment system),¹⁴ or by wire transfer. The Commission no longer accepts forfeiture payments by check or money order. Upon payment, Licensee must send notice that payment has been made to VideoNAL@fcc.gov. Below are instructions that payors should follow based on the form of payment selected:¹⁵

- 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

⁶ *Id.* at para. 9.

⁷ A copy of the signed delivery receipt can be found under LMS File No. 0000204237.

⁸ 47 U.S.C. § 503(b).

⁹ 47 CFR § 1.80.

¹⁰ *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).

¹¹ 47 U.S.C. § 503(b)(2)(E).

¹² 47 CFR § 1.80(g)(3).

¹³ We reaffirm our prior statements in the *NAL* relating to the Stations' Applications and will proceed with grant by separate action upon the conclusion of this forfeiture proceeding if there are no issues other than those set forth in this *Forfeiture Order* that would preclude grant of the Applications. See *NAL* at para. 8.

¹⁴ Payments made using the Commission's CORES system do not require the submission of an FCC Form 159.

¹⁵ 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.

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).¹⁶ 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. 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/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 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.

8. Requests for full payment of the forfeiture proposed in this *Order* under an installment plan should be sent to: Associate Managing Director-Financial Operations, 45 L Street, NE, Washington, DC 20554.¹⁷ 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.

9. **IT IS FURTHER ORDERED** that a copy of this *Forfeiture Order* shall be sent by First Class and Certified Mail, Return Receipt Requested, to His Word Broadcasting Co., P.O. Box 72917 Springfield, OR 97475. A copy shall also be sent to Station’s representative, Susan Hansen, by e-mail to stcl@comcast.net.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

¹⁶ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

¹⁷ See 47 CFR § 1.1914.

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

In the Matter of	)	
	)	
Peerless Network, Inc.	)	Complaint No. 6508407
	)	
Complaint Regarding	)	
Unauthorized Change of	)	
Subscriber's Telecommunications Carrier	)	

ORDER

Adopted: November 1, 2023

Released: November 2, 2023

By the Acting Chief, Consumer Policy Division, Consumer and Governmental Affairs Bureau:

1. In this Order, we consider a complaint alleging that Peerless Network, Inc. (Peerless) changed Complainant's telecommunications service provider without obtaining authorization and verification from Complainant as required by the Commission's rules.¹ We find that Peerless has responded fully to the Complainant's complaint and has taken action to resolve the complaint.

2. Section 258 of the Communications Act of 1934, as amended (the Act), prohibits the practice of "slamming," the submission or execution of an unauthorized change in a subscriber's selection of a provider of telephone exchange service or telephone toll service.² The Commission's implementing rules require, among other things, that a carrier receive individual subscriber consent before a carrier change may occur.³ Specifically, a carrier must: (1) obtain the subscriber's written or electronically signed authorization in a format that satisfies our rules; (2) obtain confirmation from the subscriber via a toll-free number provided exclusively for the purpose of confirming orders electronically; or (3) utilize an appropriately qualified independent third party to verify the order.⁴ The Commission has also adopted rules to limit the liability of subscribers when an unauthorized carrier change occurs, and to require carriers involved in slamming practices to compensate subscribers whose carriers were changed without authorization.⁵

3. We received Complainant's complaint alleging that Peerless had changed Complainant's telecommunications service provider without Complainant's authorization. Pursuant to our rules, we

¹ See Informal Complaint No. 6508407 (filed Oct. 9, 2023); *see also* 47 CFR §§ 64.1100 – 64.1190.

² 47 U.S.C. § 258(a).

³ See 47 CFR § 64.1120.

⁴ See *id.* § 64.1120(c). Section 64.1130 details the requirements for letter of agency form and content for written or electronically signed authorizations. *Id.* § 64.1130.

⁵ These rules require the unauthorized carrier to absolve the subscriber where the subscriber has not paid his or her bill. If the subscriber has not already paid charges to the unauthorized carrier, the subscriber is absolved of liability for charges imposed by the unauthorized carrier for service provided during the first 30 days after the unauthorized change. See *id.* §§ 64.1140, 64.1160. Any charges imposed by the unauthorized carrier on the subscriber for service provided after this 30-day period shall be paid by the subscriber to the authorized carrier at the rates the subscriber was paying to the authorized carrier at the time of the unauthorized change. *Id.* Where the subscriber has paid charges to the unauthorized carrier, the Commission's rules require that the unauthorized carrier pay 150 percent of those charges to the authorized carrier, and the authorized carrier shall refund or credit to the subscriber 50 percent of all charges paid by the subscriber to the unauthorized carrier. See *id.* §§ 64.1140, 64.1170.

notified Peerless of the complaint.⁶ Based on the information provided by Peerless, it appears that Peerless has fully absolved Complainant of all charges assessed by Peerless in a manner consistent with the Commission's liability rules.⁷ We therefore find that the complaint referenced herein has been resolved.⁸

4. Accordingly, IT IS ORDERED that, pursuant to section 258 of the Communications Act of 1934, as amended, 47 U.S.C. § 258, and sections 0.141, 0.361 and 1.719 of the Commission's rules, 47 CFR §§ 0.141, 0.361, 1.719, the complaint filed against Peerless Network, Inc. IS RESOLVED.

5. IT IS FURTHER ORDERED that this Order is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Kristi Thornton
Acting Chief
Consumer Policy Division
Consumer and Governmental Affairs Bureau

⁶ *Id.* § 1.719 (Commission procedure for informal complaints filed pursuant to section 258 of the Act); *id.* § 64.1150 (procedures for resolution of unauthorized changes in preferred carrier).

⁷ *See* Peerless's Response to Informal Complaint No. 6508407 (filed Oct. 25, 2023); *see also* 47 CFR § 64.1160.

⁸ If Complainant is unsatisfied with the resolution of its complaint, the Complainant may file a formal complaint with the Commission pursuant to section 1.721 of the Commission's rules, 47 CFR § 1.721. Such filing will be deemed to relate back to the filing date of such Complainant's informal complaint so long as the formal complaint is filed within 45 days from the date this order is mailed or delivered electronically to such Complainant. *See id.* § 1.719.



PUBLIC NOTICE

Federal Communications Commission
45 L Street N.E.
Washington, DC 20554

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

DA 23-1045

Released: November 2, 2023

**INTERCONNECTED VOIP NUMBERING AUTHORIZATION APPLICATION FILED BY
CHARTER IP ENABLED SERVICES, LLC PURSUANT TO SECTION 52.15(g)(3) OF THE
COMMISSION'S RULES**

STREAMLINED PLEADING CYCLE ESTABLISHED

WC Docket No. 23-169¹

Comments Due: November 17, 2023

Charter IP Enabled Services, LLC (Charter IP), an interconnected Voice over Internet Protocol (VoIP) provider, filed a Numbering Authorization Application (Application) pursuant to section 52.15(g)(3) of the Federal Communications Commission's rules, seeking authorization to obtain North American Numbering Plan telephone numbers directly from the Numbering Administrator.² In its Application, Charter IP indicates that it intends to initially request numbers in the state of Maryland.³

In its Application, Charter IP includes the contact information and acknowledgements required by section 52.15(g)(3)(i) of the Commission's rules.⁴ Charter IP provides evidence that it will be capable of providing service within 60 days of the numbering resources activation date.⁵ Charter IP also certifies that it complies with the contribution, regulatory fee, and 911 obligations set forth in section 52.15(g)(3)(i)(E).⁶ In addition, Charter IP certifies that it has the financial, managerial, and technical expertise to provide reliable service.⁷ Charter IP further certifies that none of its key management and technical personnel are being or have been investigated by the Commission, or any law enforcement or regulatory agency, for failure to comply with any law, rule, or order.⁸ Finally, Charter IP certifies that no

¹ We assign WC Docket No. 23-169 for this Application and all related filings by the applicant and interested parties. See *Wireline Competition Bureau Announces Commencement Date and Process for Interconnected VoIP Providers to File Applications for Authorization to Obtain Telephone Numbers*, Public Notice, 31 FCC Rcd 949, 950 (WCB 2016).

² See Application of Charter IP for Authorization to Obtain Numbering Resources, WC Docket No. 23-169 (filed Apr. 27, 2023), <https://www.fcc.gov/ecfs/document/10427385117549/1>; see also 47 CFR § 52.15(g)(3).

³ Application at 3. See also *Numbering Policies for Modern Communications et al.*, Report and Order, 30 FCC Rcd 6839, 6850, para. 24 & n.74 (2015) (*VoIP Direct Access to Numbers Order*).

⁴ Application at 2-4; see 47 CFR § 52.15(g)(3)(i)(A)-(C), (F).

⁵ Application at 3; see 47 CFR § 52.15(g)(3)(i)(D).

⁶ Application at 3-4; see 47 CFR § 52.15(g)(3)(i)(E); see also 47 CFR §§ 1.1154, 52.17, 52.32, 64.604(c)(5)(iii); 47 CFR pts. 9 and 54, subpt. H.

⁷ Application at 4; see 47 CFR § 52.15(g)(3)(i)(F).

⁸ Application at 4; see 47 CFR § 52.15(g)(3)(i)(F).

party to the Application is subject to a denial of Federal benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1988.⁹

GENERAL INFORMATION

The Application identified herein has been found, upon initial review, to be acceptable for filing as a streamlined application. 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. Pursuant to section 52.15(g)(3)(ii) of the Commission's rules, interested parties may file comments in WC Docket No. 23-169 **on or before November 17, 2023**.¹⁰ Commenters must serve a copy of comments on Charter IP no later than the above comment filing date.

Parties to this proceeding should file any documents using the Commission's Electronic Comment Filing System (ECFS): <http://apps.fcc.gov/ecfs/>.

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

- 1) DAA@fcc.gov;
- 2) Margoux Newman, Competition Policy Division, Wireline Competition Bureau, Margoux.Newman@fcc.gov;
- 3) Michelle Sclater, Competition Policy Division, Wireline Competition Bureau, Michelle.Sclater@fcc.gov.

People with Disabilities: We ask that requests for accommodations be made as soon as possible in order to allow the agency to satisfy such requests whenever possible. Send an email to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530.

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

⁹ Application at 4; *see* 47 CFR § 52.15(g)(3)(i)(G); *see also* 21 U.S.C. § 862.

¹⁰ 47 CFR § 52.15(g)(3)(ii).

initial filings. New issues may not be raised in responses or replies.¹¹ 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 such facts are discovered. Absent such a showing of good cause, any issues not timely raised may be disregarded by the Commission.

Please contact DAA@fcc.gov, Margoux Newman at Margoux.Newman@fcc.gov, Michelle Sclater at Michelle.Sclater@fcc.gov for further information.

- FCC -

¹¹ See 47 CFR § 1.45(c).



PUBLIC NOTICE

Federal Communications Commission
45 L Street N.E.
Washington, DC 20554

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

DA 23-1046

Released: November 2, 2023

**INTERCONNECTED VOIP NUMBERING AUTHORIZATION APPLICATION FILED BY
TWC IP ENABLED SERVICES, LLC PURSUANT TO SECTION 52.15(g)(3) OF THE
COMMISSION'S RULES**

STREAMLINED PLEADING CYCLE ESTABLISHED

WC Docket No. 23-170¹

Comments Due: November 17, 2023

TWC IP Enabled Services, LLC (TWC IP), an interconnected Voice over Internet Protocol (VoIP) provider, filed a Numbering Authorization Application (Application) pursuant to section 52.15(g)(3) of the Federal Communications Commission's rules, seeking authorization to obtain North American Numbering Plan telephone numbers directly from the Numbering Administrator.² In its Application, TWC IP indicates that it intends to initially request numbers in the States of Colorado, Alabama, and Florida.³

In its Application, TWC IP includes the contact information and acknowledgements required by section 52.15(g)(3)(i) of the Commission's rules.⁴ TWC IP provides evidence that it will be capable of providing service within 60 days of the numbering resources activation date.⁵ TWC IP also certifies that it complies with the contribution, regulatory fee, and 911 obligations set forth in section 52.15(g)(3)(i)(E).⁶ In addition, TWC IP certifies that it has the financial, managerial, and technical expertise to provide reliable service.⁷ TWC IP further certifies that none of its key management and technical personnel are being or have been investigated by the Commission, or any law enforcement or

¹ We assign WC Docket No. 23-170 for this Application and all related filings by the applicant and interested parties. See *Wireline Competition Bureau Announces Commencement Date and Process for Interconnected VoIP Providers to File Applications for Authorization to Obtain Telephone Numbers*, Public Notice, 31 FCC Rcd 949, 950 (WCB 2016).

² See Application of TWC IP for Authorization to Obtain Numbering Resources, WC Docket No. 23-170 (filed Apr. 27, 2023), <https://www.fcc.gov/ecfs/document/10427539923501/1>; see also 47 CFR § 52.15(g)(3).

³ Application at 3. See also *Numbering Policies for Modern Communications et al.*, Report and Order, 30 FCC Rcd 6839, 6850, para. 24 & n.74 (2015) (*VoIP Direct Access to Numbers Order*).

⁴ Application at 2-5; see 47 CFR § 52.15(g)(3)(i)(A)-(C), (F).

⁵ Application at 3; see 47 CFR § 52.15(g)(3)(i)(D).

⁶ Application at 3-4; see 47 CFR § 52.15(g)(3)(i)(E); see also 47 CFR §§ 1.1154, 52.17, 52.32, 64.604(c)(5)(iii); 47 CFR pts. 9 and 54, subpt. H.

⁷ Application at 4; see 47 CFR § 52.15(g)(3)(i)(F).

regulatory agency, for failure to comply with any law, rule, or order.⁸ Finally, TWC IP certifies 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 1988.⁹

GENERAL INFORMATION

The Application identified herein has been found, upon initial review, to be acceptable for filing as a streamlined application. 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. Pursuant to section 52.15(g)(3)(ii) of the Commission's rules, interested parties may file comments in WC Docket No. 23-170 **on or before November 17, 2023**.¹⁰ Commenters must serve a copy of comments on TWC IP no later than the above comment filing date.

Parties to this proceeding should file any documents using the Commission's Electronic Comment Filing System (ECFS): <http://apps.fcc.gov/ecfs/>.

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

- 1) DAA@fcc.gov;
- 2) Margoux Newman, Competition Policy Division, Wireline Competition Bureau, Margoux.Newman@fcc.gov;
- 3) Michelle Sclater, Competition Policy Division, Wireline Competition Bureau, Michelle.Sclater@fcc.gov.

People with Disabilities: We ask that requests for accommodations be made as soon as possible in order to allow the agency to satisfy such requests whenever possible. Send an email to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530.

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⁸ Application at 4; *see* 47 CFR § 52.15(g)(3)(i)(F).

⁹ Application at 4; *see* 47 CFR § 52.15(g)(3)(i)(G); *see also* 21 U.S.C. § 862.

¹⁰ 47 CFR § 52.15(g)(3)(ii).

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.¹¹ 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 such facts are discovered. Absent such a showing of good cause, any issues not timely raised may be disregarded by the Commission.

Please contact DAA@fcc.gov, Margoux Newman at Margoux.Newman@fcc.gov, Michelle Sclater at Michelle.Sclater@fcc.gov for further information.

- FCC -

¹¹ See 47 CFR § 1.45(c).



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
45 L STREET NE
WASHINGTON D.C. 20554

News media information 202-418-0500
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DA No. 23-1047

Report No. SAT-01771

Friday November 3, 2023

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-20230815-00203	E	S2892	SES Americom, Inc.
Modification			
Withdrawn			Effective Date: 11/02/2023

Nature of Service: Direct to Home Fixed Satellite, Fixed Satellite Service

SAT-T/C-20231024-00260	E		Maxar License Inc.
Transfer of Control			
Grant of Authority			Effective Date: 10/30/2023

Current Licensee: Maxar License Inc.

FROM: Galileo Topco, Inc.

TO: Galileo Topco, Inc.

No. of Station(s) listed: 2

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



Federal Communications Commission
Washington, D.C. 20554

November 3, 2023

DA 23-1048

Matthew T. Carlisle, PE
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Robert Townsend
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24777 Denso Drive
Southfield, MI 48033

Jarrett Wendt
CEO & Co-Founder
Spoke Safety, Inc.
1459 South Steele Street
Denver, CO 80210

Eva Zheng
Certification Engineer
Rolling Wireless S.à.r.l.
15, rue Edward Steichen
2450 Luxembourg

Rodney Mathis
Managing Director
Yunex LLC
9225 Bee Cave Rd.
Building B, Suite 201
Austin, CA 78733

Re: Requests for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular
Vehicle-to-Everything Technology, ET Docket No. 19-138

Dear Petitioners:

We, the Public Safety and Homeland Security Bureau, the Office of Engineering and Technology, and the Wireless Telecommunications Bureau (collectively, the Bureaus) have before us eight individual waiver requests submitted by certain state, local, and municipal transportation authorities including the North Carolina Department of Transportation, the New York City Department of Transportation, and the City of Chattanooga, Tennessee, a private automated vehicle technology company, Sonamore, Inc. d/b/a P3Mobility, and four equipment manufacturers, DENSO International America, Inc, Rolling Wireless S.à.r.l. RX113A, Spoke Safety LLC, and Yunex LLC (collectively, the “Waiver Applicants” or

“Applicants”).¹ For the reasons stated below, and subject to the technical parameters and conditions set forth herein, the Bureaus grant each of the Applicants’ waiver requests to deploy Cellular Vehicle-to-Everything (C-V2X) technology within the 5.895–5.925 GHz band.

I. Background

Each Waiver Applicant² seeks a waiver of certain Commission rules applicable to intelligent transportation systems (ITS) operations to allow C-V2X technology to be used in the upper 30-megahertz portion (5.895–5.925 GHz) of the 5.9 GHz (5.850–5.925 GHz) band prior to adoption of final C-V2X-based rules.³ The C-V2X equipment subject to the Waiver Requests would operate in the 5905–5925 MHz portion of the 5.9 GHz band using a 20-megahertz channel.

Waiver Requests. Several Applicants seek a waiver of 47 CFR § 2.106(d)(160)⁴ to allow the 5.905–5.925 GHz band to be used for C-V2X safety systems operating in the Intelligent Transportation System radio service.⁵ Each Applicant also seeks a waiver of certain part 90 and part 95 rules⁶ (47 CFR

¹ See Appendix A: List of Waiver Petitions/Applicants, attached hereto. Note that Sonamore, Inc. d/b/a P3Mobility (hereafter, P3Mobility) previously received a waiver as an equipment manufacturer to provide them eligibility to obtain the necessary equipment certifications for their C-V2X enabled roadside units (RSUs) and on-board units (OBUs). See *Requests for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, Order at 6–7 (Rel. Aug. 16, 2023). In this Order, we address the additional request in P3Mobility’s waiver petition to operate a system of C-V2X enabled RSUs and OBUs as an ITS licensee in a specified geographic area.

² Hereafter, individual waiver requests and supplemental requests, as referenced in Appendix A, will be referred to as follows: (1) state, local, and municipal transportation authorities for North Carolina (*NCDOT Waiver Request*), New York City (*NYCDOT Waiver Request* or *NYCDOT Waiver Supplement*), the City of Chattanooga, Tennessee (*Chattanooga Waiver Request* or *Chattanooga Waiver Supplement*); (2) automated vehicle technology company, Sonamore, Inc. d/b/a P3Mobility (*P3Mobility Waiver Request* or *P3Mobility Waiver Supplement*); and (3) equipment manufacturers, DENSO International America, Inc. (*DENSO Waiver Request*), Rolling Wireless S.à.r.l., RX113A (*RX113A Waiver Request* or *RX113A Waiver Supplement*), Spoke Safety, LLC (*Spoke Safety Waiver Request* or *Spoke Safety Waiver Supplement*), and Yunex LLC (*Yunex Waiver Request* or *Yunex Waiver Supplement*).

³ See, e.g., *NCDOT Waiver Request* at 1; *NYCDOT Waiver Request* at 1; *Chattanooga Waiver Request* at 1; *P3Mobility Waiver Request* at 1; *DENSO Waiver Request* at 1; *RX113A Waiver Request* at 1; *Spoke Safety Waiver Request* at 1; *Yunex Waiver Request* at 1.

⁴ “In the band 5895–5925 MHz, the use of the non-federal mobile service is limited to operations in the Intelligent Transportation Systems radio service.” 47 CFR § 2.106(d)(160). As the Bureaus previously noted in the Joint Waiver Order, section 2.106 merely limits operations in the upper 30 megahertz of the 5.9 GHz band to ITS services, so such a waiver is unnecessary. See Joint Waiver Order at 5. None of the Waiver Applicants contemplates deploying non-ITS operations in the upper 30 megahertz of the 5.9 GHz band. Therefore, the requests for a waiver of this provision are dismissed as moot.

⁵ See, e.g., *NCDOT Waiver Request* at 1; *NYCDOT Waiver Request* at 1; *P3Mobility Waiver Request* at 1; *RX113A Waiver Request* at 1; *Spoke Safety Waiver Request* at 1; *Yunex Waiver Request* at 1.

⁶ See, e.g., *NCDOT Waiver Request* at 1, footnote 2; *NYCDOT Waiver Request* at 1, fn. 2; *Chattanooga Waiver Request* at 1, fn. 3; *P3Mobility Waiver Request* at 1, fn. 2; *DENSO Waiver Request* at 1, fn. 3; *RX113A Waiver Request* at 1, fn. 2; *Spoke Safety Waiver Request* at 1, fn. 2; *Yunex Waiver Request* at 1.

§§ 90.375, 90.377, 90.379, 95.3159,⁷ 95.3163, 95.3167, and 95.3189)⁸ governing the operation of Dedicated Short-Range Communication (DSRC)-based roadside units (RSUs) and on-board units (OBUs) in the upper 30 megahertz of the 5.9 GHz band.

Each Waiver Applicant requests relief pursuant to section 1.925 of the Commission's rules.⁹ Specifically, the state, local, and municipal transportation departments, and the private automated vehicle technology company listed in Appendix A (hereafter, "the ITS licensees") seek certain rule waivers under section 1.925 to deploy C-V2X operations, including RSUs and OBUs, within and throughout their respective state and/or local borders, under the FCC ITS licenses each currently holds or for which it has applied.¹⁰ The equipment manufacturers listed in Appendix A (DENSO, Rolling Wireless, Spoke Safety, and Yunex) seek certain rule waivers under section 1.925 to allow them to obtain the necessary equipment certifications for their C-V2X equipment.¹¹

Joint Waiver Order. On December 13, 2021, a group of public and private transportation stakeholders requested a waiver of the Commission's DSRC-based rules to allow them to use C-V2X technology in the upper 30 megahertz of the 5.9 GHz band prior to adoption of final C-V2X-based rules.¹² The *Joint Waiver Request* stated that the C-V2X equipment subject to the request would operate in the 5905–5925 MHz portion of the 5.9 GHz band using a 20-megahertz channel.¹³ On April 24, 2023, the Bureaus granted the *Joint Waiver Request*.¹⁴ The Bureaus conditioned the waiver grant on certain technical and operational parameters set forth in the *Joint Waiver Order*¹⁵ and further modified those conditions by our *Waiver Modification Order* on July 5, 2023.¹⁶

⁷ 47 CFR § 95.3159 is a reserved section and does not presently contain any regulatory information. Thus, we dismiss this aspect of each of the waiver requests where it is made as moot.

⁸ See 47 CFR §§ 90.375, 90.377, 90.379, 95.3163, 95.3167, 95.3189.

⁹ 47 CFR § 1.925.

¹⁰ See, e.g., *NCDOT Waiver Request* at 2 (WQZX495); *NYCDOT Waiver Request* at 1 (WQBH353); *Chattanooga Waiver Request* at 1 (WXR201); *P3Mobility Waiver Request* at 3 (petitioner seeks a waiver to deploy and operate C-V2X-based technology pursuant to a geographic area license – application pending, FCC File No. 0010441749).

¹¹ See *DENSO Request* at 1, 3; *RX113A Waiver Request* at 1-3; *Spoke Safety Waiver Request* at 1-3; and *Yunex Waiver Request* at 1.

¹² See *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, Appendix 1 at 10–11 (filed Dec. 13, 2021) (*Joint Waiver Request*), https://www.fcc.gov/ecfs/file/download/DOC-5f6d7d2ef3400000-A.pdf?file_name=C-V2X%20Waiver%20Request%2012%2013%202021.pdf; see also Letter from the C-V2X Joint Waiver Parties to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138, at 3 (filed Apr. 20, 2022) (*Joint Waiver Request Supplement*), <https://www.fcc.gov/ecfs/document/104201266008794/1>.

¹³ *Joint Waiver Request* Appendix 1 at 10–11; *Joint Waiver Request Supplement* at 3.

¹⁴ See *Request for Waiver of 5.9 GHz Band to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, Order, ET Docket No. 19-138, DA 23-343 (rel. Apr. 24, 2023) (*Joint Waiver Order*). The Bureaus waived sections 90.375, 90.377, 90.379, 95.3163, 95.3167, and 95.3189 of the Commission's rules, 47 CFR §§ 90.375, 90.377, 90.379, 95.3163, 95.3167, 95.3189. See *Joint Waiver Order* at 10–11.

¹⁵ *Joint Waiver Order* at 10–11.

¹⁶ See *Request to Modify April 24, 2023 Waiver Order of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, Order, ET Docket No. 19-138, DA 23-586 (rel. Jul. 5, 2023) ("Waiver

Each of the instant Waiver Applicants requests that the Bureaus grant them waivers under the same grant conditions specified in the C-V2X Joint Waiver Order, as modified by the July 5, 2023 Waiver Modification Order (C-V2X Joint Waiver Order, as modified).¹⁷

For the reasons stated below, the Bureaus collectively grant each Applicant's waiver request to deploy C-V2X technology in the upper 30 megahertz of the 5.9 GHz band, pending adoption of final C-V2X-based rules, subject to the technical parameters and conditions set forth below, which are consistent with the technical parameters and conditions set forth in the C-V2X Joint Waiver Order, as modified.¹⁸

II. DISCUSSION

A. Waiver Standard

The Applicants seek waivers pursuant to section 1.925 of the Commission's rules. Section 1.925 states that the agency may grant a waiver if it is shown that the underlying purpose of the rule at issue would not be served or would be frustrated by application to the instant case, and a grant would be in the public interest, or where, "in view of unique or unusual factual circumstances," application of the rule would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.¹⁹ In addition, section 1.3 provides that the Commission may waive any provision of its rules on its own motion for good cause.²⁰

Specifically, each of the Waiver Applicants seeks a waiver of certain Commission rules applicable to ITS operations in the 5.9 GHz band (*i.e.*, 47 CFR §§ 90.375, 90.377, 90.379, 95.3163, 95.3167, and 95.3189), the rule sections that establish the technical requirements mandating DSRC-based technology in the upper 30 megahertz of the 5.9 GHz band, to allow the use of C-V2X-based technology in the band and to provide adjustments to the technical parameters where the two technologies differ. As discussed briefly below, and in greater detail in the Joint Waiver Order,²¹ we find that a waiver of these rules is 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, which are intended to protect DSRC and federal incumbents from potentially harmful interference caused by C-V2X operations in the upper 30 megahertz of the 5.9 GHz band.

We find that, pursuant to section 1.925(b)(3)(i) of the Commission's rules, the underlying purpose of the rules governing ITS operations would not be served by denying these requests and thereby delaying or precluding C-V2X operations in the upper 30 megahertz of the 5.9 GHz band.²² Furthermore,

Modification Order") (removing the 20 dBm Transmitter Output Power Limit for OBUs from the technical requirements placed on the waiver grant).

¹⁷ See *NCDOT Waiver Request* at 2; *NYCDOT Waiver Supplement*; *Chattanooga Waiver Request* at 1–2; *P3Mobility Waiver Supplement*; *DENSO Waiver Request* at 1–2; *RX113A Waiver Supplement*; *Spoke Safety Waiver Supplement*; *Yunex Waiver Supplement* at 1–2.

¹⁸ See Waiver Modification Order at 4.

¹⁹ 47 CFR § 1.925(b)(3)(i)–(ii).

²⁰ 47 CFR § 1.3 ("Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown."); see also *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990).

²¹ See Joint Waiver Order, paras. 7–14.

²² 47 CFR § 1.925(b)(3)(i).

we find that a waiver in this case will facilitate early C-V2X deployment as the Commission envisioned in the *5.9 GHz First R&O*.²³ Granting the Waiver Applicants' requests serves the public interest by encouraging widespread deployment of ITS operations using C-V2X technology. "To deny the [requests] and insist on application of the current DSRC-based rules would be contrary to the public interest as it would further entrench the DSRC technology the Commission determined needs to be replaced and preclude rapid deployment of the technology the Commission has identified as best suited to promote the most efficient and effective use of the spectrum."²⁴ We further find that permitting C-V2X technologies to deploy now, prior to adoption of final C-V2X rules, will serve the public interest by advancing vehicular safety and promoting interoperability.²⁵

Based on the record before us, we grant a waiver, to the extent necessary, to each of the Waiver Applicants listed in Appendix A for the C-V2X deployments specified below, with conditions to protect incumbent licensees and interests. As to the named Waiver Applicants, we waive the Part 90 and 95 rule requirements that mandate DSRC technology in favor of C-V2X operation pursuant to the conditions articulated in Section II.B. below.²⁶

ITS licensees (state, local, and municipal transportation authorities, and the private automated vehicle technology company). Specifically, we grant to the ITS licensees listed in Appendix A (North Carolina, New York City, Chattanooga, TN, and P3Mobility) waiver of 47 CFR §§ 90.375 (governing RSU license areas, communication zones, and registrations) and 90.377 (RSU frequencies available, maximum power limit, antenna height, and priority communications).²⁷

ITS licensees and equipment manufacturers. We grant to the ITS licensees listed in Appendix A as well as the equipment manufacturers listed in Appendix A (North Carolina, New York City, Chattanooga, TN, P3Mobility, DENSO, Rolling Wireless, Spoke Safety, and Yunex) waiver of 47 CFR §§ 90.379 (governing Technical Standards for RSUs).

Equipment manufacturers. We grant to the equipment manufacturers (DENSO, Rolling Wireless, Spoke Safety, and Yunex) waiver of 47 CFR §§ 95.3163 (providing that DSRC OBUs are permitted to operate in the upper 30 megahertz of the 5.9 GHz band), 95.3167 (maximum power limit for DSRC OBUs), and 95.3189 (technical standard for DSRC OBUs).

²³ *Use of the 5.850–5.925 GHz Band*, ET Docket No. 19-138, First Report and Order, Further Notice of Proposed Rulemaking, and Order of Proposed Modification, 35 FCC Rcd 13440 (2020), *petitions for review denied sub nom. Intelligent Transp. Soc'y of America v. FCC*, 45 F.4th 406 (D.C. Cir. 2022) (*5.9 GHz First R&O*).

²⁴ Joint Waiver Order at 5.

²⁵ *See id.*; *see also 5.9 GHz First R&O* at 13480, para. 99.

²⁶ We note that each of the Waiver Applicants either expressly requested a waiver of the Part 90 and Part 95 rules governing ITS operations in the 5.9 GHz band or referenced the rule waivers issued to the C-V2X Joint Waiver Parties in the Joint Waiver Order. Accordingly, for the Waiver Applicants that requested a waiver of the ITS rules generally, or that referenced the rules waived in the Joint Waiver Order, we recognize, pursuant to our own authority under Section 1.3 of the Commission's Rules, that these Waiver Applicants have requested a waiver of the same rule sections identified in the Joint Waiver Order, as amended, and grant each such Waiver Applicant a waiver, to the extent necessary, of the rules waived by the Joint Waiver Order, as amended. *See* 47 CFR § 1.3.

²⁷ 47 CFR §§ 90.375, 90.377.

B. Waiver Grant Conditions.

Consistent with the technical requirements and restrictions imposed by the Joint Waiver Order,²⁸ as modified by the Waiver Modification Order,²⁹ this waiver grant is subject to the technical parameters and conditions set forth below.

Scope of the Waiver. With respect to the ITS licensees, this waiver is limited to the state, local, and municipal transportation departments (North Carolina DOT, New York City DOT, and the City of Chattanooga), and the private automated vehicle technology company (P3Mobility) listed in Appendix A to allow them to deploy C-V2X infrastructure that satisfies all conditions of this Order, including RSUs and OBUs, within their respective jurisdictions. The geographic area of the waiver is limited to the area encompassing the legal jurisdictions of the listed states, localities, and municipalities, or for P3Mobility, the geographic parameters that will ultimately be defined by its license.

All operations authorized pursuant to this waiver are limited to transportation and vehicle safety-related communications.

All C-V2X operations permitted pursuant to this waiver are limited to the 5905–5925 MHz frequencies using a 20-megahertz channel.

With respect to equipment manufacturers, this waiver is limited to DENSO, Rolling Wireless, Spoke Safety, and Yunex and provides them eligibility to obtain the necessary equipment certifications for their RSUs and OBUs. Equipment authorization requirements continue to apply to all RSUs and OBUs under this waiver order.³⁰ Any application for equipment authorization will need to include a copy of this waiver order.³¹

C-V2X operations under this waiver order are authorized on a secondary basis to the Federal radiolocation service operating on a primary basis within the 5.895–5.925 GHz band and must protect these Federal operations from harmful interference. The NTIA reviewed the technical parameters adopted in the Joint Waiver Order,³² as modified by the Waiver Modification Order,³³ and agrees that spectrum usage should be limited to 5905–5925 MHz and that EIRP for both OBUs and RSUs be limited to 33 dBm.³⁴ In addition, “to adequately protect the primary 5.9 GHz band for federal radiolocation services during this waiver period,” NTIA also requests that C-V2X OBUs be limited to an EIRP of 27 dBm at ± 5 degrees in elevation from the horizontal plane.³⁵ Pursuant to their supplemental requests to

²⁸ See Joint Waiver Order, paras. 17–26.

²⁹ See Waiver Modification Order at 4.

³⁰ See generally 47 CFR §§ 2.901 *et seq.* (subpart J – Equipment Authorization Procedures); 47 CFR § 2.905 (Marketing of radio frequency devices prior to equipment authorization).

³¹ The OET Laboratory has provided detailed filing guidance in its knowledge database (KDB). See [511808 D01 C-V2X Waiver v01](#).

³² See Joint Waiver Order, paras. 17–26.

³³ See Waiver Modification Order at 4.

³⁴ See Letter from Charles Cooper, Associate Administrator, Office of Spectrum Management, National Telecommunications and Information Administration, to Ronald T. Repasi, Acting Chief, FCC Office of Engineering and Technology, ET Docket No. 19-138 (filed April 14, 2023) at 3.

³⁵ *Id.*

abide by the same grant conditions outlined in the Joint Waiver Order, as modified, each of the Waiver Applicants has agreed to these conditions.³⁶

Technical Requirements and Restrictions. All RSUs and OBUs authorized under this Order must operate using the technical characteristics and operating parameters, including power, height, and out-of-band emission limits, specified below, to ensure compliance with all existing technical rules applicable to ITS operations other than the requirement to use DSRC-based technology:

C-V2X OBU and RSU Operations

Frequency Range	Channel Bandwidth	OBU Limits	RSU EIRP Limit
5905–5925 MHz	20 MHz	33 dBm EIRP*; 27dBm EIRP within 5 degrees of horizontal	33 dBm EIRP

*EIRP (equivalent isotropically radiated power)

C-V2X Out-of-Band Emissions (OOBE) Limits

Frequency Offset (MHz from Channel Edge)	OOBE EIRP Limits for C-V2X Transmissions (dBm/100 kHz)**
0.0	-16.0
1.0	-22.0
10.0	-30.0
20.0	-40.0

**See IEEE 802.11p-2010 Table I.8

The ITS licensees' C-V2X RSU operations must protect DSRC and primary non-federal fixed-satellite service (Earth-to-space) operations in the 5.895–5.925 GHz band from harmful interference. Prior to commencing C-V2X operations, the ITS licensees must successfully coordinate with all DSRC incumbent(s) whose licensed areas either overlap or are within 25 miles of their license areas. The purpose of this coordination is to ensure that harmful interference will not occur.³⁷ In addition, within 30 days of commencing operations, the ITS licensees must file a report in the Universal Licensing System (ULS) confirming successful coordination (including the names of the DSRC incumbents and dates coordination was completed), or if applicable, certifying that coordination was unnecessary, and include a grandfathered list of RSU locations that will be converted from DSRC to C-V2X operation. FCC staff will add a C-V2X special condition to these RSU locations and forward the grandfathered RSU list to NTIA.

RSU registration requirements. ITS licensees must register each RSU in ULS before operating the RSU. RSUs included in the grandfathered DSRC RSU list being converted to C-V2X do not need to be filed in ULS. RSU registrations are subject to the requirements of 47 CFR § 1.923 as applicable (antenna structure registration, environmental review, international coordination, and quiet zones). Additionally, RSUs at locations subject to NTIA coordination³⁸ may not begin operation until the licensee receives NTIA approval. Registrations are not effective until the Commission posts them in ULS. It is the licensee's responsibility to delete from the registration database any RSUs that have been

³⁶ See footnote 17, *supra*.

³⁷ Setting the coordination distance at 25 miles will ensure that C-V2X RSU operators are able to identify any neighboring DSRC incumbents.

³⁸ See 47 CFR § 90.371(b).

discontinued.³⁹

Compliance with Final Rules. We intend by this Order to enable a fast transition to the next generation of technology in this spectrum band while the Commission contemplates the framework for final rules. Consistent with this goal, we condition the waiver on the requirement that each waiver recipient will ensure that RSU and OBU operations and devices authorized under the waiver will comply with the final rules or other guidance provided by the Commission in any timeframe determined by the Commission. This approach ensures that waiver recipients, including but not limited to equipment manufacturers, will consider the pendency of the final rulemaking, and incorporate technology that will allow prompt and efficient regulatory compliance with respect to individual RSUs, OBUs, and C-V2X-based operations once any relevant final rules are implemented. Equipment manufacturers, in particular, must take steps to ensure that they can update or disable any OBUs deployed pursuant to this Order to bring these units into compliance with the final rules. Recipients of this waiver should be aware that the Commission may further tailor this and other waiver conditions, if needed and as appropriate, as part of any determination it makes in the rulemaking proceeding.

II. ORDERING CLAUSES

Accordingly, IT IS ORDERED that, pursuant to section 4(i) of the Communications Act, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission's rules, 47 CFR § 1.925, each of the requests by the parties listed in Appendix A, attached hereto, to waive the requirements of sections 90.375, 90.377, 90.379, 95.3163, 95.3167, and 95.3189 of the Commission's rules, 47 CFR §§ 90.375, 90.377, 90.379, 95.3163, 95.3167, 95.3189, are HEREBY GRANTED subject to the conditions outlined above, and ARE OTHERWISE DENIED.

IT IS FURTHER 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 waiver request filed by Sonamore, Inc. d/b/a P3Mobility in connection with application FCC File No. 0010441749, IS GRANTED, and the application SHALL BE PROCESSED in accordance with this Order and the Commission's rules.

IT IS FURTHER ORDERED that each of the requests to waive the requirements of 47 CFR § 2.106(d)(160) and 47 CFR § 95.3159 are HEREBY DISMISSED as moot.

These actions are taken under delegated authority pursuant to sections 0.31, 0.131, 0.191, 0.241, 0.331, 0.392, and 1.3 of the Commission's rules, 47 CFR §§ 0.31, 0.131, 0.191, 0.241, 0.331, 0.392, 1.3, and the *5.9 GHz First R&O*.⁴⁰

³⁹ See 47 CFR § 90.375(b).

⁴⁰ *5.9 GHz First R&O* at 13424–65, paras. 55–56.

FEDERAL COMMUNICATIONS COMMISSION

Debra Jordan
Chief, Public Safety and Homeland Security Bureau

Ronald Repasi
Chief, Office of Engineering and Technology

Joel Taubenblatt
Chief, Wireless Telecommunications Bureau

**APPENDIX A
WAIVER PETITIONS/APPLICANTS**

1. North Carolina Department of Transportation. See Letter from Matthew T. Carlisle, PE, State ITS & Signals Management Engineer, North Carolina Department of Transportation, to Jessica Rosenworcel, Chairwoman, FCC, ET Docket No. 19-138 (filed Aug. 31, 2023) (*NCDOT Waiver Request*), <https://www.fcc.gov/ecfs/document/1083185905244/1>.
2. New York City Department of Transportation. See Request for Waiver of 5.9 GHz Band Rules to Permit Deployments of Cellular Vehicle-to-Everything Technology, New York City Department of Transportation, ET Docket No. 19-138 (filed Jul. 1, 2022) (*NYCDOT Waiver Request*), <https://www.fcc.gov/ecfs/document/10701248811987/1>; see also Letter from Mohamed Talas, Director System Engineering, NYC Department of Transportation, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Oct. 24, 2023) (*NYCDOT Waiver Supplement*), <https://www.fcc.gov/ecfs/document/102460428478/1>.
3. City of Chattanooga, Tennessee. See Request for Waiver of 5.9 GHz Band Rules to Permit Deployments of Cellular Vehicle-to-Everything Technology, City of Chattanooga, Tennessee, ET Docket No. 19-138 (filed Jul. 11, 2023) (*Chattanooga Waiver Request*), <https://www.fcc.gov/ecfs/document/1071180745612/1>.
4. Sonamore, Inc. d/b/a P3Mobility. See Request for Waiver of 5.9 GHz Band Rules to Permit Deployments of Cellular Vehicle-to-Everything Technology, Sonamore, Inc. d/b/a P3Mobility, ET Docket No. 19-138 (filed Mar. 3, 2023) (*P3Mobility Waiver Request*), <https://www.fcc.gov/ecfs/document/10303120813893/1>; see also Letter from Erin Milligan, Sonamore, Inc. d/b/a P3Mobility, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Jul. 6, 2023) (*P3Mobility Waiver Supplement*), <https://www.fcc.gov/ecfs/document/10706146789200/1>.
5. DENSO International America, Inc. See Request for Waiver of 5.9 GHz Band Rules to Permit Deployments of Cellular Vehicle-to-Everything Technology, DENSO International America, Inc., ET Docket No. 19-138 (filed Aug. 21, 2023) (*DENSO Waiver Request*), <https://www.fcc.gov/ecfs/document/108193098421567/1>.
6. Rolling Wireless S.à.r.l. RX113A. See Request for Waiver of 5.9 GHz Band Rules to Permit Deployments of Cellular Vehicle-to-Everything Technology, Spoke Safety, LLC, ET Docket No. 19-138 (filed Aug. 16, 2023) (*RX113A Waiver Request*), <https://www.fcc.gov/ecfs/document/10816048638860/1>; see also Letter from Eva Zheng, Certification Engineer, Rolling Wireless S.à.r.l., to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Oct. 9, 2023) (*RX113A Waiver Supplement*), <https://www.fcc.gov/ecfs/document/100914560046/1>.
7. Spoke Safety, LLC. See Request for Waiver of 5.9 GHz Band Rules to Permit Deployments of Cellular Vehicle-to-Everything Technology, Spoke Safety, LLC, ET Docket No. 19-138 (filed Jul. 22, 2022) (*Spoke Safety Waiver Request*), <https://www.fcc.gov/ecfs/document/10722025089016/1>; see also Letter from Jarrett Wendt, CEO & Co-Founder, Spoke Safety, Inc. to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Sep. 28, 2023) (*Spoke Safety Waiver Supplement*), <https://www.fcc.gov/ecfs/document/10928065355532/1>.
8. Yunex LLC. See Letter from Rodney Mathis, Managing Director, Yunex LLC, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Aug. 3, 2023) (*Yunex Waiver Request*), <https://www.fcc.gov/ecfs/document/10803416708569/1>; see also Letter from Rodney Mathis, Managing

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Director, Yunex LLC, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 19-138 (filed Oct. 6, 2023)
(*Yunex Waiver Supplement*), <https://www.fcc.gov/ecfs/document/1006377211914/1>.

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

In re Application of	)	
	)	
Glendive Broadcasting Corporation	)	Facility ID No. 24289
	)	NAL/Acct. No. 202341420024
For Renewal of License for	)	FRN: 0003749892
Station K13IG-D	)	File No. 0000180320
Sidney-Fairview, Montana	)	

FORFEITURE ORDER

Adopted: November 3, 2023

Released: November 3, 2023

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. In this *Forfeiture Order*, we issue a monetary forfeiture in the amount of one thousand five hundred dollars (\$1,500) to Glendive Broadcasting Corporation (Licensee), licensee of TV translator station K13IG-D Sidney-Fairview, Montana (Station). We find that the Licensee willfully violated section 73.3539(a) of the Commission's rules (Rules) by failing to timely file license renewal application for the Station.¹

II. BACKGROUND

2. Section 73.3539(a) of the Rules requires that applications for renewal of license for broadcast stations must be filed "not later than the first day of the fourth full calendar month prior to the expiration date of the license sought to be renewed."² An application for renewal of the Station's license should have been filed by December 1, 2021, the first day of the fourth full calendar month prior to the Station's license expiration date of April 1, 2022.³ The Application was not filed until January 19, 2022. At the time of filing, the Licensee provided no explanation for its untimely filing of the Application.

3. Accordingly, on July 20, 2023, we released a *Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture (NAL)* that proposed a forfeiture of one thousand five hundred dollars (\$1,500).⁴ The *NAL* gave the Licensee thirty days to pay the full amount of the proposed forfeiture, or file a written statement seeking reduction or cancellation of the proposed forfeiture.⁵ To date, the Licensee has neither paid the proposed forfeiture nor filed a written statement in response to the *NAL*. A copy of the *NAL* was received by the Licensee on July 25, 2023.⁶

¹ Application of His Word Broadcasting Co. for Renewal of License, LMS File No. 0000180320 (filed Jan. 19, 2022) (Application).

² *Id.*

³ *Id.* §§ 73.1020, 73.3539(a).

⁴ *Glendive Broadcasting Corporation*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, DA 23-623 (MB July 20, 2023) (*NAL*).

⁵ *Id.* at para. 10.

⁶ A copy of the signed delivery receipt can be found under LMS File No. 0000180320.

III. DISCUSSION

4. The forfeiture amount proposed in this case was assessed in accordance with section 503(b) of the Communications Act of 1934, as amended (the Act),⁷ section 1.80 of the Rules,⁸ and the Commission's Forfeiture Policy Statement.⁹ In assessing forfeitures, section 503(b)(2)(E) of the Act requires that we take into account 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.¹⁰

5. The Application was due on December 1, 2021, but was not filed until January 19, 2022 – over one month late. The Licensee was afforded an opportunity to either pay or respond to the *NAL* pursuant to section 1.80 of the Rules,¹¹ but has failed to either pay the proposed forfeiture or seek reduction or cancellation of it within the time period set forth in the *NAL*. Accordingly, we conclude that the Licensee willfully violated section 73.3539 of the Rules and we issue a forfeiture in the amount of \$1,500 as proposed in the *NAL*.¹²

IV. ORDERING CLAUSES

6. **IT IS ORDERED**, pursuant to section 503(b) of the Communications Act of 1934, 47 U.S.C. § 503(b), as amended, and sections 0.283 and 1.80 of the Commission's rules, 47 CFR §§ 0.283 and 1.80, that Glendive Broadcasting Corporation, **IS LIABLE FOR A MONETARY FORFEITURE** in the amount of one thousand five hundred dollars (\$1,500) for its apparent willful violation of section 73.3539(a) of the Commission's rules, 47 CFR § 73.3539(a).

7. Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using the Commission's CORES (the Commission's online payment system),¹³ or by wire transfer. The Commission no longer accepts forfeiture payments by check or money order. Upon payment, Licensee must send notice that payment has been made to VideoNAL@fcc.gov. Below are instructions that payors should follow based on the form of payment selected:¹⁴

- 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

⁷ 47 U.S.C. § 503(b).

⁸ 47 CFR § 1.80.

⁹ *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).

¹⁰ 47 U.S.C. § 503(b)(2)(E).

¹¹ 47 CFR § 1.80(g)(3).

¹² We also reaffirm our prior statements in the *NAL* relating to the Station's Application and will proceed with grant by separate action upon the conclusion of this forfeiture proceeding if there are no issues other than those set forth in this *Forfeiture Order* that would preclude grant of the Application. *See NAL* at para. 8.

¹³ Payments made using the Commission's CORES system do not require the submission of an FCC Form 159.

¹⁴ 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.

type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN).¹⁵ 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. 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/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 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.

8. Requests for full payment of the forfeiture proposed in this *Order* under an installment plan should be sent to: Associate Managing Director-Financial Operations, 45 L Street, NE, Washington, DC 20554.¹⁶ 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.

9. **IT IS FURTHER ORDERED** that a copy of this *Forfeiture Order* shall be sent by First Class and Certified Mail, Return Receipt Requested, to Glendive Broadcasting Corporation, 210 South Douglas St. Glendive, Montana 59330 and by e-mail to andrew@kxgn.com and accounting@wbkb11.com. A copy shall also be sent to its counsel, David Oxenford, Esq., by e-mail to doxenford@wbklaw.com.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

¹⁵ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

¹⁶ See 47 CFR § 1.1914.



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 23-1050
November 3, 2023

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES
REGION 9 (FLORIDA) REGIONAL PLANNING COMMITTEES
TO HOLD 700 MHZ AND 800 MHZ MEETINGS

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

The Region 9 (Florida) 700 MHz and 800 MHz Regional Planning Committees (RPCs) will hold two consecutive virtual meetings on Tuesday, December 19, 2023. The Region 9 700 MHz meeting will begin at 1:00 p.m., via WebEx teleconference. The Region 9 800 MHz meeting will convene following the adjournment of the 700 MHz RPC meeting.

To participate in the Region 9 700 MHz and 800 MHz RPC meetings, go to www.webex.com (follow the join link at the top right of page, then use the below information);

- Webex Meeting ID# 2633 348 1675
- Password: R9rpc2023
- Dial in #: 408-792-6300

The general agenda items for the 700 and 800 MHz RPC meetings include (the final agenda will be provided at meeting):

- By-Laws and Amendments to the Regional Plans
- FCC & NRPC Updates
- General Status Report from the State of Florida DMS/Public Safety
- Concurrence Report for Regions 1, 10 & 23
- Review of Open Positions for Regional Officers and Sub Region Chair(s)

Both Region 9 meetings are open to the public. All public safety providers in Region 9 may utilize these 700 MHz and 800 MHz 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 and 800 MHz bands within Region 9 should plan to attend. For further information, please contact:

Jason Matthews
Chairperson
Lake County Sheriff's Office
360 West Ruby Street, Tavares, FL 32778
(352) 742-3940
jason.matthews@lcsso.org

Gary Gray
Vice-Chairperson
City of Fort Lauderdale Telecommunications
100 N. Andrews Ave.
Fort Lauderdale, FL 33301
(954) 828-5762
ggray@fortlauderdale.gov

- FCC -

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

In the Matter of	)	
	)	
Puget Sound Educational TV, Inc.	)	Facility ID No. 35419
	)	NAL/Acct. No. 202341420042
Licensee of Station KWDK(TV)	)	FRN: 0008778623
Tacoma, Washington	)	LMS File No. 0000201024

NOTICE OF APPARENT LIABILITY FOR FORFEITURE

Adopted: November 6, 2023

Released: November 6, 2023

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. The Media Bureau (Bureau) has before it the application (Application)¹ of Puget Sound Educational TV, Inc. (Licensee), for renewal of its license for noncommercial educational (NCE) television station KWDK(TV), Tacoma, Washington (Station or KWDK). In this *Notice of Apparent Liability for Forfeiture (NAL)*, we find the Licensee apparently willfully and repeatedly violated the Commission's rules (Rules) by failing to timely file the Station's quarterly issues/programs lists in violation of section 73.3527(e)(8) of the Rules.² Based upon our review of the facts and circumstances before us, we conclude that the Licensee is apparently liable for a monetary forfeiture in the amount of nine thousand dollars (\$9,000).

II. BACKGROUND

2. Section 73.3527(e)(8) of the Rules requires every NCE television licensee to place in its Online Public Inspection File (OPIF), on a quarterly basis, an issues/programs list that details programs that have provided the station's most significant treatment of community issues during the preceding three month period and must include a brief narrative of the issues addressed, as well as the time, date, duration, and title of each program in which the issues were treated.³ Issues/programs lists must be placed in the station's OPIF by the tenth day of the succeeding calendar quarter and copies must be retained until final action on the station's next license renewal application.⁴

3. On September 28, 2022, the Licensee filed its Application. The Licensee disclosed in the Application and a staff inspection of the Station's OPIF confirmed that the Licensee failed to upload a number of issues/programs lists by the deadline established in section 73.3527(e)(8) of the Rules.⁵ Specifically, it uploaded seven lists more than one year late, four lists between one month and one year

¹ Application of Puget Sound Educational TV, Inc. for Renewal of License, LMS File No. 0000201024 (filed Sep. 28, 2022; amended Oct. 4, 2023) (Application).

² 47 CFR § 73.3527(e)(8).

³ *Id.*

⁴ *Id.*

⁵ *Id.*

late, and one list between one day and one month late.⁶ In its Application, the Licensee stated that its failure to timely file these issues/programs lists was the result of “simple administrative oversight.”⁷

III. DISCUSSION

4. This NAL is issued pursuant to section 503(b)(1)(B) of the Communications Act of 1934, as amended (Act), 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.⁸ 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.⁹ 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,¹⁰ and the Commission has so interpreted the term in the section 503(b) context.¹¹ 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.”¹²

5. *Apparent Violation.* The Licensee admits that it did not upload in a timely manner to the Station’s OPIF copies of the Station’s issue/programs lists due to “simple administrative oversight.”¹³ In total, the Licensee failed to upload in a timely manner issues/programs lists for 12 quarters. These lists were between several days and over one-year late. We therefore find that the Licensee has apparently willfully and repeatedly violated section 73.3527(e)(8) of the Rules.¹⁴

6. *Proposed Forfeiture.* The Commission’s *Forfeiture Policy Statement* and section 1.80(b)(10) of the Rules establish a base forfeiture amount of \$10,000 for public file violations.¹⁵ 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.”¹⁶

7. In this case, the Licensee failed to timely upload to its OPIF copies of its issue/programs lists for 12 quarters, including filing seven lists over one year late, four lists between one month and one year late, and one list between one day and one month late in violation of section 73.3527(e)(8) of the Rules.¹⁷ While the Licensee indicates that its repeated failure to timely upload its issue/programs lists was “[d]ue to simple administrative oversight” we note that “employee acts or omissions, such as clerical

⁶ Application, Attach. Exhibit re Public File Discrepancies and Purpose of Amendment to License Renewal.

⁷ *Id.*

⁸ See 47 U.S.C. § 503(b)(1)(B); see also 47 CFR § 1.80(a)(2).

⁹ 47 U.S.C. § 312(f)(1).

¹⁰ See H.R. Rep. No. 97-765, at 51 (1982) (Conf. Rep.).

¹¹ See *Southern California Broadcasting Co.*, Memorandum Opinion and Order, 6 FCC Rcd 4387, 4388, para. 5 (1991) (*Southern California*), recon. denied, 7 FCC Rcd 3454 (1992).

¹² 47 U.S.C. § 312(f)(2).

¹³ Application, Attach. KWDC Exhibit re Public File Discrepancies.

¹⁴ See 47 CFR § 73.3527(e)(8).

¹⁵ 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, 17113-15 (1997) (*Forfeiture Policy Statement*), recon. denied, 15 FCC Rcd 303 (1999); 47 CFR § 1.80(b), paragraph (b)(10), Table 1.

¹⁶ 47 U.S.C. § 503(b)(2)(E). See also *Forfeiture Policy Statement*, 12 FCC Rcd at 17100-01; 47 CFR § 1.80(b)(10); 47 CFR § 1.80(b), paragraph (b)(10), Table 3.

¹⁷ See 47 CFR § 73.3527(e)(8).

errors in failing to file required forms, do not excuse violations.”¹⁸ Not only are Licensees responsible for the errors or oversights of their employees,¹⁹ but the Commission has also found that “inadvertence... is at best, ignorance of the law, which the Commission does not consider a mitigating circumstance.”²⁰ Taking into consideration all of the factors required by section 503(b)(2)(E) of the Act and the *Forfeiture Policy Statement*, we find that under the facts of this case a forfeiture in the amount of \$9,000 is appropriate for the Licensee’s apparent willful and repeated failure to timely upload its issues/programs lists.

8. *License Renewal Application.* In evaluating an application for license renewal, the Commission’s decision is governed by section 309(k) of the Act.²¹ That section provides that if, upon consideration of the application and pleadings, we find that: (1) the station has served the public interest, convenience, and necessity; (2) there have been no serious violations of the Act or the Rules; and (3) there have been no other violations which, taken together, constitute a pattern of abuse, we are to grant the renewal application.²² If, however, the licensee fails to meet that standard, the Commission may deny the application—after notice and opportunity for a hearing under section 309(e) of the Act—or grant the application “on terms and conditions as are appropriate, including renewal for a term less than the maximum otherwise permitted.”²³

¹⁸ *Standard Comm’cns Corp.*, Memorandum Opinion and Order, 1 FCC Rcd 358, 358, para. 4 (1986).

¹⁹ “Moreover, the Commission has long held that ‘licensees are responsible for the acts and omission of their employees and independent contractors,’ and has consistently ‘refused to excuse licensees from forfeiture penalties where the actions of employees or independent contractors have resulted in violations.’” *In the Matter of Heidelberg Coll.*, 24 F.C.C. Rcd. 11923, 11924–25 (2009) (quoting *Eure Family Limited Partnership*, Memorandum Opinion and Order, 17 FCC Rcd 21861, 21863-64 (2002)).

²⁰ *Southern California*, 6 FCC Rcd at 4387, para. 3.

²¹ 47 U.S.C. § 309(k).

²² 47 U.S.C. § 309(k)(1).

²³ 47 U.S.C. §§ 309(k)(2), (3).

9. We find that the Licensee's apparent violation of section 73.3527(e)(8) of the Rules does not constitute a "serious violation" warranting designation of the Application for evidentiary hearing. Moreover, we find no evidence of violations that, when considered together, constitute a pattern of abuse.²⁴ Further, based on our review of the Application, we find that the Station served the public interest, convenience, and necessity during the subject license term. We will therefore grant the Application by separate action upon the conclusion of this forfeiture proceeding if there are no issues other than those set forth in this *NAL* that would preclude grant of the Application.²⁵

IV. ORDERING CLAUSES

10. Accordingly, **IT IS ORDERED**, pursuant to section 503(b) of the Communications Act of 1934, as amended, 47 U.S.C. § 503(b), and sections 1.80 and 0.283(d) of the Commission's rules, 47 CFR §§ 1.80 and 0.283, that Puget Sound Educational TV, Inc., is hereby **NOTIFIED** of its **APPARENT LIABILITY FOR FORFEITURE** in the amount of nine thousand dollars (\$9,000) for its apparent willful and repeated violation of section 73.3527(e)(8) of the Commission's rules, 47 CFR § 73.3527(e)(8).

11. **IT IS FURTHER ORDERED** that, pursuant to section 1.80 of the Commission's rules, 47 CFR § 1.80, within thirty (30) days of the release date of this *NAL*, Puget Sound Educational TV, Inc., **SHALL PAY** 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),²⁶ or by wire transfer. Payments by check or money order to pay a forfeiture are no longer accepted. Upon payment, Licensee must send notice that payment has been made to VideoNAL@fcc.gov. Below are instructions that payors should follow based on the form of payment selected:²⁷

- 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).²⁸ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing->

²⁴ For example, we do not find here that the Licensee's Station operation "was conducted in an exceedingly careless, inept and negligent manner and that the licensee is either incapable of correcting or unwilling to correct the operating deficiencies." See *Heart of the Black Hills Stations*, Decision, 32 FCC 2d 196, 198, para. 6 (1971). Nor do we find on the record here that "the number, nature and extent" of the violations indicate that "the licensee cannot be relied upon to operate [the station] in the future in accordance with the requirements of its licenses and the Commission's Rules." *Id.* at 200, paras. 10-11. See also *Center for Study and Application of Black Econ. Dev.*, Hearing Designation Order, 6 FCC Rcd 4622 (1991); *Calvary Educ. Broad. Network, Inc.*, Hearing Designation Order, 7 FCC Rcd 4037 (1992).

²⁵ Our action today addresses known apparent violations from the date the prior license renewal application was granted through the adoption date of this item. Any violations that are discovered or may occur following the adoption date of this item and prior to the grant of the current Application would be separate violations and potentially subject to additional Commission action.

²⁶ Payments made using CORES do not require the submission of an FCC Form 159.

²⁷ 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.

²⁸ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

[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.²⁹ The written response must be filed with the Office of the Secretary, Federal Communications Commission, 45 L Street, NE, Washington, DC 20554, ATTN: Barbara A. Kreisman, Chief, Video Division, Media Bureau, and **MUST INCLUDE** the NAL/Acct. No. referenced above. A courtesy copy must also be emailed to VideoNAL@fcc.gov to assist in processing the response.

- 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.
 - 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-19.³⁰

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

²⁹ 47 CFR §§ 1.16 and 1.80(g)(3).

³⁰ See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788 (2020).

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 47 U.S.C. § 503(b)(2)(E) support that result.³¹

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 20554.³² 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 Puget Sound Educational TV, Inc., 3901 Highway 121 South Bedford, Texas 76021, and to its counsel, Mark Denbo, Esq., via e-mail to mdenbo@fccworld.com.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

³¹ See, e.g., *Adrian Abramovich*, Forfeiture Order, 33 FCC Rcd 4663, 4678-79, paras. 44-45 (2018).

³² See 47 CFR § 1.1914.



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 23-1052

Released: November 6, 2023

NOTICE OF DOMESTIC SECTION 214 AUTHORIZATION GRANTED

WC Docket No. 23-321

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
Pay Tel Communications, Inc. to Pay Tel Communications ESOP Trust
WC Docket No. 23-321, Public Notice, DA 23-934 (WCB 2023).

Effective Grant Date: November 5, 2023

For further information, please contact Tracey Wilson at (202) 418-1394 or Dennis Johnson at (202) 418-0809, 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).

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

In the Matter of	)	
	)	
Amendment of Section 73.622(j), Table of	)	MB Docket No. 23-380
Allotments, Television Broadcast Stations	)	RM-11968
(Missoula, Montana)	)	

NOTICE OF PROPOSED RULEMAKING

Adopted: November 7, 2023

Released: November 7, 2023

Comment Date: [30 days after date of publication in the Federal Register]

Reply Comment Date: [45 days after date of publication in the Federal Register]

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. The Video Division, Media Bureau (Bureau), has before it a petition for rulemaking filed August 16, 2023, by Sinclair Media Licensee, LLC (Petitioner or Sinclair), the licensee of KECI-TV, channel 13, Missoula, Montana (Station or KECI-TV).¹ As discussed below, the Station is currently operating on channel 13 and Sinclair successfully petitioned to have its channel changed from channel 13 to channel 20. The Petitioner now requests the substitution of channel 21 for channel 20 at Missoula, Montana (Missoula) in the Table of TV Allotments.

II. BACKGROUND

2. In 2021, the Bureau granted Sinclair's request to substitute UHF channel 20 for VHF channel 13 at Missoula,² and Sinclair currently holds a construction permit to modify its facility to operate on channel 20.³ While the adopted channel 20 noise limited service contour (NLSC) did not completely encompass the relevant channel 13 NLSC,⁴ the Bureau found there would only be a loss of service to approximately 65 persons, a number the Commission considers *de minimis*.⁵ In addition, the adopted channel 20 facility is predicted to serve a total of 252,689 persons, a net gain of 38,879 potential viewers over the existing KECI-TV channel 13 facility.⁶

¹ Petition of Sinclair Media Licensee, LLC for Rulemaking (filed Aug. 16, 2023), LMS File No. 0000219405 (Petition).

² *Amendment of Section 73.622(j), Table of Allotments, Television Broadcast Stations (Missoula, Montana)*, MB Docket No. 21-176, Report and Order, 36 FCC Rcd 11180 (MB 2021) (*Channel 20 R&O*).

³ LMS File No. 0000156965, granted Mar. 31, 2022.

⁴ The Bureau used the technical parameters of KECI-TV's original post-transition digital channel 13 facility in determining predicted loss from the proposed channel 20 substitution. *Channel 20 R&O*, 36 FCC Rcd at 11181, n.5.

⁵ *Id.* at para. 2, citing *WSET, Inc.*, 80 FCC 2d 233, 246 (1980) (finding that population loss of less than 500 persons is *de minimis*).

⁶ *Channel 20 R&O*, 36 FCC Rcd at 11181, para. 2.

3. Sinclair simultaneously had requested and was granted the substitution of UHF channel 20 for VHF channel 6 for co-owned station KTVM-TV, Butte, Montana (Butte) (KTVM-TV).⁷ As a result, both KTVM-TV and KECI-TV would operate on a co-channel basis. Sinclair had determined that predicted interference from both stations operating on channel 20 would affect less than 1 percent of the populations within the noise limited service contours (NLSC).⁸

4. The Petitioner now requests that we substitute channel 21 for channel 20 for KECI-TV, stating that in preparing to construct the new facilities on channel 20, “local engineering staff . . . realized that the ‘real-world’ interference consequences of [both stations] operating on [c]hannel 20 would result in a significant number of persons receiving interference, a greater impact than was realized when the *TVStudy* analyses had been done”⁹ The Petitioner went on to state that “such interference would not be localized, but rather would be spread throughout large portions of the Missoula and Butte service areas.”¹⁰ An analysis provided by the Petitioner using the Commission’s *TVStudy* software tool indicates that operation of KECI-TV on channel 21 instead of channel 20 would result in an estimated 40,481 additional persons within the Station’s NLSC being able to receive the Station’s signal.¹¹ This is an increase of 1,602 person over the population that would be served if the Station were to remain on channel 20.

III. DISCUSSION

5. We believe that the Petitioner’s channel substitution proposal for KECI-TV warrants consideration. Channel 21 can be substituted for channel 20 at Missoula, Montana, as proposed, in compliance with the principal community coverage requirements of section 73.625(a) of the Commission’s Rules (rules),¹² at coordinates 47-01'-04.0" N. and 114-00'-50.0" W. In addition, we find that this channel change meets the technical requirements set forth in sections 73.616 and 73.623 of the rules.¹³ The proposed channel substitution would not cause any additional loss of service, but would increase the population served within KECI-TV’s NLSC, as well as within KTVM-TV’s NLSC, by resolving co-channel interference issues caused by the stations’ approved co-channel operation.

⁷ *Amendment of Section 73.622(j), Table of Allotments, Television Broadcast Stations (Butte, Montana)*, MB Docket No. 21-185, Report and Order, 36 FCC Rcd 11183 (MB 2021). Sinclair holds a construction permit to build a channel 20 facility for KTVM-TV at Butte. LMS File No. 0000157471 (granted Aug. 18, 2021).

⁸ Petition at 1-2.

⁹ *Id.* at 2.

¹⁰ *Id.*

¹¹ Likewise, an estimated 1,647 additional persons within the KTVM-TV NLSC would be able to receive that station on channel 20 as a result of KECI-TV changing to channel 21 instead of channel 20. *Id.* at n.6 and Engineering Statement at 2.

¹² 47 CFR § 73.625(a). The Commission recently amended its rules to create a new section 73.618 (Antenna location and principal community coverage), which relocates, verbatim, the language from section 73.625(a) (DTV coverage of principal community and antenna system). See *Amendment of Part 73 of the Commission’s Rules to Update Television and Class A Television Broadcast Station Rules, and Rules Applicable to All Broadcast Stations*, MB Docket No. 22-227, Report and Order, FCC 23-72 at para. 37 (rel. Sept. 19, 2023) (*Part 73 Amendment R&O*). The amended rules are not effective as of the date of release of this Notice of Proposed Rulemaking, and, as such, we continue to make reference to 47 CFR § 73.625(a).

¹³ 47 CFR §§ 73.616, 73.623. The Commission also recently amended its rules, including combining parts of sections 73.616(a) (Post-transition DTV station interference protection), 73.622(a), and 73.623(a) into one rule that includes all requirements for modifying a television allotment, modified section 73.622(a) (Table of TV allotments). *Part 73 Amendment R&O* at para. 38. The adopted order also relocated section 73.616(c), specifying the protected facilities of TV allotments, to new section 73.619(d). *Part 73 Amendment R&O* at para. 37. As these rule changes are not yet effective, we continue to make reference to 47 CFR §§ 73.616 and 73.623.

6. We propose to substitute channel 21 for channel 20 for KECI-TV at Missoula with the following specifications:

<u>City and State</u>	<u>DTV Channel</u>	<u>DTV Power (kW)</u>	<u>Antenna HAAT (m)</u>
Missoula, Montana	21	950	610

7. Accordingly, we seek comment on the proposed amendment of the Table of TV Allotments, section 73.622(j) of the rules,¹⁴ for the community listed below, to read as follows:¹⁵

<u>City and State</u>	<u>Channel No.</u>	
	<u>Present</u>	<u>Proposed</u>
Missoula, Montana	*11, 20, 23, 25	*11, 21, 23, 25

IV. PROCEDURAL MATTERS

8. *Showings Required.* Comments are invited on the proposal discussed in this Notice of Proposed Rulemaking (*NPRM*). The Petitioner or any proponent that expresses interest in the allotment will be expected to answer whatever questions are presented in initial comments. The petitioner of a proposed allotment is required to file comments even if it only resubmits or incorporates by reference its former pleadings. The petitioner must restate its present intention to apply for the channel if it is allotted and, if authorized, to build a station promptly.¹⁶ Failure to file may lead to denial of the request. Any requests by a proponent for withdrawal or dismissal of an allotment request must be filed with the Commission in accordance with section 1.420(j) of the rules.¹⁷

9. *Cut-off Protection.* The following procedures will govern the consideration of the filings in this proceeding:

- (a) Counterproposals advanced in this proceeding itself will be considered, if advanced in initial comments, so that parties may comment on them in reply comments. They will not be considered if advanced in reply comments.¹⁸
- (b) The filing of a counterproposal may lead the Commission to allot a different channel than was requested in the Petition.¹⁹

10. *Comments and Reply Comments.* Pursuant to sections 1.415, 1.419, and 1.420 of the rules,²⁰ interested parties may file comments and reply comments on or before the dates indicated on the

¹⁴ 47 CFR § 73.622(j).

¹⁵ The Office of the Federal Register maintains a daily codification of the Code of Federal Regulations content on eCFR.gov. See <https://www.ecfr.gov/reader-aids/government-policy-and-ofr-procedures/about-this-site>. Currently, eCFR.gov does not accurately reflect the channels allotted to Missoula, as it inaccurately lists channel 7 at that community. However, effective December 15, 2022, section 73.622(j) of the rules was amended to substitute channel 7 for channel 25 at Missoula. See *Amendment of Section 73.622(j), Table of Allotments, Television Broadcast Stations (Missoula, Montana)*, MB Docket No. 22-116, Report and Order, DA 22-1233 (rel. Nov. 29, 2022), 86 Fed. Reg. 76582 (Dec. 15, 2022). We therefore refer to channel 25 for purposes of this rulemaking.

¹⁶ See, e.g., *Buffalo, Iola, Normangee, and Madisonville, Texas*, MB Docket No. 07-729, Report and Order, 24 FCC Rcd 8192, 8194, para. 9 (MB 2009).

¹⁷ 47 CFR § 1.420(j).

¹⁸ 47 CFR § 1.420(d).

¹⁹ 47 CFR § 1.420(g)(2).

²⁰ 47 CFR §§ 1.415, 1.419, and 1.420.

first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS).²¹

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>. Parties that choose to file electronically only need to submit one copy of each filing so long as the submission conforms to all procedural and filing requirements. Online filing is optional.
- 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 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. Any paper filing that is not addressed to the Office of the Secretary will be treated as filed on the day it is received in the Office of the Secretary. Accordingly, failure to follow the specified requirements may result in the treatment of a filing as untimely.
 - 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 D.C. 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-19.²²
 - During the time the Commission's building is closed to the general public and until further notice, if more than one docket or rulemaking number appears in the caption of a proceeding, paper filers need not submit two additional copies for each additional docket or rulemaking number; an original and one copy are sufficient.

11. *Service.* Pursuant to section 1.420 of the rules,²³ all submissions by parties to this proceeding or by persons acting on behalf of such parties must be made in written comments, reply comments, or other appropriate pleadings. The person filing the comments shall serve comments on the petitioners. Reply comments shall be served on the person(s) who filed comments to which the reply is directed. A certificate of service shall accompany such comments and reply comments.²⁴ Additionally, a copy of such comments should be served on counsel for petitioner, as follows:

Paul A. Cicelski, Esq.
Lerman Senter PLLC
2001 L Street, NW
Washington, D.C. 20036

12. *Ex Parte Notices—Restricted.* The proceeding this Notice initiates shall be treated as a “restricted” proceeding in accordance with the Commission's *ex parte* rules.²⁵ For purposes of this restricted notice and comment rulemaking proceeding, members of the public are advised that no *ex parte* presentations are permitted from the time the Commission adopts a notice of proposed rulemaking until the proceeding has been decided and such decision in the applicable docket is no longer subject to

²¹ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

²² See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788 (2020).

²³ 47 CFR § 1.420.

²⁴ See 47 CFR § 1.420(a), (b) and (c).

²⁵ 47 CFR §§ 1.1200 *et seq.*

reconsideration by the Commission or review by any court.²⁶ An *ex parte* presentation is not prohibited if specifically requested by the Commission or staff for the clarification or adduction of evidence or resolution of issues in the proceeding.²⁷ However, any new written information elicited from such a request or any summary of any new information shall be served by the person making the presentation upon the other parties to the proceeding in a particular docket unless the Commission specifically waives this service requirement.²⁸ Any comment that has not been served on the petitioner constitutes an *ex parte* presentation and shall not be considered in the proceeding. Any reply comment which has not been served on the person(s) who filed the comment, to which the reply is directed, constitutes an *ex parte* presentation and shall not be considered in the proceeding.

13. *Providing Accountability Through Transparency Act.* The Providing Accountability Through Transparency Act requires each agency, in providing notice of a rulemaking, to post online a brief plain-language summary of the proposed rule.²⁹ Accordingly, the Commission will publish the required summary of this Notice of Proposed Rulemaking on <https://www.fcc.gov/proposed-rulemakings>.

14. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be available for public inspection via ECFS (<http://apps.fcc.gov/ecfs/>). Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

15. *Paperwork Reduction and Regulatory Flexibility.* The Commission has determined that the relevant provisions of the Regulatory Flexibility Act of 1980, as amended,³⁰ do not apply to a rulemaking proceeding to amend the Table of TV Allotments, section 73.622(j) of the rules.³¹ This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995.³² In addition, therefore, it does not contain any proposed information collection burden “for small business concerns with fewer than 25 employees,” pursuant to the Small Business Paperwork Relief Act of 2002.³³

16. *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).

17. *Additional Information.* For further information concerning the proceeding listed above, contact Joyce Bernstein, Video Division, Media Bureau, <mailto:Joyce.Bernstein@fcc.gov>.

²⁶ 47 CFR § 1.1208.

²⁷ 47 CFR § 1.1204(a)(10).

²⁸ 47 CFR § 1.1204(a)(10)(ii). In addition, an oral presentation in a restricted proceeding not designated for hearing requesting action by a particular date or giving reasons that a proceeding should be expedited other than the need to avoid administrative delay is permitted. A detailed summary of the presentation must be filed in the record and served by the person making the presentation on the other parties to the proceeding, who may respond in support or opposition to the request for expedition, including by oral *ex parte* presentation, subject to the same service requirement. 47 CFR § 1.1204(a)(11).

²⁹ 5 U.S.C. § 553(b)(4). The Providing Accountability Through Transparency Act, Pub. L. No. 118-9 (2023), amended section 553(b) of the Administrative Procedure Act.

³⁰ See 5 U.S.C. § 603. The RFA, see 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. 857 (1996). The SBREFA was enacted as Title II of the Contract with America Advancement Act of 1996 (CWAAA).

³¹ 47 CFR § 73.622(j).

³² See 44 U.S.C. §§ 3501-3520.

³³ See 44 U.S.C. § 3506(c)(4).

V. ORDERING CLAUSES

18. **IT IS ORDERED** that, pursuant to authority found in 47 U.S.C. sections 4(i), 5(c)(1), 303(g) and (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 PROPOSED TO AMEND** the Table of TV Allotments, section 73.622(j) of the rules, 47 CFR § 73.622(j), as set forth in this *NPRM*, and this *NPRM* **IS ADOPTED**.

19. **IT IS FURTHER ORDERED** that, pursuant to applicable procedures set forth in sections 1.415, 1.419, 1.420 of the rules, 47 CFR §§ 1.415, 1.419, and 1.420, interested parties may file comments, including counterproposals, on the *NPRM* in MB Docket No. 23-380 and RM-11968 on or before thirty (30) days after publication in the Federal Register and reply comments on or before forty five (45) days after publication in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

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

In the Matter of	)	
	)	
Amendment of Section 73.622(j),	)	MB Docket No. 23-286
Table of Allotments, Television Broadcast	)	RM-11960
Stations (Winnemucca, Nevada)	)	

**REPORT AND ORDER
(Proceeding Terminated)**

Adopted: November 7, 2023

Released: November 7, 2023

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 Petition for Rulemaking filed by Gray Television Licensee, LLC (Petitioner or Gray),² the licensee of unbuilt television station KWNV(DT) (KWNV or Station), channel 7, Winnemucca, Nevada (Winnemucca). The Petitioner has requested the substitution of UHF channel 16 for VHF channel 7 in the Table of TV Allotments.³ The Petitioner filed comments in support of the petition, as required by the Commission's rules (rules),⁴ reaffirming its commitment to apply for channel 16.⁵ No other comments were received.

2. We conclude that the public interest would be served by substituting channel 16 for channel 7 at Winnemucca. In support of its channel substitution request, Gray states that building out its new station on a UHF channel will avoid well-documented issues with indoor digital VHF reception.⁶ Gray observes that the Commission has recognized the deleterious effects manmade noise has on the reception of VHF channel signals, and the large variability in the performance of indoor antennas receiving UHF and VHF signals, with the substantial majority poorly receiving high-VHF channel signals compared to UHF channel signals.⁷

3. We also find that the proposal complies with all relevant technical requirements for amendment of the Table of TV Allotments, including the interference protection requirements of section 73.616 of the rules,⁸ and further demonstrates that the proposed channel 16 facility will provide full

¹ *Amendment of Section 73.622(j), Table of Allotments, Television Stations (Winnemucca, Nevada)*, MB Docket No. 23-286, Notice of Proposed Rulemaking, DA 23-749 (rel. Aug. 22, 2023) (*NPRM*).

² Petition of Gray Television Licensee, LLC for Rulemaking (filed June 15, 2023 and amended on Aug. 8, 2023 to include a portion of the filing which was inadvertently omitted) on file at LMS File No. 0000195678 (Petition).

³ 47 CFR § 73.622(j).

⁴ 47 CFR §§ 1.415, 1.419; *see also Buffalo, Iola, Normangee, and Madisonville, Texas*, MB Docket No. 07-279, Report and Order, 24 FCC Rcd 8192, 8194, para. 9 (MB 2009).

⁵ *NPRM* at para. 2.

⁶ *Id.* Gray was granted a construction permit for this station on September 13, 2022 (LMS File No. 0000195678).

⁷ *NPRM* at para. 2.

⁸ 47 CFR § 73.616. The Commission recently amended its rules, including combining parts of sections 73.616(a) (Post-transition DTV station interference protection), 73.622(a), and 73.623(a) into one rule that includes all requirements for modifying a television allotment, modified section 73.622(a) (Table of TV allotments). *See* (continued....)

principal community coverage to Winnemucca.⁹ In addition, proposed channel 16 noise limited service contour (NLSC) almost entirely encompasses the authorized channel 7 NLSC, and Gray does not propose a change in transmitter location.¹⁰ We also note that no viewers will lose any existing service because as a permittee, Gray has not commenced operations in Winnemucca.

4. As proposed, channel 16 can be substituted for channel 7 at Winnemucca in compliance with the principal community coverage requirements of section 73.625(a) of the rules,¹¹ at coordinates 41° 00' 31.0" N and 117° 46' 13.0" W. In addition, we find that this channel change meets the technical requirements set forth in sections 73.616 and 73.623 of the rules with the following specifications:¹²

<u>City and State</u>	<u>Channel</u>	<u>Power (kW)</u>	<u>Antenna</u>	<u>HAAT (m)</u>	<u>Service Pop.</u>
Winnemucca, Nevada	16	20	651		21,494

5. 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.¹³ An expedited effective date is necessary in this case to ensure that KWNV can operate with improved service to its viewers as quickly as possible.

6. 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 ORDERED**, That effective immediately upon the date of publication in the Federal Register, the Table of 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 No.</u>
Winnemucca, Nevada	16

7. **IT IS FURTHER ORDERED**, That within 10 days of the effective date of this Order, Gray Television Licensee, LLC shall submit to the Commission a minor change application for a construction permit (Form 2100, Schedule A) specifying channel 16.

8. **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.

9. **IT IS FURTHER ORDERED**, That should no petitions for reconsideration or petitions

Amendment of Part 73 of the Commission's Rules to Update Television and Class A Television Broadcast Station Rules, and Rules Applicable to All Broadcast Stations, MB Docket No. 22-227, Report and Order, FCC 23-72 at para. 38 (rel. Sept. 19, 2023) (*Part 73 Amendment R&O*). The *Part 73 Amendment R&O* also relocated section 73.616(c), specifying the protected facilities of TV allotments, to new section 73.619(d). *Part 73 Amendment R&O* at para. 37. The amended rules are not effective as of the date of release of this *Report and Order* and as such we continue to make reference to the rules as currently numbered.

⁹ See 47 CFR § 73.625(a). The Commission also recently amended its rules to create a new section 73.618 (Antenna location and principal community coverage), which relocates, verbatim, the language from section 73.625(a) (DTV coverage of principal community and antenna system). *Part 73 Amendment R&O* at para. 37. As the amended rules are not yet effective, we continue to make reference to 47 CFR § 73.625(a).

¹⁰ *NPRM* at para. 2; Petition, Engineering Statement at 1-2. Gray proposes an increase in ERP from one kW to 20 kW and in HAAT from 649 to 651 meters. Petition, Engineering Statement at 1-2.

¹¹ 47 CFR § 73.625(a).

¹² 47 CFR §§ 73.616, 73.623.

¹³ 5 U.S.C. § 553(d)(3).

for judicial review be timely filed, MB Docket No. 23-286 and RM-11960 **SHALL BE TERMINATED** and its docket closed.

10. For further information concerning the proceeding listed above, contact Joyce L. Bernstein, Video Division, Media Bureau, Joyce.Bernstein@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

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

In the Matter of	)	
	)	
Amendment of Section 73.622(j),	)	MB Docket No. 23-287
Table of Allotments, Television Broadcast	)	RM-11961
Stations (Idaho Falls, Idaho)	)	

**REPORT AND ORDER
(Proceeding Terminated)**

Adopted: November 7, 2023

Released: November 7, 2023

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 Petition for Rulemaking filed by NPG of Idaho, Inc. (Petitioner),² the licensee of station KIFI-TV (KIFI or Station), channel 8, Idaho Falls, Idaho (Idaho Falls). The Petitioner has requested the substitution of UHF channel 18 for VHF channel 8 in the Table of TV Allotments.³ The Petitioner filed comments in support of the petition, as required by the Commission's rules (rules),⁴ reaffirming its commitment to apply for channel 18.⁵ No other comments were received.

2. We conclude that the public interest would be served by substituting channel 18 for channel 8 at Idaho Falls, Idaho. In support of its channel substitution request, the Petitioner states that KIFI has received numerous complaints about reception of its channel 8 facility since the end of the DTV transition in 2009, and that the channel substitution will serve the public interest by resolving the reception issues currently experienced by viewers in the Station's service area and expanding the availability of reliable, free over-the-air network television service within the Station's market. In this regard, the Petitioner notes that the Commission has recognized that VHF channels pose challenges in providing digital television service, including propagation characteristics in the band that allow undesired signals and noise to interfere at relatively farther distances compared to UHF channels, and for nearby electrical devices to cause interference.⁶ Therefore, many current viewers within the Station's noise limited service contour who do not currently receive the Station will be able to do so once the channel substitution is implemented.⁷ Moreover, when using the Commission's *TVStudy* software tool, the proposed channel 18 facility will create a predicted service loss of only 327 persons, which the Petitioner asserts is *de minimis*.⁸

¹ *Amendment of Section 73.622(j), Table of Allotments, Television Stations (Idaho Falls, Idaho)*, MB Docket No. 23-287, Notice of Proposed Rulemaking, DA 23-750 (rel. Aug. 23, 2023) (*NPRM*).

² Petition of NPG of Idaho, Inc. for Rulemaking (filed June 15, 2023) on file at LMS File No. 0000216788 (Petition).

³ 47 CFR § 73.622(j).

⁴ 47 CFR §§ 1.415, 1.419; *see also Buffalo, Iola, Normangee, and Madisonville, Texas*, MB Docket No. 07-729, Report and Order, 24 FCC Rcd 8192, 8194, para. 9 (MB 2009).

⁵ *NPRM* at para. 2.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*; Petition at 4, n.4 and Technical Exhibit at 3-4 and Figure 1.

3. As proposed, channel 18 can be substituted for channel 8 at Idaho Falls in compliance with the principal community coverage requirements of section 73.625(a) of the rules,⁹ at coordinates 43° 30' 04.0" N and 112° 39' 46.0" W.¹⁰ In addition, we find that this channel change meets the technical requirements set forth in sections 73.616 and 73.623 of the rules with the following specifications. Although the Petitioner's proposal would result in a loss of programming to a limited number of viewers, we find that the overall benefits of the proposed channel change in resolving reception issues outweighs any possible harm to the public interest. When taking into account terrain, the Petitioner's proposal would result in a loss of service to 327 persons, which the Commission considers to be a *de minimis* loss of service.¹¹ In addition, the proposed channel change meets the technical requirements set forth in sections 73.616 and 73.623 of the rules with the following specifications:¹²

<u>City and State</u>	<u>Channel</u>	<u>Power (kW)</u>	<u>Antenna HAAT (m)</u>	<u>Service Pop.</u>
Idaho Falls, Idaho	18	500	444	314,687

4. 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.¹³ An expedited effective date is necessary in this case to ensure that KIFI can operate with improved service to its viewers as quickly as possible.

5. 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 ORDERED**, That effective immediately upon the date of publication in the Federal Register, the Table of 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 No.</u>
Idaho Falls, Idaho	18, 20, 36

6. **IT IS FURTHER ORDERED**, That within 10 days of the effective date of this Order, NPG of Idaho, Inc. shall submit to the Commission a minor change application for a construction permit (Form 2100, Schedule A) specifying channel 18.

7. **IT IS FURTHER ORDERED**, That pursuant to section 801(a)(1)(A) of the

⁹ 47 CFR § 73.625(a). The Commission recently amended its rules to create a new section 73.618 (Antenna location and principal community coverage), which relocates, verbatim, the language from section 73.625(a) (DTV coverage of principal community and antenna system). *See Amendment of Part 73 of the Commission's Rules to Update Television and Class A Television Broadcast Station Rules, and Rules Applicable to All Broadcast Stations*, MB Docket No. 22-227, Report and Order, FCC 23-72 at para. 37 (rel. Sept. 19, 2023) (*Part 73 Amendment R&O*). The amended rules are not effective as of the date of release of this Report and Order and as such we continue to make reference to 47 CFR § 73.625(a).

¹⁰ Gray does not propose a change in its currently authorized transmitter location. *NPRM* at 2. It does propose a slight increase in ERP for its proposed channel 16 facility. *Id.*

¹¹ *See WSET, Inc.*, 80 FCC 2d 233, 246 (1980) (finding loss population of approximately 556 persons to be *de minimis*).

¹² 47 CFR §§ 73.616, 73.623. The Commission also recently amended its rules, including combining parts of sections 73.616(a) (Post-transition DTV station interference protection), 73.622(a), and 73.623(a) into one rule that includes all requirements for modifying a television allotment, modified section 73.622(a) (Table of TV allotments). *Part 73 Amendment R&O* at para. 38. The adopted order also relocated section 73.616(c), specifying the protected facilities of TV allotments, to new section 73.619(d). *Part 73 Amendment R&O* at para. 37. As such we continue to make reference to 47 CFR §§ 73.616 and 73.623.

¹³ 5 U.S.C. § 553(d)(3).

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.

8. **IT IS FURTHER ORDERED**, That should no petitions for reconsideration or petitions for judicial review be timely filed, MB Docket No. 23-287 and RM-11961 **SHALL BE TERMINATED** and its docket closed.

9. For further information concerning the proceeding listed above, contact Joyce L. Bernstein, Video Division, Media Bureau, Joyce.Bernstein@fcc.gov.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

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

In the Matter of	)	
	)	
Iglesia Refugio, Sanidad y Adoración	)	Facility ID No. 194728
WODB-LP, Caguas, Puerto Rico	)	Application File Nos. 83542, 105627
Application for Renewal of License	)	

MEMORANDUM OPINION AND ORDER

Adopted: November 13, 2023

Released: November 13, 2023

By the Chief, Audio Division, Media Bureau

I. INTRODUCTION

1. We have before us an application (Renewal Application) filed by Iglesia Refugio, Sanidad y Adoración (Iglesia Refugio) to renew the license of low power FM (LPFM) station, WODB-LP, Caguas, Puerto Rico (Station).¹ Also before us is a Petition to Deny (Petition) the Renewal Application filed by Miguel A. Meléndez (Petitioner).² For the reasons discussed below, we grant in part and otherwise deny the Petition, and adopt the attached Consent Decree, which resolves issues raised during our review of the Renewal Application and the Petition.

II. BACKGROUND

2. Iglesia Refugio timely filed the Renewal Application, which included a certification that, during the preceding license term, the Station had not been silent for any period of more than 30 days.³ Petitioner then filed the Petition, which alleges (1) the Station was silent between April 13, 2016, and July 9, 2016,⁴ (2) Iglesia Refugio failed to notify the Commission of changes to its board of directors,⁵ (3) Iglesia Refugio failed to adhere to its pledge to maintain and staff a main studio for the Station,⁶ (4) Iglesia Refugio no longer qualified as local to Caguas,⁷ (5) the Station ceased serving the public interest when it stopped airing “live programming” in July 2016,⁸ and (3) the Station never had Emergency Alert System (EAS) equipment and never performed any EAS tests.⁹

¹ See Application File No. 83452 (Renewal Application). Iglesia Refugio amended the Renewal Application on February 7, 2020. See Application File No. 105627 (Amendment). The Amendment changed (1) the address and email listed in the Applicant Information section, and (2) the legal representative listed in Contact Representatives section from Miguel Meléndez to Jacqueline Contés-Santiago.

² See Pleading File Nos. 94017, 105760 (Petition). Petitioner initially filed the Petition on December 23, 2019. He refiled the Petition on February 20, 2020, after the Amendment was filed.

³ Renewal Application, AM/FM/LPFM Certification, Adherence to Minimum Operating Schedule Item.

⁴ Petition at 1.

⁵ *Id.* at 1.

⁶ *Id.* at 2.

⁷ *Id.* at 3, 4.

⁸ *Id.* at 3.

⁹ *Id.*

3. On January 20, 2022, we sent a Letter of Inquiry (LOI) to Iglesia Refugio.¹⁰ The LOI requested information about Iglesia Refugio's organizational status and board of directors. It also requested information about the Station's operational status and compliance with the Commission's EAS requirements. Iglesia Refugio submitted a response to the LOI on February 18, 2022 (LOI Response),¹¹ and Petitioner filed a reply to the LOI Response (Reply) on February 20, 2022.¹²

III. DISCUSSION

4. *Unauthorized Transfer of Control; Unauthorized Assignment.* We find that Iglesia Refugio violated section 310(d) of the Communications Act of 1934, as amended (Act) on two occasions. Specifically, an unauthorized transfer of control of the Station occurred when Iglesia Refugio "joined together" with another church (Casa de Encuentro con Dios Church) on July 17, 2016, and the two churches began jointly operating the Station.¹³ Then, an unauthorized assignment of the Station occurred either on November 25, 2018 (when the merged churches registered with the Department of State of Puerto Rico as a new non-profit organization, Ministerio Internacional Casa de Encuentro Con Dios Inc.),¹⁴ or on June 16, 2020, when, at Iglesia Refugio's request, the Government of Puerto Rico terminated its corporate existence.¹⁵ These violations of section 310(d) of the Act are addressed in the Consent Decree.

5. *Board Turnover.* We find no merit to Petitioner's argument that Iglesia Refugio was required to notify the Commission about changes to its board of directors that occurred in 2016 and 2017.¹⁶ Iglesia Refugio indicates that from November 5, 2013, until March 2, 2016, its board consisted of six individuals: Jacqueline Contés Santiago, Cecilia Ortiz Cotto, Miguel Meléndez Marrero, Iris M. Rivera Rodríguez, Christian Meléndez, and Claribel Meléndez Maldonado.¹⁷ Iglesia Refugio states that, on March 2, 2016, Miguel Meléndez Marrero and Iris M. Rivera Rodríguez left the board.¹⁸ Then, in July 2016, Cecilia Ortiz Cotto left the board. Finally, in 2017, Claribel Meléndez Maldonado left the board.¹⁹ Under Section 73.865(d) of the Commission's rules (Rules), only notice of "[s]udden majority board changes" must be submitted to the Commission. Notice of gradual changes to an LPMF licensee's board—such as the changes to Iglesia Refugio's board—is not required. This is true even when, as they did in this case, those changes eventually result in a change in the majority of the board's membership.

6. *Local Status.* We reject Petitioner's allegation that Iglesia Refugio moved its headquarters to the village of Juncos and therefore failed to maintain its status as a local organization

¹⁰ Letter from Albert Shuldiner, Chief, Audio Division, Media Bureau, to Jacqueline Contés-Santiago, Iglesia Refugio, Sanidad y Adoración, Application File Nos. 83542, 105627 (dated Jan. 20, 2022).

¹¹ See Letter from Jaqueline Contés to Secretary, FCC, Application File Nos. 83542, 105627 (rec'd Feb. 18, 2022) (LOI Response).

¹² Letter from Miguel A. Meléndez to Secretary, FCC, Application File Nos. 83542, 105627 (rec'd Feb. 20, 2022) (Reply).

¹³ LOI Response at 3.

¹⁴ Puerto Rico Department of State, Registry of Corporations and Entities, Corporation Information (Register No. 418969), <https://rceweb.estado.pr.gov/en/entity-information?c=418969-121> (last visited Sept. 5, 2023). This organization is now referred to as Betel Casa de Encuentro con Dios Inc.

¹⁵ Puerto Rico Department of State, Registry of Corporations and Entities, Corporation Information (Register No. 49283), <https://rceweb.estado.pr.gov/en/entity-information?c=49283-121> (last visited Sept. 5, 2023).

¹⁶ Petition at 1.

¹⁷ LOI Response at 3.

¹⁸ *Id.*

¹⁹ *Id.*

eligible to hold an LPFM license.²⁰ Under section 73.853(b) of the Rules, there are two ways for a non-profit organization to demonstrate that it is local and thus eligible to hold an LPFM license. The organization must show that (1) it, its local chapter or a branch is “physically headquartered or has a campus within 16.1 km (10 miles) of the proposed site for the transmitting antenna for applicants in the top 50 urban markets, and 32.1 km (20 miles) for applicants outside of the top 50 urban markets, or (2) “[i]t has 75% of its board members residing within 16.1 km (10 miles) of the proposed site for the transmitting antenna for applicants in the top 50 urban markets, and 32.1 km (20 miles) for applicants outside of the top 50 urban markets.”²¹ Iglesia Refugio established that it was local by demonstrating that all of its board members resided within 20 miles of the Station’s transmitter site.²² Thus, the change in the location of Iglesia Refugio’s headquarters that Petitioner alleges occurred²³ did not affect Iglesia Refugio’s local status. Moreover, we note that, even if Iglesia Refugio had relied on its headquarters location to establish that it was a local organization, a move to Juncos likely would not have rendered it non-local to Caguas.²⁴

7. *Programming.* We reject Petitioner’s assertion that the Station has not offered “live programming” since July 2016 and thus is no longer serving the public interest.²⁵ Programming that serves the public interest need not be live.

8. *Operational History.* We find there are no compliance issues related to the Station’s operational history. As Petitioner alleges,²⁶ the Station was silent between April 16, 2016, and July 9, 2016.²⁷ However, Iglesia Refugio obtained special temporary authority for that silence.²⁸ Accordingly, no violation of section 73.850(d) occurred.²⁹

9. *Incorrect Certification.* We find that Iglesia Refugio violated section 1.17(a)(2) of the Rules when it certified in the Renewal Application that the Station had not been silent for more than 30 days. As discussed, the Station was silent for more than 30 days in 2016. We have no reason to doubt Iglesia Refugio’s assertion that it notified the entity assisting it with filing the Renewal Application that the Station had been silent.³⁰ However, that is irrelevant. It was Iglesia Refugio’s responsibility to ensure

²⁰ Petition at 3.

²¹ 47 CFR § 73.853(b).

²² Application File No. BNPL-20131112AVW, at Attach. 10 (Statement of Established Community Presence) (Permit Application). We note that the changes in board composition discussed herein do not appear to have altered Iglesia Refugio’s local status. While the board shrunk, the remaining members still resided within 20 miles of the Station’s transmitting antenna.

²³ Petition at 3.

²⁴ Caguas is outside of the top 50 urban markets. As a result, for Iglesia Refugio to qualify as local based on its headquarters, the headquarters would need to be located within 20 miles of the Station’s transmitting antenna. 47 CFR § 73.853(b)(1). Juncos is less than 20 miles from Caguas, where the Station’s transmitting antenna is located.

²⁵ Petition at 3. *See also* Reply at 1.

²⁶ Petition at 1.

²⁷ LOI Response at 1.

²⁸ *See* Letter from Lisa Scanlan, Assistant Chief, Audio Division, Media Bureau, to Miguel Melendez, Iglesia Refugio, Sanidad y Adoración (dated Mar. 30, 2016).

²⁹ 47 CFR 73.850(d) (requiring radio stations to notify the Commission within 10 days of temporarily discontinuing operations, and to obtain Commission authorization if the discontinued operations last beyond 30 days).

³⁰ LOI Response at 1.

the accuracy of all information provided and certifications made in the Renewal Application.³¹ This violation of section 1.17(a)(2) of the Rules is addressed in the Consent Decree.

10. *Station Logs.* The LOI requested that Iglesia Refugio provide copies of the Station's logs. Iglesia Refugio, however, did not include any station logs in its LOI Response. Accordingly, based on the record in this proceeding, we conclude that the Station failed to maintain the station logs required by section 73.877 of the Rules.³² We address this violation in the Consent Decree.

11. *Emergency Alert System.* Based on the information provided, we find the Station has the appropriate EAS equipment on hand.³³ However, we are unable to determine if that equipment is operational because Iglesia Refugio has indicated only that the equipment "exists in our station."³⁴ We also are unable to verify whether the Station has been performing the weekly tests required by section 11.61 of the Rules.³⁵ We address the Station's compliance with the Commission's EAS requirements in the Consent Decree.

12. *Maintenance and Staffing of Main Studio.* We reject Petitioner's assertion the Iglesia Refugio has not honored its pledge to maintain and staff a main studio.³⁶ Iglesia Refugio made this pledge in the Points System/Tie Breakers section of its application for the Station's construction permit.³⁷ All LPFM applicants are required to complete this section of the Low Power FM Station Construction Permit Application. However, the pledges made in this section are only relevant if an LPFM application is mutually exclusive with another LPFM application, and a decision must be made about which LPFM application to grant. In such instances, the FCC conducts a points hearing to determine which application should prevail. The FCC awards one point for satisfying various criteria, including pledging to maintain a publicly accessible studio that is staffed at least 20 hours each week.³⁸ An applicant that prevails over another in a points hearing must continue to satisfy the various points criterion for which it claimed points.³⁹ An applicant awarded a construction permit without a points hearing need not. Here, Iglesia Refugio's application for the Station's construction permit did not conflict with any other LPFM application. Accordingly, it was awarded to Iglesia Refugio without the need for a points hearing. As a result, Iglesia Refugio's pledge to maintain and staff a main studio was not a factor in the award of the Station's construction permit, and Iglesia Refugio was not required to adhere to the pledge.

13. *Consent Decree.* As part of this Memorandum Opinion and Order, we are adopting a Consent Decree entered into by the Media Bureau and Iglesia Refugio. The Consent Decree resolves issues related to (1) the unauthorized transfer of control, and unauthorized assignment of the Station's FCC authorization, (2) the inaccurate certification made in the Renewal Application, (3) Iglesia Refugio's failure to maintain station logs, and (4) its failure to comply with certain EAS-related requirements. As

³¹ See Renewal Application (including a certification that the person signing the application on behalf of Iglesia Refugio "certif[ies] that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith").

³² 47 CFR § 73.877.

³³ LOI Response at 16 (receipt for purchase of "Emergency Messaging Platform" dated November 13, 2015), 17 (picture of Digital Alert Systems equipment).

³⁴ *Id.* at 2.

³⁵ 47 CFR § 11.61. The performance of these tests would normally be reported in the station logs. However, as noted, Iglesia Refugio did not provide copies of the Station's logs.

³⁶ Petition at 2.

³⁷ See Permit Application at Section III (Point System Factors), Item 3 (Main Studio).

³⁸ 47 CFR § 73.872.

³⁹ See *Creation of Low Power Radio Service*, Report and Order, MM Docket 99-25, 15 FCC Rcd 2205, 2262, para. 145 (2000).

part of the Consent Decree, Iglesia Refugio agrees to undertake a three-year compliance plan to ensure that the Station operates in a manner that complies with the Act, and the Rules.⁴⁰ In addition, Iglesia Refugio's successor-in-interest—Caguas Community Radio—has acknowledged that it too is subject to the compliance plan set forth therein.⁴¹

14. We conclude that nothing in the record before us creates a substantial or material question of fact whether Iglesia Refugio possesses the basic qualifications to be a Commission licensee. After reviewing the terms of the Consent Decree, we find the public interest would be served by its approval and by terminating the Bureau's investigation of Iglesia Refugio's violations of the Act and the Rules, subject to the terms of the Consent Decree. We note that, given the findings made herein, we grant the Petition in part. As provided in the Consent Decree,⁴² however, we otherwise deny it.

IV. CONCLUSION/ACTIONS

15. **IT IS ORDERED** that the Petition to Deny (Pleadings File Nos. 94017, 105760) filed by Miguel A. Meléndez on December 23, 2019, and refiled by Miguel A. Meléndez on February 20, 2020, **IS GRANTED IN PART AND OTHERWISE DENIED.**

16. **IT IS FURTHER ORDERED** that, pursuant to section 4(i) of the Communications Act of 1934, as amended,⁴³ and by the authority delegated by sections 0.61 and 0.283 of the Commission's rules,⁴⁴ the Consent Decree attached hereto **IS ADOPTED.**

17. **IT IS FURTHER ORDERED** that the investigation by the Media Bureau of the matters noted above **IS TERMINATED.**

18. **IT IS FURTHER ORDERED** that, pursuant to 47 CFR § 73.878, a copy of this Memorandum Opinion and Order and Consent Decree, and all investigatory materials, **SHALL BE RETAINED** in the station records for WODB-LP, Caguas, Puerto Rico, until grant of the next license renewal application for that station.

19. **IT IS FURTHER ORDERED** that copies of this Memorandum Opinion and Order **SHALL BE SENT** by First Class and Certified Mail, Return Receipt Requested, to Jacqueline Contés-Santiago, Iglesia Refugio, Sanidad y Adoración, Villa del Rey 5, Calle 28 A11, Caguas, Puerto Rico, 00726; Miguel Santiago Figueroa, Caguas Community Radio, Calle Munoz Rivera #38, Caguas, Puerto Rico 00726; Francisco R. Montero, Esq., Fletcher Heald & Hildreth, 1300 N. 17th Street, Suite 1100, Arlington, VA 22209; and Miguel A. Meléndez, PO Box 7871, Carolina, Puerto Rico 00986.

FEDERAL COMMUNICATIONS COMMISSION

Albert Shuldiner
Chief, Audio Division, Media Bureau

⁴⁰ We note that consent decrees often require payment of a civil penalty to the United States Treasury in addition to implementation of a compliance plan. The Consent Decree in this case does not include a civil penalty because Iglesia Refugio has demonstrated that it lacks the ability to pay such a penalty.

⁴¹ See Consent Decree at para. 24.

⁴² See Consent Decree at para. 11.

⁴³ 47 U.S.C. § 154(i).

⁴⁴ 47 CFR §§ 0.61, 0.283.

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

In the Matter of	)	
	)	
Iglesia Refugio, Sanidad y Adoración	)	Facility ID No. 194728
WODB-LP, Caguas, Puerto Rico	)	Application File Nos. 83542, 105627
Application for Renewal of License	)	

CONSENT DECREE

I. INTRODUCTION

1. The Media Bureau of the Federal Communications Commission (hereafter “Bureau” as defined below) and Iglesia Refugio, Sanidad y Adoración (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 operation of WODB-LP, Caguas, Puerto Rico. To resolve this matter, the Licensee agrees to implement a comprehensive Compliance Plan to ensure its future compliance with the Communications Act of 1934, as amended (hereafter “Act,” as defined below), and the Commission’s regulations (hereafter “Rules,” as defined below), and the Licensee’s proposed successor, Caguas Community Radio (hereafter “CCR,” as defined below), agrees to be bound by the requirements of the Compliance Plan.

II. DEFINITIONS

2. For 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 the Order of the Bureau adopting the terms of this Consent Decree without change, addition, deletion, or modification;
 - (c) “Application” means the pending application (Application File Nos. 83542, 105627) filed on October 1, 2019, and amended on February 7, 2020, for renewal of the Translator’s license;
 - (d) “Bureau” means the Media Bureau of the Commission;
 - (e) “CCR” means Caguas Community Radio, a successor-in-interest to the Licensee and a signatory of this Consent Decree.
 - (f) “Commission” or “FCC” means the Federal Communications Commission and all of its bureaus and offices;
 - (g) “EAS” means the Emergency Alert System;
 - (h) “Effective Date” means the date on which the Bureau releases the Adopting Order;
 - (i) “Investigation” means the Bureau’s investigation into the issues raised in the Petition;
 - (j) “Licensee” means Iglesia Refugio, Sanidad y Adoración, and its affiliates, subsidiaries, predecessors-in-interest, and successors-in-interest;
 - (k) “Parties” means the Licensee and the Bureau, each of which is a “Party.” With respect to the obligations set forth in paragraphs 14 through 16 of this Consent Decree, “Parties” also means CCR;

- (l) “Petition” means the Petition to Deny the Application filed by Miguel A. Meléndez on December 23, 2019 (Pleading File No. 94017), and refiled by Miguel A. Meléndez on February 20, 2020 (Pleading File No. 105760);
- (m) “Rules” means the Commission’s regulations found in Title 47 of the Code of Federal Regulations;
- (n) “Station” means low power FM station WODB-LP, Caguas, Puerto Rico, Facility ID No. 194728; and
- (o) “Violations” means the stipulated violations of section 310(d) of the Act, and sections 1.17(a)(2), and 73.850 of the Rules, along with the apparent violations of section 11.61 and 73.877 of the Rules.

III. BACKGROUND

3. Section 310(d) of the Act provides, in pertinent part:

No construction permit or station license, or any rights thereunder, shall be transferred, assigned, or disposed of in any manner, voluntarily or involuntarily, directly or indirectly, or by transfer of control of any corporation holding such permit or license, to any person except upon application to the Commission and upon finding by the Commission that the public interest convenience and necessity will be served thereby.¹

4. Section 1.17(a)(2) of the Rules provides that no person may provide, in any written statement of fact, “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.”²

5. Section 73.877 of the Rules requires the licensee of a low power FM station to “maintain a station log.”³ Among other things, the station log must information about the EAS tests performed pursuant to section 11.61 of the Rules.⁴

6. The Licensee filed the Application. The Petition was filed in response to the Application. Among other things, the Petition alleged that the Licensee had undergone an unauthorized transfer of control, and the Station did not have EAS equipment and had never performed any EAS tests. The Bureau commenced the Investigation, which resulted in the Licensee admitting that the Station had undergone an unauthorized transfer of control and an unauthorized assignment, and that the Licensee had made an incorrect certification in the Application. The Investigation also uncovered that the Licensee had failed to maintain station logs for the Station, and failed to comply with certain EAS requirements.

7. In light of these compliance issues, the Bureau and the Licensee have negotiated the terms of the Consent Decree that terminates the Investigation into the matters discussed above. As part of the Consent Decree, the Licensee agrees to implement and maintain a Compliance Plan designed to ensure its future compliance with the Act and the Rules.

¹ 47 U.S.C. § 310(d).

² 47 CFR § 1.17(a)(2).

³ 47 CFR § 73.877.

⁴ *Id.* See also 47 CFR § 11.61.

IV. AGREEMENT

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

9. **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.

10. **Effective Date; Violations.** The Parties agree that this Consent Decree shall become effective on the Effective Date as defined herein. Upon the Effective Date, the Adopting Order and this Consent Decree shall have the same force and effect as any other order of the Commission. The Licensee agrees that it is required to comply with each individual condition of this Consent Decree. Each specific condition is a separate condition of the Consent Decree as approved. To the extent that the Licensee fails to satisfy any condition or Rule, in the absence of Commission alteration of the condition or Rule, it will be deemed noncompliant and may be subject to possible enforcement action, including, but not limited to, revocation of the relief, designation of the matter for hearing, letters of admonishment and/or forfeitures. Any violation of the Adopting Order or the terms of this Consent Decree shall constitute a separate violation of a Commission order, entitling the Commission to exercise any rights and remedies attendant to enforcement of a Commission order.

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.

12. The Bureau agrees that, in the absence of new material evidence, the Bureau will not use the Violations, or the existence of this Consent Decree in any action against the Licensee concerning the matters that were the subject of the Investigation, provided that the Licensee satisfies all of its obligations under this Consent Decree. In the event that the Licensee fails to satisfy any of its obligations under this Consent Decree, the Bureau may take any enforcement action available pursuant to the Act and the Rules with respect to the Violations, and/or the violation of this Consent Decree.

13. **Admission of Liability.** The Licensee stipulates for purposes of this Consent Decree that (1) there was an unauthorized transfer of control and an unauthorized assignment of the Station in violation of section 310(d) of the Act, (2) the Licensee provided incorrect information in the Application in violation of section 1.17(a)(2) of the Rules, (3) the Licensee failed to maintain station logs for the Station in violation of section 73.877 of the Rules, and (4) the Licensee failed to fully comply with the Commission's EAS requirements. 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.⁵ The Licensee acknowledges that the Commission or its delegated authority may consider the Licensee's 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 violation of the Act, the Rules, or of any orders of the Commission after the Effective Date, whether related to the Violations or otherwise.

14. **Compliance Officer.** Within 30 calendar days after the Effective Date, the Licensee shall designate a senior manager to serve as a Compliance Officer and to discharge the duties set forth below. The Compliance Officer shall report directly to the Licensee's Chief Executive Officer (or equivalent senior officer/owner) on a regular basis, and shall be responsible for developing, implementing, and administering the Compliance Plan and ensuring that the Licensee complies with the terms and conditions of the Compliance Plan and this Consent Decree. The Compliance Officer shall have specific knowledge of the Act, and the Rules governing operation of low power FM stations prior to

⁵ See 47 U.S.C. § 503(b)(2)(E).

assuming his/her duties. The Bureau acknowledges that the Compliance Officer, Chief Executive Officer, and/or owner may be the same individual.

15. **Compliance Plan.** For purposes of settling the matters set forth herein, the Licensee agrees that it shall, within 30 calendar days after the Effective Date, develop and implement a Compliance Plan designed to ensure future compliance with the provisions of the Act and the Rules governing operation of low power FM stations, and the terms and conditions of this Consent Decree. The Compliance Plan shall contain, at a minimum, the following elements:

- (a) **Compliance Manual.** The Compliance Plan shall include a Compliance Manual that is distributed to all Covered Employees. The Licensee may adopt a Compliance Manual that it has prepared or one that has been prepared by an outside source, such as a trade association (e.g., the National Association of Broadcasters), another licensee, or a law firm. The Compliance Manual shall:
 - (i) thoroughly explain the requirements related to operation of low power FM stations;
 - (ii) contain Operating Procedures that Covered Employees must follow to help ensure the Company's compliance with the Act, and the Rules. The Operating Procedures shall include internal procedures and policies specifically designed to ensure that station logs are maintained, and EAS tests are performed. The Operating Procedures shall also include a compliance checklist that describes the steps that a Covered Employee must follow to ensure compliance with the Rules regarding station logs and EAS testing; and
 - (iii) be periodically reviewed and revised as necessary to ensure that the information set forth therein remains current, complete, accurate, and effective.
- (b) **Compliance Training Program.** If the Licensee has Covered Employees, the Compliance Plan shall include a Compliance Training Program to provide periodic training to those Covered Employees on the provisions of the Act and the Rules governing operation of low power FM stations, including those related to the maintenance of station logs, and those related to EAS. As part of the Compliance Training Program, Covered Employees shall be advised of the Licensee's obligation to report any noncompliance with the Act, Rules, or this Consent Decree, and shall be instructed on how to disclose noncompliance to the Compliance Officer. All Covered Employees shall receive initial training under the Compliance Training Program within 30 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 30 calendar days after the date he or she becomes a Covered Employee. The Licensee shall provide training under the Compliance Training Plan on at least an annual basis, and it shall periodically review and revise the Compliance Training Program as necessary to ensure that it remains current, complete, and effective.
- (c) **Compliance Report.** The Licensee shall submit a Compliance Report to the Commission 120 days after the Effective Date and annually thereafter on the anniversary of the Effective Date until the Termination Date.
 - (i) The Compliance Report shall include a certification by the Compliance Officer stating that the Compliance Officer has personal knowledge that the 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 Act, the Rules, or the terms and conditions of this Consent Decree.

- (ii) The Compliance Officer's certification shall be accompanied by a statement explaining the basis for such certification and must comply with section 1.16 of the Rules,⁶ and be subscribed to as true under penalty of perjury in substantially the form set forth therein.
- (iii) If the Compliance Officer is unable to provide the requisite certification, the Compliance Officer shall provide the Bureau with a report detailing the noncompliance, as described below.
- (iv) The compliance report shall be submitted to Tom Hutton, Deputy Division Chief, Audio Division, Media Bureau, Federal Communications Commission, at Tom.Hutton@fcc.gov; and Heather Dixon, Attorney-Advisor, Audio Division Media Bureau, Federal Communications Commission, at Heather.Dixon@fcc.gov.

16. **Reporting Noncompliance.** The Licensee shall report any instance of noncompliance with the Act, or the Rules, and any instance of noncompliance with any applicable terms and conditions of this Consent Decree within 10 calendar days after discovery of such noncompliance. Such reports shall include a detailed explanation of: (i) each such instance of noncompliance; (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 Tom Hutton, Deputy Division Chief, Audio Division, Media Bureau, Federal Communications Commission, at Tom.Hutton@fcc.gov; and Heather Dixon, Attorney-Advisor, Audio Division Media Bureau, Federal Communications Commission, at Heather.Dixon@fcc.gov.

17. **Termination Date.** The obligations to which the Licensee is subject pursuant to this Consent Decree shall terminate 3 years after the filing of the initial Compliance Report referenced above, provided the Bureau is satisfied that the Licensee has demonstrated substantial compliance with the Act, the Rules, and its obligations under this Consent Decree. If the Bureau is not satisfied that the Licensee has demonstrated substantial compliance with the Act, the Rules, and/or its obligations under this Consent Decree, the Bureau may, within its sole discretion and authority, extend the termination date of this Consent Decree for up to an additional 24 months.

18. **Further Violations.** The Licensee acknowledges that the Bureau retains the discretion and authority to propose sanctions against the Licensee, including the issuance of notices of apparent liability for forfeitures, for any apparent willful and/or repeated violation by the Licensee of the Act, or the Rules that occurs during the term of this Consent Decree.

19. **Qualifications; Agreement to Grant.** The Bureau finds its Investigation raises no substantial and material questions of fact as to whether the Licensee possesses the basic qualifications, including those relating to character, to hold a Commission license or authorization.

20. **Waivers.** The Licensee agrees to waive any and all rights it may have to seek administrative or judicial reconsideration, review, appeal, or stay, or to otherwise challenge the validity of this Consent Decree and the Adopting Order, provided the Consent Decree is adopted without change, addition, or modification. If any 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, no Party shall contest the

⁶ 47 CFR § 1.16.

validity of the Consent Decree or Adopting Order, and the Licensee shall waive any statutory right to a *trial de novo*. The Licensee further agrees to waive any claims it may otherwise have under the Equal Access to Justice Act, 5 U.S.C. Section 504 and 47 CFR Section 1.1501 *et seq.*, relating to the Consent Decree or Adopting Order.

21. **Severability.** The Parties agree that if a court of competent jurisdiction renders any of the provisions of this Consent Decree unenforceable by, such unenforceability shall not render unenforceable the 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.

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

23. **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), such provision will be superseded by such Rule or Order.

24. **Successors and Assigns.** The Licensee agrees that the provisions of this Consent Decree shall be binding on its successors, assigns, and transferees. By signing this Consent Decree, CCR acknowledges that it is a successor-in-interest to the Licensee, and, as such, it is subject to the requirements set forth in paragraphs 14 through 16 of this Consent Decree.

25. **Final Settlement.** The Parties agree and acknowledge that this Consent Decree shall constitute a final settlement between the Parties concerning the Investigation and the Violations.

26. **Modifications.** This Consent Decree cannot be modified or amended without the advance written consent of all Parties.

27. **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.

28. **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.

29. **Counterparts.** This Consent Decree may be signed in counterparts and/or electronically and, when so executed, the counterparts, taken together, will constitute a legally binding and enforceable instrument whether executed electronically or by original signatures.

**MEDIA BUREAU
FEDERAL COMMUNICATIONS COMMISSION**

By: 
Albert Shuldiner
Chief, Audio Division, Media Bureau

Date: 11/13/2023

IGLESIA REFUGIO, SANIDAD Y ADORACIÓN

By: _____
Jacqueline Contes, President

Date: _____

CAGUAS COMMUNITY RADIO

By: _____
Miguel Santiago Figueroa, President

Date: _____

29. **Counterparts.** This Consent Decree may be signed in counterparts and/or electronically and, when so executed, the counterparts, taken together, will constitute a legally binding and enforceable instrument whether executed electronically or by original signatures.

**MEDIA BUREAU
FEDERAL COMMUNICATIONS COMMISSION**

By: _____
Albert Shuldiner
Chief, Audio Division, Media Bureau

Date: _____

IGLESIA REFUGIO, SANIDAD Y ADORACIÓN

By: _____
Jacqueline Contes, President

Date: 11/10/2023

CAGUAS COMMUNITY RADIO

By: _____
Miguel Santiago Figueroa, President

Date: 11/10/2023



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 23-1057
Released: November 8, 2023

**DOMESTIC SECTION 214 APPLICATION FILED FOR THE TRANSFER OF CONTROL OF
CAMPTI-PLEASANT HILL TELEPHONE CO., INC. AND
CP-TEL NETWORKS SERVICES, INC. TO H.N.G. HOLDINGS, L.L.C.**

NON-STREAMLINED PLEADING CYCLE ESTABLISHED

WC Docket No. 23-346

Comments Due: November 22, 2023

Reply Comment Due: November 29, 2023

By this Public Notice, the Wireline Competition Bureau seeks comment from interested parties on an application filed by Epic Touch Co., Inc. (Epic Touch) and H.N.G. Holdings, L.L.C. (HNG Holdings) (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 to transfer control of CP-TEL Holdings, Inc. (CP-TEL Holdings) and its wholly-owned subsidiaries Campti-Pleasant Hill Telephone Co., Inc. (Campti-Pleasant Hill) and CP-TEL Network Services, Inc. (CPTN) from Epic Touch to HNG Holdings.²

Epic Touch, a holding company incorporated in Kansas, owns and operates the following entities: (1) the Elkhart Telephone Company, a Kansas corporation and rural incumbent local exchange carrier (LEC) that provides and broadband services in and around the community of Elkhart, Kansas; and (2) CP TEL Holdings, Inc., (CP TEL Holdings), a Louisiana corporation that serves as a holding company.³ CP Tel Holdings, in turn, wholly owns the following entities: (a) Campi-Pleasant Hill, a Louisiana corporation and rural LEC that is an eligible telecommunications carrier (ETC) and provides local exchange and exchange access services in four exchanges (the Campti, Pleasant Hill, Pelican and Creston exchanges) in portions of the Natchitoches, Sabine, DeSoto, and Red River Parishes in northwestern Louisiana (approximately 1,500 access lines in its Louisiana service area);⁴ and (b)

¹ See 47 U.S.C. § 214(a); 47 CFR §§ 63.03-04.

² Domestic Section 214 Application Filed for the Transfer of Control of Epic Touch Co., Inc., to H.N.G. Holdings, L.L.C., WC Docket No. 23-346 (filed Oct. 12, 2023) (Application). Applicants filed a supplement to their application on October 18, 2023. Letter from Gerard J. Duffy, Counsel for H.N.G. Holdings, L.L.C., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 23-346 (filed on October 18, 2023) (Supplement). Applicants also filed an application for the transfer of authorizations associated with international services. Any action on this domestic section 214 application is without prejudice to Commission action on other related, pending applications.

³ Application at 1.

CPTN, a Louisiana corporation that provides competitive LEC services (approximately 2,100 access lines) in portions of Natchitoches, Sabine, DeSoto, and Red River Parishes in northwestern Louisiana.⁵

HNG Holdings, a Louisiana limited liability company, is a holding company that owns 100% of the ownership and control of: (1) Northeast Louisiana Telephone Company, Inc. (Northeast Louisiana Telephone), a Louisiana corporation and rural LEC that provides local exchange and exchange access services in two exchanges (the Collinston and Bonita/Jones exchanges) in portions of Morehouse Parish in northeastern Louisiana (approximately 1,100 access lines); and (2) Northeast Long Distance, LLC (Northeast LD), a Louisiana limited liability company that provides long distance toll services in Morehouse and Ouachita Parishes.⁶ Northeast Louisiana Telephone wholly owns Northeast Telephone Services, Inc. (Northeast Services), a Louisiana corporation that provides competitive LEC and other services in portions of Morehouse and Ouachita Parishes in northeastern Louisiana (less than 175 competitive LEC access lines).⁷ HNG Holdings is held by the following U.S. citizens and trusts: William Michael George (64% voting and equity); Erin E. George Minority Trust (12% voting and equity interest); Christine M. George Minority Trust (12% voting and equity interest); Douglas M. George Minority Trust (12% voting and equity interest).⁸ Applicants state that no other individual or entity directly or indirectly owns or controls ten percent or more of HNG Holdings.⁹

Pursuant to the terms of the proposed transaction, HNG Holdings would purchase from Epic Touch all of the issued and outstanding stock of CP TEL Holdings.¹⁰ As a result, HNG Holdings will wholly own Campti-Pleasant Hill and CPTN.¹¹ Applicants state that both Campti-Pleasant Hill and CPTN will remain in existence post-transaction.¹² Applicants further state that the service areas of Campti-Pleasant Hill and CPTN in northwestern Louisiana do not overlap, and are not adjacent to, the service areas of Northeastern Louisiana Telephone, Northeast Services, and Northeast LD in northeastern Louisiana.¹³

Applicants request streamlined treatment of the proposed transaction under the Commission's rules and assert that a grant of the application would serve the public interest, convenience, and necessity. Because the proposed transaction is more complex than those accepted for streamlined

⁴ *Id.* at 1-2; Supplement at 1. Applicants state that Campti-Pleasant Hill participates in the Lifeline program and the Affordable Connectivity Program. Supplement at 3.

⁵ Application at 2.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.* at 8.

⁹ *Id.*

¹⁰ *Id.* at 9.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.* at 3.

treatment, and in order to analyze whether the proposed transaction would serve the public interest, we accept the Application for non-streamlined processing.¹⁴

Domestic Section 214 Application Filed for the Transfer of Control of
Epic Touch Co., Inc. to H.N.G. Holdings, L.L.C.,
WC Docket No. 23-346 (filed Oct.13, 2023).

GENERAL INFORMATION

The application identified herein has 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 **on or before November 22, 2023**, and reply comments **on or before November 29, 2023**. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by paper.

- **Electronic Filers:** Comments may be filed electronically 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. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
 - Filings can be sent by commercial overnight courier or by first-class or overnight U.S. Postal Service mail.¹⁵ 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.

People with Disabilities: We ask that requests for accommodations be made as soon as possible in order to allow the agency to satisfy such requests whenever possible. Send an email to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530.

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

- 1) Tracey Wilson, Competition Policy Division, Wireline Competition Bureau, tracey.wilson@fcc.gov;
- 2) Dennis Johnson, Competition Policy Division, Wireline Competition Bureau, dennis.johnson@fcc.gov;
- 3) David Krech, Office of International Affairs, david.krech@fcc.gov; and
- 4) Jim Bird, Office of General Counsel, jim.bird@fcc.gov.

¹⁴ 47 CFR § 63.03(c)(1)(v).

¹⁵ 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, 35 FCC Rcd 2788 (OS 2020).

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.¹⁶ 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 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 Dennis Johnson at dennis.johnson@fcc.gov.

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¹⁶ See 47 CFR § 1.45(c).



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 23-1058

Released: November 8, 2023

INTERCONNECTED VOIP NUMBERING AUTHORIZATION APPLICATION OF DIALOGA GROUP, LLC GRANTED PURSUANT TO SECTION 52.15(g) OF THE COMMISSION'S RULES

WC Docket No. 16-280

By this Public Notice, the Wireline Competition Bureau (Bureau) grants an application filed by Dialoga Group, LLC (Dialoga Group), pursuant to section 52.15(g)(3) of the Commission's rules, seeking authorization to obtain North American Numbering Plan telephone numbers directly from the Numbering Administrator.¹

On September 19, 2023, the Bureau released a public notice in which it found that the Application required further review to determine whether granting it would serve the public interest, and accepted it for filing on a non-streamlined basis.² The Bureau sought comment on the Application.³ No party filed comments in opposition to the Application.

As the Bureau previously determined that Dialoga Group's Application met the access-to-numbers application requirements set forth in section 52.15(g)(3)(i) of the Commission's rules,⁴ and upon further consideration of the record, the Bureau finds that granting the Application will serve the public interest.⁵

¹ See Application of Dialoga Group for Authorization to Obtain Numbering Resources, WC Docket No. 16-280 (filed Aug. 23, 2016), <https://www.fcc.gov/ecfs/search/search-filings/filing/1082365744955> (Application); Dialoga Group Application at 1-10; Dialoga Group Supplement at 1-3; Supplement to Dialoga Group Application, WC Docket No. 16-280 (filed Jun. 19, 2018), <https://www.fcc.gov/ecfs/search/search-filings/filing/1061900722451> (Dialoga Group Supplement 2); Supplement to Dialoga Group Application, WC Docket No. 16-280 (filed Jul. 25, 2018), <https://www.fcc.gov/ecfs/search/search-filings/filing/107252984911132> (Dialoga Group Supplement 3); Supplement to Dialoga Group Application, WC Docket No. 16-280 (filed Jul. 10, 2023), <https://www.fcc.gov/ecfs/document/10711522000362/1> (Dialoga Group Supplement 4); 47 CFR § 52.15(g)(3).

² *Interconnected VoIP Numbering Authorization Application Filed by Dialoga Group, LLC Pursuant to Section 52.15(g) of the Commission's Rules*, WC Docket No. 16-280, Public Notice, DA 23-873 (WCB 2023) (*Dialoga Group PN*); see 47 CFR § 52.15(g)(3)(iii)(D).

³ *Dialoga Group PN* at 2-3.

⁴ *Dialoga Group PN* at 2.

⁵ Dialoga Group disclosed that it has 10% or greater foreign ownership. See Supplement to Dialoga Group Application of Dialoga Group for Authorization to Obtain Numbering Resources at 1-2, WC Docket No. 16-280 (filed Jan. 23, 2017), <https://www.fcc.gov/ecfs/search/search-filings/filing/1012013730636> (listing country of citizenship as Spain, with 100% ownership via Jorge Fernandez, Chief Executive Officer, and Asier de Felipe, Chief Operating Officer); see also 47 CFR § 52.15(g)(3). The Bureau determined that it was exercising its discretion to not refer the Application to the Executive Branch for review related to foreign ownership of the applicant. *Dialoga Group PN* at 2.

Pursuant to section 1.103 of the Commission's rules, 47 CFR § 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 CFR §§ 1.106, 1.115, may be filed within 30 days of the date of this Public Notice.

Effective Grant Date: November 8, 2023

For further information, please contact Michelle Sclater, Competition Policy Division, Wireline Competition Bureau at Michelle.Sclater@fcc.gov.

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PUBLIC NOTICE

Federal Communications Commission
45 L St., N.E.
Washington, D.C. 20554

News Media Information 202 / 418-0500
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DA 23-1059

Released: November 8, 2023

INTERCONNECTED VOIP NUMBERING AUTHORIZATION APPLICATION OF PAETEC iTEL, L.L.C. GRANTED PURSUANT TO SECTION 52.15(g) OF THE COMMISSION'S RULES

WC Docket No. 20-416

By this Public Notice, the Wireline Competition Bureau (Bureau) grants an application filed by PAETEC iTEL, L.L.C. (PAETEC iTEL), pursuant to section 52.15(g)(3) of the Commission's rules, seeking authorization to obtain North American Numbering Plan telephone numbers directly from the Numbering Administrator.¹

On September 15, 2023, the Bureau released a public notice in which it found that the Application required further review to determine whether granting it would serve the public interest, and accepted it for filing on a non-streamlined basis.² The Bureau sought comment on the Application.³ No party filed comments in opposition to the Application.

As the Bureau previously determined that PAETEC iTEL's Application met the access-to-numbers application requirements set forth in section 52.15(g)(3)(i) of the Commission's rules,⁴ and upon further consideration of the record, the Bureau finds that granting the Application will serve the public interest.⁵

Pursuant to section 1.103 of the Commission's rules, 47 CFR § 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 CFR §§ 1.106, 1.115, may be filed within 30 days of the date of this Public Notice.

¹ See Application of PAETEC iTEL for Authorization to Obtain Numbering Resources, WC Docket No. 20-416 (filed Sept. 30, 2020), <https://www.fcc.gov/ecfs/filing/10012513629638>; 47 CFR § 52.15(g)(3).

² *Interconnected VoIP Numbering Authorization Application Filed by PAETEC iTEL, L.L.C. Pursuant to Section 52.15(g) of the Commission's Rules*, WC Docket No. 20-416, Public Notice, DA 23-854 (WCB 2023) (PAETEC iTEL PN); see 47 CFR § 52.15(g)(3)(iii)(D).

³ PAETEC iTEL PN at 3.

⁴ *Id.*

⁵ PAETEC iTEL disclosed that it has 10% or greater foreign ownership. Supplement to PAETEC iTEL Application, WC Docket No. 20-416 (filed Mar. 9, 2021), <https://www.fcc.gov/ecfs/document/103090563523161/1> (Supplement 1); Restated Application of PAETEC iTEL for Authorization to Obtain Numbering Resources, WC Docket No. 20-416 (filed July 28, 2022), <https://www.fcc.gov/ecfs/search/search-filings/filing/10728734929901> (Restated Application); Supplement to PAETEC iTEL Restated Application, WC Docket No. 20-416 (filed July 26, 2023), <https://www.fcc.gov/ecfs/document/1072676851085/1> (Supplement 2); see also 47 CFR § 52.15(g)(3). The Bureau determined that it was exercising its discretion to not refer the Application to the Executive Branch for review related to foreign ownership of the applicant. PAETEC iTEL PN at 2.

Effective Grant Date: November 8, 2023

For further information, please contact Michelle Sclater, Competition Policy Division, Wireline Competition Bureau at Michelle.Sclater@fcc.gov.

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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 23-1060

Released: November 8, 2023

**INTERCONNECTED VOIP NUMBERING AUTHORIZATION APPLICATION OF
CONSOLIDATED COMMUNICATIONS ENTERPRISE SERVICES, INC. GRANTED
PURSUANT TO SECTION 52.15(g) OF THE COMMISSION'S RULES**

WC Docket No. 23-6

By this Public Notice, the Wireline Competition Bureau (Bureau) grants an application filed by Consolidated Communications Enterprise Services, Inc. (CCES), pursuant to section 52.15(g)(3) of the Commission's rules, seeking authorization to obtain North American Numbering Plan telephone numbers directly from the Numbering Administrator.¹

On October 4, 2023, the Bureau released a public notice in which it found that the Application required further review to determine whether granting it would serve the public interest, and accepted it for filing on a non-streamlined basis.² The Bureau sought comment on the Application.³ No party filed comments in opposition to the Application.

As the Bureau previously determined that CCES' Application met the access-to-numbers application requirements set forth in section 52.15(g)(3)(i) of the Commission's rules,⁴ and upon further consideration of the record, the Bureau finds that granting the Application will serve the public interest.⁵

Pursuant to section 1.103 of the Commission's rules, 47 CFR § 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 CFR §§ 1.106, 1.115, may be filed within 30 days of the date of this Public Notice.

Effective Grant Date: November 8, 2023

¹ See Application of CCES for Certification as an Interconnected VoIP Provider for Direct Access to Numbering Resources Pursuant to Section 52.15(g)(3) of the Commission's Rules, WC Docket No. 23-6, at 1 (filed Dec. 19, 2022), <https://www.fcc.gov/ecfs/document/12190893900929/1> (Application); 47 CFR § 52.15(g)(3).

² *Interconnected VoIP Numbering Authorization Application Filed by Consolidated Communications Enterprise Services, Inc. Pursuant to Section 52.15(g)(3) of the Commission's Rules*, WC Docket No. 23-6, Public Notice, DA 23-931 (WCB 2023) (CCES PN); see 47 CFR § 52.15(g)(3)(iii)(D).

³ CCES PN at 3.

⁴ *Id.*

⁵ CCES disclosed that it has 10% or greater foreign ownership. See *Grant of Consolidated Communications Holdings, Inc. and Searchlight III CLV, L.P. Petition for Declaratory Ruling*, IB Docket No. 21-172, Public Notice, 36 FCC Rcd 16416 (IB 2021) (CCI Declaratory Ruling Public Notice); see also 47 CFR § 52.15(g)(3). The Bureau determined that it was exercising its discretion to not refer the Application to the Executive Branch for review related to foreign ownership of the applicant. CCES PN at 2.

For further information, please contact Michelle Sclater, Competition Policy Division, Wireline Competition Bureau at Michelle.Sclater@fcc.gov.

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PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
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DA No. 23-1061

Report No. TEL-02314

Thursday November 9, 2023

International Authorizations Granted

Section 214 Applications (47 CFR §§ 63.18, 63.24); Section 310(b) Petitions (47 CFR § 1.5000)

By the Chief, Telecommunications and Analysis Division, Office of International Affairs:

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; or (3) exceed the foreign ownership benchmarks applicable to common carrier radio licensees under 47 U.S.C. § 310(b); see Subpart T of Part 1 of the Commission's rules, 47 CFR §§ 1.5000-5004.

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-T/C-20230926-00113 E Pay Tel Communications, Inc.
Transfer of Control
Grant of Authority

Date of Action: 11/03/2023

Current Licensee: Pay Tel Communications, Inc.

FROM: John V Townsend

TO: Pay Tel Communications ESOP Trust

Pay Tel Communications, Inc. (Pay Tel), a North Carolina corporation that holds an international section 214 authorization (ITC-214-20110511-00127), filed an application for consent to the transfer of control of Pay Tel from John Vincent Townsend III (Townsend) and the J. Vincent Townsend III Family Dynasty Trust (Family Dynasty Trust) to the Pay Tel Communications ESOP Trust (ESOP Trust). Townsend holds 100% of the voting interest and 20% of the equity interest in Pay Tel. The remaining 80% of Pay Tel's equity interest is owned by the Family Dynasty Trust.

As part of an internal reorganization, ownership of Pay Tel will be transferred to the company's employees under an Employee Stock Ownership Plan (ESOP), a North Carolina entity. Pursuant to the terms of the stock purchase agreement, the ESOP Trust will purchase all of the voting and equity shares of Pay Tel held by Townsend and the Family Dynasty Trust. Upon consummation, the ESOP Trust will own all of the voting and equity shares of Pay Tel. The ESOP Trust will be administered by David A. Shoquist (Trustee), a U.S. citizen, who will serve as trustee of ESOP Trust.

This authorization is without prejudice to Commission action in any other related pending proceedings.

SURRENDER

ITC-214-19950101-00007

CBTS Technology Solutions LLC

By letter dated October 31, 2023, CBTS Technology Solutions LLC notified the Commission that it surrendered its international section 214 authorization effective October 31, 2023. CBTS Technology Solutions LLC will continue to provide global facilities-based and resale international telecommunications services to its customers under its existing authority granted in File No. ITC-214-20071024-00434.

ITC-214-20010921-00492

CBTS Technology Solutions LLC

By letter dated October 31, 2023, CBTS Technology Solutions LLC notified the Commission that it surrendered its international section 214 authorization effective October 31, 2023. CBTS Technology Solutions LLC will continue to provide global facilities-based and resale international telecommunications services to its customers under its existing authority granted in File No. ITC-214-20071024-00434.

ITC-214-20010921-00493

CBTS Technology Solutions LLC

By letter dated October 31, 2023, CBTS Technology Solutions LLC notified the Commission that it surrendered its international section 214 authorization effective October 31, 2023. CBTS Technology Solutions LLC will continue to provide global facilities-based and resale international telecommunications services to its customers under its existing authority granted in File No. ITC-214-20071024-00434.

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. 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.

(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 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 C.F.R. § 61.19. Except as specified in section 20.15 with respect to commercial mobile radio service providers, carriers regulated as non-dominant, as defined in section 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.

(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-MSC-20181015-00182, Public Notice, 33 FCC Rcd 10008 (IB 2018).

(8) Any U.S. Carrier that owned or leased 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.

(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.

(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 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 section 63.09.

(13) Carriers shall comply with the Communications Assistance for Law Enforcement Act (CALEA), see 47 CFR §§ 1.20000 et seq.

(14) Every carrier must designate an agent for service in the District of Columbia. see 47 U.S.C. § 413, 47 CFR §§ 1.47(h), 64.1195.

(15) Each carrier shall notify the Commission of any change in its contact information. 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.



PUBLIC NOTICE

Federal Communications Commission
45 L Street NE
Washington, DC 20554

News Media Information 202 / 418-0500
Internet: <https://www.fcc.gov>
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DA 23-1062

Released: November 8, 2023

QUIET PERIOD ANNOUNCED FOR MINNESOTA INDEPENDENT EQUAL ACCESS CORPORATION PETITION

WC Docket No. 22-407

By this public notice, the Wireline Competition Bureau announces the beginning of the two-week quiet period¹ relating to a forbearance petition filed by the Minnesota Independent Equal Access Corporation (MIEAC) on November 22, 2022, seeking relief from dominant carrier regulation with respect to its provision of centralized equal access service.²

Section 1.58 of the Commission's rules governing forbearance petitions under section 10 of the Communications Act of 1934, as amended, provides for a two-week quiet period before the statutory deadline for Commission action in forbearance proceedings.³ The statutory deadline for Commission action on MIEAC's petition is November 22, 2023.⁴ Accordingly, the quiet period for this proceeding begins at 11:59 p.m. (EDT) on November 8, 2023,⁵ and all presentations to decision makers concerning MIEAC's petition are prohibited beginning at that time.⁶

For further information regarding the above, please contact Erik Raven-Hansen, Pricing Policy Division, Wireline Competition Bureau, at (202) 418-1532, or via email at Erik.Raven-Hansen@fcc.gov.

– FCC –

¹ 47 CFR § 1.58; see also *Petition to Establish Procedural Requirements to Govern Proceedings for Forbearance Under Section 10 of the Communications Act of 1934, as amended*, WC Docket No. 07-267, Report and Order, 24 FCC Rcd 9543, 9560-61, para. 33 (2009) (*Forbearance Procedures Order*).

² Petition of Minnesota Independent Equal Access Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) from Regulation as a Dominant Carrier, WC Docket No. 22-407 (filed Nov. 22, 2022) (Petition). On January 6, 2023, the Commission issued a Public Notice seeking comment on the Petition. *Pleading Cycle Established for Comments on MIEAC's Petition for Forbearance from Dominant Carrier Regulations*, WC Docket No. 22-407, Public Notice, DA 22-1242 (WCB Dec. 1, 2022).

³ 47 CFR § 1.58.

⁴ 47 U.S.C. § 160(c).

⁵ "Absent unusual circumstances, this quiet period will end with the release of a Commission order addressing the forbearance petition[s], or if approved by the Commission, withdrawal of the petition by the petitioner." *Forbearance Procedures Order*, 24 FCC Rcd at 9561, para. 34.

⁶ 47 CFR §§ 1.58, 1.1203.



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 23-1063

Released: November 8, 2023

UNDERSTANDING TRIBAL ACCESS TO WIRELESS SPECTRUM AND DATA VIRTUAL WEBINAR ON NOVEMBER 16, 2023

GN Docket No. 23-265

Washington, D.C. – On Thursday, November 16, 2023, at 1:00 p.m. ET, the Federal Communications Commission’s (FCC) Wireless Telecommunications Bureau and the Office of Native Affairs and Policy will host a virtual webinar to provide an overview of their Public Notice on Tribal Access to Wireless Spectrum and Related Data: [Public Notice](#), *Wireless Telecommunications Bureau and Office of Native Affairs and Policy Seek Comment on Tribal Nation and Native Hawaiian Access to Spectrum and Related Data*, GN Docket No. 23-265. The notice seeks public comment on ways in which the Commission can improve its understanding of how and the extent to which Tribal Nations and the Native Hawaiian Community are able to access wireless spectrum. The FCC’s wireless licensing application forms currently collect certain types of demographic or other identifying information from Tribal or Native Hawaiian applicants. In order to improve our understanding of how Tribal Nations and the Native Hawaiian Community are able to access wireless spectrum, we are seeking input on how to refine the licensee and demographic information collected on such forms.

The November 16th webinar will provide an overview of information currently collected through license applications and is designed to assist interested parties in how to submit comments responsive to the Public Notice on Tribal Access to Wireless Spectrum and Related Data. The deadline for filed public comments is November 30, 2023.

We encourage individuals interested in this issue to review the [Public Notice](#), which includes a list of questions to guide commenters in their feedback. These questions and the background in the Public Notice will be helpful for webinar attendees.

Official registration is recommended but not required for this event. Please send a message to Tribal.Events@fcc.gov stating “November 16th Webinar” in the subject line. You may submit questions prior to the event by sending an email to Tribal.Events@fcc.gov. 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 indicate how FCC staff may contact you in the event more information is needed to fill the request. Last minute requests will be accepted although it may not be possible to accommodate them.

For additional information about the webinar, please contact Denise Rosado at Denise.Rosado@fcc.gov or Lloyd Collier at Lloyd.Collier@fcc.gov. Visit the event webpage: <https://www.fcc.gov/news-events/events/2023/11/understanding-tribal-access-wireless-spectrum-and-related-data>.

- 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> (or <ftp.fcc.gov>)
TTY (202) 418-2555

DA No. 23-1064

Report No. SAT-01774

Thursday November 9, 2023

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-LOA-20220921-00113	E S3153	Space Sciences & Engineering LLC	
Launch and Operating Authority			
Grant of Authority			Effective Date: 11/06/2023

Nature of Service: Earth Exploration Satellite Service, Other

On November 6, 2023, the Satellite Programs and Policy Division granted, with conditions, authority to Space Sciences & Engineering LLC (PlanetiQ) to launch and operate one satellite, GNOMES-4, in low-Earth, non-geostationary orbit, for purposes of deriving data from radio occultation using signals transmitted from satellites that operate in the Radionavigation Satellite Service (RNSS). PlanetiQ is authorized to deploy GNOMES-4 between 505 and 545 kilometers, at an inclination between 97 and 98 degrees and to operate GNOMES-4 at altitudes from approximately 525 kilometers down to approximately 430 km, and with an inclination of 97.6 degrees (+/- 0.5 degrees) in sun-synchronous orbit, allowing for natural orbital decay. The Division authorized PlanetiQ to operate in the earth-exploration satellite service (EESS) and for telemetry, tracking, and command (TT&C) using frequencies in the 8025-8400 MHz (space-to-Earth) and 2025-2110 MHz (Earth-to-space) bands. In addition, PlanetiQ may receive RNSS signals for radio occultation and position, navigation, and timing at center frequencies of 1575.42 MHz and 1227.6 MHz from the Global Positioning System and center frequencies of 1575.42 MHz and 1207.14 MHz from the Galileo system, and may receive other RNSS signals limited to use for radio occultation only at center frequencies of 1602 MHz, 1246 MHz, 1575.42 MHz, and 1207.14 MHz. This application is granted pursuant to the small satellite licensing procedures in section 25.122 of the Commission's rules, 47 CFR § 25.122.

SAT-MOD-20230706-00161	E S2804	Intelsat License LLC	
Modification			
Grant of Authority			Effective Date: 11/07/2023

Nature of Service: Fixed Satellite Service

On November 7, 2023, the Satellite Programs and Policy Division granted, with conditions, Intelsat License LLC's request for modification of the license for its Intelsat 25 space station, to extend the license term to March 15, 2025. Intelsat 25 provides fixed-satellite service at the 31.5° W.L. orbital location using the following frequencies: 3400-4200 MHz (space-to-Earth), 5845-6645 MHz (Earth-to-space); and 11.45-11.7 GHz, 12.25-12.75 GHz (space-to-Earth), and 13.75-14.5 GHz (Earth-to-space). Intelsat conducts telemetry, tracking and command operations with Intelsat 25 using the following center frequencies: 3630.0 MHz and 4198.5 MHz (space-to-Earth), and 5850.5 MHz and 6419.0 MHz (Earth-to-space).

SAT-STA-20231010-00243	E S3017	Hughes Network Systems, LLC	
Special Temporary Authority			
Grant of Authority			Effective Date: 11/08/2023

On November 8, 2023, the Satellite Programs and Policy Division granted, with conditions, special temporary authority to Hughes Network Systems, LLC for an additional period of 60 days to operate the EchoStar XXIV (aka "Jupiter 3") space station in the 18.8-19.3 GHz and 28.6-29.1 GHz frequency bands for in-orbit testing (IOT) on a non-interference, unprotected basis. EchoStar XXIV will conduct IOT from the 95.2° W.L. orbital location.

SAT-STA-20231030-00266	E	Universal Space Network, Inc.	
Special Temporary Authority			
Withdrawn			Effective Date: 11/06/2023

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 re Application of	)	
	)	
B&C Communications, LLC	)	Facility ID No. 31570
	)	NAL/Acct. No. 202341420033
For Renewal of License for	)	FRN: 0019006501
Station WPAN	)	File No. 0000122920
Fort Walton Beach, Florida	)	

FORFEITURE ORDER

Adopted: November 9, 2023

Released: November 9, 2023

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. In this *Forfeiture Order*, we issue a monetary forfeiture in the amount of nine thousand dollars (\$9,000) to B&C Communications, LLC (Licensee), licensee of TV translator station WPAN, Fort Walton Beach, Florida (Station). We find that the Licensee willfully violated the Commission's rules (Rules) by failing to timely file the Station's quarterly issues/programs lists in violation of section 73.3526(e)(11)(i).¹

II. BACKGROUND

2. Section 73.3526(e)(11)(i) of the Rules requires every commercial television licensee to place in its Online Public Inspection File (OPIF), on a quarterly basis, an issues/programs list that details programs that have provided the station's most significant treatment of community issues during the preceding three month period and must include a brief narrative of the issues addressed, as well as the time, date, duration, and title of each program in which the issues were treated.² Issues/programs lists must be placed in the station's OPIF by the tenth day of the succeeding calendar quarter and copies must be retained until final action on the station's next license renewal application.³ On September 29, 2020, the Licensee filed its Application. A staff inspection of the Station's OPIF revealed that the Licensee failed to upload some copies of its issues/programs lists by the deadline established in section 73.3526(e)(11)(i) of the Rules.⁴ The Licensee did not file 10 quarterly lists and provided no explanation

¹ 47 C.F.R. § 73.3526(e)(11)(i).

² *Id.* Full power (commercial and noncommercial) and Class A television broadcasters have been required to upload various public file documents to their OPIF, including issues/programs lists, since 2012 and have been required to utilize the OPIF for the entirety of the current license term. See Standardized and Enhanced Disclosure Requirements for Television Broadcast Licensee Public Interest Obligations, Extension of the Filing Requirement for Children's Television Programming Report, Second Report and Order, 27 FCC Rcd 4535 (2012); Effective Date Announced for Online Publication of Broadcast Television Public Inspection Files, Public Notice, 27 FCC Rcd 7478 (2012) (announcing an effective date of August 2, 2012, for, inter alia, the requirement that television stations begin to post new issues/programs lists to their OPIF).

³ *Id.*

⁴ *Id.* The staff inspection was not consistent with the Licensee's disclosures in its Application. Licensee disclosed missing issues/programs lists prior to its return to the air in 2016, but states the issues/programs lists had been published on line since that date. B&C Communication's Application, Attach., Online Public File Exhibit.

(continued....)

for its failure to upload these issues/programs lists, but rather stated that it had timely filed the lists after it returned the Station to the air in May 2016. Licensee uploaded missing files only after Commission staff alerted it to the deficiency.

3. Accordingly, on August 16, 2023, we released a *Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture (NAL)* proposing a forfeiture of nine thousand dollars (\$9,000).⁵ The NAL gave the Licensee thirty days to pay the full amount of the proposed forfeiture, or file a written statement seeking reduction or cancellation of the proposed forfeiture.⁶ To date, the Licensee has neither paid the proposed forfeiture nor filed a written statement in response to the NAL.⁷

III. DISCUSSION

4. The forfeiture amount proposed in this case was assessed in accordance with section 503(b)(1)(B) of the Communications Act of 1934, as amended (the Act), which states that a person who is found to have willfully and 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.⁸ 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.⁹ 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,¹⁰ and the Commission has so interpreted the term in the section 503(b) context.¹¹ 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.”¹²

5. The Licensee failed to upload to its OPIF issue/programs lists for 10 quarters, in violation of section 73.3526(e)(11)(i) of the Rules.¹³ The Licensee was afforded an opportunity to either pay or respond to the NAL pursuant to section 1.80 of the Rules,¹⁴ but has failed to either pay the proposed forfeiture or seek reduction or cancellation of it within the time period set forth in the NAL. Accordingly, we conclude that the Licensee willfully violated section 73.3539 of the Rules and we issue a forfeiture in

However, a staff review shows Licensee’s OPIF was missing issues/program lists for last three quarters of 2016, all four quarters of 2017, and the first three quarters of 2018. See generally, FCC’s Licensing and Databases, Public Inspection File, Issues and Programs Lists, <https://publicfiles.fcc.gov/tvprofile/WPAN/Issues%20and%20Programs%20Lists/433c41b7-7d7c-1432-3392-0f083116fba7>.

⁵ *B&C Communications, LLC*, Memorandum Opinion and Order and Notice of Apparent Liability for Forfeiture, DA 23-709 (MB August 16, 2023).

⁶ *Id.* at para. 9.

⁷ A copy of the signed delivery receipt can be found under LMS File No. 0000122920.

⁸ See 47 U.S.C. § 503(b)(1)(B); see also 47 CFR § 1.80(a)(2).

⁹ 47 U.S.C. § 312(f)(1).

¹⁰ See H.R. Rep. No. 97-765, at 51 (1982) (Conf. Rep.).

¹¹ See *Southern California Broadcasting Co.*, Memorandum Opinion and Order, 6 FCC Rcd 4387, 4388, para. 5 (1991) (*Southern California*), recon. denied, 7 FCC Rcd 3454 (1992).

¹² 47 U.S.C. § 312(f)(2).

¹³ See 47 CFR § 73.3526(e)(11)(i).

¹⁴ 47 CFR § 1.80(g)(3).

the amount of \$9,000 as proposed in the NAL.¹⁵

IV. ORDERING CLAUSES

6. **IT IS ORDERED**, pursuant to section 503(b) of the Communications Act of 1934, 47 U.S.C. § 503(b), as amended, and sections 0.283 and 1.80 of the Commission's rules, 47 CFR §§ 0.283 and 1.80, that B&C Communications, LLC, **IS LIABLE FOR A MONETARY FORFEITURE** in the amount of nine thousand dollars (\$9,000) for its apparent willful violation of section 73.3539(a) of the Commission's rules, 47 CFR § 73.3539(a).

7. Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using the Commission's CORES (the Commission's online payment system),¹⁶ or by wire transfer. The Commission no longer accepts forfeiture payments by check or money order. Upon payment, Licensee must send notice that payment has been made to VideoNAL@fcc.gov. Below are instructions that payors should follow based on the form of payment selected:¹⁷

- 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).¹⁸ 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

¹⁵ See e.g., *Tutt Media Group, Inc.*, Notice of Apparent Liability for Forfeiture, DA 21-617 (Vid Div. May 27, 2021) (Assessing a forfeiture of \$4,500 for a late filed renewal application that covered three stations, paid Jun. 4, 2021) *Full Gospel Outreach, Inc.*, Notice of Apparent Liability for Forfeiture, DA 22-559 (Vid. Div. May 20, 2022) (Assessing a forfeiture of \$6,000 for a late filed renewal application that covered four stations, paid Jun. 10, 2022). We reaffirm our prior statements in the NAL relating to the Stations' Application, NAL at para. 8, and will proceed with grant by separate action upon the conclusion of this forfeiture proceeding if there are no issues other than those set forth in this Forfeiture Order that would preclude grant of the Application.

¹⁶ Payments made using the Commission's CORES system do not require the submission of an FCC Form 159.

¹⁷ 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.

¹⁸ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

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.

8. Requests for full payment of the forfeiture proposed in this *Order* under an installment plan should be sent to: Associate Managing Director-Financial Operations, 45 L Street, NE, Washington, DC 20554.¹⁹ 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.

9. **IT IS FURTHER ORDERED** that a copy of this *Forfeiture Order* shall be sent by First Class and Certified Mail, Return Receipt Requested, to B&C Communications, LLC, P.O. 155 Middle Plantation Lane Gulf Breeze, Florida 32561. A copy shall also be sent to Station’s counsel, Jeffrey L. Timmons, Esq., by e-mail to jeff@timmonspsc.com.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

¹⁹ See 47 CFR § 1.1914.



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 23-1066

Released: November 9, 2023

AFFORDABLE CONNECTIVITY PROGRAM TRANSPARENCY DATA COLLECTION DEADLINE EXTENDED TO NOVEMBER 30, 2023

WC Docket No. 21-450

By this Public Notice, the Wireline Competition Bureau extends the November 9, 2023 compliance date, or data submission deadline, for the submission of Affordable Connectivity Program (ACP) Transparency Data Collection data based on a reference or snapshot date of August 1, 2023, by granting a limited waiver¹ of section 54.1813(c) of the Commission's rules. **All ACP Transparency Data Collection data based on a reference or snapshot date of August 1, 2023 are now due November 30, 2023.**

This extension allows ACP providers additional time to submit their data. The Universal Service Administrative Co. (USAC), the administrator of the ACP and the Transparency Data Collection, has identified technical issues that may have affected certain filers. We find that extending the compliance date, or data submission deadline until November 30, 2023 will allow USAC to confirm that technical issues have been mitigated and will allow affected filers additional time to submit any remaining data. This extended deadline also takes into account the two intervening Federal holidays, Veterans Day and Thanksgiving.² We encourage filers to file well ahead of the extended November 30, 2023 compliance date, or data submission deadline.

Section 1.3 of the Commission's rules provides that the Commission may, on its own motion, waive a rule "for good cause shown, in whole or in part, at any time."³ The technical system issues warrants deviating from the rule that ACP Transparency System Data be submitted by November 9, 2023. This extension strikes a balance by enabling time for providers to submit and certify their data and at the same time ensuring that the deadline extension will not unduly delay in making the data public.

More information about the ACP Transparency Data Collection is available at: <https://www.usac.org/about/affordable-connectivity-program/participate-in-acp/annual-requirements/>. For technical questions or issues relating to accessing or submitting data, please email ACPdatacollection@usac.org. For other questions concerning the ACP Transparency Data Collection, please email ACPdatacollection@fcc.gov.

- FCC -

¹ 47 CFR § 54.1813(c) (establishing November 9, 2023 as a submission deadline).

² U.S. Office of Personnel Management, 2023 Federal Holidays, <https://www.opm.gov/policy-data-oversight/pay-leave/federal-holidays/#url=2023> (last visited Nov. 9, 2023).

³ 47 CFR § 1.3. *See, e.g., Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990); *see WAIT Radio v. FCC*, 418 F.2d 1153, 1155-59 (D.C. Cir. 1969) (*WAIT Radio*).

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

In the Matter of	)	
	)	
Spectrum Five LLC	)	IB Docket No. 20-399
	)	
Petition for Enforcement of Operational Limits and	)	
for Expedited Proceedings to Revoke Satellite	)	
Licenses	)	

MEMORANDUM OPINION AND ORDER

Adopted: November 13, 2023

Released: November 13, 2023

By the Chief, Enforcement Bureau:

I. INTRODUCTION

1. In this Order on Reconsideration, we dismiss and, on alternative and independent grounds, deny a request filed by BIU, LLC (BIU) to reinstate the above-captioned Petition filed by Spectrum Five LLC (Spectrum Five).¹ For the reasons discussed below, we dismiss BIU's reconsideration request because it was filed late in violation of Section 405(a) of the Communications Act of 1934, as amended (the Act), and section 1.106(f) of the Commission's rules.² On alternative and independent grounds, after reviewing the record, we deny the reconsideration request because BIU has not demonstrated that the withdrawal of the Spectrum Five Petition was procured by fraud on the Commission's processes.

II. BACKGROUND

2. On November 6, 2020, Spectrum Five filed the above-captioned Petition asking the Commission to require Intelsat License LLC (Intelsat) to come into compliance with the terms of its licenses for the Intelsat 30 and Intelsat 31 satellites.³ On April 12, 2023, Spectrum Five's outside counsel submitted a letter stating that Spectrum Five withdraws its Petition.⁴ In response, the Commission's Enforcement Bureau (Bureau) on April 24, 2023, publicly released an Order dismissing the Spectrum Five Petition with prejudice.⁵

¹ See Letter from Michael H. Strub, Jr., Counsel for BIU, LLC, to Loyaan A. Egal, Chief, Enforcement Bureau, FCC, IB Docket No. 20-399 (filed June 9, 2023) (BIU Reconsideration Letter); Petition of Spectrum Five for Enforcement of Operational Limits and for Expedited Proceedings to Revoke Satellite Licenses, IB Docket No. 20-399 (filed Nov. 6, 2020) (Spectrum Five Petition).

² 47 U.S.C. § 405(a); 47 CFR § 1.106(f).

³ See Spectrum Five Petition.

⁴ See Letter from Samuel L. Feder, Counsel for Spectrum Five, LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket No. 20-399 (filed Apr. 12, 2023) ("Spectrum Five LLC respectfully withdraws its petition for Enforcement of Operational Limits and for Expedited Proceedings to Revoke Satellite Licenses.").

⁵ See Spectrum Five LLC, Order, DA 23-345, 2023 WL 3152002 (EB 2023) (*EB Dismissal Order*). On June 23, 2023, BIU filed a Petition for Review of the *EB Dismissal Order* with the United States Court of Appeals for the D.C. Circuit. See Petition for Review of Petitioner BIU, LLC, *BIU, LLC v. FCC*, No. 23-1163 (D.C. Cir. June 23, 2023). On August 14, 2023, the Commission filed a Motion to Dismiss the BIU Petition for Review. See Motion to (continued....)

3. On June 9, 2023, BIU filed a letter in the above-captioned proceeding alleging that the withdrawal of the Petition was “procured by fraud” at the direction of R. David Wilson, Chairman and CEO of Spectrum Five.⁶ In the letter, BIU alleges that BIU and Spectrum Five are parties to certain loan agreements.⁷ According to BIU, Spectrum Five defaulted on its loan, resulting by the terms of the loan agreements in the appointment of BIU as Spectrum Five’s exclusive attorney-in-fact with the sole authority to authorize the dismissal of the Spectrum Five Petition.⁸ BIU asserts that Mr. Wilson did not notify BIU of his withdrawal of the Petition.⁹ In its letter, BIU asks the Bureau to reinstate the Petition and reopen the docket.¹⁰

4. On August 25, 2023, Mr. Wilson, on behalf of Spectrum Five, replied to the BIU Reconsideration Letter, contending that BIU has no right to assert control over Spectrum Five and has no right to claim it represents Spectrum Five.¹¹ Rather, Mr. Wilson claims that he was the only person authorized to make decisions for Spectrum Five, and that the provisions of the loan agreements cited by BIU related only to BIU’s authority to perform ministerial functions on Spectrum Five’s behalf, such as signing of tax filings.¹²

5. On September 5, 2023, BIU responded to Spectrum Five’s August 25, 2023 letter, claiming that specified terms of the loan agreements “irrevocably designated, made, constituted, and appointed BIU as Spectrum Five’s true and lawful attorney-in-fact.”¹³ BIU claims that Spectrum Five’s interpretation of the contractual language would mean BIU’s power-of-attorney does not convey the right to protect BIU’s investment, which BIU alleges would violate the “fundamental principle of contract interpretation that a contract should be interpreted so as to give meaning to each of its provisions.”¹⁴

III. DISCUSSION

6. Pursuant to section 405(a) of the Act and section 1.106(f) of the Commission’s rules, a petition for reconsideration must be filed within 30 days from the date of public notice of the Commission action.¹⁵ Public notice of the Bureau’s decision to grant Spectrum Five’s request to withdraw its Petition and to terminate the proceeding was given on April 24, 2023, when the decision was released to the public.¹⁶ Pursuant to section 1.4 of the Commission’s rules, the first day to be counted in computing the 30-day reconsideration period was April 25, 2023, resulting in the last day for filing an acceptable petition

Dismiss of Respondent Federal Communications Commission, *BIU, LLC v. FCC*, No. 23-1163 (D.C. Cir. Aug. 14, 2023). On October 19, 2023, the D.C. Circuit granted the Motion to Dismiss. *See Order, BIU, LLC v. FCC*, No. 23-1163 (D.C. Cir. Oct. 19, 2023).

⁶ *See* BIU Reconsideration Letter, *supra* note 1, at 1.

⁷ *Id.* at 3.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 5.

¹¹ *See* Letter from R. David Wilson, Spectrum Five, LLC, to Loyaan A. Egal, Chief, Enforcement Bureau, FCC, IB Docket No. 20-399, at 2-3 (filed Aug. 25, 2023) (Spectrum Five Reply).

¹² *Id.* at 3.

¹³ *See* Letter from Michael H. Strub, Jr., Counsel for BIU, LLC, to Loyaan A. Egal, Chief, Enforcement Bureau, FCC, IB Docket No. 20-399, at 1 (filed Sept. 5, 2023) (BIU Response).

¹⁴ *Id.* at 1-2 (quoting *Nationwide Mut. Ins. Co. v. Nat’l REO Mgmt., Inc.*, 205 F.R.D. 1, 11 (D.D.C. 2000)).

¹⁵ 47 U.S.C. § 405; 47 CFR § 1.106(f).

¹⁶ 47 CFR § 1.4(b)(2) (providing that “for non-rulemaking documents released by the Commission or staff” the date of public notice is “the release date”); *see supra* note 5.

for reconsideration of May 24, 2023.¹⁷ BIU filed its reconsideration request on June 9, 2023, over two weeks after the statutory deadline for seeking reconsideration.¹⁸ While BIU claims that it did not become aware of the Bureau's decision until June 6, 2023, the Bureau's public release of the decision on April 24, 2023, provided BIU with constructive notice of the decision.¹⁹ Accordingly, we dismiss BIU's reconsideration request as untimely.²⁰

7. On alternative and independent grounds, we deny the reconsideration request because BIU has not demonstrated that the withdrawal of the Spectrum Five Petition was procured by fraud on the Commission's processes, but rather is a matter of private contract dispute between BIU and Spectrum Five. The Commission has previously considered procedurally improper petitions for reconsideration where there was undisputed evidence of fraud on the Commission's processes.²¹ In this case, however, there is no such evidence. Rather, Spectrum Five and BIU disagree as to whether Mr. Wilson had authority to withdraw the Petition based on competing interpretations of contractual language. The Commission has long held that it is not the proper forum for adjudicating such private contractual disputes.²² This is solely a matter between BIU and Spectrum Five and is justiciable, if at all, in a court of competent jurisdiction and not by the Commission.²³ Accordingly, based on the record before us, we conclude that BIU has not demonstrated that the withdrawal of the Spectrum Five Petition was procured by fraud on the Commission's processes. Therefore, on alternative and independent grounds, we deny the Spectrum Five Petition.

IV. ORDERING CLAUSES

8. Accordingly, **IT IS ORDERED** that, pursuant to sections 4(i) and 405(a) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 405(a), and section 1.106 of the

¹⁷ 47 CFR § 1.4(c)-(d).

¹⁸ See *supra* note 1.

¹⁹ See *K. Rupert Murdoch (Transferor) and Fox Entm't Group (Transferee)*, Memorandum Opinion and Order on Reconsideration, 24 FCC Rcd 5824, 5827, para. 11 (2009) ("public notice constitutes constructive notice"); see also *Holy Family Oratory of St. Philip Neri*, Memorandum Opinion and Order, 29 FCC Rcd 13273, 13274, para. 5 (2014) (unawareness of public notice of decision insufficient basis for consideration of late-filed reconsideration petition).

²⁰ 47 U.S.C. § 405(a); 47 CFR § 1.106(f).

²¹ See, e.g., *Champion Communications Services, Inc.*, Order, 15 FCC Rcd 12832, 12832, para. 3 (WTB 2000) (both assignee and assignor agreed that assignment application was signed by unauthorized person); *Comtex Communications, Inc.*, Order, 15 FCC Rcd 11730, 11731, para. 6 (WTB 2000) (undisputed showing that assignor never authorized the assignment of its license).

²² See, e.g., *Arecibo Radio Corp.*, Memorandum Opinion and Order, 101 FCC 2d 545, 548 (1985); *Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC*, Memorandum Opinion and Order and Declaratory Ruling, 23 FCC Rcd 17444, 17538, para. 214 (2008); see also *Listeners' Guild, Inc. v. FCC*, 813 F.2d 465, 469 (D.C. Cir. 1987) (referring to the "Commission's longstanding policy of refusing to adjudicate private contract law questions for which a forum exists in the state courts").

²³ See *In Re Am. Indus. Door, Inc.*, Order on Reconsideration, 16 FCC Rcd 16300, 16302, para. 5 (WTB 2001) (finding insufficient evidence that assignment was procured by fraud on the Commission's processes; rather, dispute was "solely a matter between assignor and assignee, justiciable, if at all, in a court with civil jurisdiction and not by the Commission").

Commission's rules, 47 CFR § 1.106, the reconsideration request filed by BIU, LLC on June 9, 2023, is DISMISSED and, in the alternative, is DENIED.²⁴

9. **IT IS FURTHER ORDERED** that a copy of this Memorandum Opinion and Order shall be sent by first class mail and certified mail, return receipt requested, to Counsel for BIU, LLC, Michael H. Strub Jr., Esq., Greenberg Gross LLP, 650 Town Center Drive, Suite 1700, Costa Mesa, California 92626.

FEDERAL COMMUNICATIONS COMMISSION

Loyaan A. Egal
Chief
Enforcement Bureau

²⁴ This action is taken pursuant to authority delegated by sections 0.111 and 0.311 of the Commission's rules. *See* 47 CFR §§ 0.111, 0.311.



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 23-1069

Released: November 9, 2023

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

WC Docket No(s). 23-341 & 23-342

Comments Due: November 24, 2023

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 10, 2023**, 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 **November 24, 2023**. 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 by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit one additional copy for each additional docket or rulemaking number associated with the proceeding in which they choose to file comments. Filings can be sent by commercial overnight courier or by first-class or overnight U.S. Postal Service mail.⁶ 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, D.C. 20554.

Copies of the comments may also be emailed to the Competition Policy Division, Wireline Competition Bureau, Federal Communications Commission, using the contact information listed in the Appendix for the appropriate Section 214 Application. In addition, comments should be served upon the Applicant(s).

These proceedings are considered "permit but disclose" proceedings for purposes of the Commission's *ex parte* rules.⁷ Participants should familiarize themselves 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

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

⁶ 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 Filing*, Public Notice, 35 FCC Rcd 2788 (OMD 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

⁷ 47 CFR § 1.1200 *et seq.*

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).

People with Disabilities: We ask that requests for accommodations be made as soon as possible in order to allow the agency to satisfy such requests whenever possible. Send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0530.

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): Blue Casa Telephone, LLC**
WC Docket No. 23-341, Comp. Pol. File No. 1869
Link – [https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings.name:\(%2223-341*%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2223-341*%22)))
Affected Service(s) – local exchange service, remote call forwarding, interstate long distance, intrastate long distance and toll-free services⁸
Service Area(s) – California
Authorized Date(s) – on or after December 12, 2023
Contact(s) – Kimberly Jackson, (202) 418-7393 (voice), Kimberly.Jackson@fcc.gov, of the Competition Policy Division, Wireline Competition Bureau

- 2) **Applicant(s): Pacific Centrex Datavo, LLC**
WC Docket No. 23-342, Comp. Pol. File No. 1870
Link – [https://www.fcc.gov/ecfs/search/search-filings/results?q=\(proceedings.name:\(%2223-342*%22\)\)](https://www.fcc.gov/ecfs/search/search-filings/results?q=(proceedings.name:(%2223-342*%22)))
Affected Service(s) – local exchange service, remote call forwarding, interstate long distance, intrastate long distance and toll-free services⁹
Service Area(s) – California
Authorized(s) – on or after December 12, 2023
Contact(s) – Kimberly Jackson, (202) 418-7393 (voice), Kimberly.Jackson@fcc.gov, of the Competition Policy Division, Wireline Competition Bureau

⁸ Only services offered in whole or in part as interstate telecommunications services are currently subject to the section 214 discontinuance process.

⁹ Only services offered in whole or in part as interstate telecommunications services are currently subject to the section 214 discontinuance process.

In the Matter of)
)
Modernizing the E-Rate Program for Schools and) WC Docket No. 13-184
Libraries)

Released: November 9, 2023

10480

4. 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	)	
	)	
Wireless Emergency Alerts	)	PS Docket No. 15-91
	)	
Amendments to Part 11 of the Commission's Rules	)	
Regarding the Emergency Alert System	)	PS Docket No. 15-94

ORDER

Adopted: November 9, 2023

Released: November 9, 2023

By the Deputy Chief, Public Safety and Homeland Security Bureau:

I. INTRODUCTION

1. In this Order, the Federal Communications Commission's (Commission) Public Safety and Homeland Security Bureau (Bureau) grants the waiver request submitted by the County of Monterey Department of Emergency Management (MCDEM).¹ The MCDEM requests a waiver of the Commission's Wireless Emergency Alerts (WEA) rules to permit Participating Commercial Mobile Service (CMS) Providers² to participate in four end-to-end WEA tests received by the public by default, scheduled over three days on November 28, 30, and December 7, 2023, at 10:00 a.m. Pacific Standard Time (PST).³

2. Based on the circumstances discussed below, we find that waiver of the Commission's rules would serve the public interest. Accordingly, we grant the MCDEM's waiver request to conduct four end-to-end WEA tests using the Public Safety Message alert category outlined in 47 C.F.R. § 10.400,⁴ which would be transmitted to all members of the public with WEA-capable devices by default, subject to certain conditions.

II. BACKGROUND

3. WEA allows authorized government entities to send geographically-targeted emergency alerts to commercial wireless subscribers who have WEA-capable mobile devices and whose commercial mobile service providers are Participating CMS Providers.⁵ The Commission's rules prohibit use of the WEA Attention Signal except during actual emergencies, authorized tests, and certain public service

¹ See Letter from Justin Lin, Emergency Services Planner, County of Monterey Department of Emergency Management (MCDEM), to Debra Jordan, Chief, Public Safety & Homeland Security Bureau, Federal Communications Commission (Nov. 2, 2023) (on file in Docket Nos. 15-91) (MCDEM Letter).

² Participating CMS Providers are commercial mobile service providers that have elected voluntarily to transmit WEA alert messages. 47 CFR §§ 10.10(d), (f). The WEA rules are set forth in Part 10 of the Commission's rules. See generally 47 CFR § 10.1, *et seq.*

³ MCDEM Letter at 1.

⁴ See 47 CFR § 10.400(d).

⁵ *Commercial Mobile Alert System*, PS Docket No. 07-287, Third Report and Order, 23 FCC Rcd 12561, 12575, para. 32 (2008) (stating the requirements for wireless providers volunteering to participate in WEA).

announcements.⁶ The Commission's rules allow WEA end-to-end tests that reach the public only when the test is conducted using the State/Local WEA Test category.⁷ State/Local WEA Tests differ from actual WEAs in the following ways: Consumers will not receive State/Local WEA Tests by default; instead, consumers must affirmatively opt in to receive these WEA test alert messages.⁸ Further, tests conducted using the State/Local WEA Test category must include conspicuous language sufficient to make it clear to the public that the WEA alert message is only a test.⁹ As of December 19, 2019, alert originators wishing to conduct end-to-end WEA tests using the State/Local WEA Test category do not need to request a waiver from the Commission to permit WEA test alerts using the State/Local WEA Test category to be transmitted to the public.¹⁰

4. On October 19, 2023, the Commission adopted rules to require Participating CMS Providers to support up to two end-to-end WEA tests, per county (or county equivalent), per year, that consumers receive by default.¹¹ Under these adopted rules, in advance of conducting such a "WEA Performance and Public Awareness Test," an alerting authority must do the following: 1) conduct outreach and notify the public in advance of the planned WEA test and that no emergency is, in fact, occurring; 2) include in its test message that the alert is "only a test"; 3) coordinate the test among Participating CMS Providers that serve the geographic area targeted by the test, state, local, and Tribal emergency authorities, relevant State Emergency Communications Committees (SECCs), and first responder organizations; and 4) provide notification to the public in widely accessible formats that the test is only a test and is not a warning about an actual emergency.¹² These rules will become effective within 30 days of the *2023 WEA Accessibility Report and Order's* publication in the *Federal Register*.¹³

5. The MCDEM requests waiver of the Commission's rules to allow Participating CMS Providers to participate in the following four end-to-end WEA tests received by the public by default:

- San Ardo on November 28, 2023, 10:00 a.m. PST
- Carmel Valley on November 28, 2023, 10:00 a.m. PST

⁶ 47 CFR § 10.520(d). The Attention Signal is a loud, attention-grabbing, two-tone audio signal that uses frequencies and sounds identical to the attention signal used by the EAS. *Compare* 47 CFR § 10.520 *with* 47 CFR § 11.31(a)(2).

⁷ 47 CFR § 10.350. Specifically, the Commission's rules require Participating CMS Providers to participate in monthly tests initiated by the Federal Emergency Management Agency and in periodic tests of WEA's C-Interface. *Id.* On November 1, 2016, the Commission adopted a Report and Order that amended the WEA testing rules to permit emergency managers to conduct end-to-end WEA tests to the public to assess how WEA is working within their jurisdictions. *See Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 11112, 11154-57, paras. 65-68 (2016) (*WEA R&O*).

⁸ *WEA R&O*, 31 FCC Rcd at 11154-55, para. 65 (requiring Participating CMS Providers to provide their subscribers with the option to receive State/Local WEA Tests, whereby subscribers must affirmatively select the option to receive State/Local WEA Test messages).

⁹ *Id.* (requiring State/Local WEA Test messages to include conspicuous language sufficient to make clear to the public that the message is only a test).

¹⁰ *Id.*

¹¹ *See Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Report and Order, PS Docket Nos. 15-91 and 15-94, FCC 23-88, at paras. 35-40 (2023) (*2023 WEA R&O*) (adopting rules to allow WEA Performance and Public Awareness Testing).

¹² *Id.* at 21-22, para. 35.

¹³ *Id.* at 25, para. 40.

- Pajaro on November 30, 2023, 10:00 a.m. PST
- City of Monterey on December 7, 2023 10:00 a.m. PST

The above four test sites are geographically unique areas within Monterey County, California, and include varying urban and rural communities, hazard profiles, and demographics.¹⁴ For example, both San Ardo and Carmel Valley are considered rural areas, with populations of 392 and 3,631, respectively. Pajaro and the City of Monterey are considered urban areas, with populations of 4,410 and 29,571, respectively.¹⁵ According to the MCDEM Letter, in Pajaro, approximately 41.7% of residents speak English “very well,” whereas in the City of Monterey, approximately 91.3% of residents speak English “very well.”¹⁶ The MCDEM Letter also suggests that Spanish is spoken by more than 50% of the population in each of the four test sites.

6. The MCDEM Letter indicates that the purpose of these tests is to evaluate the Genasys Emergency Management (GEMS) alert and warning platform,¹⁷ which would replace Monterey County’s existing alert and warning platform.¹⁸ According to the MCDEM Letter, testing WEA at four sites over three days will enable Monterey County to identify the extent of “bleed over” from WEA alerts into neighboring jurisdictions and confirm the GEMS platform’s WEA capabilities across a range of geographies and demographics.¹⁹ The closest distance between two test sites is approximately twelve miles between Carmel Valley and the City of Monterey.²⁰ Further, the MCDEM Letter states use of live WEA tests received by the public by default would allow further reach, greater public input, and better ability to inform the public for the transition to the new alerting and warning platform.²¹ The planned WEA tests are part of a comprehensive plan to test Monterey County’s mass alerting systems, including Reverse 9-1-1 (geolocated contacts) voice, teletypewriter (TTY), short message service (SMS), social media, really simple syndication (RSS) and website pathways, email, and application notifications.²²

7. The MCDEM Letter further describes the involvement of several resources to conduct the test: The County of Monterey Department of Emergency will populate test messages on its website; jurisdictional and cooperating partners will post information about the test on social media before and during the tests; Monterey County’s Public Information Officer (PIO) will support the dissemination of information through traditional media channels, including media briefings, news and press releases, and radio; and Monterey County will collaborate with trusted messengers within communities.²³ The MCDEM states that it is working on a multi-media public service announcement for the test.²⁴

8. The test message will read in English: “THIS IS A TEST of the Alert Monterey County emergency notification system. Please confirm receipt of the test Alert here: alertmry.org/survey. For

¹⁴ MCDEM Letter at 2.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ See Genasys, *National Emergency Warning System*, <https://genasys.com/national-emergency-warning-systems/> (last visited Nov. 6, 2023).

¹⁸ MCDEM Letter at 1.

¹⁹ *Id.*

²⁰ *Id.* at 2.

²¹ *Id.* at 1.

²² *Id.*

²³ *Id.* at 3.

²⁴ *Id.*

more information visit: www.readymontereycounty.org”²⁵ The test message will read in Spanish: “ESTA ES UNA PRUEBA del sistema de notificación de emergencias Alert Monterey County. Por favor, confirme que recibió la alerta de prueba respondiendo aquí: alertmry.org/survey. Para más información visite: www.readymontereycounty.org.”²⁶

9. The MCDEM’s request is supported and developed in conjunction with several departments within Monterey County, including the County of Monterey Emergency Communications Department, County of Monterey Chief Public Information Officer, County of Monterey Health Department, County of Monterey Free Libraries, Monterey County Sheriff’s Office, Monterey County Office of Education, Monterey County Regional Fire, North County Fire, City of Monterey City Manager’s Office, Monterey Fire Department, Monterey Police Department, CAL FIRE BEU, California Highway Patrol Central Division, and California Office of Emergency Services.²⁷

III. DISCUSSION

10. A provision of the Commission’s rules “may be waived by the Commission on its own motion or on petition if good cause therefor is shown.”²⁸ The Commission may find good cause to extend a waiver, “if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest.”²⁹ We conclude that there is good cause to grant the MCDEM’s waiver request for the four end-to-end WEA tests received by the public by default.

11. We are persuaded it is in the public interest to allow the MCDEM to test WEA’s performance over the County’s variety of geographic and demographic conditions. The four sites cover topographies of hills, mountains, plains, valleys, and coastal lines. MCDEM states that the four test sites were chosen based on recent emergencies that occurred during winter storms: San Ardo was at risk from flooding Salinas River, Carmel Valley experienced flooding from the Carmel River, Pajaro experienced a levee failure and flooding, and the City of Monterey was impacted by the 2022 Tonga Tsunami.³⁰ Monterey County also contains different telecommunications infrastructure over its urban and rural areas, which have a variety of population densities.³¹ We are persuaded that testing these systems will enable the MCDEM to develop a more complete emergency alerting plan, raise awareness about WEA, learn the extent of WEA’s reach, and gain confidence in WEA’s capabilities to warn the public. As the Commission recently observed in adopting rules to require Participating CMS Providers to support up to two end-to-end WEA tests, per county (or county equivalent), per year, that consumers receive by default, “effective public awareness testing helps the public to understand how to respond to WEAs in the event of an actual emergency.”³²

12. Furthermore, we are persuaded that it is in the public interest to allow the MCDEM to evaluate the feasibility of moving to the Genasys GEMS Alert and Warning platform. We agree with the MCDEM that these tests will help identify the extent of overshoot between areas within a county when

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ 47 CFR § 1.3.

²⁹ See *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *aff’d*, 459 F.2d 1203 (1973), *cert. denied*, 409 U.S. 1027 (1972)).

³⁰ MCDEM Letter at 1.

³¹ MCDEM Letter at 2-3.

³² See 2023 WEA R&O at para. 35, 38.

sending WEA messages.³³ The Commission's rules require Participating CMS Providers to deliver WEA messages to 100% of the target area with no more than 0.1 of a mile overshoot.³⁴ The Bureau recently conducted a performance exercise of the WEA system in which it found significant overshoot in terms of the number of mobile devices outside of the target test area that received the test message.³⁵ The data from the WEA performance exercise show that 10% of respondents (i.e., approximately 477 of 4,786 devices outside the target area) were more than 11.76 miles from the allowable presentation area.³⁶ The closest distance between the MCDEM's test sites is approximately 12 miles, and distances between the other test sites are more than 22 miles.³⁷ Based on the Bureau's previous testing data, we expect the distance between the four test sites will likely minimize the amount of overshoot of the WEA messages, thus mitigating the Bureau's concerns of alerting fatigue. We further believe that learning the extent of overshoot is paramount to developing a comprehensive alert and warning plan. Accordingly, we conclude that this waiver of the Commission's rules is warranted.³⁸

13. We observe, however, that these tests would not be in the public interest if it were presented in a manner that could lead the public to conclude that an actual alert is being transmitted, or would otherwise confuse the public. We therefore condition this waiver upon the full implementation of the outreach plan described in the MCDEM Letter, including, but not limited to, the publication of the messages in educational materials on official state websites and multi-media public service announcements.

14. We further condition this waiver to require that the test may only be conducted at the times and on the dates referenced in the MCDEM Letter and may only be conducted for the purposes described therein. Specifically, the waiver is based upon representations that:

- (1) this test is necessary to assess and validate the readiness and effectiveness of the emergency warning system, plans and infrastructure, and ability of participants to disseminate emergency messages to the public;
- (2) MCDEM will coordinate information about the test with relevant Participating CMS Providers, including first responder organizations such as police and fire agencies and 911 PSAPs, to ensure that they are aware of the test and can confirm to the public that the WEA messages are a test; and

³³ See MCDEM Letter at 1.

³⁴ 47 CFR § 10.450.

³⁵ See *September 2022 WEA Performance Exercise*, PS Docket Nos. 15-91 and 15-94, 6 (Apr. 24, 2023).

³⁶ See *September 2022 WEA Performance Exercise*, PS Docket Nos. 15-91 and 15-94, 6-7 (Apr. 24, 2023).

³⁷ MCDEM Letter at 2-3.

³⁸ We note that the *2023 WEA Accessibility Report and Order* adopted rules to require Participating CMS Providers to support up to two end-to-end WEA tests, per county (or county equivalent), per year, that consumers receive by default. In advance of conducting such a "WEA Performance and Public Awareness Test," an alerting authority must do the following: 1) conduct outreach and notify the public in advance of the planned WEA test and that no emergency is, in fact, occurring; 2) include in its test message that the alert is "only a test"; 3) coordinate the test among Participating CMS Providers that serve the geographic area targeted by the test, state, local, and Tribal emergency authorities, relevant State Emergency Communications Committees (SECCs), and first responder organizations; and 4) provide notification to the public in widely accessible formats that the test is only a test and is not a warning about an actual emergency. These rules are not yet effective, and will become effective within 30 days of the *2023 WEA Accessibility Report and Order*'s publication within the *Federal Register*. See *Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Report and Order, PS Docket Nos. 15-91 and 15-94, FCC 23-88, at paras. 35-40 (2023) (adopting rules to allow WEA Performance and Public Awareness Testing).

- (3) the WEA test is not intended as a substitute for other scheduled WEA tests.

15. We also require that the tests and any post-test analysis and reports the counties choose to conduct or cause to be produced, are done in a manner consistent with customers' expectations of privacy, confidentiality of Participating CMS Providers' network information, and the overall security of the WEA systems and infrastructure.³⁹ We encourage the MCDEM to report its test results in electronic format to the Bureau. Finally, we encourage members of the public who experience anomalous WEA test performance to report their experience to the Bureau by submitting a brief description of the issue to the FCC's Public Safety Support Center at <https://www.fcc.gov/general/public-safety-support-center>.

IV. ORDERING CLAUSE

16. 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 1.3 of the Commission's rules, 47 CFR § 1.3, Sections 10.400, 10.520(d), 10.530(b), and 11.45 of the Commission's rules, 47 CFR §§ 10.400, 10.520(d), 10.530(b), and 11.45 of the Commission's rules, **ARE WAIVED**, to allow four tests of WEA, as described above, in Monterey County, California; which test must be conducted subject to the conditions described herein. This action is taken under delegated authority pursuant to Sections 0.191 and 0.392 of the Commission's rules, 47 CFR §§ 0.191 and 0.392.

FEDERAL COMMUNICATIONS COMMISSION

Nicole McGinnis
Deputy Chief
Public Safety and Homeland Security Bureau
Federal Communications Commission

³⁹ See 47 U.S.C. § 222.

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

FOR THE PERIOD APRIL 13, 2023 TO
OCTOBER 12, 2023

Submitted Pursuant to
Public Law No. 115-232

The Federal Communications Commission (Commission) hereby submits this Eleventh 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, 2022, to April 12, 2023, was transmitted to Congress prior to May 9, 2023.² This eleventh report, covering April 13, 2023, to October 12, 2023, is hereby transmitted to Congress within six months of the previous report, or by November 9, 2023.³

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 *Tenth Semi-Annual Report to Congress on United States-Based Foreign Media Outlets*, Report, DA 23-402 (MB May 11, 2023). 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 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 12, 2023, 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 12, 2023.¹¹ 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 13, 2023, and October 12, 2023, 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 23-837 (MB Sept. 12, 2023). 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).



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

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

DA 23-1073
Released: November 9, 2023

THE PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES “EXEMPT” *EX PARTE* STATUS IN PREPARATION OF ISSUING A PUBLIC NOTICE SEEKING COMMENT ON MULTILINGUAL WIRELESS EMERGENCY ALERTING

PS Docket Nos. 15-91 and 15-94

On October 19, 2023, the Federal Communications Commission (Commission) released a Third Report and Order adopting rules regarding the Wireless Emergency Alert system (WEA).¹ Among other things, the *2023 WEA Report and Order* requires commercial mobile service providers that participate in WEA to support multilingual WEA templates for the 13 most commonly spoken languages in the United States, American Sign Language, and English.² In doing so, the Commission directed the Public Safety and Homeland Security Bureau (Bureau) to develop implementation parameters for template-based multilingual alerting and to seek comment on various aspects of its implementation.³ Pursuant to this direction, the Bureau will issue a Public Notice seeking comment on these issues at a later date.

To allow fuller discussions with the staff of Federal agencies and interested stakeholders regarding template capabilities and content in preparation for the Bureau’s issuance of the above-referenced Public Notice, the Bureau announces that during the period between the release of this Public Notice and the subsequent release of a Public Notice seeking comment on multilingual WEA this rulemaking will be treated as an exempt proceeding under the Commission’s rules in 47 CFR §§ 1.1200(a) and 1.1204(b)(1) to the extent it deals with the subject of multilingual WEA.⁴ Accordingly, *ex parte* presentations to or from Commission decision-making personnel directed to the merits or outcome of issues related solely to the forthcoming Public Notice in PS Docket Nos. 15-91 and 15-94 are permissible and need not be disclosed. Presentations that are directed in whole or in part to the merits or outcome of other issues raised in the Commission’s underlying Further Notice of Proposed Rulemaking⁵ or addressed in the *2023 WEA Report and Order* remain subject to the permit-but-disclose rules.⁶

¹ *Wireless Emergency Alerts; Amendments to Part 11 of the Commission’s Rules Regarding the Emergency Alert System*, Report and Order, PS Docket Nos. 15-91 and 15-94, FCC 23-88 (2023) (*2023 WEA Report and Order*).

² *Id.* at 11, para. 19.

³ *Id.* at 13-15, paras. 21-24.

⁴ 47 CFR § 1.1200(a) (stating that “[w]here the public interest so requires in a particular proceeding, the Commission and its staff retain the discretion to modify the applicable *ex parte* rules by order, letter, or public notice.”).

⁵ *Wireless Emergency Alerts; Amendments to Part 11 of the Commission’s Rules Regarding the Emergency Alert System*, Further Notice of Proposed Rulemaking, PS Docket Nos. 15-91 and 15-94, FCC 23-30 (2023).

⁶ 47 CFR § 1.1206.

For further information, contact Erika Olsen, Acting Chief, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, at erika.olsen@fcc.gov or (202) 418-2868.

-FCC-

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

In re Application of	)	
	)	
Sunflower Community Action	)	NAL/Acct. No. MB-202341410025
	)	FRN: 0023046659
For Renewal of License for	)	Facility ID No. 193711
Low-Power FM Station KYOM-LP	)	Application File No. 0000134278
Wichita, Kansas	)	

ORDER

Adopted: November 14, 2023**Released: November 14, 2023**

By the Chief, Media Bureau:

1. In this Order, we adopt the attached Consent Decree entered into by the Media Bureau (Bureau) and Sunflower Community Action (Licensee), licensee of Station KYOM-LP, Wichita, Kansas (Station). The Consent Decree resolves issues arising from the Bureau's review of the captioned license renewal application (Application) for the Station. In particular, the Consent Decree resolves the Bureau's investigation of Licensee's compliance with sections 73.845 and 73.875 of the Commission's Rules (Rules),¹ which require that licensees operate stations in accordance with the terms of the station authorization, and seek authorization under a construction permit application for any modifications of authorized broadcast transmission system facilities, including use of unauthorized equipment.²

2. On February 1, 2021, Licensee filed the above-captioned application to renew the license for the Station.³ In the Application, Licensee disclosed that the Station's antenna was initially constructed at the wrong height.⁴ The initial construction permit for the Station authorized an antenna height of 24 meters above ground level (AGL).⁵ However, the antenna was actually constructed at a height of 13 meters AGL, causing Licensee to broadcast with unauthorized equipment. Following the discovery of this discrepancy, Licensee sought Commission authority to remain silent,⁶ and filed an

¹ See 47 CFR § 73.845 ("Each LPFM licensee is responsible for maintaining and operating its broadcast station in a manner that complies with the technical rules set forth elsewhere in this part and in accordance with the terms of the station authorization."); 47 CFR § 73.875(b) ("The following changes may be made only after the grant of a construction permit application on FCC Form 318 . . . [a]ny change in antenna height more than 2 meters above or 4 meters below the authorized value.").

² *Id.*

³ Application File No. 0000134278 (Application).

⁴ *Id.* at Attach. "kyom.pdf".

⁵ Application File No. BNPL-20131106ALG at Antenna Location Data (granted Feb. 14, 2014).

⁶ Application File No. BLSTA-20200916AAG (granted Nov. 2, 2020).

application to modify the facility and operate at 13 meters AGL.⁷ Licensee then filed a covering license at the newly authorized antenna height and resumed Station operations.⁸

3. The Bureau and Licensee have negotiated the attached Consent Decree in which Licensee stipulates that it violated sections 73.845 and 73.875 of the Rules and provides that Licensee agrees, among other things, to make a civil penalty payment (Civil Penalty) to the United States Treasury in the amount of two thousand five hundred dollars (\$2,500).

4. 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, and granting the Application. Grant shall be conditioned upon Licensee fully and timely satisfying its obligation to pay the Civil Penalty in the manner set forth in paragraph 13 of the attached Consent Decree.

5. Based on the record before us, we conclude that nothing in that record creates a substantial or material question of fact as to whether Licensee possesses the basic qualifications to remain a Commission licensee.

6. **ACCORDINGLY, IT IS ORDERED** that, pursuant to sections 4(i), 4(j) and 503(b) of the Communications Act of 1934, as amended,⁹ and by the authority delegated by sections 0.61 and 0.283 of the Rules,¹⁰ the Consent Decree attached hereto **IS ADOPTED** without change, addition, or modification.

7. **IT IS FURTHER ORDERED** that the investigation by the Media Bureau of the matters noted above **IS TERMINATED**.

8. **IT IS FURTHER ORDERED** that the application of Sunflower Community Action, for renewal of license for Station KYOM-LP, Wichita, Kansas (Application File No. 0000134278) **IS GRANTED**, as conditioned herein.

9. **IT IS FURTHER ORDERED** that copies of this Order shall be sent, by First Class and Certified Mail, Return Receipt Requested, to Sunflower Community Action, c/o David Chiles, Executive Director, 1016 E Pawnee, Wichita, Kansas, 67211.

FEDERAL COMMUNICATIONS COMMISSION

Albert Shuldiner
Chief, Audio Division
Media Bureau

⁷ Application File No. 0000128366 (granted Dec. 14, 2020).

⁸ See Application No. 0000131173 (License to Cover) (granted Jan. 13, 2021); Notice of Resumption of Operation (filed Mar. 17, 2021).

⁹ 47 U.S.C. § 4(i), 4(j), 503(b).

¹⁰ 47 CFR §§ 0.61, 0.283.

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

In re Application of	)	
	)	
Sunflower Community Action	)	NAL/Acct. No. MB-202341410025
	)	FRN: 0023046659
For Renewal of License for	)	Facility ID No. 193711
Low-Power FM Station KYOM-LP	)	Application File No. 0000134278
Wichita, Kansas	)	

CONSENT DECREE

Adopted: November 14, 2023

Released: November 14, 2023

1. The Media Bureau of the Federal Communications Commission and Sunflower Community Action (hereafter “Licensee,” as defined below), by their authorized representatives, hereby enter into this Consent Decree for the purpose of terminating the Media Bureau’s investigation into the Licensee’s compliance with sections 73.845 and 73.875 of the Commission’s rules¹ relating to operating station facilities as authorized and obtaining authorization to use unauthorized equipment.

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, 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 application of Sunflower Community Action for renewal of the radio broadcast license for station KYOM-LP, Application File No. 0000134278.
 - (d) “Bureau” means the Media Bureau of the Commission.
 - (e) “Commission” or “FCC” means the Federal Communications Commission and all of its bureaus and offices.
 - (f) “Effective Date” means the date by which both the Bureau and the Licensee have signed the Consent Decree.
 - (g) “Investigation” means the Bureau’s decision to hold and not process the Licensee’s Application due to the noncompliance with authorized Station operation and required antenna height authorization.
 - (h) “Licensee” means Sunflower Community Action and its affiliates, subsidiaries, predecessors-in-interest, and successors-in-interest.
 - (i) “Parties” means the Licensee and the Bureau, each of which is a “Party.”
 - (j) “Rules” means the Commission’s regulations found in Title 47 of the Code of

¹ 47 CFR §§ 73.845 and 73.875.

Federal Regulations.

(k) “Station” means Station KYOM-LP, Wichita, Kansas.

II. BACKGROUND

3. Section 73.845 of the Rules provides that each LPFM licensee is responsible for maintaining and operating its broadcast station according to the terms of the station authorization.² Additionally, Section 73.875 provides that modifications of authorized broadcast transmission system facilities requires authorization under a construction permit.³

4. On February 1, 2021, Licensee filed the above-captioned application to renew the license for the Station.⁴ In the Application, Licensee disclosed that the Station’s antenna was initially constructed at the wrong height.⁵ The initial construction permit for the Station authorized an antenna height of 24 meters above ground level (AGL).⁶ However, the antenna was actually constructed at a height of 13 meters AGL. Following the discovery of this discrepancy, Licensee sought Commission authority to remain silent,⁷ and filed an application to modify the facility and operate at 13 meters AGL.⁸ Licensee then filed a covering license at the newly authorized antenna height and resumed Station operations.⁹

5. The Bureau and Licensee have negotiated the terms of the Consent Decree that terminates the Investigation into the matters discussed above. As part of the Consent Decree, the Licensee has agreed to pay a civil penalty of Two Thousand Five Hundred Dollars (\$2,500) to the U.S. Treasury.

III. TERMS OF AGREEMENT

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

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 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. **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 addition, the Bureau agrees to grant the Application. In consideration for such, the Licensee agrees to the terms, conditions, and procedures contained herein.

10. The Bureau agrees that, in the absence of new material evidence, the Bureau will not use the facts developed in this 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

² 47 CFR § 73.845.

³ 47 CFR § 73.875.

⁴ Application File No. 0000134278 (Application).

⁵ *Id.* at Attach. “kyom.pdf”.

⁶ Application File No. BNPL-20131106ALG at Antenna Location Data (granted Feb. 14, 2014).

⁷ Application File No. BLSTA-20200916AAG (granted Sep. 16, 2020).

⁸ Application File No. 0000128366 (granted Dec. 14, 2020).

⁹ See Application No. 0000131173 (License to Cover) (granted Jan. 13, 2021); Notice of Resumption of Operation (filed Mar. 17, 2021).

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.¹⁰

11. **Admission of Liability.** The Licensee admits for the purpose of this Consent Decree that it failed to operate the Station as authorized, by failing to seek authorization to construct its antenna at a height at variance from its authorization, in violation of sections 73.845 and 73.875 of the Rules.

12. 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.¹¹ The Licensee acknowledges that the Commission or its delegated authority may consider the Licensee's admission of liability in this Consent Decree in proposing any future forfeiture against Licensee in the event the Licensee is determined to have apparently committed a violation of the Act, the Rules, or of any orders of the Commission after the Effective Date, whether related to the operation of Station facilities or modification of station facilities or otherwise.

13. **Civil Penalty.** Licensee agrees to pay the Civil Penalty to the United States Treasury in the amount of Two Thousand Five Hundred Dollars (\$2,500) within thirty (30) calendar days after the Effective Date. Licensee 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 1996.¹²

14. **Payment.** Licensee will send electronic notification of payment to Alexander Sanjenis at Alexander.sanjenis@fcc.gov on the date said 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),¹³ or by wire transfer. Payments by check or money order to pay a forfeiture are no longer accepted. Below are instructions that payors should follow based on the form of payment selected:¹⁴

- 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).¹⁵ For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.

¹⁰ See 47 CFR § 1.93(b).

¹¹ See 47 U.S.C. § 503(b)(2)(E).

¹² Debt Collection Improvement Act of 1996, Pub. L. No. 104-134, 110 Stat. 1321, 1358 (Apr. 26, 1996).

¹³ Payments made using CORES do not require the submission of an FCC Form 159.

¹⁴ 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.

¹⁵ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

- 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.

15. **Qualifications; Agreement to Grant.** The Bureau finds that its Investigation raises no substantial and material questions of fact as to whether Licenses possesses the basic qualifications, including those relating to character, to continue to hold a Commission license or authorization. Accordingly, the Bureau agrees to grant the Application, after the Effective Date, provided that the following conditions have been met: 1) the Civil Penalty payment, referenced in paragraph 13 of this Decree, has been fully and timely satisfied; and 2) there are no issues other than the Violations that would preclude grant of the Application.

16. **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 Act¹⁶ relating to the matters addressed in this Consent Decree.

17. **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

¹⁶ See 5 U.S.C. § 504; 47 CFR §§ 1.1501-1.1530.

containing the particular unenforceable provision or provisions, and the rights and obligations of the Parties shall be construed and enforced accordingly.

18. **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.

19. **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.

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

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

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

23. **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.

24. **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.

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.



Albert Shuldiner
Chief, Audio Division
Media Bureau

11/14/2023
Date

David Chiles, Executive Director
Sunflower Community Action

Date

18. **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.

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

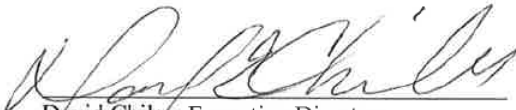
22. **Paragraph Headings.** The headings of the paragraphs in this Consent Decree are inserted for convenience only and are not intended to affect the meaning or interpretation of this Consent Decree.

23. **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.

24. **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.

Albert Shuldiner
Chief, Audio Division
Media Bureau

Date



David Chilos, Executive Director
Sunflower Community Action

Date

11/8/2023

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

In the Matter of	)	
	)	
West Central Minnesota Educational TV Corp.	)	Facility ID No. 71549
	)	NAL/Acct. No. 202341420043
Licensee of Station KWCM-TV,	)	FRN: 0005849286
Appleton, Minnesota	)	LMS File No. 0000174167

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

Adopted: November 13, 2023**Released: November 13, 2023**

By the Chief, Video Division, Media Bureau:

I. INTRODUCTION

1. The Media Bureau (Bureau) has before it the application (Application)¹ of West Central Minnesota Educational TV Corp. (Licensee), for renewal of its license for noncommercial educational (NCE) television station KWCM-TV, Appleton, Minnesota (Station). In this *Notice of Apparent Liability for Forfeiture* (NAL), we find the Licensee apparently willfully and repeatedly violated the Commission's rules (Rules) by failing to timely file the Station's quarterly issues/programs lists in violation of section 73.3527(e)(8) of the Rules.² Based upon our review of the facts and circumstances before us, we conclude that the Licensee is apparently liable for a monetary forfeiture in the amount of three thousand dollars (\$3,000).

II. BACKGROUND

2. Section 73.3527(e)(8) of the Rules requires every noncommercial educational television licensee to place in its Online Public Inspection File (OPIF), on a quarterly basis, an issues/programs list that details programs that have provided the station's most significant treatment of community issues during the preceding three month period and must include a brief narrative of the issues addressed, as well as the time, date, duration, and title of each program in which the issues were treated.³ Issues/programs lists must be placed in the station's OPIF by the tenth day of the succeeding calendar quarter and copies must be retained until final action on the station's next license renewal application.⁴

3. On November 30, 2021, the Licensee filed its Application. The Licensee disclosed in the Application, and a staff inspection of the Station's OPIF confirmed, that the Licensee failed to upload copies of its issues/programs lists in a timely manner. In total, the Licensee failed to upload copies of its issues/programs lists for a total of 12 quarters by the deadline established in section 73.3527(e)(8) of the

¹ Application of West Central Minnesota Educational TV Corp. for Renewal of License, LMS File No. 0000174167 (filed Nov. 30, 2021) (Application).

² 47 CFR § 73.3527(e)(8).

³ *Id.*

⁴ *Id.*

Rules.⁵ Specifically, it uploaded nine lists between one month and one year late and three lists between one day and one month late. In its Application, the Licensee stated that its failure to timely file its issues/programs lists was the result of an “oversight.”⁶

III. DISCUSSION

4. This NAL is issued pursuant to section 503(b)(1)(B) of the Communications Act of 1934, as amended (Act), which states that 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.⁷ 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.⁸ 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,⁹ and the Commission has so interpreted the term in the section 503(b) context.¹⁰ 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.”¹¹

5. *Apparent Violation.* The Licensee admits that it failed to upload in a timely manner to the Station’s OPIF copies of the Station’s issue/programs lists due to an “oversight.”¹² In total, the Licensee failed to upload in a timely manner issues/programs lists for 12 quarters. These lists were between several days and one-year late. We therefore find that the Licensee has apparently willfully and repeatedly violated section 73.3527(e)(8) of the Rules.¹³

6. *Proposed Forfeiture.* The Commission’s *Forfeiture Policy Statement* and section 1.80(b)(10) of the Rules establish a base forfeiture amount of \$10,000 for public file violations.¹⁴ 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.”¹⁵

7. In this case, the Licensee failed to timely upload to its OPIF copies of its issues/programs Lists for 12 quarters, including nine lists that were filed between one month and one year late, and three lists that were filed between one day and one month late a repeated failure to timely upload its issue/programs lists. We note that “employee acts or omissions, such as clerical errors in failing to file

⁵ *Id.*

⁶ Application, Attach. Exhibit re: KWCM-TV Online Public File.

⁷ See 47 U.S.C. § 503(b)(1)(B); see also 47 CFR § 1.80(a)(2).

⁸ 47 U.S.C. § 312(f)(1).

⁹ See H.R. Rep. No. 97-765, at 51 (1982) (Conf. Rep.).

¹⁰ See *Southern California Broadcasting Co.*, Memorandum Opinion and Order, 6 FCC Rcd 4387, 4388, para. 5 (1991) (*Southern California*), recon. denied, 7 FCC Rcd 3454 (1992).

¹¹ 47 U.S.C. § 312(f)(2).

¹² Application, Attach. Exhibit re: KWCM-TV Online Public File.

¹³ See 47 CFR § 73.3527(e)(8).

¹⁴ 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, 17113-15 (1997) (*Forfeiture Policy Statement*), recon. denied, 15 FCC Rcd 303 (1999); 47 CFR § 1.80(b), paragraph (b)(10), Table 1.

¹⁵ 47 U.S.C. § 503(b)(2)(E). See also *Forfeiture Policy Statement*, 12 FCC Rcd at 17100-01; 47 CFR § 1.80(b)(10); 47 CFR § 1.80(b), paragraph (b)(10), Table 3.

required forms, do not excuse violations.”¹⁶ Not only are Licensees responsible for the errors or oversights of their employees,¹⁷ but the Commission has also found that “inadvertence... is at best, ignorance of the law, which the Commission does not consider a mitigating circumstance.”¹⁸ Taking into consideration all of the factors required by section 503(b)(2)(E) of the Act and the *Forfeiture Policy Statement*, we find that under the facts of this case a forfeiture in the amount of \$3,000 is appropriate for the Licensee’s apparent willful failure to timely upload its issues/programs lists.

8. *License Renewal Application.* In evaluating an application for license renewal, the Commission’s decision is governed by section 309(k) of the Act.¹⁹ That section provides that if, upon consideration of the application and pleadings, we find that: (1) the station has served the public interest, convenience, and necessity; (2) there have been no serious violations of the Act or the Rules; and (3) there have been no other violations which, taken together, constitute a pattern of abuse, we are to grant the renewal application.²⁰ If, however, the licensee fails to meet that standard, the Commission may deny the application—after notice and opportunity for a hearing under section 309(e) of the Act—or grant the application “on terms and conditions as are appropriate, including renewal for a term less than the maximum otherwise permitted.”²¹

9. We find that the Licensee’s apparent violation of section 73.3527(e)(8) of the Rules does not constitute a “serious violation” warranting designation of the Application for evidentiary hearing. Moreover, we find no evidence of violations that, when considered together, constitute a pattern of abuse.²² Further, based on our review of the Application, we find that the Station served the public interest, convenience, and necessity during the subject license term. We will therefore grant the Application by separate action upon the conclusion of this forfeiture proceeding if there are no issues other than those set forth in this NAL that would preclude grant of the Application.²³

IV. ORDERING CLAUSES

10. Accordingly, **IT IS ORDERED**, pursuant to section 503(b) of the Communications Act of 1934, as amended, 47 U.S.C. § 503(b), and sections 1.80 and 0.283(d) of the Commission’s rules, 47

¹⁶ *Standard Comm’cns Corp.*, Memorandum Opinion and Order, 1 FCC Rcd 358, 358, para. 4 (1986).

¹⁷ “Moreover, the Commission has long held that ‘licensees are responsible for the acts and omission of their employees and independent contractors,’ and has consistently ‘refused to excuse licensees from forfeiture penalties where the actions of employees or independent contractors have resulted in violations.’” *In the Matter of Heidelberg Coll.*, 24 F.C.C. Rcd. 11923, 11924–25 (2009) (quoting *Eure Family Limited Partnership*, Memorandum Opinion and Order, 17 FCC Rcd 21861, 21863-64 (2002)).

¹⁸ *Southern California*, 6 FCC Rcd at 4387, para. 3.

¹⁹ 47 U.S.C. § 309(k).

²⁰ 47 U.S.C. § 309(k)(1).

²¹ 47 U.S.C. §§ 309(k)(2), 309(k)(2), (3).

²² For example, we do not find here that the Licensee’s Station operation “was conducted in an exceedingly careless, inept and negligent manner and that the licensee is either incapable of correcting or unwilling to correct the operating deficiencies.” See *Heart of the Black Hills Stations*, Decision, 32 FCC 2d 196, 198, para. 6 (1971). Nor do we find on the record here that “the number, nature and extent” of the violations indicate that “the licensee cannot be relied upon to operate [the station] in the future in accordance with the requirements of its licenses and the Commission’s Rules.” *Id.* at 200, paras. 10-11. See also *Center for Study and Application of Black Econ. Dev.*, Hearing Designation Order, 6 FCC Rcd 4622 (1991); *Calvary Educ. Broad. Network, Inc.*, Hearing Designation Order, 7 FCC Rcd 4037 (1992).

²³ Our action today addresses known apparent violations from the date the prior license renewal application was granted through the adoption date of this item. Any violations that are discovered or may occur following the adoption date of this item and prior to the grant of the current Application would be separate violations and potentially subject to additional Commission action.

CFR §§ 1.80 and 0.283, that **West Central Minnesota Educational TV Corp.**, is hereby **NOTIFIED** of its **APPARENT LIABILITY FOR FORFEITURE** in the amount of three thousand dollars (\$3,000) for its apparent willful and repeated violation of section 73.3527(e)(8) of the Rules, 47 CFR § 73.3527(e)(8).

11. **IT IS FURTHER ORDERED** that, pursuant to section 1.80 of the Rules, 47 CFR § 1.80, within thirty (30) days of the release date of this NAL, **West Central Minnesota Educational TV Corp.**, **SHALL PAY** 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),²⁴ or by wire transfer. Payments by check or money order to pay a forfeiture are no longer accepted. **Upon payment, Licensee must send notice that payment has been made by e-mail to VideoNAL@fcc.gov.** Below are instructions that payors should follow based on the form of payment selected:²⁵

- 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).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 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. 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/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 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

²⁴ Payments made using CORES do not require the submission of an FCC Form 159.

²⁵ 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.

²⁶ Instructions for completing the form may be obtained at <https://www.fcc.gov/Forms/Form159/159.pdf>.

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.²⁷ The written response must be filed with the Office of the Secretary, Federal Communications Commission, 45 L Street, NE, Washington, DC 20554, ATTN: Barbara A. Kreisman, Chief, Video Division, Media Bureau, and **MUST INCLUDE** the NAL/Acct. No. referenced above. **A copy must also be sent by e-mail to VideoNAL@fcc.gov to assist in processing the response.**

- 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.
 - 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-19.²⁸

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 47 U.S.C. § 503(b)(2)(E) support that result.²⁹

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 20554.³⁰ 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 **West Central Minnesota Educational TV Corp.**, c/o Sherece Lamke, 1 Pioneer Drive, Granite Falls, MN 56241 and by e-mail to slamke@pioneer.org. A copy will also be sent to the Station's counsel, Anne Goodwin Crump, Esq., by e-mail to crump@fhhlaw.com.

²⁷ 47 CFR §§ 1.16 and 1.80(g)(3).

²⁸ See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788 (2020).

²⁹ See, e.g., *Adrian Abramovich*, Forfeiture Order, 33 FCC Rcd 4663, 4678-79, paras. 44-45 (2018).

³⁰ See 47 CFR § 1.1914.

FEDERAL COMMUNICATIONS COMMISSION

Barbara A. Kreisman
Chief, Video Division
Media Bureau

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

In the Matter of	)	
	)	
Telplex Communications d/b/a RingPlanet	)	Complaint No. 6502226
	)	
Complaint Regarding	)	
Unauthorized Change of	)	
Subscriber's Telecommunications Carrier	)	

ORDER

Adopted: November 10, 2023**Released: November 13, 2023**

By the Acting Chief, Consumer Policy Division, Consumer and Governmental Affairs Bureau:

1. In this Order, we consider a complaint alleging that Telplex Communications d/b/a RingPlanet (RingPlanet) changed Complainant's telecommunications service provider without obtaining authorization and verification from Complainant as required by the Commission's rules.¹ We conclude that RingPlanet's actions did not result in an unauthorized change in Complainant's telecommunications service provider as defined in the rules, and we deny Complainant's complaint.

2. Section 258 of the Communications Act of 1934, as amended (the Act), prohibits the practice of "slamming," the submission or execution of an unauthorized change in a subscriber's selection of a provider of telephone exchange service or telephone toll service.² The Commission's implementing rules require, among other things, that a carrier receive individual subscriber consent before a carrier change may occur.³ Specifically, a carrier must: (1) obtain the subscriber's written or electronically signed authorization in a format that satisfies our rules; (2) obtain confirmation from the subscriber via a toll-free number provided exclusively for the purpose of confirming orders electronically; or (3) utilize an appropriately qualified independent third party to verify the order.⁴ The Commission has also adopted rules to limit the liability of subscribers when an unauthorized carrier change occurs, and to require carriers involved in slamming practices to compensate subscribers whose carriers were changed without authorization.⁵

¹ See Informal Complaint No. 6502226 (filed Oct. 5, 2023); *see also* 47 CFR §§ 64.1100 – 64.1190.

² 47 U.S.C. § 258(a).

³ See 47 CFR § 64.1120.

⁴ See *id.* § 64.1120(c). Section 64.1130 details the requirements for letter of agency form and content for written or electronically signed authorizations. *Id.* § 64.1130.

⁵ These rules require the unauthorized carrier to absolve the subscriber where the subscriber has not paid his or her bill. If the subscriber has not already paid charges to the unauthorized carrier, the subscriber is absolved of liability for charges imposed by the unauthorized carrier for service provided during the first 30 days after the unauthorized change. See *id.* §§ 64.1140, 64.1160. Any charges imposed by the unauthorized carrier on the subscriber for service provided after this 30-day period shall be paid by the subscriber to the authorized carrier at the rates the subscriber was paying to the authorized carrier at the time of the unauthorized change. *Id.* Where the subscriber has paid charges to the unauthorized carrier, the Commission's rules require that the unauthorized carrier pay 150 percent of those charges to the authorized carrier, and the authorized carrier shall refund or credit to the subscriber 50 percent of all charges paid by the subscriber to the unauthorized carrier. See *id.* §§ 64.1140, 64.1170.

3. The Commission's slamming rules prohibit misrepresentations on sales calls to further reduce the incidence of slamming.⁶ Under the rules, upon a finding of material misrepresentation during the sales call, the consumer's authorization to change carriers will be deemed invalid even if the carrier has some evidence of consumer authorization of a carrier switch, e.g., a third-party verification (TPV) recording or letter of agency (LOA). Sales misrepresentations may not be cured by a facially valid TPV or LOA.⁷ The rule provides that a consumer's credible allegation of misrepresentation shifts the burden of proof to the carrier to provide evidence to rebut the consumer's claim regarding misrepresentation. The Commission made clear that an accurate and complete recording of the sales call may be the carrier's best persuasive evidence to rebut the consumer's claim that a misrepresentation was made on the sales call.⁸

4. We received Complainant's complaint alleging that Complainant's telecommunications service provider had been changed without Complainant's authorization.⁹ In the complaint, Complainant states that he was "contacted by a representative from RingPlanet stating they were part of Verizon and [that] within days our current phone system would no longer work with [Verizon's] system and we needed new phones. When asked[,] they stated nothing would change as far as billing (1 bill and provider still Verizon)."¹⁰ Complainant further states that the new phones sent to his company did not work and his internet service went down, "[l]eaving us unable to call customers or vendors, have customers or vendors call us or process customers payments for work (auto repairs)." Once he was able to switch his company's service back to Verizon, Complainant alleges that he continued to receive calls from RingPlanet demanding payment "even though they have repeatedly promised to close the account."¹¹

5. Pursuant to our rules, we notified RingPlanet of the complaint.¹² RingPlanet disputes that any misrepresentation occurred on the sales call, and asserts that Complainant knew the offer involved switching his service away from Verizon.¹³ RingPlanet argues that Complainant signed a LOA and other porting documents, none of which make any reference to Verizon.¹⁴ RingPlanet did not provide a recording of the sales call; rather, it states that its service is a Voice over Internet Protocol (VoIP) service, and that the Commission's carrier change rules, including the prohibition on sales call misrepresentations, do not apply to VoIP service.¹⁵

⁶ *Id.* § 64.1120(a)(1)(i)(A).

⁷ See *Protecting Consumers from Unauthorized Carrier Changes and Related Unauthorized Charges*, 33 FCC Rcd 5773, 5778-80, paras. 17-19 (2018) (*2018 Slamming Order*); 47 CFR § 64.1120(a)(1)(i)(A).

⁸ See *2018 Slamming Order*, 33 FCC Rcd at 5781, para. 23. The Commission also stated that a carrier is uniquely positioned via its access to sales scripts, recordings, training, and other relevant materials relating to sales calls to proffer evidence to rebut a consumer's claims. *Id.*

⁹ See Informal Complaint No. 6502226.

¹⁰ *Id.*

¹¹ *Id.*

¹² 47 CFR § 1.719 (Commission procedure for informal complaints filed pursuant to section 258 of the Act); *id.* § 64.1150 (procedures for resolution of unauthorized changes in preferred carrier).

¹³ See RingPlanet Response to Informal Complaint No. 6502226 (filed Nov. 3, 2023) (*RingPlanet Response*).

¹⁴ *Id.* at 2.

¹⁵ See *id.* RingPlanet also states that "as a matter of courtesy and good customer relations, we agreed to waive any and all charges while providing the service until the number ports away." *Id.*

6. The Commission's slamming rules have not been extended to VoIP service.¹⁶ Thus, based on the evidence in the record, we conclude that RingPlanet's actions did not result in an "unauthorized change" in Complainant's telecommunications service provider, as defined in the rules.¹⁷

7. Accordingly, IT IS ORDERED that, pursuant to section 258 of the Communications Act of 1934, as amended, 47 U.S.C. § 258, and sections 0.141, 0.361 and 1.719 of the Commission's rules, 47 CFR §§ 0.141, 0.361, 1.719, the complaint filed against Telpex Communications d/b/a RingPlanet IS DENIED.

8. IT IS FURTHER ORDERED that this Order is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Kristi Thornton
Acting Chief
Consumer Policy Division
Consumer and Governmental Affairs Bureau

¹⁶ We note that the Commission has sought comment on whether to extend slamming regulations to VoIP or other IP-enabled service providers. *See Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4910-11 paras. 71-72 (2004).

¹⁷ *See* 47 CFR § 64.1100(e). If Complainant is unsatisfied with the resolution of the complaint, Complainant may file a formal complaint with the Commission pursuant to section 1.721 of the Commission's rules, *id.* § 1.721. Such filing will be deemed to relate back to the filing date of Complainant's informal complaint so long as the formal complaint is filed within 45 days from the date this order is mailed or delivered electronically to Complainant. *See id.* § 1.719.

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

In the Matter of	)	
	)	
Lingo Telecom, LLC	)	Complaint No. 6491352
	)	
Complaint Regarding	)	
Unauthorized Change of	)	
Subscriber's Telecommunications Carrier	)	

ORDER

Adopted: November 10, 2023

Released: November 13, 2023

By the Acting Chief, Consumer Policy Division, Consumer and Governmental Affairs Bureau:

1. In this Order, we consider a complaint alleging that Lingo Telecom, LLC (Lingo) changed Complainant's telecommunications service provider without obtaining authorization and verification from Complainant as required by the Commission's rules.¹ We conclude that Lingo's actions violated the Commission's slamming rules, and we therefore grant Complainant's complaint.

2. Section 258 of the Communications Act of 1934, as amended (the Act), prohibits the practice of "slamming," the submission or execution of an unauthorized change in a subscriber's selection of a provider of telephone exchange service or telephone toll service.² The Commission's implementing rules require, among other things, that a carrier receive individual subscriber consent before a carrier change may occur.³ Specifically, a carrier must: (1) obtain the subscriber's written or electronically signed authorization in a format that satisfies our rules; (2) obtain confirmation from the subscriber via a toll-free number provided exclusively for the purpose of confirming orders electronically; or (3) utilize an appropriately qualified independent third party to verify the order.⁴ The Commission has also adopted rules to limit the liability of subscribers when an unauthorized carrier change occurs, and to require carriers involved in slamming practices to compensate subscribers whose carriers were changed without authorization.⁵

3. The Commission's slamming rules prohibit misrepresentations on sales calls to further reduce the incidence of slamming.⁶ Under the rules, upon a finding of material misrepresentation during

¹ See Informal Complaint No. 6491352 (filed Sept. 29, 2023); *see also* 47 CFR §§ 64.1100 – 64.1190.

² 47 U.S.C. § 258(a).

³ See 47 CFR § 64.1120.

⁴ See *id.* § 64.1120(c). Section 64.1130 details the requirements for letter of agency form and content for written or electronically signed authorizations. *Id.* § 64.1130.

⁵ These rules require the unauthorized carrier to absolve the subscriber where the subscriber has not paid his or her bill. If the subscriber has not already paid charges to the unauthorized carrier, the subscriber is absolved of liability for charges imposed by the unauthorized carrier for service provided during the first 30 days after the unauthorized change. See *id.* §§ 64.1140, 64.1160. Any charges imposed by the unauthorized carrier on the subscriber for service provided after this 30-day period shall be paid by the subscriber to the authorized carrier at the rates the subscriber was paying to the authorized carrier at the time of the unauthorized change. *Id.* Where the subscriber has paid charges to the unauthorized carrier, the Commission's rules require that the unauthorized carrier pay 150 percent of those charges to the authorized carrier, and the authorized carrier shall refund or credit to the subscriber 50 percent of all charges paid by the subscriber to the unauthorized carrier. See *id.* §§ 64.1140, 64.1170.

⁶ *Id.* § 64.1120(a)(1)(i)(A).

the sales call, the consumer's authorization to change carriers will be deemed invalid even if the carrier has some evidence of consumer authorization of a carrier switch, e.g., a third-party verification (TPV) recording or letter of agency (LOA). Sales misrepresentations may not be cured by a facially valid TPV or LOA.⁷ The rule provides that a consumer's credible allegation of misrepresentation shifts the burden of proof to the carrier to provide evidence to rebut the consumer's claim regarding misrepresentation. The Commission made clear that an accurate and complete recording of the sales call may be the carrier's best persuasive evidence to rebut the consumer's claim that a misrepresentation was made on the sales call.⁸

4. We received Complainant's complaint alleging that Complainant's telecommunications service provider had been changed without Complainant's authorization.⁹ In the complaint, Complainant alleges that she received a call from a company about her business phone service, "lying to [her] that they were working with [her] present provider, CenturyLink." Complainant contacted CenturyLink the following day and was told she was the victim of a scam, so she called Lingo to have her numbers ported back to CenturyLink.¹⁰

5. Pursuant to our rules, we notified Lingo of the complaint, directing Lingo to address the specific misrepresentation allegation and to provide any evidence to rebut it.¹¹ With its response, Lingo provided an audio recording of its "verification" (which it stated was not a TPV recording), along with a contract and LOA that Lingo asserted Complainant signed.¹² Lingo further stated that it provided the verification recording and LOA to refute Complainant's misrepresentation allegation. Lingo did not, however, provide a recording of the sales call or any other evidence related to the sales call.

6. Based on the evidence in the record, we find Complainant's allegation of a sales call misrepresentation to be credible. We further find that Lingo has failed to provide persuasive evidence to rebut Complainant's misrepresentation claim and therefore that Complainant's authorization to change carriers is invalid.¹³ As the Commission stated in the *2018 Slamming Order*, "[w]hen a consumer's decision to switch carriers is predicated on false information provided in a sales call, that consumer's authorization to switch carriers can no longer be considered binding."¹⁴ We therefore find that Lingo's actions resulted in an unauthorized change in Complainant's telecommunications service provider, as

⁷ See *Protecting Consumers from Unauthorized Carrier Changes and Related Unauthorized Charges*, 33 FCC Rcd 5773, 5778-80, paras. 17-19 (2018) (*2018 Slamming Order*); 47 CFR § 64.1120(a)(1)(i)(A).

⁸ See *2018 Slamming Order*, 33 FCC Rcd at 5781, para. 23. The Commission also stated that a carrier is uniquely positioned via its access to sales scripts, recordings, training, and other relevant materials relating to sales calls to proffer evidence to rebut a consumer's claims. *Id.*

⁹ See Informal Complaint No. 6491352.

¹⁰ *Id.*

¹¹ 47 CFR § 1.719 (Commission procedure for informal complaints filed pursuant to section 258 of the Act); *id.* § 64.1150 (procedures for resolution of unauthorized changes in preferred carrier).

¹² See Lingo Response to Informal Complaint No. 6491352 (filed Nov. 2, 2023).

¹³ In addition to the sales call misrepresentation, we find that Lingo did not confirm that Complainant wanted to make a *carrier change*, as required by the rules. See 47 CFR § 64.1120(c)(3)(iii). On the audio recording Lingo submitted with its response, Lingo's representative simply asks the Complainant if she is "authorized to make changes for your company." He did not confirm that Complainant was authorized to make a carrier change and failed to confirm the services to be changed.

¹⁴ *2018 Slamming Order*, 33 FCC Rcd at 5779, para. 18 (citing *Advantage Forfeiture Order*, 32 FCC Rcd 3723, 3725-30, paras. 7-13 (2017) (finding that the carrier's TPV recordings did not disprove that unlawful misrepresentations were made during the telemarketing calls and further, that questions posed during the separate TPV calls did not cure those misrepresentations)).

defined by the rules, and we discuss Lingo's liability below.¹⁵

7. Lingo must remove all charges incurred for service provided to Complainant for the first thirty days after the alleged unauthorized change in accordance with the Commission's liability rules.¹⁶ We have determined that Complainant is entitled to absolution for the charges incurred during the first thirty days after the unauthorized change occurred and that neither the Complainant's authorized carrier nor Lingo may pursue any collection against Complainant for those charges.¹⁷ Any charges imposed by Lingo on the Complainant for service provided after this 30-day period shall be paid by the Complainant to the authorized carrier at the rates the Complainant was paying the authorized carrier at the time of the unauthorized change of their telecommunications service provider.¹⁸

8. Accordingly, IT IS ORDERED that, pursuant to section 258 of the Communications Act of 1934, as amended, 47 U.S.C. § 258, and sections 0.141, 0.361, and 1.719 of the Commission's rules, 47 CFR §§ 0.141, 0.361, 1.719, the complaint filed against Lingo Telecom, LLC IS GRANTED.

9. IT IS FURTHER ORDERED that, pursuant to section 64.1170(d) of the Commission's rules, 47 CFR § 64.1170(d), Complainant is entitled to absolution for the charges incurred during the first thirty days after the unauthorized change occurred and that Lingo Telecom, LLC may not pursue any collection against Complainant for those charges.

10. IT IS FURTHER ORDERED that this Order is effective upon release.

FEDERAL COMMUNICATIONS COMMISSION

Kristi Thornton
Acting Chief
Consumer Policy Division
Consumer and Governmental Affairs Bureau

¹⁵ If Complainant is unsatisfied with the resolution of the complaint, the Complainant may file a formal complaint with the Commission pursuant to Section 1.721 of the Commission's rules, 47 CFR § 1.721. Such filing will be deemed to relate back to the filing date of Complainant's informal complaint so long as the formal complaint is filed within 45 days from the date this order is mailed or delivered electronically to Complainant. *See id.* § 1.719.

¹⁶ *See id.* § 64.1160(b).

¹⁷ *See id.* § 64.1160(d).

¹⁸ *See id.* § 64.1140, 64.1160.



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 23-1080
Released: November 14, 2023

**DOMESTIC SECTION 214 APPLICATION FILED FOR THE ACQUISITION OF CERTAIN
ASSETS OF GREAT LAKES COMMUNICATIONS CORP. D/B/A IGL TELECONNECT
BY MUTUAL TELEPHONE COMPANY OF SIOUX CENTER, IOWA
D/B/A PREMIER COMMUNICATIONS**

STREAMLINED PLEADING CYCLE ESTABLISHED

WC Docket No. 23-373

Comments Due: November 28, 2023

Reply Comment Due: December 5, 2023

By this Public Notice, the Wireline Competition Bureau seeks comment from interested parties on an application filed by Great Lakes Communication Corp. d/b/a IGL Teleconnect (GLCC) and Mutual Telephone Company of Sioux Center, Iowa d/b/a Premier Communications (Mutual) (GLCC and Mutual, 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 acquisition of certain assets of GLCC by Mutual.²

GLCC, an Iowa corporation, provides service as a competitive local exchange carrier (LEC) to approximately 2,700 residential and business customers in the rural exchanges of Milford, Lake Park, and Spencer, Iowa. GLCC also provides Internet services in the counties of Buena Vista, Clay, Dickinson, Emmet, and Osceola, Iowa.

Mutual, an Iowa corporation, provides service as a rural incumbent LEC to approximately 3,500 customers in the Sioux Center, Iowa exchange.³ Mutual wholly owns the following incumbent

¹ See 47 U.S.C. § 214(a); 47 CFR §§ 63.03-04.

² Domestic Section 214 Application Filed for the Acquisition of Certain Assets of Great Lakes Communications Corp. d/b/a IGL Teleconnect by Mutual Telephone Company of Sioux Center, Iowa d/b/a Premier Communications, WC Docket No. 23-373 (filed Oct. 31, 2023) (Application). Applicants also filed an application for the transfer of authorizations associated with international and wireless services. Any action on this domestic section 214 application is without prejudice to Commission action on other related, pending applications. Mutual is also an applicant in a section 214 application still pending with the Commission. See Joint Application of Royal Telephone Company and Mutual Telephone Company of Sioux Center, Iowa d/b/a Premiere Communications, WC Docket No. 23-364 (refiled on Nov. 2, 2023).

³ Applicants state that no individual nor entity holds a 10% or greater interest in Mutual. The Board of Directors of Mutual are the following U.S. citizens: David Krahling, Chad Feenstra, Mike McAlpine, James Mouw, Ryan Boone, Rob Bixenman, Stacie Dykstra, David Brommer, and Ted Hengeveld.

LEC and competitive LEC providers of local exchange service: Northern Iowa Telephone Company, an incumbent LEC providing service in the exchanges of Hinton, Matlock, Maurice, Sanborn, Little Rock, and Granville, Iowa; Webb-Dickens Telephone Corporation, an incumbent LEC providing service in the exchanges of Dickens and Webb, Iowa; Heartland Telecommunications Company of Iowa, an incumbent LEC providing service in the exchanges of Akron, Boyden, Doon, Hawarden Hull, Ireton, Rock Rapids, Rock Valley, and Sibley, Iowa, the exchange of North Rock Rapids, Minnesota, and the exchanges of West Akron and West Hawarden, South Dakota; and Premier Communications, Inc., a competitive LEC providing service in the exchanges of Akron, Ashton, Boyden, Doon, Hull, Ireton, Rock Valley, Rock Rapids, LeMars, Ocheyedon, Orange City, George, Merrill, Arnolds Park, Lake Park, Milford, Sheldon, and Spirit Lake, Iowa.

Pursuant to the terms of the proposed transaction, Mutual will acquire from GLCC fixed wireless and fiber-based broadband and telecommunications retail assets, property, rights, and interests (including all customer contracts and customer relationships) used to provide Internet, telephone, video, and other communications services in Great Lakes, Iowa.

Applicants request streamlined treatment of the proposed transaction under the Commission's rules and assert that a grant of the application would serve the public interest, convenience, and necessity. We accept the application for filing under section 63.03(b)(2)(i) of the Commission's rules.⁴

Domestic Section 214 Application Filed for Acquisition of Certain Assets of
Great Lakes Communications Corp. d/b/a IGL Teleconnect by
Mutual Telephone Company of Sioux Center, Iowa d/b/a Premier Communications,
WC Docket No. 23-373 (filed Oct. 31, 2023).

GENERAL INFORMATION

The transfer of control identified herein has been found, upon initial review, to be acceptable for filing as a streamlined application. The Commission reserves the right to return any transfer application if, upon further examination, it is determined to be defective and not in conformance with the Commission's rules and policies. Pursuant to section 63.03(a) of the Commission's rules, 47 CFR § 63.03(a), interested parties may file comments **on or before November 28, 2023**, and reply comments **on or before December 5, 2023**. Pursuant to section 63.52 of the Commission's rules, 47 CFR § 63.52, commenters must serve a copy of comments on the Applicants no later than the above comment filing date. Unless otherwise notified by the Commission, the Applicants may transfer control on the 31st day after the date of this notice.

Pursuant to section 63.03 of the Commission's rules, 47 CFR § 63.03, parties to this proceeding should file any documents using the Commission's Electronic Comment Filing System (ECFS): <http://apps.fcc.gov/ecfs/>.

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

- 1) Tracey Wilson, Competition Policy Division, Wireline Competition Bureau, tracey.wilson@fcc.gov;
- 2) Gregory Kwan, Competition Policy Division, Wireline Competition Bureau, Gregory.kwan@fcc.gov;
- 3) David Krech, Office of Internal Affairs, david.krech@fcc.gov; and

⁴ 47 CFR § 63.03(b)(2)(i).

- 4) Jim Bird, Office of General Counsel, jim.bird@fcc.gov.

People with Disabilities: We ask that requests for accommodations be made as soon as possible in order to allow the agency to satisfy such requests whenever possible. Send an email to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530.

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.⁵ 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 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 Gregory Kwan at (202) 418-1191.

-FCC-

⁵ See 47 CFR § 1.45(c).

**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 15, 2023**Released: November 15, 2023****Reply Comments Due: November 29, 2023**

By the Chief, Consumer and Governmental Affairs Bureau:

1. By this Order, the Consumer and Governmental Affairs Bureau (CGB) of the Federal Communications Commission (FCC or Commission) grants an extension of time for reply comments on a petition filed by Securus Technologies, LLC (Securus), for a partial waiver of section 64.6040(b)(2) of the Commission's rules.¹ The petitioner does not oppose this extension.² With this extension, reply comments are now due on November 29, 2023.

2. On October 19, 2023, Securus filed a petition for waiver seeking a one-year extension of the January 1, 2024 deadline for providers of incarcerated people's communications services to make all forms of telecommunications relay services (TRS) available at correctional facilities covered by the rule.³ On October 27, 2023, the Bureau released a Public Notice seeking comment on the Securus Petition for Waiver, with filing deadlines of November 13, 2023, for comments and November 20, 2023, for reply comments.⁴ On November 9, 2023, the Accessibility Coalition filed a motion to extend the comment deadline by 30 days, to December 13, 2023.⁵

¹ Securus Technologies, LLC, Petition for Partial Waiver of the January 1, 2024 Deadline to Offer Advanced Forms of Telecommunications Relay Services at Correctional Facilities, WC Docket Nos. 23-62 and 12-375 (filed Oct. 19, 2023), <https://www.fcc.gov/ecfs/document/1019636708692/1> (Securus Petition); 47 CFR § 64.6040(b).

² Opposition to the Accessibility Coalition's Motion for Extension of Time, WC Docket Nos. 23-62, 12-375, at 1-2 (filed Nov. 10, 2023) (Securus Opposition), <https://www.fcc.gov/ecfs/document/1110288556240/1>. As explained *infra*, although Securus opposes the request to extend the comment and reply deadlines by 30 days, Securus does not object to an extension of the reply comment deadline to November 29, 2023.

³ Securus Petition at 4.

⁴ *Comment Sought on Petition for Extension of the Commission's January 1, 2024 Deadline to Offer Telecommunications Relay Services at Correctional Facilities*, Public Notice, DA 23-1021 (CGB Oct. 27, 2023).

⁵ Motion for Extension of Time, WC Docket Nos. 23-62 and 12-375 (filed November 9, 2023) (Motion), <https://www.fcc.gov/ecfs/document/1109126000516/1>. The Accessibility Coalition is comprised of the National Association of the Deaf (NAD), HEARD, and TDIforAccess, Inc. (TDI). Also participating in the motion are

(continued....)

3. In its motion, the Accessibility Coalition explains that NAD's Policy Counsel has only recently returned from leave; HEARD's Incarcerated Advocacy Program Director was on sabbatical until early November; and TDI is transitioning to a new law clinic. The Coalition emphasizes that the issues at hand are complex, requiring substantial effort and understanding, especially for the students at the law clinic who are new to the subject matter. The Coalition also emphasizes that the deadline to comply with section 64.6040(b)(2) of the Commission's rules has been known since the Commission's decision more than one year ago,⁶ and that the corporate entities that must comply with this rule delayed seeking an extension until a few months prior to the deadline. The Coalition stresses the importance of a thorough and un-rushed response process, especially given the significant impact on incarcerated people with communication disabilities who have been lacking proper access to communications. An extension of the filing deadlines, the Coalition argues, would ensure more robust participation and contribution from their organizations.⁷

4. Securus, the petitioner, opposes a 30-day extension of the comment and reply comment deadlines and notes that the 30-day extension would provide the Commission virtually no time to render a decision on Securus' waiver petition before the January 1, 2024, TRS deadline.⁸ However, Securus states that should the Commission determine that the public interest would be served by providing some additional time, Securus would not object to an extension of the reply comment deadline to November 29, 2023.⁹ On November 13, 2023, the Accessibility Coalition clarified that it is no longer seeking an extension to the comment deadline, and is now requesting an extension of the reply comment deadline for the period consented to by Securus in its Opposition.¹⁰

5. As set forth in section 1.46 of the Commission's rules,¹¹ it is the policy of the Commission that extensions of time shall not be routinely granted. We find, however, that the Accessibility Coalition has shown good cause for a brief extension of the reply comment deadline, and that the public interest will be served by granting the Motion in part because the additional time will facilitate a more complete record for the Commission to evaluate Securus's Petition on the merits.

6. Accordingly, IT IS ORDERED, pursuant to section 4(i) of the Communications Act, 47 U.S.C. § 154(i) and sections 0.141, 0.204, 0.361, and 1.46 of the Commission's rules, 47 CFR §§ 0.141, 0.204, 0.361, 1.46, that the Accessibility Coalition's Motion for Extension of Time is GRANTED to the extent set forth above. This Order is effective upon its release.

7. IT IS ALSO ORDERED that the deadline for filing reply comments on the Petition is EXTENDED to November 29, 2023.

(Continued from previous page) _____

Communication Service for the Deaf (CSD), United Church of Christ Media Justice Ministry, Benton Institute for Broadband & Society, Public Knowledge, Worth Rises, National Consumer Law Center, and Wright Petitioners. The Motion requests a 30-day extension to the "comment" deadline, and then refers to the comment deadline as the "reply comment" deadline. We infer that the Coalition intended to request a 30-day extension of the comment deadline and a corresponding 30-day extension of the reply comment deadline.

⁶ See *Rates for Interstate Inmate Calling Services*, WC Docket No. 12-375, Fourth Report and Order and Sixth Further Notice of Proposed Rulemaking, FCC 22-76, para. 38 (Sept. 30, 2022).

⁷ Motion at 1-3.

⁸ Securus Opposition at 1-2.

⁹ *Id.* at 1-2.

¹⁰ NAD et al., Untitled Filing, WC Docket Nos. 23-62 and 12-375 (filed November 13, 2023), <https://www.fcc.gov/ecfs/document/1113782705692/1>. In light of the Coalition's clarification, the request to extend the initial comment deadline does not need to be addressed.

¹¹ 47 CFR § 1.46.

8. 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).

9. For further information concerning this proceeding, please contact Michael Scott of the Consumer and Governmental Affairs Bureau, Disability Rights Office, at (202) 418-1264 or by email at Michael.Scott@fcc.gov. Individuals who use videophones and are fluent in American Sign Language (ASL) may call the FCC's ASL Consumer Support Line at (844) 432-2275.

FEDERAL COMMUNICATIONS COMMISSION

Alejandro Roark
Chief
Consumer and Governmental Affairs Bureau



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 23-1083

Released: November 15, 2023

**FEDERAL COMMUNICATIONS COMMISSION AND U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES ANNOUNCE AGENDA FOR MATERNAL
HEALTH AND BROADBAND ROUNDTABLE ON NOVEMBER 17, 2023**

GN Docket No. 23-309

By this Public Notice, the Federal Communications Commission (FCC), in partnership with the U.S. Department of Health and Human Services (HHS), announces the agenda for the upcoming Roundtable entitled *THE CONNECTED FUTURE OF MATERNITY CARE: Intersecting Maternal Health and Broadband Data*. The hybrid event will take place on November 17, 2023, from 10:30am—4:00pm EST at the FCC Headquarters and streamed online at www.fcc.gov/live.

As previously announced, the Roundtable is free and open to the public. Attendees may attend either in person in the Commission Meeting Room, FCC Headquarters, 45 L Street NE, Washington, D.C. 20554, or remotely via livestream at www.fcc.gov/live. Both in-person and remote attendees are encouraged to preregister in advance of the event by using the online [registration form](#).

Open captioning will be provided for this event. Reasonable accommodations for people with disabilities are available upon request. Request for such accommodations should be submitted via email 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 fill the request. Last minute requests will be accepted, but it may not be possible to accommodate the request.

For additional information or questions, contact the Connect2Health^{FCC} Task Force by email at engageC2H@fcc.gov and insert “Roundtable Question” in the subject line. For press inquiries, please contact Katie Gorscak, FCC Office of Media Relations, by email at Katie.Gorscak@fcc.gov.

– TENTATIVE AGENDA –

**THE CONNECTED FUTURE OF MATERNITY CARE:
Intersecting Maternal Health and Broadband Data**

November 17, 2023 (10:30am-4:00pm EST)

The United States faces an ongoing maternal health crisis. We have a higher maternal mortality rate than other developed nations, and the picture is far worse for women of color, women living in rural areas, and women from lower income households. Broadband-enabled technologies, services, and solutions can be a critical part of the toolkit in addressing preventable maternal mortality, improving access to maternity care, and promoting health equity. Broadband, however, is more than just the critical infrastructure for delivering modern health interventions. Prior research by the Connect2Health^{FCC} Task Force found that counties that were more connected tended to have better health, even after controlling for other characteristics of these areas – which suggests that broadband is a distinct social determinant of health, or one of the nonmedical factors that influences health outcomes.

This hybrid event will gather public and private sector thought leaders from a variety of disciplines to explore the intersection of broadband connectivity and maternal health. Participants will also explore the role of broadband as a social determinant of health and the implications of this framework to improve maternal health outcomes and inform broadband and health policies. Supporting maternal health equity through improving broadband access is a government priority and will be an overarching theme of this event. We also seek to continue the cross-agency, cross-sector dialogue on how broadband can be leveraged to help accelerate progress in this area.

10:30 am – 10:35 am **WELCOME FROM FCC**

10:35 am – 10:50 am **OPENING REMARKS**

- **Ying-Ying Goh**, MD, Health Policy Advisor, Office of the Vice President of the United States
- **Admiral Rachel L. Levine**, MD, United States Public Health Service Commissioned Corps; Assistant Secretary for Health, U.S. Department of Health and Human Services
- **Michael D. Warren**, MD, MPH, FAAP, Associate Administrator, Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services
- **Andi Lipstein Fristedt**, MPA, Deputy Director for Policy, Communications, and Legislative Affairs/Chief Strategy Officer, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services

10:50 am – 11:10 am **INTRODUCTION: Why Broadband Matters in Maternal Health**

This introductory segment serves as a level-set for our cross-sector audience, including a brief overview of the current scope of the maternal health crisis, its evolution and underlying causes, highlights on how broadband is being leveraged in innovative ways to support and expand national efforts in this space, as well as a more nuanced understanding of the potentially transformative role of broadband in helping to address the maternal health crisis.

- **Veronica Gillispie-Bell**, MD, MAS, FACOG, Ochsner Health; Medical Director, Louisiana Perinatal Quality Collaborative and Pregnancy Associated Mortality Review for the Louisiana Department of Health

11:15 am – 12:00 pm **DEMO: [Mapping Broadband Health in America](#) Platform — Visualizing the Intersection of Maternal Health and Broadband**

How can we better mine and visualize broadband and maternal health data to inform policies and improve outcomes? What are key questions at the intersection of broadband and maternal health? (View [sample maps](#) for a window into the intersection of broadband and maternal health).

- **Arielle Mancuso**, PhD, Director of Research and Analytics, Connect2Health^{FCC} Task Force, FCC
- **Karen Onyeije**, JD, Chief of Staff, Connect2Health^{FCC} Task Force; Deputy General Counsel, FCC

12:00 pm – 1:00 pm **LUNCH KEYNOTE**

- *Introduction:* **Chris Gibbons**, MD, Senior Advisor, Connect2Health^{FCC} Task Force, FCC
- **Trent Haywood**, MD, JD, Founder, Knowality, LLC (former Chief Medical Officer, Blue Cross Blue Shield Association)

1:00 pm – 2:15 pm **PANEL 1: THE CONNECTED FUTURE OF MATERNITY CARE — What if all women of reproductive age, their health care providers, caregivers, and families have an always-on connection to high-speed broadband?**

This session will explore a future in which all women of reproductive age, their health care providers, other caregivers, and their families have a high-speed broadband connection at home, at work, and on the go that they can leverage for health. Panelists will be asked to reflect on what could be achieved in the connected future of maternity care as it relates to innovations in connected care models or systems of the future, equitable access to and quality of maternity care, health systems strengthening, health status, social determinants of health, and national health goals. Discussion will also include how the *Mapping Broadband Health in America* platform could help drive progress and inform efforts towards this vision.

Moderator: **David K. Ahern**, PhD, Senior Advisor, Connect2Health^{FCC} Task Force, FCC

Panelists:

- **Jennifer L. Fang**, MD, Neonatologist, Medical Director, Mayo Clinic Teleneonatology Program
- **Kay Matthews**, Founder and Executive Director, Shades of Blue Project
- **Santosh Pandipati**, MD, FACOG, Co-Founder and Chief Health Officer, e-Lövu
- **Annette Taylor**, Director, Office of Digital Equity and Literacy, North Carolina Department of Information Technology
- *Discussant:* **Shelly Choo**, MD, MPH, Director, Bureau of Maternal and Child Health, Maryland Department of Health; Member, Maryland Maternal Health Innovation Program Task Force

2:15 pm – 2:30 pm **COFFEE BREAK**

2:30 pm – 3:45 pm

PANEL 2: MORTALITY AND BEYOND — Creating Actionable Insights from Data on Broadband and Maternal Health Outcomes and Indicators: Challenges and Potential Solutions

Recognizing that mortality is just the tip of the iceberg, this session will build on the earlier dialogue about possible use cases and needs and help identify key variables to consider from both the broadband and maternal health domains that would further inform these use cases. Panelists will explore the critical questions and actionable insights that a data visualization platform (like the [Mapping Broadband Health in America](#) platform) should facilitate in order to drive progress. This panel will also discuss some of the limitations or challenges to intersecting maternal health and broadband data and inform a roadmap for the broadband maternal health mapping effort going forward.

Moderator: **Arielle Mancuso**, PhD, Director of Research and Analytics, Connect2Health^{FCC} Task Force

Panelists:

- **Laurie Baksh**, MPH, Manager, Maternal and Infant Health Program, Utah Department of Health
- **Matt Eakins**, MD, President, Lucina Analytics
- **Sinsi Hernández-Cancio**, JD, Vice President for Health Justice, National Partnership for Women and Families
- **John Horrigan**, PhD, Senior Fellow, Benton Institute for Broadband and Society
- *Discussant:* **Eugene Declercq**, PhD, MBA, Professor of Community Health Sciences, Boston University School of Public Health

3:45 pm – 4:00 pm

CLOSING AND WRAP UP

- *Keynote:* **Karen S. Rheuban**, MD, Professor of Pediatrics, Senior Associate Dean of Continuing Medical Education, UVA Health, and Director, University of Virginia Karen S. Rheuban Center for Telehealth; and **Christian Chisholm**, MD, Maternal & Fetal Medicine, UVA Health, and Professor, Department of Obstetrics & Gynecology, UVA School of Medicine
- *Closing:* **Karen Onyeije**, Chief of Staff, Connect2Health^{FCC} Task Force; Deputy General Counsel, FCC

--FCC--

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

In the Matter of	)	
	)	
Unlicensed Use of the 6 GHz Band	)	ET Docket No. 18-295
	)	
Expanding Flexible Use in Mid-Band Spectrum	)	GN Docket No. 17-183
Between 3.7 and 24 GHz	)	

**SECOND REPORT AND ORDER,
SECOND FURTHER NOTICE OF PROPOSED RULEMAKING, AND
MEMORANDUM OPINION AND ORDER ON REMAND**

Adopted: October 19, 2023

Released: November 1, 2023

Comment Date: 30 days after Federal Register publication

Reply Comment Date: 60 days after Federal Register publication

By the Commission: Chairwoman Rosenworcel and Commissioners Carr, Starks, Simington, and Gomez
issuing separate statements.

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I. INTRODUCTION

1. Unlicensed devices employing Wi-Fi and other unlicensed standards are found in countless products that Americans use every day. Whether it is sending information between a watch and a smartphone, connecting a laptop computer or smartphone to the internet, or remotely controlling a thermostat or other household items, these devices have become an important part of everyday life. In 2020, the Commission took a crucial step to ensure that the United States will meet increasing demand for wireless connectivity by adopting rules that expanded access for unlicensed devices across 1200 megahertz of spectrum in the 5.925-7.125 GHz (6 GHz) band. Those rules have been instrumental in bringing the next generation of Wi-Fi devices with even greater connection speeds to the American public. As those rules limit connectivity to communications between client devices, such as smartphones, and either low-power indoor (LPI) or standard power access points, we recognize the need to permit even more flexibility to enable another class of devices—that is, those that operate at very low power (VLP) across short distances to provide very high connection speeds for some of the most advanced applications.

2. Today, we build on the 6 GHz band unlicensed rules to foster unlicensed innovation and continue developing an ecosystem for new VLP unlicensed devices by permitting their use in two portions of the 6 GHz band. These devices will be instrumental in supporting cutting-edge applications, such as augmented and virtual reality, that will help businesses, enhance learning opportunities, advance healthcare opportunities, and bring new entertainment experiences. As we discuss below, we will limit

these VLP devices to very low power levels and subject them to other technical and operational requirements that will permit these devices to operate across the United States while protecting incumbent licensed services that operate in the 6 GHz band from harmful interference. We expect that these VLP devices will quickly become invaluable for people as they go about their everyday lives.

3. Our actions today are intended to provide for near-term VLP deployment while also exploring a framework to provide additional flexibility to spur even more innovation, all while taking care to ensure that incumbent users are protected from harmful interference. In this connection, we provide rules in a Second Report and Order that will allow VLP devices to operate in the U-NII-5 (5.925-6.425 MHz) and U-NII-7 (6.525-6.875 MHz) portions of the 6 GHz band in any location. In a Second Further Notice of Proposed Rulemaking, we explore additional steps we could take and rules we could modify to provide more utility for VLP devices. Specifically, we seek comment on permitting higher power VLP devices under a two-tiered system where those higher powered devices would be permitted to operate only in locations where the potential for causing harmful interference to incumbent operations remains insignificant. Our decision provides a balance between accommodating these new and novel devices to deliver innovative applications to the American public now and taking a judicious approach toward modifying the rules to provide even more robust use at most locations. We also seek comment on VLP device requirements and limits for operation in the U-NII-6 and U-NII-8 bands. In sum, we believe that this may be a first step rather than the culmination of the rulemaking process regarding VLP use in the 6 GHz band.

4. Finally, we take action today in a Memorandum Opinion and Order on Remand to address a remand from the United States Court of Appeals for the District of Columbia Circuit concerning an issue raised by television broadcasters. Namely, the court directed the Commission to consider whether, in light of broadcasters' assertions that they have experienced interference from unlicensed devices in the 2.4 GHz band, a portion of the 6 GHz band should be reserved for mobile broadcast operations. We find, upon further analysis, that broadcasters' unsubstantiated claims of interference in the 2.4 GHz band do not warrant any changes to the 6 GHz rules.

II. BACKGROUND

5. The demand for wireless broadband continues to grow at a phenomenal pace, as American citizens and businesses increasingly rely on Internet connectivity. To meet this demand, the Commission continues to examine ways to increase spectrum options for unlicensed operations in the 6 GHz band.

6. *Incumbent services.* The 6 GHz band is comprised of allocations for Fixed Services, Mobile Services, and Fixed Satellite Services (FSS) across four sub-bands.¹ These four sub-bands—which we refer to as U-NII-5, U-NII-6, U-NII-7, and U-NII-8, respectively—are derived based on the prevalence and characteristics of incumbent licensed services that operate in each sub-band as denoted in Table 1.² Fixed microwave service licensees, specifically those operating point-to-point microwave links that support a variety of critical services provided by utilities, commercial and private entities, and public safety agencies, are the largest user group in the 6 GHz band.³ These fixed microwave service licensees make significant use of the U-NII-5 and U-NII-7 bands, and also operate in relatively smaller numbers in

¹ *Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Notice of Proposed Rulemaking, 33 FCC Rcd 10496, 10499-501, paras. 8-13 (2018) (*Notice*); *Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3852, 3855, para. 7 (2020) (*6 GHz Order*), *reversed in part, aff'd in part and remanded*, *AT&T Servs. Inc., v. FCC*, 21 F.4th 841, 853-54 (D.C. Cir. 2020) (affirming *6 GHz Order* and reversing and remanding to address issue of whether to “reserve a sliver of the 6 GHz band for licensed mobile operation”).

² *Notice*, 35 FCC Rcd at 10499-501, 10503-04, paras. 8-12, 20.

³ *Notice*, 35 FCC Rcd at 10499, para. 8, Figure 1.

the U-NII-8 band.⁴ The band is used to provide backhaul for commercial wireless providers (such as traffic between commercial wireless base stations and wireline networks), and links used to coordinate railroad train movements, control natural gas and oil pipelines, manage electric grids, as well as long-distance telephone service.⁵

Table 1: Predominant Licensed Uses of the 6 Gigahertz Band

Sub-band	Frequency Range (GHz)	Primary Allocation	Predominant Licensed Services
U-NII-5	5.925-6.425	Fixed FSS	Fixed Microwave FSS (uplinks)
U-NII-6	6.425-6.525	Mobile FSS	Broadcast Auxiliary Service Cable Television Relay Service FSS (uplinks)
U-NII-7	6.525-6.875	Fixed FSS	Fixed Microwave FSS (uplinks/downlinks)
U-NII-8	6.875-7.125	Fixed Mobile FSS	Fixed Microwave Broadcast Auxiliary Service Cable Television Relay Service FSS (uplinks/downlinks) (6.875-7.075 GHz only)

7. The Broadcast Auxiliary Service (BAS) and Cable Television Relay Service (CARS) operate in the U-NII-6 band on a mobile basis, and in the U-NII-8 band on both a fixed and mobile basis.⁶ Licensees use BAS and CARS pick-up stations to transmit programming material from special events or remote locations, including electronic news gathering, back to the studio or other central receive locations.⁷ Television broadcast related microwave links, such as television studio transmitter links, television inter-city relay links, and television translator relay links, operate primarily one-way point-to-point systems in the U-NII-8 band.⁸ Additionally, Low Power Auxiliary Stations (i.e., wireless microphones), which operate on an itinerant basis, are authorized to operate in the U-NII-8 band on a

⁴ As of August 21, 2023, the FCC databases indicate that there were 32,276 call signs for fixed microwave links in U-NII-5, 13 in U-NII-6, 16,443 in U-NII-7, and 4,878 in U-NII-8. The predominant usage in the U-NII-5 and U-NII-7 bands is common carrier, industrial/business pool, and public safety pool fixed point-to-point links. The U-NII-6 band is dominated by mobile industrial/business pool and public safety pool microwave and TV Pickup operations; of the 363 unique call signs in the band, only 13 have fixed or temporary fixed operations. The predominant usage in the U-NII-8 band is TV intercity relay stations and TV studio-to-translator links. There are also 329 mobile stations (323 TV mobile pickup and 6 Broadcast Auxiliary Service low power stations) in the U-NII-8 band.

⁵ 6 GHz Order, 35 FCC Rcd at 3855, para. 7 (citing Fixed Wireless Communications Coalition Comments at 3 (filed Oct. 2, 2017)).

⁶ 47 CFR §§ 74.602(a), (i), 78.18(a)(5), 78.18(a)(7). We also note that, although less prevalent, the rules permit mobile private operational, common carrier, and local television transmission service operations in these bands. See *id.* §§ 101.101, 101.147, 101.801, 101.803.

⁷ 47 CFR §§ 74.631, 78.11(e).

⁸ Most systems are comprised of a single point-to-point link without a corresponding return link. 47 CFR § 74.631 and review of ULS licensing records for TV Studio Transmitter (TS), TV Intercity Relay (TI), and TV Translator Relay (TT) licenses.

secondary basis for uses such as portable cameras, wireless microphones, cues, and backstage communications.⁹

8. The Fixed Satellite Service (FSS) Earth-to-space is allocated in all four sub-bands, except for the 7.075-7.125 GHz portion of the U-NII-8 band.¹⁰ FSS operations are heaviest in the U-NII-5 band, which is paired with the 3.7-4.2 GHz space-to-Earth frequency band to comprise the “conventional C-band.”¹¹ In the *C-Band Order*, the Commission adopted rules to make 280 megahertz of mid-band spectrum available for flexible use (plus a 20 megahertz guard band) throughout the contiguous United States by transitioning existing satellite services out of the lower portion of the 3.7–4.2 GHz band and into the upper 200 megahertz of the band (i.e., 4.0–4.2 GHz).¹² Specifically, the *C-Band Order* established a December 5, 2025 deadline, by which incumbent space station operators were to complete transitioning their operations to the upper 200 megahertz of the band, but it also provided an opportunity for accelerated band clearing by allowing eligible space station operators to voluntarily commit to relocate on a two-phased accelerated schedule, with a Phase I deadline of December 5, 2021, and a Phase II deadline of December 5, 2023.¹³ All five eligible space station operators elected accelerated relocation¹⁴ and completed both phases of the relocation process. Predominant FSS uses of these frequencies include content distribution to television and radio broadcasters, including transportable antennas to cover live news and sports events, cable television and small master antenna systems, and backhaul of telephone and data traffic.¹⁵ The 7.025-7.075 GHz portion of the U-NII-8 band also hosts feeder uplinks to Satellite Digital Audio Radio Service space stations.¹⁶ Additionally, portions of the U-NII-7 and U-NII-8 bands are allocated for FSS space-to-Earth operations for Mobile-Satellite Service feeder links between 6.700 GHz and 7.075 GHz.¹⁷ However, there are currently no licensed FSS space-to-Earth stations in U-NII-7, and the 7.025-7.075 GHz allocation is limited to two grandfathered satellite systems with three grandfathered locations.¹⁸

⁹ 47 CFR §§ 74.802(a)(1), 74.803(c). Wireless microphone users may operate on a licensed basis under part 74 in the 6.875-6.9 GHz and 7.1-7.125 GHz bands. See *Promoting Spectrum Access for Wireless Microphone Operations; Expanding the Economic and Innovation Opportunities of Spectrum through Incentive Auctions*, Report and Order, 30 FCC Rcd 8739, 8789-90, paras. 131-32 (2015).

¹⁰ 47 CFR § 2.106.

¹¹ 47 CFR § 25.103; see *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Report and Order and Order of Proposed Modification, 35 FCC Rcd 2343, 2406, paras. 147-48 (2020) (*C-Band Order*).

¹² *C-Band Order*, 35 FCC Rcd at 2345, para. 4.

¹³ *C-Band Order*, 35 FCC Rcd at 2408, para. 155; see 47 CFR § 27.1412(b)(1)–(2). By the Phase I deadline of December 5, 2021, eligible space station operators were required to repack any existing services and relocate associated incumbent earth stations throughout the contiguous United States into the upper 380 megahertz of the C-band (3820–4200 MHz), and the operators must provide passband filters to block signals from the 3700–3820 MHz band to associated incumbent earth stations in 46 of the top 50 PEAs. *C-Band Order*, 35 FCC Rcd at 2414, para. 171; accord 47 CFR § 27.1412(b)(1). By the Phase II deadline of December 5, 2023, eligible space station operators must repack any existing service and relocate associated incumbent earth stations throughout the contiguous United States into the upper 200 megahertz of the C-band (4.0–4.2 GHz), and the operators must provide passband filters to block signals from the 3700–4000 MHz band to all associated incumbent earth stations in the contiguous United States. *C-Band Order*, 35 FCC Rcd at 2414, para. 171; accord 47 CFR § 27.1412(b)(2).

¹⁴ *Wireless Telecommunications Bureau Announces Accelerated Clearing in the 3.7–4.2 GHz Band*, GN Docket No. 18-122, Public Notice, 35 FCC Rcd 5517 (WTB 2020).

¹⁵ *Notice*, 33 FCC Rcd at 10501, para. 12.

¹⁶ 47 CFR § 25.214(c)(5).

¹⁷ 47 CFR § 25.214(c)(5).

¹⁸ 47 CFR § 2.106(b)(458)(ii), (d)(172) (international footnote 5.458B and non-governmental footnote NG172). The space-to-Earth allocation is limited to non-geostationary Mobile-Satellite Service feeder links and earth stations (continued....)

9. In addition to these licensed incumbent services, an international footnote in the table of allocations urges that we take “all practicable steps” to protect radio astronomy service observations in 6.650-6.6752 GHz.¹⁹ Finally, low-power unlicensed ultra-wideband (UWB) and wideband systems operate in the 6 GHz band under our part 15 rules.²⁰ Like all other part 15 devices, UWB and wideband devices operate on a non-interference basis and are not permitted to cause harmful interference.²¹

10. *The Report and Order and Further Notice of Proposed Rulemaking.* The April 2020 Report and Order (6 GHz Order) adopted rules to permit expanded unlicensed use throughout the 6 GHz band by authorizing two new types of unlicensed operations.²² First, unlicensed standard power access points in the U-NII-5 and U-NII-7 bands can access spectrum through use of an Automated Frequency Coordination (AFC) system.²³ The AFC systems permit the standard power access points to only operate on frequencies and at power levels that will protect co-channel incumbent fixed microwave operations from harmful interference.²⁴ These standard power access points can operate at the same power levels already permitted in the 5 GHz UNII-1 and U-NII-3 bands (5.150-5.250 GHz and 5.725-5.850 GHz bands, respectively), enabling synergistic use of both the 5 GHz and 6 GHz bands for promoting unlicensed broadband deployment.²⁵

11. Second, unlicensed LPI access points can operate without an AFC system over the entire 6 GHz band.²⁶ In authorizing use of the entire 6 GHz band for this type of use, the Commission provided opportunities for unlicensed operations to transmit using up to 320-megahertz wide channels to expand capacity and performance capabilities.²⁷ This forward-looking action anticipates the next generation of unlicensed devices and advances the U.S.’s role as an innovator and global spectrum policy leader.²⁸ The Commission also permitted operation by client devices at varying power levels based on the type of access point it is connected to—either standard power or LPI.²⁹

12. In the Further Notice of Proposed Rulemaking (*Further Notice*), the Commission

receiving in this band are limited to locations within 300 meters of coordinates in Brewster, WA, Clifton, TX, and Finca Pascual, PR. *Id.* § 2.106(d)(172).

¹⁹ 47 CFR § 2.106(b)(458)(i) (international footnote 5.458A).

²⁰ 47 CFR § 15.250; *id.* pt. 15, subpt. F. Unlicensed UWB operations are permitted in many different frequency bands. *See id.* pt. 15, subpt. F. Wideband operations are mostly limited to the 6 GHz band. 47 CFR § 15.250 (limiting wideband operations to the 5.925-7.250 GHz band). For both the wideband and ultra-wideband systems permitted under the Part 15 rules, the maximum EIRP allowed is –41.3 dBm/MHz except for certain vehicular radar systems which are restricted to –61.3 dBm/MHz EIRP. *See id.* § 15.250(d)(1), subpt. F.

²¹ 47 CFR § 15.5(b).

²² 6 GHz Order, 35 FCC Rcd at 3860, paras. 17-18. There are three pending petitions for reconsideration of the 6 GHz Order filed by Verizon, CTIA, and the Fixed Wireless Communications Coalition (FWCC). Verizon Petition for Reconsideration, ET Docket 18-295 (filed June 25, 2020); CTIA Petition for Partial Reconsideration, ET Docket 18-295 (filed June 25, 2020); Fixed Wireless Communications Coalition Petition for Reconsideration, ET Docket 18-295 (filed June 25, 2020).

²³ 6 GHz Order, 35 FCC Rcd at 3860, para. 17.

²⁴ 6 GHz Order, 35 FCC Rcd at 3862, para. 22.

²⁵ 6 GHz Order, 35 FCC Rcd at 3860, para. 17.

²⁶ 6 GHz Order, 35 FCC Rcd at 3860, para. 18.

²⁷ *Id.*

²⁸ *See* D. Lopez-Perez, A. Garcia-Rodriguez, L. Galati-Giordano, M. Kasslin and K. Doppler, “IEEE 802.11be Extremely High Throughput: The Next Generation of Wi-Fi Technology Beyond 802.11ax,” in IEEE Communications Magazine, vol. 57, no. 9, pp. 113-119, Sept. 2019 (stating that 320-megahertz bandwidth is a leading candidate for inclusion in the 802.11be standard), available at <https://ieeexplore.ieee.org/document/8847238>.

²⁹ 6 GHz Order, 35 FCC Rcd at 3860, para. 18.

proposed to permit an additional class of unlicensed devices—VLP devices. VLP devices were proposed for operations across the entire 6 GHz band, with no requirement that the devices be kept indoors or be under the control of an AFC system.³⁰ The Commission envisioned that body-worn devices would make-up most VLP device use cases and that these devices would provide large quantities of data in real-time.³¹ Entities that support the Commission permitting VLP device operation expect that these devices will support portable use cases, such as wearable peripherals (e.g., smartphones, glasses, watches, and earphones), including augmented reality/virtual reality and other personal-area-network applications, as well as in-vehicle applications (e.g., dashboard displays).³² The *Further Notice* sought comment on the appropriate power levels as well as other rules for VLP devices to ensure that the potential for causing harmful interference to incumbent operations is minimized.³³ To this end, the *Further Notice* sought comment on several topics, such as: Whether VLP devices should be required to employ a contention-based protocol that requires the devices to listen to the spectrum prior to transmission;³⁴ how should the interference potential of these devices be evaluated when operating outdoors;³⁵ how should clutter losses from the presence of buildings and other objects be accounted for when evaluating interference potential;³⁶ what value should be assumed for body loss and transmit power control;³⁷ whether a proximity sensor could be used to adjust power based on how much body loss is expected;³⁸ how would transmit power control be implemented to protect incumbent licensees;³⁹ what technology measures can be incorporated into VLP devices to support the operations at the power limits requested by proponents and mitigate the potential for harmful interference to incumbent services;⁴⁰ and what technical or operational rules should the Commission consider to maximize the utility of the 6 GHz band and protect incumbent licensees?⁴¹

13. In the *Further Notice*, the Commission also sought comment on several modifications to the 6 GHz band unlicensed rules. The *Further Notice* sought comment on increasing the permitted power spectral density of LPI access points from 5 dBm/MHz to 8 dBm/MHz and the maximum transmit power from 30 dBm to 33 dBm EIRP.⁴² The *Further Notice* also sought comment on permitting standard power access points to operate under the control of an AFC system while in motion.⁴³ Lastly, the *Further Notice* sought comment on permitting standard power access points that are used for point-to-point links to operate at power levels greater than the 36 dBm EIRP level currently permitted.⁴⁴ Of the topics raised in the *Further Notice*, in this Second Report and Order we are only addressing the proposal to permit VLP devices. We intend to address the remaining issues raised in the *Further Notice* at a later time.

³⁰ 6 GHz *Further Notice*, 35 FCC Rcd at 3939-40, para. 235.

³¹ 6 GHz *Further Notice*, 35 FCC Rcd at 3939-40, paras. 235-36.

³² See Apple, Broadcom et al. July 2, 2019 *Ex Parte* at 5,7; Apple, Broadcom et al. Dec 9, 2019 *Ex Parte* at 8.

³³ 6 GHz *Further Notice*, 35 FCC Rcd at 3940-42, paras. 236-43.

³⁴ 6 GHz *Further Notice*, 35 FCC Rcd at 3940, para. 237.

³⁵ 6 GHz *Further Notice*, 35 FCC Rcd at 3940-41, para. 238.

³⁶ 6 GHz *Further Notice*, 35 FCC Rcd at 3940-41, para. 238.

³⁷ 6 GHz *Further Notice*, 35 FCC Rcd at 3941, para. 239.

³⁸ 6 GHz *Further Notice*, 35 FCC Rcd at 3941, para. 240.

³⁹ 6 GHz *Further Notice*, 35 FCC Rcd at 3941, para. 241.

⁴⁰ 6 GHz *Further Notice*, 35 FCC Rcd at 3942, para. 242.

⁴¹ 6 GHz *Further Notice*, 35 FCC Rcd at 3942, para. 243.

⁴² 6 GHz *Further Notice*, 35 FCC Rcd at 3942-43, paras. 244-45.

⁴³ 6 GHz *Further Notice*, 35 FCC Rcd at 3943-44, paras. 246-51.

⁴⁴ 6 GHz *Further Notice*, 35 FCC Rcd at 3944-45, paras. 252-55.

14. Several parties filed petitions for review of the *6 GHz Order* in the D.C. Circuit⁴⁵ asserting that the Commission erred when adopting rules for the 6 GHz band. The petitioners claimed that the rules the Commission put in place to protect incumbent operations from harmful interference were not adequate to ensure that such interference would not occur.⁴⁶ The Court largely denied the petitions for review and held that, for the most part, petitioners did not provide a basis for questioning the Commission's conclusions regarding the interference protection the rules would afford to incumbent users.⁴⁷ However, the Court did remand a single issue finding that the Commission failed to adequately address NAB's concern that its experience with contention-based protocols in the 2.4 GHz band should have led the Commission to grant NAB's request to reserve a portion of the 6 GHz band for licensed mobile broadcast operations.⁴⁸

15. After the Commission adopted the *6 GHz Order* and *Further Notice*, the Office of Engineering and Technology (OET) sought comment on whether the Commission should permit direct communications between client devices.⁴⁹ The rules adopted in the *6 GHz Order* prohibited unlicensed client devices from acting as "mobile hotspots" because "[p]ermitting a client device operating under the control of an access point to authorize the operation of additional client devices could potentially increase the distance between these additional client devices and the access point and increase the potential for harmful interference to fixed service receivers or electronic news gathering operations."⁵⁰ Recognizing that such operations could be useful and permit additional use cases, OET "invite[d] interested parties to supplement the record, for the Commission's consideration, on whether and under what circumstances client devices could be permitted to directly communicate with each other in a limited manner consistent with the rationale underlying the Commission's decisions in the *6 GHz Order* that were targeted at protecting incumbent licensed services."⁵¹ OET specifically sought comment on "whether the Commission should permit 6 GHz U-NII client devices to directly communicate when they are under the control of or have received an enabling signal from a[n] [LPI] access point."⁵²

16. *The record.* The Commission received comments from numerous parties in favor of permitting unlicensed VLP operations in the 6 GHz band as well as parties representing the interests of incumbent licensees raising concerns about potential harmful interference from the proposed unlicensed VLP operations. In response to the *Further Notice*, proponents of unlicensed operations in the 6 GHz band—including Apple, Broadcom et al.,⁵³ the Wi-Fi Alliance, the Dynamic Spectrum Alliance (DSA),

⁴⁵ Parties seeking review of the rules were the National Association of Broadcasters, AT&T Services, Inc., Lumen Technologies, Inc., APCO International, Edison Electric Institute, the Utilities Technology Council, the National Rural Electric Cooperative Association, and the American Public Power Association.

⁴⁶ See Joint Brief of Petitioners, *AT&T Servs., Inc. v. FCC*, D.C. Cir. No. 20-1190 (and consolidated cases) (Petitioners' Brief).

⁴⁷ *AT&T Servs. Inc., v. FCC*, 21 F.4th 841, 843 (D.C. Cir. 2020).

⁴⁸ *Id.* at 853-54.

⁴⁹ See *The Office of Engineering & Technology Seeks Additional Information Regarding Client-To-Client Device Communications in the 6 GHz Band*, ET Docket No. 18-295, GN Docket No. 17-183, Public Notice, 36 FCC Rcd 36, 36 (OET 2021) (*6 GHz Public Notice*).

⁵⁰ *6 GHz Order*, 35 FCC Rcd at 3927, para. 202.

⁵¹ *6 GHz Public Notice*, 36 FCC Rcd at 37.

⁵² *Id.*

⁵³ See Apple, Broadcom et al. Comments (filed June 29, 2020) (a group of companies that includes Apple, Broadcom, Cisco Systems, Facebook, Google, Hewlett Packard Enterprise, Intel, Microsoft, NXP Semiconductors, Qualcomm, and Ruckus Networks). This group submitted several joint filings in this proceeding. Several of these companies also submitted individual filings on behalf of their companies. We also note that, at times, joint filings made by Apple, Broadcom, and other companies include variations in the composition of the group, depending on the particular filing(s).

the Consumer Technology Association, and the Public Interest Spectrum Coalition⁵⁴—support the Commission’s proposal for authorizing VLP unlicensed device operations across the 6 GHz band. They emphasize that such operations will support a host of immersive, real-time applications in areas such as healthcare, high accuracy location, advanced connectivity, innovative game experiences, and augmented-reality/virtual-reality devices,⁵⁵ among other uses.⁵⁶ These commenters assert that technical rules can be established that protect incumbents from harmful interference.⁵⁷ Apple, Broadcom, et al. submitted several technical studies to support their contention that harmful interference will not occur to licensed incumbents from VLP devices.⁵⁸

17. Commenters representing incumbents express various concerns about the potential for harmful interference to their operations from standard power, LPI, and VLP unlicensed operations. Commenting parties include the Fixed Wireless Communications Coalition (FWCC), AT&T, the Utilities Technology Council (UTC) et al., and the National Public Safety Telecommunications Council on behalf of fixed microwave incumbents,⁵⁹ Sirius XM Radio representing satellite service incumbents,⁶⁰ the National Association of Broadcasters (NAB) on behalf of local radio and television stations and broadcast networks,⁶¹ and the National Academy of Sciences’ Committee on Radio Frequencies regarding radio astronomy observatories.⁶² Several of these commenters also submitted technical studies to support their positions.⁶³ The Ultra-Wide Band Alliance and Zebra advocate for lower power levels or placing antenna gain requirements on very low power devices.⁶⁴ Finally, several parties advocate for protection of the adjacent 5.9 GHz band.⁶⁵

⁵⁴ The Public Interest Spectrum Coalition consists of: New America’s Open Technology Institute, Public Knowledge, American Library Association, Schools, Health & Libraries Broadband (SHLB) Coalition, Benton Institute For Broadband And Society, COSN – Consortium for School Networking, National Hispanic Media Coalition, Tribal Digital Village Network, Institute for Local Self-Reliance, Next Century Cities, Common Cause, Access Humboldt, and X-Lab.

⁵⁵ *Augmented Reality* (AR) is the digital creation of a fabricated set of objects that can be interspersed with real world elements, usually through a headset that overlays the objects on the lens, as the users also view their real surroundings. *Virtual Reality* (VR) is the digital creation of a fabricated immersive world, typically via a headset technology, that generates all the photons that the eye sees.

⁵⁶ See, e.g., Apple, Broadcom et al. Comments at 2 (filed June 29, 2020); Wi-Fi Alliance Comments at 4-8 (filed June 29, 2020).

⁵⁷ See, e.g., Apple, Broadcom et al. Comments at 25, 27-29 (filed June 29, 2020); Wi-Fi Alliance Comments at 9-12 (filed June 29, 2020), Consumer Technology Association Comments at 1-3 (filed June 29, 2020); Open Technology Institute et al. Comments at 5-13 (filed June 29, 2020).

⁵⁸ Apple, Broadcom et al. Comments Attachs. A, B, C (filed June 29, 2020).

⁵⁹ See, e.g., Fixed Wireless Communications Coalition Comments at 3-4 (filed July 8, 2020); AT&T Comments at 7-11 (filed June 29, 2020); Utilities Technology Council, et al. (a group of commenters including the Utilities Technology Council, the American Public Power Association, the National Rural Electric Cooperative, the American Gas Association, and the American Water Works Association) Comments at 5-9 (filed June 29, 2020); NPSTC Comments at 3-5 (filed June 29, 2020).

⁶⁰ Sirius XM Radio Comments at 12-15 (filed June 29, 2020).

⁶¹ NAB Comments at 6-8 (filed June 29, 2020).

⁶² National Academy of Sciences Committee on Radio Frequencies Comments at 3-6 (filed June 29, 2020).

⁶³ Nokia Comments Attach. (filed June 29, 2020); Southern Company Comments Attach. A (filed June 29, 2020); CTIA Reply Attach. (filed July 27, 2020).

⁶⁴ See, e.g., Ultra-Wide Band Alliance Comments at 10 (filed June 29, 2020); Zebra Technologies Reply at 1-2 (filed July 27, 2020).

⁶⁵ See, e.g., 5GAA Comments at 4-7 (filed June 29, 2020); Alliance for Automotive Innovation Comments at 5-7 (filed June 29, 2020).

III. SECOND REPORT AND ORDER

18. We adopt rules to permit VLP devices to operate with up to -5 dBm/MHz EIRP power spectral density (PSD) and 14 dBm EIRP across the U-NII-5 and U-NII-7 portions of the 6 GHz band. VLP devices will enable new innovative uses and will provide opportunities to enhance nascent applications, such as augmented reality/virtual reality, in-car connectivity, wearable on-body devices, healthcare monitoring, short-range mobile hotspots, high accuracy location and navigation, and automation.⁶⁶ The rules we are adopting are designed to support innovation to bring exciting new applications to market while protecting the important licensed services that operate in the 6 GHz band from harmful interference. At this time, we are limiting VLP devices to the U-NII-5 and U-NII-7 bands because the technical record has mainly focused on the potential for interference to fixed microwave links which are the predominate uses of these portions of the 6 GHz band. In the Second Further Notice of Proposed Rulemaking, we propose to expand VLP device operation to the U-NII-6 and U-NII-8 portions of the band which supports mobile operations.

A. VLP Power Levels and Protection of the Fixed Microwave Services

19. Apple, Broadcom et al. and the Wi-Fi Alliance claim that VLP devices will require 14 dBm EIRP and 1 dBm/MHz EIRP PSD⁶⁷ to meet expected consumer use cases, overcome on-body loss, and meet minimum throughput, latency, and power efficiency requirements.⁶⁸ Otherwise, they claim, performance will suffer due to lower data rates, increased latency, and higher duty cycles.⁶⁹ Apple, Broadcom et al. state that “[b]ecause power consumption increases with duty cycle, these higher duty cycles undermine the ability to achieve low power consumption, which is critical for small-form factor battery-power-limited devices,” such as VLP devices.⁷⁰ Ensuring that latency is minimized is also essential for many expected VLP applications, such as augmented reality/virtual reality, screen mirroring, and gaming.⁷¹ Apple, Broadcom et al. claim that their companies, which include leading product experts and engineers, “agree that a minimum of 14 dBm EIRP is critical to balance the tradeoffs between latency, data rate, power consumption, and other essential factors required to enable useful consumer products and cutting-edge innovative applications.”⁷² They explain that “[t]he range of potential on-body loss scenarios is a central factor driving the required power for [VLP] devices” and point to measurements by the Wireless Research Center of North Carolina showing that the path loss between body worn devices is highly variable.⁷³ They claim that manufacturers must design VLP devices to function in worst-case operating scenarios.⁷⁴

20. In addition, Apple, Broadcom et al. ask the Commission to adopt the 1 dBm/MHz EIRP PSD limit to avoid unnecessarily constraining power in narrower channel sizes.⁷⁵ They claim that limiting the PSD to lower levels, such as -8 dBm/MHz EIRP, would negatively affect the ability of VLP

⁶⁶ Apple, Broadcom et al. Comments at 4-5 (filed June 29, 2020); Wi-Fi Alliance Comments at 4-8 (filed June 29, 2020).

⁶⁷ Because total power increases with increasing bandwidth, 1 dB/MHz EIRP PSD would permit 14 dBm EIRP across 20, 40, 80, 160 and 320 megahertz channel bandwidths.

⁶⁸ Apple, Broadcom et al. Comments at 10 (filed June 29, 2020); Wi-Fi Alliance Comments at 9 (filed June 29, 2020).

⁶⁹ Apple, Broadcom et al. Comments at 10.

⁷⁰ *Id.*

⁷¹ *Id.* at 10-11.

⁷² *Id.* at 12.

⁷³ *Id.* at 12-13.

⁷⁴ *Id.* at 13.

⁷⁵ *Id.* at 14.

devices to achieve the required throughput.⁷⁶ They also state that using a smaller bandwidth may be necessary to maximize channel use in high user densities or high path loss environments.⁷⁷

21. Other commenters also support the need for permitting VLP devices to operate at the 14 dBm EIRP and 1 dBm/MHz EIRP PSD power levels. The Consumer Technology Association states that authorizing VLP devices at less than 14 dBm would prohibit important use cases from emerging where body losses are a key factor.⁷⁸ The DSA claims that a 14 dBm EIRP and 1 dBm/MHz EIRP PSD is necessary for anticipated use cases, such as new immersive, real-time applications and personal area network, wearable, and in-vehicle portable devices.⁷⁹ Facebook points to the report from the Wireless Research Center of North Carolina illustrating the challenges that arise due to body loss.⁸⁰ According to Facebook, this study demonstrates that VLP devices need to overcome significant variability in body loss to provide the expected reliability and the best means to do this is to permit the requested 14 dBm EIRP.⁸¹ Microsoft states that VLP device designers will need the 14 dBm EIRP power level to create innovative new product categories, configurations, and form factors.⁸² It explains that if VLP devices are authorized with a lower power, the economic benefits will be tempered as 14 dBm EIRP is the threshold at which VLP device throughput would be high enough and latency low enough for personal area network users to have a reliable highly interactive mixed-reality experience.⁸³

22. In making this decision to enable this new class of unlicensed devices to operate in the 6 GHz band while protecting licensed incumbent operations from harmful interference, we note that this policy represents a careful balancing between enabling new services and protecting existing services. In response to comments reflecting incumbents' concerns regarding the potential for harmful interference as well as analysis in the record, we are taking reasonable actions to minimize such potential. However, we also take this opportunity to reiterate several core Commission spectrum management principles that directly affect our decision-making in this proceeding. The Commission recently stated in its *Policy Statement*,⁸⁴ which provides guidance on how the Commission intends to manage spectrum efficiently and effectively going forward, that:

- “The electromagnetic environment is highly variable, and zero risk of occasional service degradation or interruption cannot be guaranteed”;⁸⁵
- “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”;⁸⁶

⁷⁶ *Id.* -8 dBm/MHz EIRP/PSD would permit 5 dBm EIRP for a 20 megahertz channel bandwidth, 8 dBm EIRP for a 40 megahertz channel bandwidth, 11 dBm EIRP for an 80 megahertz channel bandwidth, and 14 dBm EIRP for 160 megahertz and 320 megahertz channel bandwidths.

⁷⁷ *Id.* at 14-15.

⁷⁸ Consumer Technology Association Comments at 7 (filed June 29, 2020).

⁷⁹ Dynamic Spectrum Alliance Comments at 4-5 (filed June 29, 2020).

⁸⁰ Facebook Comments at 5 (filed June 29, 2020).

⁸¹ *Id.* at 5-6.

⁸² Microsoft Comments at 8 (filed June 29, 2020).

⁸³ *Id.* at 8.

⁸⁴ *Principles for Promoting Efficient Use of Spectrum and Opportunities for New Services; Promoting Efficient Use of Spectrum through Improved Receiver Interference Immunity Performance*, ET Docket Nos. 23-122 and 22-137, Policy Statement, FCC 23-27 (Apr. 21, 2023) (*Policy Statement*).

⁸⁵ *Id.* at 2, para. 5 (emphasis omitted); *accord id.* at 6-7, paras. 15-17.

⁸⁶ *Id.* at 2, para. 5 (emphasis omitted); *accord id.* at 7, paras. 18-19.

- “Radio transmitter and receiver system operators and equipment manufacturers should plan for and design error tolerant systems, using good engineering practices, to mitigate degradation from interference”⁸⁷; and
- “Quantitative analyses of interactions between services that are fact- and evidence-based, sufficiently robust, transparent, and reproducible are needed to better inform spectrum management decision-making.”⁸⁸

23. We emphasize the core principle from the Policy Statement that expresses the notion that data-driven approaches are necessary to promote co-existence.⁸⁹ And while the Policy Statement generally addresses adjacent channel issues, it notes that many of the technical and policy principles articulated could be applied to co-channel spectrum sharing as well, such as the sharing scenarios in the 6 GHz band.⁹⁰ Our decision herein is consistent with its principles. In adopting rules to enable VLP devices to share the 6 GHz band, we have followed this approach in anchoring our decision on an extensive technical record. We recognize the highly variable nature of the electromagnetic environment and rely on analyses that use a probabilistic approach to evaluating interference risk rather than basing our decision on worst-case examples.

24. In considering the maximum power level for VLP devices, our goal is to balance competing factors. We aim to permit as much power as possible for these devices so that the maximum benefit can be derived from their operation while minimizing the potential risk of harmful interference to licensed incumbent operations. As described below, the record is replete with many analyses and tests that come to widely different conclusions. These analyses and tests provide a basis for our understanding of the potential for VLP devices to cause harmful interference under a variety of conditions. As described in detail, we believe based on the technical record that we can permit at this time VLP devices to operate at up to -5 dBm/MHz power spectral density (PSD) and 14 dBm EIRP without presenting a significant risk of harmful interference to the licensed microwave incumbents that share the 6 GHz band.⁹¹

1. Computer Simulations/Monte Carlo Analysis

25. In considering the technical record, we find that two computer simulations based on Monte Carlo analysis submitted by Apple, Broadcom et al. and by Apple provide sufficient support for permitting VLP operation at up to -5 dBm/MHz EIRP power spectral density (PSD) and 14 dBm EIRP across the U-NII-5 and U-NII-7 portions of the 6 GHz band.⁹² Relying on computer simulations is in harmony with our *Policy Statement*’s directive to follow a data-driven approach to spectrum management rather than placing dispositive weight on worst-case examples that may be rare or never occur in practice.⁹³ In relying on these computer simulations, we follow the path of the Commission’s previous decision in adopting rules for unlicensed 6 GHz LPI devices. For the LPI rules, the Commission characterized a computer simulation submitted by CableLabs as “the best evidence in the record of the

⁸⁷ *Id.* at 3, para. 5 (emphasis omitted); *accord id.* at 10-11, paras. 33-35.

⁸⁸ *Id.* at 3, para. 5 (emphasis omitted); *accord id.* at 12-13, paras. 41-44.

⁸⁹ *See id.* at 11-13, paras. 36-47.

⁹⁰ *Id.* at note 1.

⁹¹ -5 dBm/MHz EIRP/PSD would permit 8 dBm EIRP for a 20 megahertz channel bandwidth, 11 dBm EIRP for a 40 megahertz channel bandwidth, and 14 dBm EIRP for 80 megahertz, 160 megahertz, and 320 megahertz channel bandwidths.

⁹² *See* Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte*; Apple Feb. 13, 2023 *Ex Parte*. A Monte Carlo simulation uses random sampling and statistical modeling to estimate mathematical functions and mimic the operations of complex systems. Harrison RL., *Introduction To Monte Carlo Simulation*, AIP Conf Proc. 2010;1204:17–21. doi:10.1063/1.3295638.

⁹³ *See Policy Statement* at 11-13, paras. 36-47.

impact that unlicensed low-power indoor devices will have on incumbent operations.”⁹⁴

26. A well-designed computer simulation can simultaneously model many probabilistic factors that determine whether harmful interference may occur. These factors include VLP device location variability in relation to the microwave receiver, height of the VLP device, whether the VLP device is operating co-channel, the VLP power level, and the radio propagation environment. In examining the potential for harmful interference to occur to microwave links from VLP devices, the characteristics of the microwave links must also be considered. Microwave links use highly directional antennas typically located on tall towers or building rooftops to transmit over distances up to 30 kilometers. Because of the heights of these antennas and their directional nature, VLP devices only present a harmful interference risk if they are located within the main beam of the antenna and are close enough to the microwave receiver that a strong signal can be received.⁹⁵ One important factor to consider when modeling interference to 6 GHz microwave receivers is atmospheric multipath fading. Atmospheric multipath fading is caused when stable air masses, such as warm and humid air, lead to stratification of the atmosphere.⁹⁶ Atmospheric multipath fades can be very deep—30 dB or more. However, deep fades are rare while more mild fades occur more frequently. For a typical link, fades greater than 30 dB occur, on average, 15 seconds a month while fades greater than 10 dB occur, on average, 37 minutes a month.⁹⁷ Because of this fading phenomenon, 6 GHz microwave links are designed with large “fade margins” that are typically 25-40 dB.⁹⁸ This fade margin provides transmitted power beyond what is needed to maintain the link when no fading is occurring. Thus, the typical microwave link can operate with 5-nines availability (99.999%) despite the presence of fading. Because the links are designed with these large fade margins, even when a VLP device is located directly within the main beam of a microwave antenna at a close enough distance where it might be possible for it to cause harmful interference, the microwave link’s operation will not be degraded unless a deep enough fade occurs so that the combination of received signal from the VLP device and fade depth is greater than the link’s fade margin. Thus, VLP operation during the more frequent mild fades that occur which only consume a small portion of the fade margin will present only an insignificant harmful interference risk. An examination of the interference potential of VLP devices to microwave links must consider not only the position and transmit power of the VLP devices and the technical characteristics of the microwave links, but also include the effects of fading.

27. A computer simulation submitted by Apple, Broadcom et al. modeled the effect of VLP devices on two hundred forty-seven (247) fixed microwave links in the San Francisco area.⁹⁹ Data from the Commission’s licensing database was used to model each microwave link.¹⁰⁰ For each iteration during this simulation, 1,146 VLP devices were randomly placed in the San Francisco area where the distribution of devices was determined by the population data—i.e., it was more likely that the devices

⁹⁴ 6 GHz Order, 35 FCC Rcd at 3896, para. 120.

⁹⁵ FWCC Oct. 31, 2019 *Ex Parte* at 7 (agreeing that an unlicensed device will cause harmful interference to a microwave receiver if it is in or near the receiver’s main beam, there is little attenuation between the device and receiver, the device is close enough to the receiver, and the microwave link is in a fade (not always necessary)); Apple, Broadcom, Google, Meta, Aug. 2, 2023 *Ex Parte* at 1-2.

⁹⁶ See George Kizer, Digital Microwave Communication, 321-324 (2013).

⁹⁷ Apple, Broadcom et al. Oct. 7, 2019 *Ex Parte* at slide 12.

⁹⁸ FWCC Comments at 16 (filed Feb. 15, 2019); FWCC Oct 31, 2019 *Ex Parte* at 12-13.

⁹⁹ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8.

¹⁰⁰ *Id.* at 5. Apple, Broadcom et al. state that “San Francisco was selected to model one of the most challenging cities in the nation—a region with significant height disparities between FS transmitters and receivers, including many FS links on hills above the city—resulting in an analysis of many worst-case receiver heights and elevation angles. Other cities can be expected to have fewer such scenarios.” They add that “[t]he San Francisco region is also useful to simulate because it includes both extremely dense urban cores as well as suburban and rural areas, allowing all three environments to be captured in one simulation.”

were placed in areas with higher population density.¹⁰¹ This 1,146 number was based on an estimate of how many VLP devices were likely to be operating outdoors in the region at any given time based on the population and assumptions on how many people are outdoors, the percentage of those people with a VLP device, the percentage of unlicensed devices operating in the 6 GHz band as compared to other bands, and the VLP devices' activity factor.¹⁰² One million iterations of the simulation were run for VLP PSD levels of 10 dBm/MHz, 1 dBm/MHz, -5 dBm/MHz, -8 dBm/MHz, and -18 dBm/MHz.¹⁰³ The characteristics of each VLP device were determined based on several probability distributions. The bandwidth that the devices used ranged from 20, 40, 80, 160, to 320 megahertz, with 160 megahertz being the most common.¹⁰⁴ The simulations assumed that 90% of the VLP devices were 1.5 meters above ground level and that the remaining devices were randomly distributed using a distribution based on LIDAR data of building heights for that location, if the LIDAR data on building heights was available, or an exponential distribution if LIDAR data was not available.¹⁰⁵ While each simulation iteration assumed a uniform peak 14 dBm EIRP power level, the VLP devices were assumed to use transmit power control, which reduces the transmit power for individual devices based on a truncated gaussian distribution ranging from 0 to 6 dB with a 3 dB mean and 3 dB standard deviation.¹⁰⁶ An antenna pattern based on a model of consumer Wi-Fi devices developed by the European Conference of Postal and Telecommunications Administrators (CEPT) SE45 working group was assumed for all VLP devices.¹⁰⁷ The simulation also assumed a distribution for body loss with a 4 dB mean and 4 dB standard deviation truncated above and below one standard deviation.¹⁰⁸ The simulation used a free space path-loss propagation model for distances less than 30 m, the WINNER II-Combined model for distances between 30 m and 1 km and heights less than 15 m, the WINNER-II line-of-sight model for distances between 30 m and 1 km and heights greater than 15 m, and the ITM model for distances greater than 1 km.¹⁰⁹

28. The San Francisco computer simulation indicates that for VLP devices transmitting at -5 dBm/MHz EIRP PSD the probability of the interference to noise power (I/N) ratio exceeding -6 dB¹¹⁰ was 0.003% and the probability of the I/N exceeding 0 dB was 0.001% over the one million simulation

¹⁰¹ *Id.* at 9.

¹⁰² *Id.* at 9. This 1,146 number is obtained by multiplying the total area population by all of the factors listed on the slide.

¹⁰³ *Id.* at 5, 8.

¹⁰⁴ *Id.* at 8. The bandwidth distribution ranged from 5% of devices operating with 40 megahertz channel bandwidth to 35% of devices operating with 160 megahertz channel bandwidth. *Id.*

¹⁰⁵ *Id.* Light Detection and Ranging (LIDAR) is a technology similar to RADAR that can be used to create high-resolution digital elevation models (DEMs) with vertical accuracy as good as 10 cm. LiDAR data includes terrain and clutter information for the geographic area studied. See U.S. Geological Survey at www.usgs.gov.

¹⁰⁶ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8.

¹⁰⁷ Apple, Broadcom et al. claim that this antenna pattern is less protective than most masks used in the real world. *Id.* at 8, 11-12.

¹⁰⁸ Apple, Broadcom et al. claim that this represents less loss than expected under real world operating conditions. *Id.* at 8.

¹⁰⁹ *Id.*; Apple, Broadcom, Google, Meta Aug. 31, 2023 *Ex Parte* at 1.

¹¹⁰ In the *6 GHz Order*, the Commission established -6 dB I/N as an interference protection criterion for AFC systems when determining spectrum availability for standard power devices. *6 GHz Order*, 35 FCC Rcd at 3878, para. 71. For this interference protection criterion, "I (interference) is the co-channel signal from the standard power access point or fixed client device at the fixed microwave service receiver, and N (noise) is background noise level at the fixed microwave service receiver." See 47 CFR § 15.407(l)(2)(i). In making this determination, the Commission also stated that it was not making a determination that any signal received with an I/N greater than -6 dB would constitute "harmful interference." *6 GHz Order*, 35 FCC Rcd at 3878, para. 71.

iterations.¹¹¹ The simulation specifies that the same probability of exceeding -6 dB I/N results when the VLP PSD is 1 dBm/MHz EIRP, but is correspondingly lower for -8 dBm/MHz and -18 dBm/MHz EIRP PSD levels and higher for the simulations that used 10 dBm/MHz EIRP.¹¹² In addition to providing statistics on the I/N ratio, the simulation also evaluated the likelihood that the microwave link's fade margin will be exceeded by the combination of the interference power received from the VLP devices and the atmospheric multipath fading.¹¹³ For each of the 247 microwave links in the San Francisco area, the simulation calculated the fade margin by calculating the actual carrier-to-noise (C/N) ratio for the microwave link based on the link's technical parameters—i.e., the transmitted power, propagation distance, antenna gain, receiver feeder loss, and receiver noise figure—and subtracting the C/N ratio needed for the link to operate at the highest data rate listed in the Commission's database for that link.¹¹⁴ The simulation then determined the probability distribution for the atmospheric multipath fading for each link using the ITU-R P.530-17 model.¹¹⁵ This model takes into account factors such as the local climate, the transmitter and receiver heights for the microwave link, and the average terrain elevation to create a fading distribution.¹¹⁶ The simulation then calculated a distribution of the noise floor increase for each link based on the I/N statistics and convolved that with the multipath fading distribution. For VLP devices operating at powers up to 1 dBm/MHz EIRP, the results indicate that the probability of the fade margin being exceeded by the combination of the interference power received from VLP devices plus the multipath fading is not materially different than the probability of the link margin being exceeded solely from multipath fading.¹¹⁷ According to the simulation results, of the 247 links assessed in the study, the presence of VLP devices transmitting at 1 dBm/MHz EIRP at the “worst-case” location for a microwave link would change the probability that the worst-case link will be degraded by 0.3%.¹¹⁸

¹¹¹ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8, 19.

¹¹² *Id.* at 19. The results for each PSD are summarized below:

PSD (dBm/MHz)	Average Probability of exceeding I/N > -6 dB	Percentage Difference from -5 dB PSD	Average Probability of exceeding I/N > 0 dB	Percentage Difference from -5 dB PSD
-5	0.003%	-	0.001%	-
1	0.003%	0	0.001%	0
-8	0.002%	33% decrease	0.001%	0
-18	0.0003%	90% decrease	0.0001%	90% decrease
10	0.075%	2500% increase	0.020%	2000% increase

¹¹³ AT&T claims that the -6 dB I/N ratio that has been a proxy for harmful interference used by the Commission, the fixed microwave industry, and standards bodies for decades and complains that the Commission is now replacing this concrete defined threshold with “nothing.” AT&T Oct. 10, 2023 *Ex Parte* at 3. As the Commission explained in the *6 GHz Order*, harmful interference is not defined as exceeding an I/N threshold of -6 dB. *6 GHz Order*, 35 FCC Rcd at 3878, para. 71. The Commission defines harmful interference as “[i]nterference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with ITU Radio Regulations.” 47 CFR § 2.1(c). *See also* 15 CFR § 15.3(m).

¹¹⁴ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 24.

¹¹⁵ *Id.* at 25.

¹¹⁶ *Id.* at 25.

¹¹⁷ *Id.* at 17.

¹¹⁸ *Id.* at 15.

29. The computer simulation submitted by Apple has many similarities to the San Francisco simulation. Apple's simulation modeled VLP to microwave receiver interactions in the Houston, Texas area by modeling a single microwave link while varying the VLP parameters for each simulation run based on the characteristics of microwave links that area.¹¹⁹ Two hundred twenty-four (224) VLP devices operating at 14 dBm EIRP within bandwidths varying from 20 megahertz to 320 megahertz were randomly placed within 23.49 kilometers of the microwave link on each of 10 million iterations.¹²⁰ Separate simulations were conducted for VLP PSD levels of 1 dBm/MHz, -5 dBm/MHz, -8 dBm/MHz, and -18 dBm/MHz, with the total power in each case set at 14 dBm EIRP.¹²¹ The simulation assumed a body loss that is gaussian distributed with a 4 dB mean and a 4 dB standard deviation, truncated to one standard deviation.¹²² 90% of the VLP devices were assumed to be at a height of 1.5 meters above ground level, and the remaining devices' heights were randomly chosen using a distribution based on actual Houston area building heights.¹²³ It assumed that transmit power control was used with a gaussian distribution in seven discrete steps from 0-6 dB.¹²⁴ The simulation assumed a 1.3 dB feeder loss and a 5 dB noise figure for the microwave receivers.¹²⁵ It also assumed that the microwave antenna had a 44 dBi gain, was at a 35 meter height above ground level, and had an elevation angle (downtilt/uplift) that was randomly chosen between plus and minus 2 degrees.¹²⁶ The simulation used the propagation models specified in the Commission's rules for the AFC systems that control spectrum access for 6 GHz band standard power unlicensed devices to calculate the I/N at the microwave receiver on each iteration. The simulation used a free space path-loss propagation model for distances less than 30 m, the WINNER-II statistical model for distances between 30 m and 1 km, and the ITM model for distances greater than 1 km.¹²⁷

30. The Houston simulation found that for VLP devices operating at -5 dBm/MHz EIRP PSD, the -6 dB I/N level was exceeded approximately 0.06% of the time and 0 dB I/N was exceeded approximately 0.01% of the time.¹²⁸ For VLP devices operating at 1 dBm/MHz EIRP PSD, the -6 dB I/N level was exceeded approximately 0.085% of the time and 0 dB I/N was exceeded approximately 0.02% of the time.¹²⁹ Similar to the San Francisco simulation, the Houston simulation also examined the likelihood that the microwave link's fade margin will be exceeded by the combination of the interference

¹¹⁹ Apple Feb. 13, 2023 *Ex Parte* at 4, 9-13.

¹²⁰ The distribution of channel bandwidths varied from 5% at 320 megahertz to 45% at 80 megahertz. *Id.* at 1, 10. Apple Sept. 14, 2023 *Ex Parte* at 3.

¹²¹ *Id.* at 10.

¹²² *Id.* at 10.

¹²³ *Id.* at 11.

¹²⁴ *Id.* at 11.

¹²⁵ *Id.* at 11.

¹²⁶ *Id.* at 11. These parameters were chosen to be representative of fixed links in the Houston area. *Id.* at 12-13.

¹²⁷ Apple's filing indicates that a free space propagation model is used for distances greater than or equal to 30 meters and that WINNER II is used for distances greater than 30 meters and less than 1 kilometer. We believe this is an error and that the free space model was used for distances less than or equal to 30 meters. Apple Feb. 13, 2023 *Ex Parte* at 10.

¹²⁸ *Id.* at 20.

¹²⁹ *Id.* at 20. AT&T complains that the computer simulations focus on the 1 dBm/MHz EIRP PSD power level claiming this is 9 dB higher than what was proposed in the *Further Notice*. AT&T Aug. 29, 2023 *Ex Parte* at 9. While the *Further Notice* did note that Apple, Broadcom et al. argued that -8 dBm/MHz PSD EIRP was necessary for VLP devices, the Commission did not propose a particular power level for VLP devices; it sought comment on what would be an appropriate power level while proposing requirements for VLP devices to provide commenters a foundation on which to base their preferred power level. *6 GHz Further Notice*, 35 FCC Rcd at 3940, 3942, paras. 236, 243.

power received from the VLP devices and the atmospheric multipath fading.¹³⁰ These results, which were derived for various microwave transmitter heights, show that the presence of VLP devices have no noticeable impact on microwave link reliability compared to atmospheric multipath fading alone.¹³¹ The simulation for the Houston area also indicated that the chance of exceeding -6 dB I/N increased from 0.07% to 0.135% when both VLP and LPI devices were included as compared to just having LPI present.¹³² Finally, this simulation also examined the sensitivity of various inputs to the overall result. Apple claims that the results are sensitive to fixed service receiver antenna height, where higher microwave receiver antenna height above ground level results in a lower potential for impact to the microwave link and that the 35 meter antenna height assumed for the simulation represents a conservative value because such a height is significantly lower than the typical microwave receiver height in the Houston area.¹³³ Likewise, Apple asserts that the assumed 44 dBi microwave receiver antenna gain and assumed ITU-R F.1245 antenna pattern do not represent typical antenna gains or antenna gain patterns and that more realistic inputs would result in the results showing a lower potential for exceeding -6 dB I/N.¹³⁴

31. AT&T argues that the approximate 0.1% chance that the Houston simulation indicates for the I/N to exceed -6 dB for a VLP device operating at 1 dBm/MHz EIRP PSD implies that 1,300 device deployments in the Houston area would impair the fade margin of a microwave link by more than 1 dB (i.e., produce an I/N greater than -6 dB) at any given moment.¹³⁵ AT&T apparently reaches this number by multiplying 0.1% times 1.285 million, which is listed as the number of VLP capable devices in Houston.¹³⁶ AT&T argues that this demonstrates a significant risk to microwave links.¹³⁷ This contention is based on several misunderstandings of the Houston Monte Carlo simulation. In this simulation, only 224 VLP devices are simultaneously transmitting in each iteration.¹³⁸ Ten million iterations of the simulation were conducted.¹³⁹ The approximately 0.1% chance of the I/N being greater than -6 dB means that on 10,000 of these 10 million iterations, the calculated I/N at the microwave receiver from all 224 VLP devices was greater than -6 dB; the I/N contribution from any individual VLP device would be much less. As to AT&T's contention that this demonstrates a significant risk to the microwave links, this represents the likelihood that the aggregate signal from all 224 transmitting VLP devices causes the microwave link to receive a signal at greater than -6 dB I/N, which represents a 1 dB reduction in the fade margin of the link.¹⁴⁰ We reiterate that in the *6 GHz Order* the Commission stated that it was not making a determination that a signal received at greater than -6 dB I/N would constitute "harmful interference."¹⁴¹

32. These simulations examined the statistical relationship that the combination of the interference power received from VLP devices and atmospheric multipath fading could have on microwave receivers. Both the San Francisco analysis and the Houston analysis considered the

¹³⁰ Apple Feb. 13, 2023 *Ex Parte* at 16-17.

¹³¹ *Id.* at 15.

¹³² *Id.* at 19.

¹³³ *Id.* at 22.

¹³⁴ *Id.* at 23-24.

¹³⁵ AT&T Aug. 29, 2023 *Ex Parte* at 9.

¹³⁶ Apple indicates that there are 1, 285,376 6 GHz capable VLP devices assuming a 50% adoption factor. Apple Feb. 13, 2023 *Ex Parte* at 10. Apple does not provide a source for this number.

¹³⁷ *Id.*

¹³⁸ Apple Feb. 13, 2023 *Ex Parte* at 1.

¹³⁹ *Id.* at 10; Apple Sept. 14, 2023 *Ex Parte* at 7.

¹⁴⁰ Apple Sept. 14, 2023 *Ex Parte* at 4.

¹⁴¹ *6 GHz Order*, 35 FCC Rcd at 3878, para. 71.

summation of microwave receiver noise floor from VLP device transmissions and the occurrence of atmospheric multipath fading.¹⁴² Because atmospheric multipath fading and the signal levels received from the VLP devices are independent phenomenon, in accordance with a well-known statistical theorem the probability distribution of the combination of these two processes is the convolution of the probability distribution of each of the individual processes.¹⁴³ The computer simulations used this mathematical convolution process to examine the combination of these two processes¹⁴⁴ and illustrate that the presence of VLP devices does not result in a significant increase in the likelihood that the fade margin of the links will be exceeded by the combination of both atmospheric multipath fading and signals received from the VLP devices.¹⁴⁵ Because the functioning of a microwave link is only interrupted when the combination of multipath fading and received VLP signals exceeds the fade margin, these results show that the presence of VLP devices will not significantly increase the potential for harmful interference to a microwave link over effects due to atmospheric fading alone.

33. AT&T claims the data on fade margin exceedance from the combination of atmospheric multipath fading and VLP devices that the San Francisco Monte Carlo simulation presents is suspect.¹⁴⁶ According to AT&T, Apple, Broadcom et al. have not explained how they calculate these results.¹⁴⁷ AT&T claims that for the data without VLP devices present (the “fading only” data), the presence of links with availabilities below 99.95% and above 99.99999999% seem improbable and that the most obvious conclusion for this is that the San Francisco simulation may have omitted some parameter in its calculations.¹⁴⁸ In response, Apple, Broadcom, and Meta explain that the vast majority of links have reliability in the five-nines to eight-nines range; the links with higher reliability tend to be short links, operating at higher EIRPs, with high gain antennas, narrower bandwidths resulting in high signal-to-noise ratios; the links with lower reliability tend to be much longer, transmit at lower power, use lower gain antennas, and operate with higher bandwidths resulting in lower signal-to-noise ratio at the receiver.¹⁴⁹ We believe that Apple, Broadcom et al. have sufficiently explained how they calculate this data. As they explain, for each link, the available C/N ratio was calculated based on the link’s transmitted power, propagation distance, receiver antenna gain, receiver feeder loss, and receiver noise figure and the required C/N ratio was calculated based on the highest order modulation for the link as indicated in the Commission’s licensing data.¹⁵⁰ The fade margin is simply the difference between these two C/N ratios.¹⁵¹ The probability that the fade margin for a link will be exceeded by an atmospheric multipath fade was obtained from ITU-R P.530-17.¹⁵² As to whether some of the link availabilities are excessively low or high, as AT&T claims, we do not find the range of link availabilities indicated by the San Francisco simulation to be unrealistic. As Apple, Broadcom, and Meta indicate, there are many factors that impact the calculated availability of the microwave links. While most of the 247 microwave links are

¹⁴² Apple Feb. 13, 2023 *Ex Parte* at 18; Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 15.

¹⁴³ See e.g. Athanasios Papoulis, *Probability, Random Variables, and Stochastic Processes* 136 (3d ed. 1991); George Casella & Roger L Berger, *Statistical Inference* 215 (2d ed. 2002).

¹⁴⁴ The convolution integral of two functions $x(t)$ and $h(t)$ is defined as: $y(t) = \int x(\gamma) h(t-\gamma) d\gamma$. Rodger Ziemer, William Tranter, & D. Ronald Fannin, *Signals and Systems: Continuous and Discrete* 44 (1983).

¹⁴⁵ Apple Feb. 13, 2023 *Ex Parte* at 26; Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 22.

¹⁴⁶ AT&T Aug. 29, 2023 *Ex Parte* at 12. While AT&T’s filing refers to “Apple” when making this claim, this contention is in the *San Francisco Study* section and cites the Apple, Broadcom et al. filing.

¹⁴⁷ *Id.* at 11-12.

¹⁴⁸ *Id.* at 12.

¹⁴⁹ Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* 11.

¹⁵⁰ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 24.

¹⁵¹ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 24.

¹⁵² Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 25.

in the five-nines to six-nines range to which microwave links are typically designed, it is reasonable to expect that there will be link availabilities outside this range. This could be the result of atypical situations such as very short or long links or because they are being used for applications that either do not require high reliability or require extremely high reliability. It may also be possible that for some of the links the information in the Commission's ULS database upon which these calculations are based is inaccurate. AT&T also suggests that it would be useful for the San Francisco simulation to have listed the links that appear to be more susceptible to VLP interference to help understand what they have in common.¹⁵³ Because none of the links appear to have an increased potential for the fade margin being exceeded by the combination of multipath fading and VLP devices operating at the -5 dBm/MHz power level, the information is not necessary to reach a conclusion regarding the potential for harmful interference occurring.

34. For the Commission to have confidence in the results of computer simulations, the assumptions and models that are used must be appropriate. We find that for both the San Francisco and Houston simulations, the assumptions are not only appropriate, but also represent reasonably conservative estimates of the potential impact on microwave receivers and that using more realistic input assumptions would produce results showing even less potential impact. Nevertheless, the Monte Carlo analyses results are important as they represent an upper bound on what could be expected under real-world conditions with the actual impact likely to be much lower. To reiterate this point, we discuss these assumptions.

35. Each of the simulations randomly distributed a number of VLP devices over the study area for each iteration. Consequently, one of the most important simulation parameters is how many VLP devices are placed during each iteration. This number must represent a realistic estimate of the likely number of VLP devices that could be operating at each instant in time so that the simulations accurately model the potential interference environment. Because VLP devices do not yet exist, there are no actual use statistics and the number of simulated devices is, by necessity, based on set of assumptions. We find that the number of devices placed within the study area for each simulation iteration appears to be based on realistic assumptions. Both simulations assume that all simulated VLP devices will operate outdoors because indoor VLP devices are assumed to not present an interference risk to microwave links.¹⁵⁴ We agree; such an assumption is consistent with the Commission's finding in the *6 GHz Order*, which adopted rules permitting LPI devices to operate with 5 dBm/MHz PSD EIRP and up to 30 dBm EIRP;¹⁵⁵ at least 10 dB more than we are permitting for VLP devices. The San Francisco simulation, assumes that for the population within the study area, 6% of people will be outdoors, and that 25% of those people will be using VLP devices.¹⁵⁶ Apple, Broadcom et al. indicate that 6% is a realistic assumption because EPA and Department of Transportation statistics show that the average American spends 90% of the time indoors and, of the remaining 10%, 4% of the time is spent in vehicles, which leaves 6% with no attenuation of the signal from buildings or vehicles.¹⁵⁷ As this assumption is based on Department of Transportation and Environmental Protection Agency statistics, we find that it is reasonable.¹⁵⁸ We believe that assuming 25% of people outdoors at any given time will be using a VLP device is a conservative assumption as even if 25% of the people are simultaneously using devices, many are apt to be operating using licensed spectrum and of the devices operating on an unlicensed basis, they are likely

¹⁵³ AT&T Aug. 29, 2023 *Ex Parte* at 11.

¹⁵⁴ See Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 5, 9; Apple Feb. 13, 2023 *Ex Parte* at 12.

¹⁵⁵ *6 GHz Order*, 35 FCC Rcd at 3860, 3892, paras. 18 tbl. 3, 110.

¹⁵⁶ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 9.

¹⁵⁷ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 9.

¹⁵⁸ How much time do Americans Spend Behind the Wheel?, U.S. Department of Transportation (Dec. 11, 2017) <https://www.volpe.dot.gov/news/how-much-time-do-americans-spend-behind-wheel> (indicating that American's on average spend just under an hour driving every day); U.S. Environmental Protection Agency. 1989. Report to Congress on indoor air quality: Volume 2. EPA/400/1-89/001C. Washington, DC.

to be spread across the various bands that support unlicensed devices (e.g., U-NII bands 1-5). Apple, Broadcom et al. acknowledge this by further stating that they assume that 90% of the devices will operate on an unlicensed basis (rather than using licensed spectrum), that 50% of unlicensed devices will be capable of using the 6 GHz band, and that of these devices capable of using the 6 GHz band, 65% will actually be using the 6 GHz band.¹⁵⁹ These appear to be reasonable assumptions. In addition, they assume that VLP devices will actively transmit 2% of the time.¹⁶⁰ While VLP devices are not yet deployed, we find this assumption reasonable for analytical purposes because it is (1) consistent with the assumptions in studies by the CEPT,¹⁶¹ (2) several times higher than the 0.4% activity factor the Commission assumed for LPI devices in the *6 GHz Order*¹⁶² and provides a conservative result in combination with all the other conservative analysis assumptions. Thus, as the number of VLP devices placed in each iteration for the San Francisco simulation appears to be based on reasonable assumptions, we conclude that placing 1,146 devices per iteration was appropriate to model the interference potential of VLP devices.¹⁶³

36. Apple placed 224 VLP devices during each iteration for its Houston area analysis.¹⁶⁴ This number was based on a set of assumptions about VLP device use: 50 percent of the Houston residents would have 6 GHz band capable devices, 62.7% of the people with such devices would be using them during the busy hour, 90% of the devices would operate on an unlicensed basis rather than using licensed spectrum, 64% of the devices operating on an unlicensed basis would operate in the 6 GHz band, 12.54% of the devices operating the 6 GHz band would be co-channel with the microwave links, and the devices would transmit with a duty cycle of 1.5%.¹⁶⁵ These assumptions appear to be reasonable. The analysis places all 224 VLP devices around a single microwave receiver¹⁶⁶ resulting in a similar device density per microwave receiver for I/N computation as the 247 microwave receivers simulated in the San Francisco simulation; noting that the reported I/N for each analysis iteration is an aggregate of the individual I/Ns calculated for each device in that iteration. Even with a similar device density, we find that the fact that the Houston results show a 20 times increase in the potential for a VLP device to exceed -6 dB I/N is not cause for concern regarding an increase in the potential for actual harmful interference. The I/N probabilities calculated from the Houston analysis results from a worst-case analysis designed to ensure that any possible microwave receiver configuration is accounted for while the San Francisco analysis was predicated on the actual microwave receiver layout and characteristics from ULS for that

¹⁵⁹ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 9.

¹⁶⁰ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 9.

¹⁶¹ *Sharing and Compatibility Studies Related to Wireless Access Systems include Radio Local Area Networks (WAS/RLAN) in the Frequency Band 5925-6425 MHz*, ECC Report 302 at 23, May 29, 2019.

¹⁶² *6 GHz Order*, 35 FCC Rcd at 3893, para. 101.

¹⁶³ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 9. The number of devices was derived using the aforementioned assumptions and a population of 13,066,000 based on Census Bureau data. *Id.* AT&T claims that the number of VLP devices in the simulation is not clear, but we disagree. AT&T Aug. 29, 2023 *Ex Parte* at 11. The number of devices is obtained by multiplying the area population of 13,066,000 by the all of the assumed percentages.

¹⁶⁴ Apple Feb. 13, 2023 *Ex Parte* at 1. AT&T raises the possibility that the Houston simulation is implicitly using a low 0.017% activity factor for VLP devices based on the 224 simultaneously transmitting devices and a claimed universe of 1,285,376 VLP capable devices. AT&T Aug. 29 *Ex Parte* at 10. Apple subsequently explained that the number of devices they placed per iteration is consistent with assuming a 1.5% duty cycle. Apple Sept. 14, 2023 *Ex Parte* at 7.

¹⁶⁵ Apple Sept. 14, 2023 *Ex Parte* at 7.

¹⁶⁶ This methodology is consistent with the methodology used by CEPT when it analyzed the potential for VLP devices to cause harmful interference to microwave receivers. *Sharing and Compatibility Studies Related to Wireless Access Systems include Radio Local Area Networks (WAS/RLAN) in the Frequency Band 5925-6425 MHz*, ECC Report 302 at 62-63, May 29, 2019.

market and thus reflects a more real world analysis. Moreover, the Houston analysis assumed that every VLP device was operating co-channel with the microwave receiver.¹⁶⁷ This situation is unlikely to occur under actual operating conditions as 802.11 unlicensed devices employ a carrier-sense multiple access with collision avoidance protocol to ensure that devices only operate when other devices are not transmitting, which is a feature that tends to ensure that devices spread out across the available spectrum.¹⁶⁸ Second, the propagation models estimate clutter losses based on the mean for various statistical categories and are likely to underestimate these losses, especially in cities where tall buildings and urban canyons are likely to block signals from microwave receivers.¹⁶⁹ Third, from a purely mathematical standpoint, it stands to reason that the more devices that are randomly placed around a microwave receiver, the greater the likelihood that the signal level received at the microwave receiver may exceed the interference protection criterion. However, as we believe that the number of VLP devices used in each simulation run for Houston was higher than what would be reasonably expected under actual operating conditions, we believe that the results similarly overestimate the actual number of devices that would exceed -6 dB I/N. And even if the results from the San Francisco and the Houston analyses represent lower and upper bounds, these percentages are sufficiently low as to pose an insignificant risk of harmful interference to microwave links. And fourth, as noted in the *6 GHz Order* and herein, -6 dB I/N is an interference protection criterion and exceeding that metric does not in and of itself represent harmful interference as microwave links are designed with significant fade margin. Lastly, many microwave links rely on multiple receive antennas that are physically separated from one another to provide spatial diversity as a method to mitigate multipath fading. This will make the receivers even more resistant to multipath fading meaning that the likelihood that the fade margin will be exceeded by the combination of fading and VLP interference is even lower than is indicated by the simulation.

37. AT&T points out that for many VLP device use cases there will be at least two and maybe more VLP transmitters exchanging data at the same location.¹⁷⁰ According to AT&T, the simulations should therefore account for both devices' effective radiated power and antenna patterns.¹⁷¹ Apple, Broadcom, and Meta claims that it is improper to treat multiple devices as simultaneously transmitting because when one device is transmitting the other will not be transmitting so it can receive the signal.¹⁷² We agree with AT&T that many VLP device use cases, such as body worn devices and mobile hotspots, involve communication between multiple VLP devices. However, only one of these devices will be transmitting at a time. Furthermore, such usage will usually involve devices located in close proximity, in many cases on the same person's body, sharing the same channel through intermittent transmissions. Thus, these multiple devices can appropriately be considered a single device within the simulation. Moreover, if multiple proximate devices communicate over different channels, then only one of the simulated devices would be co-channel with a given microwave receiver, negating it from consideration within the simulation. Therefore, we do not agree with AT&T that it is necessary for multiple proximate VLP devices communicating with each other to be specifically modeled by the simulations as such use is implicitly accounted for.

38. One of the key parameters in computer simulations is the propagation model used to calculate the signal level received by the microwave receivers from the VLP devices. The Houston

¹⁶⁷ Apple Feb. 13, 2023 *Ex Parte* at 1.

¹⁶⁸ The 802.11 protocol uses a carrier sense multiple access (CSMA) method in which the wireless stations (STA) first sense the channel and attempt to avoid collisions by transmitting only when they sense the channel to be idle. National Instruments, Introduction to 802.11ax High-Efficiency Wireless (Apr. 19, 2023) <http://www.ni.com/en-us/innovations/white-papers/16/introduction-to-802-11ax-high-efficiencywireless.html#section-1277099502>.

¹⁶⁹ See ITU Recommendation ITU-R P.2108-1 (09/2021), "Prediction of Clutter Loss", available at: https://www.itu.int/dms_pubrec/itu-r/rec/p/R-REC-P.2108-1-202109-1!!PDF-E.pdf.

¹⁷⁰ AT&T Aug. 29, 2023 *Ex Parte* at 5.

¹⁷¹ AT&T Aug. 29, 2023 *Ex Parte* at 5.

¹⁷² Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 7.

simulation uses the exact propagation models that the Commission specified for the AFC systems that manage access to 6 GHz band spectrum by standard power access points,¹⁷³ while the San Francisco simulation departs slightly from this framework.¹⁷⁴ Our rules require AFC systems to use a free space path-loss propagation model for a separation distance of up to 30 meters, the WINNER II model for a separation distance of more than 30 meters and up to and including one kilometer, and the Irregular Terrain Model for a separation distance of greater than one kilometer.¹⁷⁵ As the Commission concluded that these models are appropriate in preventing harmful interference from standard power devices in this band, we agree that these models are appropriate for a computer simulation for VLP devices. The San Francisco simulation departs from our AFC rules by using the WINNER-II combined version when the VLP device is below 15 meters in height and the WINNER-II line-of-sight (LOS) version when the VLP device is 15 meters or more in height.¹⁷⁶ The combined version of WINNER-II is required by our AFC rules when site-specific information on buildings and terrain is not available to determine whether there is LOS between the VLP device and microwave tower.¹⁷⁷ Using the WINNER-II (LOS) version always results in less propagation loss than the WINNER-II combined version. Hence, employing the WINNER-II (LOS) version when the VLP device is 15 meters or more in height is a more conservative assumption than the AFC rules. As the difference in the propagation models used in the San Francisco simulation and our AFC rules produces a more conservative result—i.e. overpredict the possibility of interference—they are not only appropriate for evaluating the potential for exceeding -6 dB I/N, but also act to overprotect microwave receivers beyond the limits we deem appropriate in our rules.

39. Another input modeled within the simulations was attenuation to account for “body loss” due to scattering and absorption from a VLP device operating on or near a body or other object (e.g., a VLP device placed on a table).¹⁷⁸ As VLP devices are envisioned to generally be small form factor body worn type devices or devices used in close proximity to people, this is an appropriate input for analysis. Commenters suggest different attenuation levels that should be used for body loss. Southern Company suggests that it would be reasonable to assume 4.5 dB for body loss since a VLP device is as likely to be in full view of the fixed microwave receiver as it is to be obstructed and that this value seems to be industry practice.¹⁷⁹ AT&T cites a CEPT Electronic Communications Committee (ECC) report that assumes a 4 dB body loss for VLP devices.¹⁸⁰ The Wi-Fi Alliance points to an ITU report to support a 4

¹⁷³ Apple Feb. 13, 2023 *Ex Parte* at 10. As stated in footnote 127 *supra*, there is apparently a mistake in the Houston simulation’s description of when the free space propagation model is used.

¹⁷⁴ Apple, Broadcom, Google, Meta Aug. 31, 2023 *Ex Parte* at 1.

¹⁷⁵ 47 CFR § 15.407(l)(1); 6 GHz Order, 35 FCC Rcd at 3875-77, paras. 64-66.

¹⁷⁶ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8.

¹⁷⁷ 47 CFR § 15.407(l)(ii). The “combined” WINNER-II propagation model is what the rule refers to as using “a probabilistic model combining the line-of-sight path and non-line-of-sight path into a single path-loss.”

¹⁷⁸ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8; Apple Feb. 13, 2023 *Ex Parte* at 10.

¹⁷⁹ Southern Company Comments at 9 (filed June 29, 2020).

¹⁸⁰ AT&T Comments at 9 (referencing *European Conference of Postal and Telecommunications Administrations Electronic Communications Committee, Sharing studies assessing short-term interference from Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) into Fixed Service in the frequency band 5925-6425 MHz*, ECC Report 316 at 11; see ECC 316 Report at 7 (“A fixed body loss of 4 dB is applied to VLP devices when performing sharing studies.”); *id.* (“Very Low Power portable battery-operated device category is expected to enable a hand-held or wearable client device class. VLP devices will provide connectivity to client devices when located outside of locations that contain low power indoor access points. Example outdoor use cases include short range personal area networks for Automotive, such as improved vehicle to driver interface, and Augmented and Virtual Reality (AR/VR) applications in education, medicine, training, defense, remote presence, gaming, and more generally, next generation human – computer interaction.”)) (filed June 29, 2020).

dB body loss value when suggesting parameter values.¹⁸¹ Nokia also used a 4 dB body loss in its technical analysis of VLP interference potential.¹⁸² Apple, Broadcom et al. submitted a measurement study by the Wireless Research Center of North Carolina that includes measured data on the effect of the human body on transmissions from VLP devices with respect to receivers in the far field for six test subjects and six positions and finds that the median body loss was 8 dB.¹⁸³ Meta also submitted a study with measurement data indicating that the attenuation from the body was 3-5 dB for handheld devices, around 3 dB for an eyeglass device, and 8-16 dB for a device in a pocket.¹⁸⁴

40. Body loss is a random variable and subject to variation due to a multitude of factors, such as whether a device is body-worn or not, what part of the body it is worn on, body type, and whether it is in a pocket. Thus, a body loss value for analytic purposes must reflect not just the body loss itself, but also the wide range of values possible, the varying behavior of VLP device users, and the variety of uses for which VLP devices may be employed. For non-body-worn devices, such losses will occur due to absorption and reflections from a table or other surface the device is sitting on or, for in-vehicle use, from the vehicle's cabin.¹⁸⁵ The body loss reduces the signal level that reaches a potential victim receiver from a VLP device. Considering the data placed on the record reflecting widely varying levels of body loss under different conditions, as well as the general consensus among studies relied on by other regulators, we find that the computer simulations' assumptions that there would be a mean attenuation of 4 dB for body and/or clutter loss and that this would follow a gaussian distribution is appropriate. We believe that this is a reasonable approach as it is in the range specified by many commenters, is consistent with the measurements made by Meta, and is consistent with what was used by the ITU and ECC for interference analysis. While many commenters put data on the record purporting to show losses greater than 4 dB, we note that this data also shows, in some instances, losses less than this value.¹⁸⁶ Because VLP devices are anticipated to be worn across a wide range of positions on the body or placed on a wide range of surfaces, we believe that use of a gaussian distribution with a 4 dB mean as used by the computer simulations captures the wide range of use cases described by VLP proponents and is appropriate for analytical purposes. Gaussian distributions are commonly used to represent random processes that vary over a range such as far-field body loss. As body loss is used to represent attenuation from a range of objects near the VLP device such as a human body or the surface of table, using such a distribution is appropriate. Considering that the body loss measurements submitted by Apple, Broadcom et al. and Meta have a mean

¹⁸¹ Wi-Fi Alliance Comments at 11 (filed June 29, 2020) (citing *Characteristics of terrestrial IMT-Advanced systems for frequency sharing interference analysis*, International Telecommunication Union, ITU-R M.2292-0 (Dec. 2013)).

¹⁸² Nokia Comments Technical App. at 5 (filed June 29, 2020).

¹⁸³ Apple, Broadcom et al. Comments Attachs. B at 9, Figure 26 (filed June 29, 2020). The median value in this Figure is 14 dB but it includes 6 dB of antenna mismatch. See Apple, Broadcom et al. Nov. 3, 2020 *Ex Parte* at 2. AT&T claims this study is not relevant for the potential harm of VLP devices to microwave links. AT&T Oct. 13, 2020 *Ex Parte* at 11. This appears to be based on only looking at the data in the study for relative loss between two body worn devices. However, the study also contains data showing the energy received in the far-field from body worn devices, which is what Apple, Broadcom et al. are relying on here. Apple, Broadcom et al. Comments Attachs. B at 8-11.

¹⁸⁴ Meta Platforms April 12, 2023 *Ex Parte* slides at 10. Meta is the new name for Facebook, effective Dec. 1, 2021. Facebook submitted comments in this proceeding under the name Facebook Inc. up to and including the year 2021. All Facebook subsequent comments were submitted under the new name Meta Platforms Inc.

¹⁸⁵ The Commission previously assumed 3 dB for absorption and reflection loss for a 600 MHz band device when placed on a surface. *Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37*, Report and Order, 30 FCC Rcd 9551, 9600, para. 125 (2015). Given the reduced signal propagation in the 6 GHz band compared to 600 MHz band, a loss of at least 4 dB is reasonable for 6 GHz band devices.

¹⁸⁶ Meta Platforms April 12, 2023 *Ex Parte* slides at 12; Apple, Broadcom et al. Comments Attachs. B at 6-9, (filed June 29, 2020).

higher than 4 dB and some measured attenuations were much greater than the then 8 dB maximum of the truncated distributions used in the simulations, use of these distribution appears to be a conservative assumption.¹⁸⁷ We do not find merit in AT&T's criticism of the body loss distribution used by the simulations as not being justified or being "abnormally" truncated to plus/minus one standard deviation.¹⁸⁸ While AT&T implies the distribution must be "justified," it does not provide any information on what such a justification may entail or how body loss should otherwise be modeled. Use of a truncated distribution is reasonable as this prevents the distribution from unrealistically including a body loss less than 0 dB or incorporating very high body loss values (more than one standard deviation from the mean) which could be viewed as outliers and not realistic while maintaining the 4 dB mean.¹⁸⁹

41. Both computer simulations assumed that 90% of VLP devices would operate at a 1.5 meter height above ground level.¹⁹⁰ Device height is an important variable in these simulations as devices located at greater height are more likely to present an interference risk due to a higher likelihood for being within the main beam of a microwave antenna and because the propagation models will include less clutter loss to represent the fact the devices at greater heights will be above clutter from buildings, trees, etc. As the simulations are only modeling outdoor VLP devices, the VLP devices that are at greater heights will represent use on building balconies and rooftops. We agree with Apple, Broadcom et al. that, assuming that 10% are at heights greater than 1.5 meters appears to be a conservative assumption.¹⁹¹ For those 10% of VLP devices that are assumed to be above 1.5 meters, both simulations base the height of the device on data for building heights in the cities they are modeling.¹⁹² We conclude that this is a reasonable approach to modeling the VLP device heights. Moreover, for devices that may be operated on a balcony or a rooftop, it is likely that there will be other buildings in the vicinity which create clutter that reduce the signal level received by the microwave receiver.

42. Both simulations used the ITU-R F.1245 antenna pattern to model microwave receiver antennas.¹⁹³ This ITU recommendation provides an average antenna pattern to be used in interference assessments.¹⁹⁴ AT&T criticizes the simulations for not using actual antenna patterns for the antennas specified in the Commission's licensing database.¹⁹⁵ AT&T claims that the ITU-R F.1245 pattern has "better side lobe performance than many fixed antennas in use today" and suggests that if the actual antenna patterns are not used that "a better choice would have been to base the antenna pattern on F.699 and the FCC antenna mask in Part 101.115 as has been agreed within the WinnForum" for the AFC

¹⁸⁷ Apple, Broadcom et al. Comments Attachs. B at 9, Figure 26 (filed June 29, 2020); Meta Platforms April 12, 2023 *Ex Parte* slides at 10.

¹⁸⁸ AT&T Aug. 29, 2023 *Ex Parte* at 5. AT&T also points out "that there is no demonstrated correlation between body loss and orientation of the VLP device relative to the FS receiver." *Id.* This statement appears to be confusing two different types of body loss: 1) the propagation loss of transmissions between two body worn devices and 2) the signal attenuation due to the presence of the body when a body worn device transmits to a distant transmitter. AT&T with this statement appears to be referring to the first type of body loss. However, the Monte Carlo simulations are modeling the second type of body loss in determining the signal received by microwave receivers from VLP devices. As mentioned in footnote 183, data on both of these types of losses was included in the study submitted by Apple, Broadcom et al.

¹⁸⁹ Apple Sept. 14, 2023 *Ex Parte* at 6.

¹⁹⁰ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8; Apple Feb. 23, 2023 *Ex Parte* at 11.

¹⁹¹ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 7.

¹⁹² Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8; Apple Feb. 23, 2023 *Ex Parte* at 11.

¹⁹³ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8; Apple Feb. 23, 2023 *Ex Parte* at 24.

¹⁹⁴ *Mathematical model of average and related radiation patterns for point-to-point fixed wireless system antennas for use in interference assessment in the frequency range from 1 GHz to 86 GHz*, ITU-R F.1245-3, Jan. 2019, available at <https://www.itu.int/rec/R-REC-F.1245-3-201901-I/en>.

¹⁹⁵ AT&T Aug. 29, 2023 *Ex Parte* at 10.

specification.¹⁹⁶ When not using the actual antenna patterns, for the primary antenna the WinnForum AFC specification uses the ITU-R F.699 mask for angles within 5 degrees of the boresight of the main beam and a mask based on the part 101.115 rules, which differs by category of antenna, for larger angles (i.e. for the side lobes).¹⁹⁷ Apple, Broadcom, and Meta assert that ITU-R F.1245 is the appropriate choice because the documentation indicates it should be used when there are multiple sources of interference and that use of ITU-R F.699 may lead to inaccurate results in this type of study.¹⁹⁸

43. Given that the actual antenna model is not specified for many of the microwave link licensing records in the Commission's ULS database and the added complexity of obtaining and integrating into the simulation antenna patterns for microwave links where the antenna pattern is known, we appreciate why the simulations did not use actual antenna patterns. In addition, as the Houston simulation did not model specific microwave links, using a particular actual antenna pattern would have been completely arbitrary. We do not believe the Monte Carlo simulations using a different antenna pattern than the WinnForum AFC specification detracts from the simulation's accuracy for two reasons. First, because ITU-R F.699 is based on the peak envelope for the side lobes it will overestimate the level of interference from signals received in the side lobes because most actual antennas will have lower side lobe gain.¹⁹⁹ ITU-R F.1245, which is based on the average side lobe levels for microwave antennas, appears to be a more appropriate choice given that the purpose of a Monte Carlo simulation is to determine the typical level of interference experienced by microwave receivers and that the simulations are summing the signals received at the microwave antenna at different arrival angles from multiple VLP devices. Second, the WinnForum AFC specification appears to use a mask based on our Part 101.115 rules for the side lobes because this permits use of different levels of attenuation for different categories of microwave antennas for angles of arrival outside the main beam of the antenna. Because the goal of the AFC systems is to protect specific fixed microwave receivers from harmful interference from standard power unlicensed devices, trying to more closely match the characteristics of particular classes of antennas is important for this purpose. In a Monte Carlo simulation the goal is to obtain overall statistics on the likelihood of occurrence of harmful interference to all the microwave links rather than determining exclusion zones around specific microwave receivers. Hence, trying to match the characteristics of individual antennas is of less importance. For this purpose, we believe that use of the ITU-R F.1245 pattern, which represents an "average" antenna pattern, is a reasonable alternative to using the actual antenna patterns or to following the approach used in the WinnForum AFC specification. As this pattern represents an average antenna, there will be some actual antennas with worse side lobe performance as AT&T points out. However, there will also be many antennas with better performance. Across the many simulation iterations, the average antenna performance of the ITU-R F.1245 pattern should provide a reasonable estimate of the interference performance of the microwave links. Therefore we believe that using the ITU-R F.1245 pattern was appropriate for use in these simulations.

44. AT&T also criticizes the Houston simulation for not using the actual microwave link data available in the Commission's ULS licensing database and instead using different antenna heights and either a 44 dBi antenna gain or antenna gains selected from a distribution whose source was

¹⁹⁶ AT&T Aug. 29, 2023 *Ex Parte* at 10.

¹⁹⁷ Wireless Innovation Forum, *Functional Requirements for the U.S. 6 GHz Band under the Control of an AFC System*, WINNF-TS-1014 Version V1.3.0 at 30-32 (Mar. 9, 2023), https://winnf.memberclicks.net/assets/work_products/Specifications/WINNF-TS-1014.pdf.

¹⁹⁸ Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 7 (citing *Mathematical model of average and related radiation patterns for point-to-point fixed wireless system antennas for use in interference assessment in the frequency range from 1 GHz to 86 GHz*, Recommendation ITU-R F.1245-3 at 4 (Jan. 2019)).

¹⁹⁹ *Mathematical model of average and related radiation patterns for point-to-point fixed wireless system antennas for use in interference assessment in the frequency range from 1 GHz to 86 GHz*, Recommendation ITU-R F.1245-3 at 4 (Jan. 2019).

unspecified.²⁰⁰ AT&T suggests that these parameters should have been tied to real-world data or the distributions validated against real world data.²⁰¹ In response, Apple points out that the Houston simulation used real-world data from the Commission's ULS database to set characteristics of its analysis.²⁰² According to Apple, its simulation used actual building heights, microwave receiver heights, and microwave antenna patterns for Houston to establish conservative characteristics for the simulation.²⁰³ Apple claims that this method allowed it to conduct an enormous number of iterations to achieve a high degree of accuracy and to provide a sensitivity analysis on microwave antenna height, antenna gain, and antenna pattern.²⁰⁴ Monte Carlo simulations are designed to assess the potential of various outcomes (e.g., probability of I/N > -6 dB) based on the range of potential inputs.²⁰⁵ While the San Francisco simulation used the data from the ULS for each individual link,²⁰⁶ the Houston simulation took a different, yet also valid, approach in which it simulated both the range of microwave receiver characteristics (antenna gain, antenna height, etc.) and VLP parameters over 10 million iterations to determine the probability of exceeding -6 dB I/N for any potential VLP to microwave receiver configuration.²⁰⁷ Contrary to AT&T's assertion, the parameters the Houston simulation used are based on distributions taken from the Commission's ULS licensing database for the Houston market and are based on real-world data representative of the Houston area.²⁰⁸ By choosing a microwave antenna height at the 10-percentile and a microwave antenna gain at the 90-percentile for the Houston market, the Houston simulation represents a conservative estimate of the potential for harmful interference to occur to microwave links from VLP devices in the Houston area.²⁰⁹ While we believe the more complex approach taken by the San Francisco simulation does have some advantages over the approach taken in the Houston simulation, the Houston simulation is a reasonable approach for assessing VLP device operation in the Houston market.²¹⁰

45. The San Francisco simulation used an antenna pattern for all VLP devices that is based on a model of consumer Wi-Fi devices developed by the CEPT SE45 working group.²¹¹ The Houston simulation used an antenna pattern for client devices from the ECC 302 report, which examined the

²⁰⁰ AT&T Aug. 29, 2023 *Ex Parte* at 10.

²⁰¹ AT&T Aug. 29, 2023 *Ex Parte* at 10.

²⁰² Apple Sept. 14, 2023 *Ex Parte* at 8.

²⁰³ *Id.*

²⁰⁴ *Id.* at 9.

²⁰⁵ A Monte Carlo simulation uses random sampling and statistical modeling to estimate mathematical functions and mimic the operations of complex systems. Harrison RL., *Introduction To Monte Carlo Simulation*, AIP Conf Proc. 2010;1204:17–21. doi:10.1063/1.3295638.

²⁰⁶ Apple, Broadcom, et al. Feb. 28, 2023 *Ex Parte* at 5.

²⁰⁷ Apple Feb. 13, 2023 *Ex Parte* at 9.

²⁰⁸ Apple Feb. 13, 2023 *Ex Parte* at 13.

²⁰⁹ *Id.*

²¹⁰ To emphasize the validity of Apple's simulation approach for the Houston market, we note that this is the same approach used by CEPT in their Monte Carlo analyses assessing the harmful interference risk to microwave receivers from LPI and VLP devices. In those analyses, CEPT relied on both a site-general and a site-specific Monte Carlo analysis akin to the Houston and San Francisco simulations, respectively. *See Sharing and Compatibility Studies Related to Wireless Access Systems include Radio Local Area Networks (WAS/RLAN) in the Frequency Band 5925-6425 MHz*, ECC Report 302, May 29, 2019; *Sharing studies assessing short-term interference from Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) into Fixed Service in the frequency band 5925-6425 MHz*, ECC Report 316, May 21, 2020.

²¹¹ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8.

interference potential of unlicensed 6 GHz devices.²¹² AT&T states that it has “previously shown that assumptions made in simulations by [proponents of VLP devices] rely on inaccurate antenna patterns and illogical assumptions regarding [device] positioning.”²¹³ In making this broad statement, AT&T refers to its previous discussion of a Monte Carlo simulation for LPI devices conducted by CableLabs.²¹⁴ That discussion finds fault with CableLabs using a distribution of EIRP transmitted by LPI devices from the ECC 302 report, which is based on a combination of antenna patterns for different indoor devices, such as a consumer access point or gaming router.²¹⁵ AT&T claims that this EIRP distribution has several flaws. First, AT&T claims that the EIRP distribution assumes that all elevation angles are equally likely, even though this is not the case for the antenna patterns of the different classes of devices it is based on and only relatively low elevation angles are likely to occur for LPI devices in practice.²¹⁶ Second, AT&T claims that the patterns are not typical for devices sold in the United States, giving one example of a pattern for a Wi-Fi device sold by Cisco.²¹⁷ Third, AT&T claims that even consumer Wi-Fi devices use multiple antennas, which improves performance.²¹⁸ And lastly, AT&T claims that there is no suggestion that the ECC 302 used a non-zero beamwidth in its EIRP distribution, which would understate the power in many cases.²¹⁹ We do not believe AT&T’s concerns have validity for the two simulations under consideration here. We find each of these studies provide independent grounds for our conclusions. Neither of these simulations use the ECC 302 EIRP distribution for VLP transmit powers that is the subject of AT&T’s detailed discussion. Rather than using the ECC 302 EIRP distribution, the Houston simulation uses an antenna pattern for client devices from that report.²²⁰ The antenna patterns that each of the simulations used is more uniform than that ECC 302 EIRP distribution and, consequently, AT&T’s concerns regarding elevation angle do not apply. These two patterns also do not appear to be that different from the Cisco antenna pattern that AT&T uses as an example of a pattern for a “typical” United States device. As for AT&T’s third concern, this also does not apply to VLP devices as small battery-powered devices, such as VLP devices, are not likely to have numerous antennas to improve performance. Regarding AT&T’s final concern, AT&T’s description of this non-zero beamwidth issue is not detailed enough for us to determine if this is a valid concern.

46. Transmit power control is another important parameter that VLP devices will use and was appropriately included in the analyses.²²¹ In their filings, Apple, Broadcom et al. and the Wi-Fi Alliance suggest that the permitted power level for VLP devices be adjusted to reflect that the devices will employ transmit power control.²²² According to Apple, Broadcom et al., we should allow a 3 dB reduction in the link budget²²³ to account for transmit power control for body worn devices and an 8 dB

²¹² Apple Feb. 13, 2023 *Ex Parte* at 11 (referring to *Sharing and Compatibility Studies Related to Wireless Access Systems include Radio Local Area Networks (WAS/RLAN) in the Frequency Band 5925-6425 MHz*, ECC Report 302 at 150, May 29, 2019).

²¹³ AT&T Aug. 29, 2023 *Ex Parte* at 6.

²¹⁴ AT&T Aug. 29, 2023 *Ex Parte* at footnote 23 (citing AT&T Sept 9, 2022 *Ex Parte* at A14-19).

²¹⁵ AT&T Sept 9, 2022 *Ex Parte* at A14.

²¹⁶ AT&T Sept 9, 2022 *Ex Parte* at A14-A17.

²¹⁷ AT&T Sept 9, 2022 *Ex Parte* at A18.

²¹⁸ AT&T Sept 9, 2022 *Ex Parte* at A18.

²¹⁹ AT&T Sept 9, 2022 *Ex Parte* at A19.

²²⁰ Apple Feb. 13, 2023 *Ex Parte* at 11; Apple Sept. 14, 2023 *Ex Parte* at 6.

²²¹ Apple Feb. 13, 2023 *Ex Parte* at 3; Apple, Broadcom, et al. Feb. 28, 2023 *Ex Parte* at 8.

²²² Wi-Fi Alliance Comments at 9; Apple, Broadcom, et al. Reply at 9.

²²³ A link budget accounts for all of the gains and losses in power that a signal experiences in a telecommunication system.

reduction for off-body use.²²⁴ They justify the 3 dB transmit power control reduction for body-worn devices by pointing to an ITU resolution and ECC regulations for the U-NII-2A (5.250-5.350 MHz) and U-NII-2C (5.470-5.725 GHz) band requiring that mobile devices employ transmit power control with an average mitigation factor of at least 3 dB in order to operate at higher power.²²⁵ For the off-body devices, they justify the 8 dB reduction based on a computer simulation showing the power reduction between a laptop computer and a smartphone placed on a table.²²⁶ The Wi-Fi Alliance supports a minimum 3 dB reduction for transmit power control based on the ITU resolution and a proposal the Commission previously made to require U-NII devices to employ transmit power control with a 6 dB back-off.²²⁷ Southern Company claims that based on the body loss measurements submitted by Apple, Broadcom et al., VLP devices will be using little or no transmit power control most of the time and, consequently, transmit power control should not be considered in analyzing possible interference.²²⁸ Broadcom, Microsoft, and Intel, proponents of VLP operations at the 14 dBm power level, in a joint filing state that transmit power control will “reduce transmit power for 17-30% of operations.”²²⁹ For transmit power control the San Francisco simulation used a gaussian distribution with a mean and standard deviation of 3 dB that is truncated at 0 and 6 dB.²³⁰ The Houston simulation used a gaussian distribution with 7 discrete steps from 0 to 6 dB for transmit power control.²³¹

47. We believe that transmit power control is likely to be implemented for most VLP devices, such as body worn devices, to save battery power. The actual amount of power reduction from transmit power control will depend on how often that reduction may occur and under what circumstances. Consequently, modeling the transmit power control as a random variable in the computer simulations is appropriate. As VLP devices do not yet exist, there are no actual statistics on how often and to what extent transmit power control will reduce the transmit power of VLP devices. However, the body loss measurements submitted by Apple, Broadcom et al. show that the signal attenuation between two body-worn devices can be over 90 dB.²³² Transmit power control will generally reduce VLP power under most operating conditions, but does provide for full power operation when needed in such extreme situations. While we do believe that some statistical modeling for transmit power control in a computer simulation is useful and appropriate, we do not have a strong foundation on which to base a distribution. However, given that the form factors proposed for VLP devices will necessitate that the vast majority are battery powered and to maximize customer satisfaction, designers strive to ensure that batteries last as long as possible and devices almost always employ some form of transmit power control. Given the ITU resolution and ECC regulation requiring an average power reduction of 3 dB from transmit power control for U-NII-2A and U-NII-2C devices and that the Commission previously required that U-NII-2A and U-

²²⁴ Apple, Broadcom et al. Nov. 3, 2020 *Ex Parte* at 2-3.

²²⁵ Apple, Broadcom et al. Nov. 3, 2020 *Ex Parte* at 3 (citing ITU-R Res. 229 (WRC-19) *resolves* 8); see *On the harmonized use of the 5 GHz frequency bands for Wireless Access Systems including Radio Local Area Networks (WAS/RLAN)*, ECC (04)08, July 1, 2022 available at: <https://docdb.cept.org/download/4053>.

²²⁶ *Id.*; Broadcom, Intel, Microsoft Oct. 22, 2020 *Ex Parte* Attach. at 6-11.

²²⁷ Wi-Fi Alliance Nov. 11, 2020 *Ex Parte* at 1, 2, 6, 8. Although the rules require certain U-NII-2A and U-NII-2C devices to incorporate a transmit power control mechanism with capability to operate at least 6 dB below the mean EIRP level, reduced power operation only occurs when the device is capable of closing the link at reduced power; reduced power operation does not occur 100% of the time. See 47 CFR § 15.407(h)(1).

²²⁸ Southern Company Reply at 11-12 (filed July 27, 2020); Southern Company Sept. 11, 2020 *Ex Parte* at 2; see also UTC Reply at 6 (filed July 27, 2020).

²²⁹ Broadcom, Microsoft, Intel Oct. 22, 2020 *Ex Parte* at 2.

²³⁰ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8.

²³¹ Apple Feb. 13, 2023 *Ex Parte* at 11.

²³² Apple, Broadcom et al. Comments Attachs. B at 6-7, Figures 16, 19-22 (filed June 29, 2020).

NII-2C devices have the capability for at least 6 dB transmit power control,²³³ we believe that the distributions used in the San Francisco and Houston simulations are reasonable approximations for the amount of transmit power control VLP devices are likely to employ for VLP devices.

48. The Houston simulation used a noise figure of 5 dB and a feeder loss of 1.3 dB for the microwave receivers.²³⁴ AT&T claims that the 5 dB noise figure is “larger than typical” and suggests that using 4 dB for U-NII-5 and 4.5 dB for U-NII-7 microwave receivers, as in WinnForum’s functional requirements document for AFC systems, would be a better choice.²³⁵ AT&T also claims that a 1.3 dB feeder loss may not be appropriate for all cases as many microwave radios are mounted directly to the antenna and have no feeder loss.²³⁶ AT&T notes that the San Francisco simulation states it uses data from the Commission’s ULS licensing database, “but the exact radio parameters such as noise figure, waveguide feeder loss, and antenna pattern are not always available in ULS,” and the parameters the simulation used were not disclosed.²³⁷ The initial San Francisco simulation filing stated that the simulation used the microwave antenna pattern from ITU-R F.1245 and Apple, Broadcom, and Meta subsequently indicated that the simulation used 2 dB for waveguide feeder loss and 5 dB for the noise figure.²³⁸ According to Apple, Broadcom, and Meta, the 2 dB waveguide feeder loss was used in the 6 GHz Order and the 5 dB noise figure is supported by an ITU recommendation. While we agree that the noise figure numbers from the WinnForum AFC specification would have been a better choice than the 5 dB that both simulations used, this up to 1 decibel difference is not significant enough to make an appreciable difference in the simulation results. For feeder loss, when no feeder loss is available in the Commission’s ULS database and the type of microwave radio is known, WinnForum’s AFC specification document indicates that a value of 3 dB be used for radios that are identified as indoor units—i.e., radios that are not mounted directly to the antenna—while no feeder loss should be used for outdoor units.²³⁹ Hence, according to WinnForum’s AFC specification, a 1.3 dB or 2 dB feeder loss would be too large for an outdoor radio and too small for indoor radio.²⁴⁰ As these simulations are designed to model the potential for harmful interference to occur to microwave links in general rather than explore the interference risk of a particular microwave receiver, we believe that employing such an “in-between” value for feeder loss is a reasonable approach for a Monte Carlo simulation.²⁴¹

²³³ *Use of the frequency bands 5.150-5.250 MHz, 5.250-5.350 MHz and 5.470-5.725 MHz by the mobile service for the implementation of wireless access systems including radio local area networks*, World Radio Conference 2019 (WRC-19), Resolution 229, resolves 8 (2019); *On the harmonized use of the 5 GHz frequency bands for Wireless Access Systems including Radio Local Area Networks (WAS/RLAN)*, ECC (04)08, July 1, 2022 available at: <https://docdb.cept.org/download/4053>; Although the Commission’s rules require certain U-NII-2A and U-NII-2C devices to incorporate a transmit power control mechanism with capability to operate at least 6 dB below the mean EIRP level, reduced power operation only occurs when the device is capable of closing the link at reduced power; reduced power operation does not occur 100% of the time. See 47 CFR § 15.407(h)(1).

²³⁴ Apple Feb. 13, 2023 *Ex Parte* at 11.

²³⁵ AT&T Aug. 29, 2023 *Ex Parte* at 10-11.

²³⁶ *Id.* at 11.

²³⁷ AT&T Aug. 29, 2023 *Ex Parte* at 11.

²³⁸ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8; Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 11.

²³⁹ Wireless Innovation Forum, *Functional Requirements for the U.S. 6 GHz Band under the Control of an AFC System*, WINNF-TS-1014 Version V1.3.0 at 41 (Mar. 9, 2023), https://winnf.memberclicks.net/assets/work_products/Specifications/WINNF-TS-1014.pdf.

²⁴⁰ Because the Houston simulation is not modeling a particular fixed microwave link it would not have been possible for the simulation to use a feeder loss that varies based on whether the microwave receiver uses an indoor or outdoor radio as WinnForum’s AFC specification suggests.

²⁴¹ Because the San Francisco simulation modeled actual microwave links it could have used values for feeder loss and noise figure based on ULS data regarding the radio employed by the microwave link, if this information was in (continued....)

49. In sum, our review of Apple, Broadcom et al.'s San Francisco Monte Carlo simulation examining the potential for VLP device interaction with microwave links and the similar Apple simulation for Houston provide a solid basis for concluding that VLP devices can coexist with incumbent services in the 6 GHz band with an insignificant potential for causing harmful interference. In fact, as noted, we believe that the assumptions and thus, the results, err on the side of caution, are conservative, and overestimate the potential for any given VLP device to exceed -6 dB I/N. The worst case operating scenario occurs when the VLP device is in the main beam of a microwave receiver, at close distance, operating co-channel to the microwave receiver, and not significantly attenuated by terrain, body loss, or blocked by buildings, which is an event that the simulations show will be a rare occurrence.

2. Power Level for VLP Devices

50. The computer simulations show virtually no impact on the microwave links even for VLP devices operating at 1 dBm/MHz EIRP PSD—the Houston and San Francisco simulations indicate that a -6 dB I/N event occurs only at either 0.06% or 0.003% of the time, respectively. The San Francisco results show an identical outcome for VLP devices transmitting at -5 dBm/MHz PSD and for the Houston simulations, a slight decrease in occurrences that -6 dB I/N may be exceeded. Thus, as a conservative initial approach for permitting VLP devices to operate in the U-NII-5 and U-NII-7 portions of the 6 GHz band, we will limit them to a maximum of -5 dBm/MHz PSD EIRP and 14 dBm EIRP at this time. We believe the conservative nature of the analyses resulting in extremely low probabilities for exceeding -6 dB I/N justify this approach which balances the need to provide enough power for VLP devices to ensure manufacturers can provide useful devices with the requirement to protect licensed incumbent operations from harmful interference. This approach recognizes, as pointed out by licensed incumbents, that there are locations where VLP devices operating at these power levels could result in a signal with I/N ratios that may exceed -6 dB I/N.²⁴² However, Apple, Broadcom, et. al. and Broadcom argue that the risk of exceeding that interference protection criterion is low at even higher power levels. Therefore, we believe that it is appropriate to be conservative at this time and permit the VLP devices to operate at no more than -5 dBm/MHz EIRP PSD. We also limit total EIRP to no more than 14 dBm consistent with Apple, Broadcom, et al. and other VLP proponents' comments.²⁴³ While there may be some worst case locations where harmful interference is possible, we find the overall risk insignificant. In addition, because (i) we are concluding that VLP devices can operate at -5 dBm/MHz EIRP PSD with an insignificant potential of causing harmful interference to incumbent operations, and (ii) VLP devices are inherently mobile, communications between two VLP devices present no more harmful interference risk than a VLP device communicating with an access point. Thus, we will permit VLP devices operating at this PSD level to directly communicate with each other. We examine in the Second Further Notice of Proposed Rulemaking additional steps that we could take to provide additional power or operating flexibility to VLP devices. However, given that no VLP devices have yet to be deployed, we believe limiting operation to no more than -5 dBm/MHz EIRP PSD is appropriate at this time. Given the conservative PSD limit we are adopting, we are confident that the harmful interference risk is insignificant.

51. Southern Company cautions that to the extent the Commission is relying on computer simulations to inform its decisions for the 6 GHz band, it should require the underlying algorithms used by the simulation to be disclosed to all stakeholders consistent with the Commission's *Policy Statement*

ULS for a particular link. However, obtaining this information for the different radios and integrating it into the simulation would have been complex. We do not believe the approach taken detracted from the accuracy of the simulation results given that they have used reasonable values for noise figure and feeder loss.

²⁴² AT&T Aug. 29, 2023 *Ex Parte* at 9; Southern Company July 28, 2023 *Ex Parte* at 2.

²⁴³ Apple, Broadcom, et al. Aug. 26, 2022 *Ex Parte* at 1; Public Interest Spectrum Coalition Aug. 6, 2023 *Ex Parte* at 3; Wi-Fi Alliance May 18, 2023 *Ex Parte* at 19. -5 dBm/MHz PSD equates to 8 dBm maximum total power in a 20 megahertz bandwidth channel, 11 dBm in a 40 megahertz bandwidth channel, and 14 dBm in 80 megahertz or greater bandwidth channels.

on spectrum management.²⁴⁴ The Utilities Telecom Council (UTC) et al. express similar views, arguing that 6 GHz band unlicensed use proponents relied on simulation information that is not reproducible by any party and that others have not been given the opportunity to review or fully understand the data and simulation methodology.²⁴⁵ In addition to echoing these views, AT&T suggests that the Commission should require the simulation code to be released consistent with the Commission's *Policy Statement* and the practices of NTIA, which released similar software for evaluation of 3.1 GHz network deployments.²⁴⁶ AT&T claims that requiring the simulation authors to produce their source code would allow the public to reproduce the simulation results and investigate other scenarios to ensure that interference is correctly modeled and explore variations that inform the Commission of relevant risk.²⁴⁷ Both AT&T and Southern Company also criticize the Commission for not conducting its own computer simulations and instead relying on those submitted by interested parties.²⁴⁸

52. While Apple Broadcom et al. and Apple have not made their simulation code or the resulting raw data produced by the simulations publicly available, we believe that they have provided sufficient information for knowledgeable engineers to understand the algorithms and models used in the simulations.²⁴⁹ Both Apple, Broadcom et al. for the San Francisco simulation and Apple for the Houston simulation provided filings detailing the significant simulation assumptions.²⁵⁰ Apple has indicated that its simulation was prepared using the widely available and well understood SEAMCAT Monte Carlo simulation tool,²⁵¹ while Apple, Broadcom et al. indicated that its simulation was implemented using the C++ programming language using well-established Monte Carlo simulation techniques.²⁵² Through these filings to the record, we believe that Apple, Broadcom et al. and Apple have provided enough technical details that engineers experienced in radio propagation modeling and coexistence analysis would be able to conduct identical simulations and obtain consistent results.²⁵³ Furthermore, we observe that it is

²⁴⁴ Southern Company Aug. 24, 2023 *Ex Parte* at 1; Southern Company Oct. 10, 2023 *Ex Parte* at 1-2.

²⁴⁵ Utilities Telecom Council (UTC) et al. April 13, 2023 *Ex Parte* at 2.

²⁴⁶ AT&T Aug. 29, 2023 *Ex Parte* at 7-8.

²⁴⁷ *Id.* at 8.

²⁴⁸ AT&T Oct. 11, 2023 *Ex Parte* at 2; Southern Company Oct. 10, 2023 *Ex Parte* at 2. UTC suggests that, because proponents of 6 GHz unlicensed devices made, in its view, material misrepresentations concerning the duty cycles of LPI devices at an earlier stage of this proceeding, the Commission cannot reasonably rely on simulations that proponents of unlicensed use presented at this stage of the proceeding. UTC Oct. 12, 2023 *Ex Parte* at 3. We disagree. The alleged misrepresentations do not directly relate to the accuracy of the San Francisco and Houston simulations. Furthermore, the simulations discussed here were made and submitted to the record by different parties. As discussed in paragraph 49, it is our independent judgment that the San Francisco and Houston simulations in the present record appear to be a valid basis for concluding that VLP devices may only present an insignificant potential for causing harmful interference to microwave receivers based on conservative assumptions.

²⁴⁹ AT&T seems to be advocating that we mandate that all parties providing simulations be required to provide their source code based on one instance of another government agency, NTIA, providing the public with code that it developed. The Commission would need to develop a more robust record before adopting such a policy.

²⁵⁰ Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8-9; Apple February 13, 2023 *Ex Parte* at 9-13.

²⁵¹ Apple February 13, 2023 *Ex Parte* at 8. SEAMCAT – Spectrum Engineering Advanced Monte Carlo Analysis Tool allows statistical modelling of different radio interference scenarios for performing coexistence studies between wireless systems operating in overlapping or adjacent frequency bands. The software is maintained by the European Communications Office (ECO) and is distributed free of charge at <https://www.cept.org/eco/eco-tools-and-services/seamcat-spectrum-engineering-advanced-monte-carlo-analysis-tool>.

²⁵² Apple, Broadcom et al. Feb. 28, 2023, *Ex Parte* at 4-5; Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 10.

²⁵³ As AT&T points out, the initial simulation filings did not include a few parameters that would need to be disclosed to reproduce the simulations, such as the area in which the VLP devices were deployed in the Houston (continued....)

noteworthy that no opponents of VLP deployment have conducted their own simulations to confirm or refute the results.²⁵⁴ The Commission has no statutory obligation to “conduct or commission [its] own empirical or statistical studies.”²⁵⁵ We therefore conclude that the results presented in the filings are adequate to inform our decision. Our decision to authorize VLP devices will encourage innovative methods of using the 6 GHz band and we are exercising our technical judgment in relying on the simulations from Apple, Broadcom et al. and Apple in reaching this decision.²⁵⁶ We note that parties opposing our LPI rules raised a similar concern in a challenge to our *6 GHz Order* in the United States Court of Appeals for the District of Columbia Circuit regarding a computer simulation conducted by CableLabs on which the Commission relied.²⁵⁷ The court rejected that challenge noting that “requiring agencies to obtain and publicize the data underlying all studies on which they rely would be impractical and unnecessary.”²⁵⁸ In accordance with this established precedent, we find that Apple, Broadcom et al. and Apple provided ample information on the record such that any interested party could undertake similar analyses and that opponents’ challenge on this point is meritless.

53. *Fade margin infringement.* FWCC expresses a strong opinion that unlicensed devices should not be permitted to infringe on the fade margin of microwave links. According to FWCC, the microwave systems “are entitled to enjoy the benefits of the fade margin which is built into their system designs at considerable cost to enhance reliability by maintaining communications through atmospheric fades.”²⁵⁹ FWCC claims that it has “shown that interference from unlicensed (RLAN) operations will cut into the fade margin and leave FS systems vulnerable to data loss and outages.”²⁶⁰ FWCC believes it would be “bad policy” for the Commission to permit even occasional failures caused by unlicensed devices to high reliability microwave links, many of which carry safety-critical services.²⁶¹ FWCC claims that because adding fade margin is expensive, system designers build only the necessary minimum, with a

simulation and the noise figure and feeder loss used for microwave links when this information was not available in the Commission’s database for the San Francisco simulation. AT&T Aug. 29, 2023 *Ex Parte* at 10-11. Apple and Apple, Broadcom, and Meta subsequently provided this information. Apple Sept. 14, 2023 *Ex Parte* at 3; Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 11. Apple Sept. 14, 2023 *Ex Parte* at 3; Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 11. UTC “disagrees with the Commission that the simulations can be replicated without the underlying data and algorithms” and “request[s] that the Commission require disclosure of this information.” UTC Oct. 12, 2023 *Ex Parte* at 3. We note that in making this assertion UTC does not explain what would prevent replication of the simulations or describe what information is lacking. Consequently, we see no reason to change our conclusion that knowledgeable engineers can replicate the simulations.

²⁵⁴ AT&T complains that “if these study results can be replicated without significant efforts, the *Draft 6 GHz Order* fails to explain why the FCC’s own engineers did not conduct their own simulations . . .” AT&T Oct. 11, 2023 *Ex Parte* at 2. We are not claiming that conducting such simulations is a simple task as AT&T implies. Rather, we recognize the complexity and are stating our conclusion that both Apple Broadcom et al. and Apple have provided sufficient information for others to reproduce the simulations.

²⁵⁵ *FCC v. Prometheus Radio Project*, 141 S. Ct. 1150, 1160 (2021).

²⁵⁶ See *NTCH, Inc. v. FCC*, 950 F.3d 871, 879-80 (D.C. Cir. 2020) (stating that “when the Commission acts to foster innovative methods of exploiting the spectrum, it functions as a policymaker to which [the court] afford[s] the greatest deference” (internal quotation marks omitted)); *id.* at 880 (stating that the court “will accept the Commission’s technical judgments when supported with even a modicum of reasoned analysis, absent highly persuasive evidence to the contrary,” and that “the Commission’s predictive judgments within its field of discretion and expertise are entitled to particularly deferential review, as long as they are reasonable” (internal quotation marks and brackets omitted)).

²⁵⁷ *AT&T Servs., Inc. v. FCC*, 21 F.4th 841 at 847 (D.C. Cir. 2021).

²⁵⁸ *Id.* at 848 (quoting *Am. Trucking Ass’n v. EPA*, 283 F.3d 355, 372 (D.C. Cir. 2002)).

²⁵⁹ FWCC April 13, 2020 *Ex Parte* at 2; see also AT&T Aug. 29, 2023 *Ex Parte* at 6-7.

²⁶⁰ FWCC April 13, 2020 *Ex Parte* at 2.

²⁶¹ FWCC Oct. 31, 2019 *Ex Parte* at 3.

small safety margin, and that any unlicensed interference that encroaches into a microwave link's fade margin will reduce the link reliability.²⁶²

54. As the Commission stated in the *6 GHz Order*, it “is not required to refrain from authorizing services or unlicensed operations whenever there is any possibility of harmful interference.”²⁶³ Instead, “the Commission may authorize operations in a manner that reduces the possibility of harmful interference to the minimum that the public interest requires, and it will then authorize the service or unlicensed use to the extent that such authorization is otherwise in the public interest.”²⁶⁴ There is no prohibition in either previous Commission decisions or legal precedents on the Commission adopting rules that permit VLP devices to occasionally infringe upon the fade margins of microwave links.²⁶⁵ Instead, the Commission's responsibility is to ensure that the operation of the VLP devices might only impose an insignificant risk of harmful interference occurring to the microwave links to the minimum that the public interest requires.²⁶⁶ We believe based on the computer simulations, which take into account both the technical characteristics of actual microwave links and reasonable technical assumptions for VLP devices, that our decision is within the bounds of this principle. Furthermore, noting that the 6 GHz band is populated by both microwave licensees representing commercial and public safety interests, we observe that there is no appreciable difference between the systems operated by those different entities and find that the rules we are adopting protect both commercial and public safety microwave systems in a comparable manner. Finally, we reiterate that in its recent Policy Statement, the Commission noted that “zero risk of occasional service degradation or interruption cannot be guaranteed” whether from natural events or other spectrum users.²⁶⁷

3. Fixed Infrastructure Prohibition

55. As suggested by Apple, Broadcom, Google, and Meta, we are prohibiting VLP devices from operating as part of a fixed outdoor infrastructure.²⁶⁸ We note that no commenters have opposed us adopting this prohibition. This measure is being adopted as an additional means of protecting incumbent operations to ensure that all VLP devices are subject to body and/or clutter loss, to add additional assurance that the simulation assumption that most outdoor devices will operate at 1.5 m above ground level is correct, and to force all devices to be itinerant consistent with the VLP devices simulated in the

²⁶² *Id.* at 3, 14.

²⁶³ *6 GHz Order*, 35 FCC Rcd at 3907, para. 146.

²⁶⁴ *Id.*

²⁶⁵ See, e.g., *Am. Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 234 (D.C. Cir. 2008) (recognizing longstanding Commission interpretation of section 301 “to allow the unlicensed operation of a device that emits radio frequency energy as long as it does not ‘transmit[] enough energy to have a significant potential for causing harmful interference’ to licensed radio operators”) (quoting Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems, 19 FCC Rcd 24558, 24589 & n.179 (2004)); *Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37 et al.*, Report and Order, 30 FCC Rcd 9551, 9562-64, paras. 28-31 (2015) (authorizing expanded unlicensed operations of fixed white space devices where potential of causing harmful interference to TV reception would be minimized, while still providing increased opportunities for the provision of unlicensed service); *Amendment of Part 15 Regarding New Requirements and Measurement Guidelines for Access Broadband over Power Line Systems; Carrier Current Systems, Including Broadband over Power Line Systems*, Second Report and Order, 26 FCC Rcd 15712, 15719-20, paras. (2011) (establishing “a regime of rules for Access BPL systems that will provide a robust environment for the development and deployment of this important new technology option for delivery of broadband internet/data services while at the same time minimizing the potential for interference to licensed services caused by leakage from power lines of the RF energy used by BPL transmissions,” despite “some potential for increased harmful interference from BPL operations”).

²⁶⁶ *Id.*

²⁶⁷ *Policy Statement* at 2, para. 5 (emphasis omitted); *accord id.* at 6-7, paras. 15-17.

²⁶⁸ Apple, Broadcom, Google, and Meta July 25, 2023 *Ex Parte* at 2.

Monte Carlo analyses. Thus, VLP devices will be prohibited from attaching to outdoor infrastructure, such as poles or buildings, that would make any instances of potential interference more than fleeting. In addition, device mobility results in devices, even if remaining in a general location, constantly changing their orientation due to even subtle body movements. Such movements can result in widely varying VLP signal levels in any given direction. Thus, the maximum VLP signal level, which is likely to be less than the maximum our rules permit for a device in the worst-case location and operating co-channel to a microwave system, may only be oriented toward a microwave receiver for a short period of time, which also serves to keep the potential for causing harmful interference to a minimum.

4. Transmit Power Control Requirement

56. We are adopting a requirement that VLP devices employ a transmit power control mechanism that has the capability to operate at least 6 dB below the -5 dBm/MHz EIRP PSD level permitted for VLP devices. Both computer simulations, which we have concluded are the best evidence that the potential for VLP devices to cause harmful interference is insignificant, assume that VLP devices would operate with a transmit power control mechanism with a range up to 6 dB and a mean power reduction of 3 dB.²⁶⁹ To ensure that actual VLP devices operate consistent with the simulations on which we are relying, we adopt this provision to provide confidence that such devices do indeed operate using transmit power control. We are not placing any specific requirements in our rules as to how the VLP device transmit power control algorithm will function, but proof of such functionality must be provided with a device's application for equipment certification. We do not expect that placing this transmit power control requirement will present an undue burden on device manufacturers as such functionality is routinely included in battery-powered device design to conserve battery power. In this connection, Broadcom states that transmit power control is enabled in 100% of its portable products.²⁷⁰ In addition, Apple, Broadcom, Google, and Meta jointly suggested that the Commission adopt a VLP device transmit power control requirement that would require such devices to reduce their PSD by 3 dB on average.²⁷¹ No commenters have opposed us mandating that VLP devices employ a transmit power control mechanism. While AT&T advocates that any limitation on VLP device use that was assumed in the computer simulations, such as average power due to transmit power control, should be subject to a specific rule,²⁷² we note that we are adopting a rule requiring VLP devices to have transmit power control capability to reduce power by at least 6 dB. While the exact power distribution that VLP devices will use is unknown at this time, we believe this requirement is reasonable given the diversity in propagation environments in which VLP will operate.

5. Equipment Compliance and Enforcement Matters

57. Consistent with the requirements for most other unlicensed transmitters, we require 6 GHz VLP transmitters to be approved under the Commission's certification procedure.²⁷³ This procedure requires that the equipment be tested by an accredited laboratory and approved by a designated Telecommunication Certification Body (TCB) to ensure that the equipment complies with all requirements that we are adopting, e.g., maximum power (EIRP and PSD), transmit power control, contention based protocol, which are designed to ensure that the risk of harmful interference to licensed incumbent services is insignificant.²⁷⁴ As a general matter, only 6 GHz VLP devices certified as compliant by a TCB will be permitted to be imported into and marketed and operated within the United

²⁶⁹ Apple, Broadcom et al. Feb. 2, 2023 *Ex Parte* at 8; Apple Feb. 23, 2023 *Ex Parte* at 11.

²⁷⁰ Broadcom July 6, 2022 *Ex Parte* at 4.

²⁷¹ Apple, Broadcom, Google, Meta July 25, 2023 *Ex Parte* at 1.

²⁷² AT&T Aug. 29 2023 *Ex Parte* at 6.

²⁷³ 47 CFR § 15.201(b).

²⁷⁴ 47 CFR §§ 2.907, 2.962.

States.²⁷⁵

58. For reasons discussed throughout this Report and Order, we are confident that the risk of harmful interference to licensed incumbent services is insignificant, based on the VLP technical rules adopted herein and on the compliance measures in place under our equipment authorization rules. We also emphasize that 6 GHz VLP devices, like other part 15 devices, are not permitted to cause harmful interference and that any such interference is actionable for enforcement purposes.²⁷⁶ Section 15.5(b) of the Commission's rules provides that "[o]peration of an intentional, unintentional, or incidental radiator is subject to the condition[] that no harmful interference is caused."²⁷⁷ In the unlikely event that harmful interference does occur due to VLP operations, section 15.5(c) of the Commission's rules provides that "[t]he operator of a radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference," even if the device in use was properly certified and configured, and that "[o]peration shall not resume until the condition causing the harmful interference has been corrected."²⁷⁸ Although UTC asks the Commission to "propose processes and procedures for the identification, reporting and resolution of interference from unlicensed operations as part of the Second Further Notice of Proposed Rulemaking,"²⁷⁹ we already have processes and procedures in place under which the Enforcement Bureau investigates complaints of harmful interference and takes appropriate enforcement action, as necessary.²⁸⁰ These processes and procedures have been effective in identifying and resolving harmful interference to licensed operations in other situations and are available for use in the 6 GHz band as well.²⁸¹

²⁷⁵ 47 CFR §§ 2.1204(a), 2.803(b), 15.201(b). Sections 2.1204 and 2.803 provide certain limited exceptions to the equipment authorization requirement for radiofrequency devices being imported into or marketed within the United States, but devices marketed to and operated by the general public require equipment authorization, e.g., certification.

²⁷⁶ *6 GHz Order*, 35 FCC Rcd at 3909, para. 149 ("[O]nce interference to a protected service crosses the relevant threshold specified in section 15.3(m) for harmful interference, it is immediately actionable for enforcement purposes."); *see also* 47 CFR § 15.3(m) (defining "harmful interference" as "[a]ny emission, radiation or induction that endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with this chapter").

²⁷⁷ *Id.* § 15.5(b).

²⁷⁸ *Id.* § 15.5(c).

²⁷⁹ UTC Oct. 12, 2023 *Ex Parte* at 3; *see also* AT&T Oct. 11, 2023 *Ex Parte* at 3 (stating that "primary [Fixed Service] incumbents will be left with no pragmatic recourse for redress" of harmful interference from unlicensed 6 GHz devices, including VLP devices).

²⁸⁰ *See* 47 CFR §§ 0.311, 0.111(a)(4) (stating that a function of the Enforcement Bureau is to "[r]esolve complaints regarding radiofrequency interference and complaints regarding radiofrequency equipment and devices"). Part of the Commission's Enforcement Bureau web page discusses the investigation and resolution of harmful interference, including highlighting the ability of the Enforcement Bureau's field agents to "us[e] their radio frequency expertise and specialized instruments and equipment, including direction-finding equipment, to identify the source of radio frequency interference." <https://www.fcc.gov/enforcement/areas/interference-resolution>. In adopting the *6 GHz Order*, the Commission noted that "Enforcement Bureau field agents use fixed, vehicular-mounted, and portable commercial and specialized spectrum monitoring equipment to conduct investigations and carry out interference resolution and enforcement activities." *6 GHz Order*, 35 FCC Rcd at 3909, para. 149 n.397. The Commission also stated that "[t]he Enforcement Bureau works with entities at the federal, state, county, and local levels of government to resolve interference." *Id.* To further the Enforcement Bureau's efforts to resolve any occurrences of harmful interference, the Commission established an online, user-friendly "Radio Frequency Service Interference Complaint Portal" for the submission of radio interference complaints by, among others, public safety, commercial, and federal entities. <https://fccprod.servicenow.com/psix-esix>.

²⁸¹ *See, e.g., Victor Rosario, Brooklyn, New York, 11229*, EB-FIELDNER-17-00025658, Notification of Harmful Interference, 2018 WL 923275, at *1 (EB Feb. 15, 2018) (stating that, in response to a complaint from T-Mobile (continued....))

59. Parties that believe particular 6 GHz VLP devices are not compliant with the Commission's rules or are causing harmful interference to licensed incumbent services can contact the Enforcement Bureau, which will address any rule violations, such as impermissible operations or marketing of non-compliant devices, as appropriate.²⁸²

6. Cumulative Effect of Different Classes of Unlicensed Devices

60. AT&T contends that 6 GHz unlicensed devices have been modeled under the erroneous presumption that each type of device — standard power, LPI, and VLP — can interfere with microwave links up to a threshold of -6 dB I/N, but as there is only one -6 dB I/N margin, the modeling must account for consumption of that margin by all three types of devices.²⁸³ AT&T points out that no computer simulation models the combined impact of all these different types of unlicensed devices.²⁸⁴ According to AT&T, standard power devices operating under the control of the AFC systems can consume any headroom up to the -6 dB I/N interference threshold specified in the rules and that LPI devices were justified under this same basis.²⁸⁵ AT&T claims that proponents of VLP devices are justifying these devices on an identical basis of being able to generate interference up to the same threshold.²⁸⁶ AT&T points to the CEPT computer simulation that addressed 6 GHz devices that did not include standard power devices, simulated LPI devices at a lower power level than our rules permit, and only assumed 1% of devices located outdoors as illustrating the error in the VLP proponents reasoning.²⁸⁷

61. As we stated above, typical microwave link architecture results in 6 GHz band unlicensed devices only presenting a potential interference risk if they are in the microwave antenna's main beam at a close enough distance that a signal of sufficient strength will be received. The AFC systems that control standard power access points' spectrum access will prevent those devices from operating at locations where they present a risk of causing harmful interference. Therefore, we do not believe that it is necessary for unlicensed proponents to provide a study that jointly considers the potential for harmful interference from the cumulative effect of standard power devices and other types of unlicensed 6 GHz devices. Regarding VLP and LPI devices, we again point out that Apple's Monte Carlo analysis for devices operating in the Houston areas included results for the additive effect of LPI and VLP devices and concluded that the likelihood that there was no material effect on potential microwave degradation due to the presence of both the LPI and VLP devices.²⁸⁸

7. Request for Higher Power

62. While supporting comments advocating for a 14 dBm EIRP power level, a subset of VLP device advocates point out that allowing even higher power would enable VLP devices to communicate with higher order modulation, which would enable higher throughputs and lower latencies and request that the Commission authorize up to 21 dBm EIRP.²⁸⁹ They claim that the 14 dBm EIRP power level would be insufficient for untethered augmented reality/virtual reality, remote surgery, data center wireless flyways, educational applications requiring transmitting high resolution materials, and other demanding

regarding harmful interference to its 700 MHz LTE network, agents from the Enforcement Bureau's New York Office used direction-finding techniques to confirm and resolve the source of the harmful interference).

²⁸² 47 CFR §§ 0.311, 0.111(a)(4), 0.314(g).

²⁸³ AT&T Aug. 29, 2023 *Ex Parte* 8-9; AT&T March 31, 2022 *Ex Parte* at 3-4.

²⁸⁴ AT&T Aug. 29, 2023 *Ex Parte* 8.

²⁸⁵ AT&T Reply Comments at 4 (filed July 27, 2020).

²⁸⁶ *Id.* at 5.

²⁸⁷ *Id.* at 5-6.

²⁸⁸ Apple Feb. 13, 2023 *Ex Parte* at 17.

²⁸⁹ Apple, Broadcom, Google, Microsoft Comments at 5 (filed June 29, 2020) at 5.

applications.²⁹⁰ They point to the computer simulation conducted by RKF to claim that operation at this power level would not cause harmful interference to licensed stations.²⁹¹

63. As these commenters also support the more modest 14 dBm EIRP power level and the applications cited are more speculative than those generally cited as other use cases for VLP devices, we decline to permit additional power for VLP devices at this time. We also observe that devices delivering many of the cited applications, such as remote surgery, necessitate indoor operation and can be conducted under the LPI device rules that already permit more power than we are permitting for VLP devices. Much of our decision is based on the computer simulations that are based on a maximum 14 dBm EIRP power level. Due to the undeveloped record on operations with up to a 21 dBm EIRP, we decline to permit VLP devices to operate at greater than 14 dBm EIRP. We do seek comment, however, in the Second Further Notice of Proposed Rulemaking on whether we can, under certain circumstances, increase the VLP power level without increasing the harmful interference risk to incumbent operations.

8. Request for Lower Power

64. The Ultra Wide Band (UWB) Alliance expresses concern that VLP devices will radiate power uniformly in all directions even though they likely only need the maximum power in a specific direction and that this will result in unnecessary interference to other receivers, including other VLP devices.²⁹² To address this issue, it suggests that VLP devices meet one of two alternate power limits: (1) a -32 dBm power spectral density with a peak power of 0 dBm;²⁹³ or (2) a -8 dBm power spectral density that is reduced by 2 dB for every dB that the antenna gain is less than 12 dBi as well as a peak power of 14 dBm that is reduced by 2 dB for every dB that the antenna gain is less than 7 dB.²⁹⁴ According to the UWB Alliance, the use of directional antennas by VLP devices can improve link performance and reduce interference.²⁹⁵ The UWB Alliance notes that many VLP device use cases advocates assert require 14 dBm are currently being served by wideband and ultra-wideband devices at 50 dB less power.²⁹⁶ The UWB Alliance also suggests that dynamic transmit power control be required for VLP devices as the power needed for on-body locations can vary from nearly free space to over 70 dB.²⁹⁷ Other commenters suggest that we only permit VLP if we limit such devices to much lower power than what we proposed. Nokia suggests that a -18 dBm/MHz PSD EIRP would minimize the potential for co-channel interference to microwave receivers.²⁹⁸ The National Association of Broadcasters (NAB) states that VLP devices should operate at no more than -15.5 dBm/MHz to be consistent with the Commission's previous finding for unlicensed 6 GHz low-power indoor devices.²⁹⁹ NAB arrives at this number by subtracting the 20.5 dB building entry loss assumed in the Commission's low-power indoor analysis in the *6 GHz Order* from the adopted 5 dBm/MHz PSD level for low-power indoor access points.³⁰⁰ AT&T points out that because VLP devices are mobile, they are analogous to LPI client devices that operate at -1 dBm/MHz indoors, which means VLP devices are operating at an outdoor power level that is effectively hundreds of times

²⁹⁰ *Id.* at 5-6.

²⁹¹ *Id.* at 7-8.

²⁹² Ultra Wide Band (UWB) Alliance Comments at 9-10 (filed June 29, 2020).

²⁹³ Although not explicitly stated, we believe the intended reference bandwidth for the power spectral density is 1 megahertz.

²⁹⁴ Ultra Wide Band (UWB) Alliance Comments at 10 (filed June 29, 2020).

²⁹⁵ Ultra Wide Band (UWB) Alliance Reply at 7-8 (filed July 27, 2020).

²⁹⁶ Ultra Wide Band (UWB) Alliance Reply at 10 (filed July 27, 2020).

²⁹⁷ Ultra Wide Band (UWB) Alliance Comments at 12 (filed June 29, 2020).

²⁹⁸ Nokia Comments at 3 (filed June 29, 2020).

²⁹⁹ NAB Oct. 30, 2020 *Ex Parte* at 3.

³⁰⁰ NAB March 4, 2021 *Ex Parte* at 2.

greater when adjusted for the assumed 20.5 dB building entry loss.³⁰¹

65. While several commenters request that we only permit VLP devices to operate at lower power, for the reasons already articulated we decline to do so. First, we conclude based on the computer simulations that VLP device operation at -5 dBm/MHz PSD will only pose an insignificant risk of harmful interference to incumbent operations. Additionally, we appreciate the UWB Alliance's concern for improving spectrum efficiency and reducing the potential for interference by proposing rules that would incentivize the use of directional antennas. However, we agree with Apple, Broadcom et al. that directional antennas are likely infeasible for small form factor portable devices, particularly when the device's orientation is constantly changing.³⁰² We do not believe that it would be appropriate to adopt rules that would likely make it impractical to manufacture devices for many of the proposed VLP use cases, such as small portable body-worn devices. As for the UWB Alliance's suggestion to require dynamic transmit power control, as explained above, we are adopting such a requirement on VLP devices. Second, we do not believe that tying the power level for VLP devices to the power levels for low-power indoor devices, as NAB and AT&T suggests, is appropriate, given the fundamental differences between these device classes. VLP devices will inherently be mobile rather than stationary like LPI access points, have smaller form factors, less efficient antennas due to the small form factors, and operate at low power levels to conserve battery. Finally, as we specified in the *6 GHz Order*, ultra-wideband and wideband devices operate under Part 15 unlicensed rules, and providing specific accommodations would effectively provide those devices with a level of interference protection to which they are not entitled.³⁰³ Consequently, we believe that the -5 dBm/MHz PSD EIRP and maximum 14 dBm EIRP are appropriate and will result in widespread coexistence within the 6 GHz band among the various devices that operate there. Thus, we are not persuaded to reduce VLP device utility by artificially restricting their power levels to even lower levels.

9. VLP Devices and the AFC

66. Many microwave incumbents advocate that VLP devices should be required to use an AFC system to control spectrum access based on their potential to cause harmful interference to microwave receivers.³⁰⁴ AT&T claims that the only rationale for not requiring VLP devices to operate under AFC control is that either they cannot be located or they will not be connected to a network that can establish a connection to an AFC system.³⁰⁵ AT&T points out that the suggested use cases for VLP devices require network connections and that filings in the record have indicated that accurate geolocation for indoor devices is both possible and effective.³⁰⁶ According to AT&T, VLP devices should be limited to ultra-wideband device power levels unless AFC control is also required.³⁰⁷ Cisco et al. respond that there are significant costs to develop, deploy, and update AFC-controlled devices, including geolocation requirements, additional installation requirements, support for the AFC-to-device protocol, changes to the radio resource management algorithm, and updates to the user interface.³⁰⁸ AT&T casts doubt on these claims, asserting that there is no increased cost to implement those features, that the AFC systems are already developed for standard power devices, that the suggested use cases for VLP devices involve

³⁰¹ AT&T Aug. 29, 2023 *Ex Parte* at 6.

³⁰² Apple, Broadcom et al. Reply at 29 (filed July 27, 2020).

³⁰³ *6 GHz Order*, 35 FCC Rcd at 3939, para. 219.

³⁰⁴ E.g., AT&T Comments at 11 (filed June 29, 2020); UTC et al. Comments at 6-7 (filed June 29, 2020); Edison Electric Institute Comments at 10 (filed June 29, 2020); Century Link Comments at 4 (filed June 29, 2020).

³⁰⁵ AT&T Sept. 9, 2022 *Ex Parte* at 2.

³⁰⁶ *Id.* (citing *Ex Parte* filings by HP Enterprise on July 28, 2022 and Apple on Aug. 17, 2022 and Apple Comments filed on June 29, 2020).

³⁰⁷ AT&T Comments at 11 (filed June 29, 2020).

³⁰⁸ Cisco Systems, Extreme Networks, HP Enterprise, Juniper Networks Oct. 13, 2022 *Ex Parte* at 2.

geolocation capabilities, and that there are no examples of changes needed to user interface, installation cost, or device operational management requirements.³⁰⁹ AT&T also suggests that VLP advocates have failed to even roughly quantify the costs and balance them against the benefit of protecting incumbents through a proper cost/benefit analysis.³¹⁰ Apple, Broadcom, and Meta claim that communications with an AFC system, device location reporting, and the hardware and software needed to support these functions would needlessly consume a VLP device's power and system resources and points out that existing standard-power device rules do not allow portable operations.³¹¹

67. As we conclude that the risk of harmful interference from VLP devices operating at -5 dBm/MHz is insignificant, the use of AFC systems to control spectrum access by VLP devices is unnecessary. Thus, we see no reason to impose such a requirement on VLP devices. While there is dispute on the record as to how much it would cost to impose AFC control on VLP devices, there clearly is some cost to imposing such a requirement without a requisite benefit. Furthermore, there will likely be some VLP devices, such as laptop computers that do not have geolocation capabilities and requiring such devices to operate under AFC control would limit the utility of the VLP rules.³¹² In addition, neither the standard power or LPI rules support the highly mobile applications envisioned for VLP devices as LPI devices are limited to indoor locations utilizing access points that are supplied power by a wired connection while standard power access points may not be mobile.³¹³ We do note that consistent with 6 GHz low-power indoor unlicensed devices as well as all client devices, we will require VLP devices to include a contention-based protocol which will act to avoid channels on which incumbent systems are actively transmitting.

68. We also note that AT&T clearly mischaracterizes the Apple, Broadcom, Google and Meta filing regarding exclusion zones for AFC devices.³¹⁴ In this filing, Apple, Broadcom, Google, and Meta make no statement regarding the burden of adding an AFC or exclusion zone capability to VLP devices. Instead, the parties, in response to questions from OET, explain how the Commission could ensure the VLP exclusion zones would be no larger than an AFC system would have calculated for the same device power level and that the Commission should avoid prescriptive rules requiring specific geolocation accuracy or re-check periods for devices in motion.³¹⁵

10. Link Budget Analysis

69. As discussed in more detail below, a number of commenters submitted link budget analyses that they claim show that harmful interference will result from VLP device operation. According to CTIA, an earlier simulation presented by Apple, Broadcom et al. demonstrates that a single device-emitter scenario is the primary interference event for VLP operation.³¹⁶ CTIA claims that a link budget is a better analytic tool for analyzing interference from a single device than a computer simulation in order to deterministically assess whether the device is causing interference.³¹⁷ Southern Company also claims that the appropriate way to model the potential interaction between VLP devices and microwave

³⁰⁹ AT&T Dec. 19, 2022 *Ex Parte* at 11.

³¹⁰ *Id.*

³¹¹ Apple, Broadcom, and Meta Sept. 14, 2023 *Ex Parte* at 3.

³¹² AT&T Dec. 19, 2022 *Ex Parte* at 3 (“VLP versions of other internet devices that are not body-worn can and will be developed . . .”).

³¹³ 47 CFR § 15.403; 6 GHz Order, 35 FCC Rcd at 3929 para. 207.

³¹⁴ AT&T Aug. 29, 2023 *Ex Parte* at 2-3.

³¹⁵ Apple, Broadcom, Google, Meta July 26, 2023 *Ex Parte* at 1-2.

³¹⁶ CTIA Reply at 11 (filed July 27, 2020).

³¹⁷ *Id.*

incumbents is through a link budget analysis.³¹⁸ Southern Company states that as VLP device deployment reaches millions of devices or higher, an analysis that uses duty cycle or computer simulations becomes irrelevant due to the high probability that enough units will be transmitting at the same time co-channel with a microwave receiver.³¹⁹

70. We disagree with CTIA, Southern, and others regarding the utility of link budget analysis in driving our decision regarding VLP devices. In determining whether to permit VLP devices to operate in the 6 GHz band, the controlling factor is the potential risk that VLP devices could cause harmful interference to microwave links. This is a function not just of the received power level from a VLP device at a “worst-case” location, but also of the likelihood that a device will be at the location at the same time that a severe enough atmospheric multipath fade occurs to overcome the microwave link’s fade margin. This question is not one that a link budget analysis alone can answer. A link budget provides a calculation of the power received at a receiver at one instant of time based on deterministic quantities for quantities such as transmitted power level, propagation loss, antenna gain, polarization loss, feeder loss, etc. Such an analysis does not take into account probabilistic quantities such as multipath fading or the likelihood of a transmitting device being in a particular location or transmitting co-channel with a microwave links. One important factor that a link budget analysis cannot consider is the fact that, because we are prohibiting VLP device use for fixed infrastructure purposes, the VLP devices will be mobile and will not remain in potentially problematic locations for significant periods of time. A computer simulation that takes into account the transient nature of VLP use is a better model for determining VLP device interference potential as compared to a link budget analysis. We also disagree with Southern Company’s contention regarding the utility of computer simulations as the number of VLP devices reach the millions. In fact, that is exactly what Monte Carlo simulations are designed to analyze, especially when each device is subject to multiple probabilistic operating conditions. The assumptions used in the San Francisco simulation to determine the number of simultaneously transmitting devices in the San Francisco area assumed millions of VLP devices present in that area, but that did not mean that all these devices were transmitting simultaneously co-channel. As discussed above, that simulation starts with the 13,066,000 people in the San Francisco area and calculates how many VLP devices will be simultaneously transmitting outdoors in the area based on assumptions as to how many people are outdoors, how many of these people use VLP devices, how many VLP devices are capable of using the 6 GHz band, how many VLP devices actually use the 6 GHz band, and how many VLP devices are actively transmitting at a given moment.³²⁰ While the link budget analyses submitted by VLP opponents do not convince us to change our decision allowing VLP devices in the 6 GHz band, for completeness we shall briefly discuss them.

71. Southern Company and the Edison Electric Institute (EEI) submitted identical link budget analyses for assumed VLP devices operating at five locations near an actual microwave link in Georgia.³²¹ These analyses assume that VLP devices operate with a -5 dBm/MHz EIRP PSD.³²² In the *6 GHz Order*, the Commission applied a 5 dB adjustment to the link budget analysis of six real-world examples submitted by AT&T to account for the assumed loss for the antenna pattern mismatch between the unlicensed LPI device and the microwave antenna.³²³ As LPI devices and VLP devices will have similar antennas, we believe it is appropriate to also adjust the I/N numbers of this link budget analysis by the

³¹⁸ Southern Company Comments at 15 (filed June 29, 2020).

³¹⁹ *Id.* at 10.

³²⁰ See *supra* para. 35 (citing Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 9).

³²¹ Southern Company Comments at 23-26 (filed June 29, 2020); Edison Electric Institute Comments at 22-24 (filed June 29, 2020).

³²² Southern Company Comments at 23 (filed June 29, 2020); Edison Electric Institute Comments at 22 (filed June 29, 2020). The analyses used 14 dBm EIRP total power in an 80 megahertz channel, which results in a -5 dBm/MHz EIRP PSD. E.g., Southern Company Comments at 26 (filed June 29, 2020).

³²³ *6 GHz Order*, 35 FCC Rcd at 3900, para. 128.

same amount. When this is done, the resulting I/N at the microwave receiver from a single device at the five locations ranged from -12.9 dB to -20.3 dB, which is far below the level that any commenters have suggested would constitute harmful interference to 6 GHz incumbent operations.

72. Southern and EEI also present their assessments of the aggregation impact that 10 and 100 VLP devices operating at the same locations and transmitting simultaneously would have on the I/N interference protection criterion.³²⁴ Their analyses show that for 10 VLP devices, the I/N levels adjusted for 5 dB antenna pattern mismatch ranged from -2.9 dB to -10.3 dB and for 100 devices the adjusted I/N levels ranged from 7.1 dB to -0.3 dB.³²⁵ While these results indicate it may be theoretically possible for the aggregate emissions from multiple VLP devices to cause harmful interference to a microwave link, a link budget analysis gives no indication of the likelihood of such an occurrence. For such interference to actually occur, all of these VLP devices would have to be located within the main beam of the microwave at a close enough distance and actually transmitting co-channel with the microwave link at the same instant. Furthermore, this would have to occur at the same time that a sufficiently deep atmospheric multipath fade is occurring. As the Monte Carlo simulations show, the probability that one device could be in the position to result in an I/N over -6 dB is extremely low. The likelihood that multiple devices would be in such a position at the same time is even lower. Hence, we believe that using a Monte Carlo simulation is more appropriate for examining aggregate interference than using a link budget approach.

73. Nokia submitted a VLP link budget analysis for devices operating in buildings directly beneath a microwave receiver and at street level within line-of-sight to a 6 GHz microwave receiver.³²⁶ Based on this analysis, Nokia concludes that a power limit for VLP devices “on the lower side of the power range considered by the Commission, e.g. 4 dBm EIRP (-18 dBm/MHz PSD EIRP), would minimize the potential for co-channel interference” to a microwave receiver based on maintaining a -6 dB I/N ratio.³²⁷ However, we note that the Nokia analysis does not include two factors that the Commission included in its LPI device analysis. Specifically, Nokia does not include a 5 dB loss to account for RLAN/FS antenna pattern mismatch between unlicensed devices and microwave receivers nor a 2 dB microwave receiver feeder line loss.³²⁸ When accounting for these additional 7 dB of losses, Nokia’s suggested -18 dBm/MHz EIRP PSD rises to -11 dBm/MHz EIRP PSD. While Nokia concludes that the I/N ratio may exceed -6 dB, which in itself is not an indication that harmful interference will occur, as detailed below, we continue to believe that Monte Carlo analysis rather than a static link budget analysis provides a more realistic indication of the potential for devices to cause harmful interference.

74. CTIA submitted a link budget analysis showing the interference potential that VLP devices could have on five “real-world” microwave links.³²⁹ This analysis makes a number of assumptions which we do not find appropriate. Most significantly, CTIA’s analysis assumes free space propagation rather than using one of the propagation models the Commission used in its analysis when

³²⁴ Southern Company Comments at 23-26 (filed June 29, 2020); Edison Electric Institute Comments at 22-24 (filed June 29, 2020).

³²⁵ Southern Company Comments at 26. While Southern Co. and EEI’s analysis includes 4.5 dB of body loss, the San Francisco and Houston computer simulations used a body loss distribution with a mean of 4 dB. Edison Electric Institute Comments at 22; Southern Company Comments at 26; Apple, Broadcom et al. Feb. 28, 2023 *Ex Parte* at 8; Apple Feb. 13, 2023 *Ex Parte* at 10.

³²⁶ Nokia Comments Technical App. (filed June 29, 2020).

³²⁷ Nokia Comments at 3, Technical App. at 1, 3, 6 (filed June 29, 2020).

³²⁸ 6 GHz Order, 35 FCC Rcd at 3900, para. 128, tbl. 5; Nokia Comments Technical Appendix at 2-6 (filed June 29, 2020). Because the Nokia analysis is a link budget analysis of the same type of microwave antennas the Commission examined in its LPI analysis and the VLP antennas are likely to have similar antenna patterns, these same assumptions are appropriate for use in adjusting Nokia’s results.

³²⁹ CTIA Reply Attach: 6 GHz VLP Interference (filed July 27, 2020).

adopting the LPI rules.³³⁰ As the Commission explained in the *6 GHz Order*, while the free space path loss may be appropriate for short distances it drastically underpredicts path loss for longer distances because, as a practical matter, there is almost always interaction with the environment that reduces the signal level below the free space level.³³¹ For this reason the Commission in the *6 GHz Order* relied on either the WINNER II or ITM models rather than using free space when conducting link budget analysis.³³² CTIA's analysis uses a cumulative distribution function from the body loss measurement study that Apple, Broadcom et al. submitted that has a mean body loss of 8 dB rather than a mean of 4 dB that we believe is more appropriate.³³³ It also assumes that VLP devices transmit at -8 dBm/MHz.³³⁴ CTIA's analysis reached a conclusion that the I/N for the five links ranged from 9-16.1 dB.³³⁵

75. As already noted, we believe that Monte Carlo analysis is the most appropriate method for evaluating the potential for VLP devices to exceed -6 dB I/N. Although these link budget analyses provided by commenters concluded that in some instances the I/N caused by a VLP device could exceed that interference protection criterion, these analyses suffer from one of the same fundamental flaws as the AT&T link budget analysis that the Commission rejected in the *6 GHz Order*—that is, they rely on worst-case scenarios that overstate the potential for harmful interference.³³⁶ For example, as previously noted, Southern and EEI submitted link budget analyses which assumed that all VLP devices are operating in locations within the main beam of the antenna. Nokia submitted a link budget analysis in which it similarly assumed that VLP devices were operating either in buildings directly beneath a microwave receiver and at street level within line-of-sight to a 6 GHz microwave receiver. Furthermore, all the link budget analyses relied on inappropriate assumptions for certain values, such as antenna pattern mismatch, feeder line loss, and propagation model. Moreover, just the mere possibility that under certain circumstances and in certain locations an I/N may rise to a level greater than -6 dB I/N does not translate to any certainty that harmful interference will occur; several other independent factors must also simultaneously occur and the probability of those events occurring is sufficiently low to lead us to our conclusion that based on the analyses in the record, VLP devices can coexist with incumbent operations in the 6 GHz band with an insignificant risk of causing harmful interference.

11. Interference Studies

76. Several utilities filed field test measurement reports directed at quantifying LPI device interference potential on actual microwave receivers. While the focus of those studies is on LPI devices that are located indoors, some of the results do have implications for understanding the potential for VLP devices to cause harmful interference. CTIA and Southern Company jointly conducted field measurements using a signal generator to emulate both LPI and VLP devices.³³⁷ They took outdoor measurements at three locations directly in front of a microwave antenna using an emulated VLP device

³³⁰ *Id.* at 4; see *6 GHz Order*, 35 FCC Rcd at 3900, tbl. 5.

³³¹ *6 GHz Order*, 35 FCC Rcd at 3877, para. 67.

³³² *6 GHz Order*, 35 FCC Rcd at 3899-00, Tables 4, 5.

³³³ CTIA Reply Attach: 6 GHz VLP Interference at 2-3.

³³⁴ CTIA assumes a 14 dBm EIRP power level in a 160 megahertz signal bandwidth, which results in a PSD of -8 dBm/MHz. *Id.* at 6.

³³⁵ CTIA Reply Attach: 6 GHz VLP Interference at 6 (filed July 27, 2020).

³³⁶ See *6 GHz Order*, 35 FCC Rcd at 3897-901, paras. 123-30. In *AT&T Services*, the D.C. Circuit affirmed the Commission's rejection of the AT&T link budget analysis and noted that "because the AT&T study uses worst-case scenarios, it does not 'rebut the persuasive showing by CableLabs' [in its Monte Carlo analysis] that the likelihood of harmful interference is insignificant." 21 F.4th at 849-50 (quoting *6 GHz Order*, 35 FCC Rcd at 3901, para. 130)).

³³⁷ Letter from Jennifer L. Oberhausen, Director of Regulatory Affairs; Doug Hyslop, VP of Technology and Spectrum Planning, CTIA, to Marlene H. Dortch, Secretary, FCC at 4 (Nov. 13, 2020) (on file in ET Docket No. 18-295) (*6 GHz Field Test Report*).

operating with 11 dBm EIRP in a 80 megahertz wide channel, which corresponds to -8 dBm/MHz EIRP PSD.³³⁸ They made measurements when the device was operating with a 30% activity factor and a 100% activity factor.³³⁹ They claim that the emulated VLP device reduced the microwave link fade margin between 5.2 dB and 10.9 dB.³⁴⁰

77. For its test, Evergy used a commercially purchased LPI access point located within a school classroom, which was located directly in the main beam of a microwave receiver 1.3 miles away.³⁴¹ When the access point was placed in the classroom window, the microwave receiver I/N ratio was 24.5 dB for a high data rate transmission.³⁴² Because this test used an LPI device, it could have been transmitting at 5 dBm/MHz rather than the -5 dBm/MHz we are permitting for VLP devices. When the I/N ratio is adjusted to account for the transmit power difference, this still indicates that the I/N could be 14.5 dB for a VLP device at that location. Other electric utilities also conducted field test measurements: First Energy reports I/N ratios as high as 9.1 dB and Southern Company reports I/N ratios at high as 25.7 dB.³⁴³

78. Apple, Broadcom et al. criticize these field tests for using an indirect methodology to measure the reduction in link fade margin and estimating the I/N ratio.³⁴⁴ Apple, Broadcom et al. claim the field test methodology is unreliable and produces inconsistent results.³⁴⁵ They also claim that the test chose worst-case locations and set the LPI access point parameters to reflect only extreme worst-case scenarios with unrealistic data rates.³⁴⁶ NCTA expresses many of the same concerns with the Southern Company field test regarding its testing methodology, testing locations, and device activity rates.³⁴⁷ In addition, NCTA suggests that the field test should use a metric based on the microwave link's signal to interference-plus-noise ratio S/(I+N) rather than using an I/N ratio or a reduction in fade margin as an interference metric as the S/(I+N) ratio would take into account the characteristics of the microwave link.³⁴⁸

79. We believe Apple, Broadcom et al. and NCTA express valid points about the field test results, especially regarding the testing methodology. However, as our focus here is on the potential for VLP devices to cause harmful interference and the field tests were mainly directed to LPI devices, we

³³⁸ 6 GHz Field Test Report at 4.

³³⁹ *Id.*

³⁴⁰ *Id.* at 12.

³⁴¹ *Wi-Fi 6E and 6 GHz Microwave Testing*, Evergy at 2-9, 3-1 (filed December 8, 2022).

³⁴² *Id.* at 4-10.

³⁴³ *First Energy 6 GHz Additive Interference Study*, EPRI at 3-4, 3-5, 3-11, 3-12 (filed by First Energy Oct. 12, 2022); *First Energy 6 GHz Additive Interference Study: Phase 2-Winter*, EPRI at 3-4 (filed by First Energy May 9, 2023); *Test Report on the Effects of 6 GHz Unlicensed RLAN Units on Fortson to Columbus Microwave Link*, Southern Company at 55 (filed June 23, 2021); *see also Reliable Operation of 6 GHz Microwave Links*, EPRI (filed by Ameren Dec. 14, 2021); *Impact of Unlicensed use of the 6 GHz Band Summary Report for FCC Filing*, Pacific Gas and Electric (filed Apr. 25, 2023).

³⁴⁴ Apple, Broadcom et al. Oct 21, 2021 *Ex Parte* at 7-13; Apple, Broadcom et al. Feb. 22, 2023 *Ex Parte* at 8-10, 23-24; Apple, Broadcom et al. March 9, 2021 *Ex Parte* at 3-5.

³⁴⁵ *Id.*

³⁴⁶ Apple, Broadcom et al. Oct 21, 2021 *Ex Parte* at 13, 30-35; Apple, Broadcom et al. Feb. 22, 2023 *Ex Parte* at 4-8, 19-20.

³⁴⁷ NCTA Feb. 23, 2022 *Ex Parte* at 7, 10-12.

³⁴⁸ *Id.* at 4-5.

refrain from opining on how representative the tests are of LPI device use.³⁴⁹ As for their connection to assessing VLP interference potential, we observe that they too rely on worst-case scenarios that overstate the potential for harmful interference and therefore suffer from the same flaw as the link budget analyses and as the AT&T study that was rejected in the *6 GHz Order*.³⁵⁰ The field tests purport to measure the I/N ratio at a worst-case location directly within the main beam of a microwave receiver. Furthermore, as these tests do not take into the account the fade margin designed into the microwave link and the occurrence of atmospheric multipath fading, they are of limited utility in determining the likelihood that the microwave links will actually experience harmful interference from a mobile VLP device, which by nature is unlikely to remain at any specific location or in a fixed orientation for a significant interval of time.³⁵¹ Thus, these field tests are not informative with respect to the impact that VLP devices could have on microwave link reliability.

12. Chain of Coincidences Rationale

80. AT&T claims that the VLP device proponents make a flawed argument in claiming that “a chain of improbable coincidences” is necessary for interference to occur to microwave links and “citing indoor use, device positioning, channel overlap, body loss, RLAN antenna gain, transmit power control, fade margin and itinerant use.”³⁵² We agree with AT&T to the extent that it intimates that merely mentioning each of these factors, claiming each is unlikely, and thus deducing that harmful interference is unlikely to occur is of little utility.³⁵³ Consequently, while these assertions may have some merit, we did not rely on them in reaching our conclusions here. Instead, our conclusions rely heavily on the San Francisco and Houston Monte Carlo simulations, which considered the respective likelihood for different factors that could impact interference potential to quantify the overall risk of harmful interference occurring to 6 GHz microwave links. Based on these analyses, we conclude that the risk is insignificant.

B. Fixed Satellite Services

81. The entire 6 GHz band is allocated for the FSS in the Earth-to-space direction.³⁵⁴ Additionally, portions of the U-NII-7 and U-NII-8 bands are allocated for FSS space-to-Earth (downlink) operations.³⁵⁵ However, there are no licensed downlink earth stations in the U-NII-7 band. Sirius XM and Globalstar were the only FSS operators to file comments in response to the *Further Notice*, but these

³⁴⁹ Professor Monisha Ghosh of the University of Notre Dame filed a study of an extensive network of low-power indoor access points at the University of Michigan campus as well as a smaller number of access points at Notre Dame University. Monisha Ghosh July 21, 2023 *Ex Parte* at 5, 17. The study concluded that signal levels from the indoor access points present outside the buildings do not pose any interference risk to licensed incumbents. *Id.* at 1.

³⁵⁰ See *6 GHz Order*, 35 FCC Rcd at 3897-901, paras. 123-30; see also *AT&T Services, Inc.*, 21 F.4th at 849-50.

³⁵¹ AT&T points to the results of these test as demonstrating that VLP devices in ordinary locations will cause interference to microwave links. AT&T Aug. 29, 2023 *Ex Parte* at 3-4. We disagree with AT&T’s contention as exceedance of a -6 dB I/N ratio in and of itself is not indicative of harmful interference.

³⁵² AT&T Aug. 29, 2023 *Ex Parte* at 2; see *id.* at 2-7.

³⁵³ AT&T appears to make the opposite mistake in asserting that “the threat of interference should evaluate the probability of [VLP] devices being within the main beam [of a microwave receiver] based on real-world deployments—with the probability of some [VLP] devices being in that zone at any given time being nearly 100%”—given the level of VLP device deployment suggested. AT&T Aug. 29, 2023 *Ex Parte* at 4. This ignores all the other factors that must occur for harmful interference to occur besides the location of the VLP device.

³⁵⁴ 47 CFR § 2.106 footnotes NG172 and 5.458B. The space-to-Earth allocation is limited to use by non-geostationary mobile-satellite service feeder links and earth stations receiving in this band are limited to locations within 300 m of coordinates in Brewster, WA, Clifton, TX, and Finca Pascual, PR. Globalstar also operates earth station receive sites at Wasilla, AK and Seabring, FL. These last two locations are authorized to operate on a coprimary basis for feeder downlinks for FSS, except for 7.025-7.055 GHz band, where they are authorized only on an unprotected basis.

³⁵⁵ 47 CFR § 25.214(c)(5).

comments were limited to their operations in the U-NII-8 band.³⁵⁶

82. In *6 GHz Order*, the Commission concluded that FSS receivers in space would not receive harmful interference from either 6 GHz standard power or LPI devices.³⁵⁷ Considering that the satellites receiving in the 6 GHz band are limited to geostationary orbits, approximately 35,800 kilometers above the equator, the Commission found that it is unlikely the relatively low power unlicensed devices would cause harmful interference to the space station receivers.³⁵⁸ The only restriction that the Commission adopted to protect the satellite receivers was to require that outdoor standard-power access points limit their maximum EIRP above a 30 degree elevation angle to 21 dBm.³⁵⁹ Because VLP devices are limited to no more than 14 dBm EIRP, for the same reasons, we conclude that no restrictions on VLP devices are necessary to protect FSS Earth-to-space operations.

C. Radio Astronomy Services

83. Incumbent operations in the U-NII-7 band include several radio astronomy observatories, located in remote areas, that observe methanol spectral lines between 6.65-6.6752 GHz.³⁶⁰ To protect these radio observatories, the National Academy of Sciences' Committee on Radio Frequencies (CORF) requests that we implement exclusion zones for this band, as listed in Allocation Table footnote US385, if VLP devices are able to determine their locations.³⁶¹ If the devices are not able to determine their locations, CORF claims that the radio observatories must be protected by notching out the VLP device's transmissions within this band.³⁶² CORF claims that an individual VLP device operating at -8 dBm/MHz could cause a threshold exceedance for spectral line observations in an ITU recommendation at a distance of several hundred kilometers.³⁶³

84. When we adopted the rules for 6 GHz LPI devices, we did not implement exclusion zones or require the LPI devices to notch out the 6.65-6.6752 GHz band. Because VLP devices will operate at an even lower power than LPI devices, we do not expect them to create an interference problem for the radio observatories. We recognize the importance of these observations to the scientific community but, as VLP devices will not operate under the control of an AFC system and will not be required to have a geolocation capability, we are not able to adopt exclusion zones around these radio observatories.³⁶⁴ The radio observatories that receive in the 6 GHz band are in remote locations, and it is unlikely that unlicensed VLP devices will be operating nearby. Furthermore, these observatories can restrict such devices from being used at their facilities. Consequently, we conclude that radio astronomy operations will not be subject to harmful interference from unlicensed VLP devices. Given this

³⁵⁶ Sirius XM Comments (filed June 29, 2020); Globalstar Reply (filed July 27, 2020).

³⁵⁷ *6 GHz Order*, 35 FCC Rcd at 3886-87, 3916-17, paras. 91-92, 171-72.

³⁵⁸ *6 GHz Order*, 35 FCC Rcd at 3886, para. 91.

³⁵⁹ *6 GHz Order*, 35 FCC Rcd at 3886, para. 92; *see* 47 CFR § 15.407(a)(4).

³⁶⁰ 47 CFR § 2.106 5.458A. Observation of methanol spectral lines is a significant contributor to research of star formation. *See* Nicolas Clarisse; Anuj P. Sarma, *Methanol Masers in Star-Forming Regions* (2019), <https://via.library.depaul.edu/cgi/viewcontent.cgi?article=1148&context=depaul-disc>. The observatories where such research is conducted are Arecibo Observatory, the Green Bank Observatory, the Very Large Array, the 10 Stations of the Very Long Baseline Array, the Owens Valley Radio Observatory, and Allen Telescope Array. National Academy of Sciences Committee on Radio Frequencies Comments at 6.

³⁶¹ National Academy of Sciences' Committee on Radio Frequencies Comments at 5 (filed May 28, 2020).

³⁶² *Id.*

³⁶³ *Id.* at 4.

³⁶⁴ We note that there is no radio astronomy allocation for these observations requiring that they be protected from interference; the radio astronomy allocation table footnote merely provides that "all practicable steps shall be taken to protect the radio astronomy service" in this band from harmful interference. 47 CFR § 2.106(c)(142) (U.S. footnote 342).

conclusion, we cannot justify requiring VLP devices to notch out this band as requested as this would increase device complexity and result in less efficient spectrum use.

D. Emission Mask and Out-of-Band Emission Limit

1. Limits for Very Low Power Devices in the U-NII-5 and U-NII-7 Bands

85. In the *Further Notice*, the Commission sought comment on appropriate power levels and other technical parameters that VLP unlicensed devices in the 6 GHz band should have to meet.³⁶⁵ We note that there were no comments regarding the in-band emission mask for 6 GHz VLP devices. The Commission's previous decision in the *6 GHz Order*³⁶⁶ found that the emission mask originally proposed by RKF engineering, with certain modifications, was necessary to protect incumbent microwave links and other services operating in the adjacent channel to unlicensed devices within the U-NII-5 through U-NII-8 bands. Because 6 GHz VLP devices will operate in two of these same bands and on the same channels as LPI and standard power 6 GHz devices and need to protect the same incumbent operations, we find that using the same emission mask for VLP devices as we adopted for LPI and standard power devices is appropriate. As the incumbent operations' protection requirements have not changed since our previous decision for this band, using the same mask ensures that those operations are fully protected from unlicensed adjacent channel operations. Moreover, by adopting the same emission requirements, we anticipate that device manufacturers will be able to take advantage of economies of scale regarding filters necessary to meet these requirements which should help to reduce costs. Finally, we take this opportunity to again point out that the emission specification we are adopting represents the minimum requirement. We encourage device manufacturers, consistent with the recent Commission *Policy Statement*, to design their devices to minimize energy transmitted into adjacent channels.³⁶⁷

86. Accordingly, we are requiring emissions from VLP devices in the U-NII-5 and U-NII-7 bands to comply with the transmission emission mask adopted in the *6 GHz Order*.³⁶⁸ That is, we are requiring the power spectral density to be suppressed by 20 dB at one megahertz outside of an unlicensed device's channel edge, suppressed by 28 dB at one channel bandwidth from an unlicensed device's channel center, and suppressed by 40 dB at one and one-half times the channel bandwidth away from an unlicensed device's channel center.³⁶⁹ At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between the 20 dB and 28 dB suppression levels.³⁷⁰ At frequencies between one and one and one-half times an unlicensed device's channel bandwidth from the center of the channel, the limits must be linearly interpolated between the 28 dB and 40 dB suppression levels.³⁷¹ Emissions removed from the channel center by more than one and one-half times the channel bandwidth, but within the U-NII-5 and U-NII-7 bands, must be suppressed by at least 40 dB.³⁷²

2. Emission Limits Outside the U-NII-5 and U-NII-7 Bands

87. We are adopting emissions limits at the edge of the U-NII-5 and U-NII-8 bands for VLP devices that are identical to the emissions limits that we adopted in the *6 GHz Order*.³⁷³ Specifically, we

³⁶⁵ *6 GHz Order*, 35 Rcd at 3940–42, paras. 236–43.

³⁶⁶ *6 GHz Order*, 35 Rcd at 3924–25, para. 196.

³⁶⁷ See *Policy Statement* at 2, 8–9, paras. 5, 23–25.

³⁶⁸ *6 GHz Order*, 35 Rcd at 3924–25, para. 196.

³⁶⁹ *6 GHz Order*, 35 Rcd at 3925, para. 196.

³⁷⁰ *Id.*

³⁷¹ *Id.*

³⁷² *Id.*

³⁷³ 47 CFR § 15.407(b)(6); *6 GHz Order*, 35 Rcd at 3925, para. 197.

are adopting a -27 dBm/MHz EIRP limit for 6 GHz VLP devices at frequencies below the bottom of the U-NII-5 band (5.925 GHz) and above the upper edge of the U-NII-8 band (7.125 GHz), but will not require it between the sub-bands, i.e., between the U-NII-5 and U-NII-6, the U-NII-6 and U-NII-7, and the U-NII-7 and U-NII-8 bands; those emissions are subject to the emission mask and out-of-band emission (OOBE) limits discussed above.³⁷⁴ These limits are intended to protect cellular vehicle-to-everything (C-V2X) operations below the 6 GHz band and federal operations above the band. The Commission previously determined that the -27 dBm/MHz limit will sufficiently protect C-V2X operations from harmful interference from U-NII devices operating in other bands.³⁷⁵

88. We note here that the Commission adopted rules that require Intelligent Transportation System (ITS) licensees to cease use of the 5.850-5.895 GHz band and operate only in the 5.895 – 5.925 GHz band.³⁷⁶ In the 5.9 GHz Order, the Commission also required that DSRC-based technology operating in the ITS radio service transition to C-V2X-based technology.³⁷⁷ The Further Notice of Proposed Rulemaking in that proceeding addressed transitioning all ITS operations in the revised ITS band at 5.895-5.925 GHz to C-V2X-based technology, including the appropriate timeline for the implementation and codification of C-V2X technical parameters for operation in the 5.895-5.925 GHz band.³⁷⁸ Since then, the C-V2X proponents requested and the Commission has begun granting waivers to allow immediate C-V2X deployment in the ITS bands prior to the initiation of final rules for CV2X operations.³⁷⁹

89. Several parties support the -27 dBm/MHz EIRP emission limit,³⁸⁰ while other parties make alternative proposals. For example, The Alliance for Automotive Innovation (AAI) offers two alternative out-of-band emission proposals: adopt an emission mask that requires VLP devices to suppress out-of-band emissions to -60 dBm/MHz below 5.9 GHz or alternatively require VLP devices operating in the lowermost channel to utilize a low 1-2% duty cycle averaged over a range in the tens of

³⁷⁴ See *supra* para. 86.

³⁷⁵ 6 GHz Order, 35 FCC Rcd at 3925-26, paras. 197-98 (recognizing that -27 dBm/MHz is the appropriate out-of-band emission limit and that using a root-mean-square (RMS) measurement is sufficient to protect incumbent services from unlicensed 6 GHz devices.); see *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, First Report and Order, Further Notice of Proposed Rulemaking, and Order of Proposed Modification, 35 FCC Rcd 13440, 13474-76, paras. 80-83 (2020) (5.9 GHz Order); see also *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, First Report and Order, 29 FCC Rcd 4127, 4158-60, paras. 114-20 (2014) (5 GHz Order); 47 CFR § 15.407(b)(6).

³⁷⁶ 5.9 GHz Order, 35 FCC Rcd at 13446, para. 14.

³⁷⁷ 5.9 GHz Order, 35 FCC Rcd at 13483-84, para. 107-110.

³⁷⁸ 5.9 GHz Order, 35 FCC Rcd at 13500-07, para. 146-168.

³⁷⁹ See Request for Waiver of 5.9 GHz Band to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology, Order, ET Docket No. 19-138, DA 23-343 (PSHSB/OET/WTB rel. Apr. 24, 2023) (*Joint Waiver Order*); 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 1 (filed Dec. 13, 2021) (*C-V2X Joint Waiver Request*).

³⁸⁰ See, e.g., Wi-Fi Alliance Reply at 13 (filed July 27, 2020) (stating that protection of ITS operations is necessary but that “there is no reason to require VLP devices to protect ITS to a different out-of-band emission (‘OOBE’) level than currently required from other licensed and unlicensed services”); Dynamic Spectrum Alliance Reply at 10, 13 (filed July 27, 2020) (stating that the Commission should maintain -27 dBm/MHz as the out-of-band emission limit from all 6 GHz unlicensed devices at frequencies below the lowest frequency available in the U-NII-5 band and above the highest frequency available in U-NII-8 and that “[n]one of the comments submitted to the Further Notice provide sufficient justification for the Commission to change its 6 GHz [out-of-band emission limit] rules”); Facebook, Inc. Reply at 5 (filed July 27, 2020) (stating that very low power devices “will not cause harmful interference to adjacent C-V2X operations”).

milliseconds.³⁸¹ Panasonic suggests that the Commission require unlicensed U-NII-5 devices to include sensing technology that would enable the device to detect adjacent C-V2X signals and cease operating in the lowest U-NII-5 channel, similar to the environmental sensing capability employed by the spectrum access systems in the Citizens Broadband Radio Service.³⁸² A group of VLP proponents jointly propose a compromise out-of-band emission limit that would apply at the bottom of the U-NII-5 band.³⁸³ Specifically, they propose that VLP devices comply with a -37 dBm/MHz out-of-band emission limit at 5925 MHz measured by root mean square (RMS) to ensure coexistence when 6 GHz devices are operating in the lowermost channels and that VLP devices prioritize operations in channels above 6105 megahertz.³⁸⁴ NTIA filed a technical exhibit into the record that includes a Department of Transportation study (*DoT Exhibit*) addressing C-V2X protection requirements in the 5.895-5.925 GHz band from 6 GHz VLP devices' out-of-band emissions which endorsing this two-part compromise proposal.³⁸⁵

90. We are not convinced at this time that a more stringent out-of-band emission limit nor operational restrictions suggested by C-V2X proponents are necessary to protect in-vehicle C-V2X devices from harmful interference. The Commission already determined that standard power and LPI 6 GHz devices must comply with this same -27 dBm/MHz out-of-band emission limit and that emissions at or under that limit will protect adjacent band users from harmful interference.³⁸⁶ C-V2X devices must be designed to successfully operate in an interference-limited environment as they are subjected to co-channel and adjacent channel signals between each other that are higher than the -27 dBm/MHz out-of-band emission limit we are adopting here for 6 GHz unlicensed VLP devices.³⁸⁷ C-V2X devices have to coexist with other C-V2X devices that operate in close proximity to each other, e.g., other on-board units (within vehicles) and roadside units. Finally, to the extent that commenters raised concerns about harmful interference from aggregate VLP device emissions, we note that the number of such devices present in any given vehicle is anticipated to be low and because transmissions between VLP devices would occur over very short distances, the transmit power levels and their associated out-of-band emissions are expected to be well below the maximum permitted. Thus, even if multiple out-of-band emissions were aggregated, the total out-of-band emissions in the local area would still be expected to be

³⁸¹ Alliance For Automotive Innovation Reply at 7-8.

³⁸² Panasonic Comments at 3 (filed June 29, 2020); *see also* 47 CFR §§ 96.3, 96.15, 96.67. The Citizens Broadband Radio Service (CBRS) operates in the 3550-3700 MHz band and utilizes a three-tiered access and authorization framework to accommodate shared federal and non-federal use of the band. 47 CFR §§ 96.1, 96.11. Access and operations are managed by an automated frequency coordinator, known as a Spectrum Access System (SAS). *Id.* § 96.3. While coordinating spectrum access, SASs may incorporate information from an Environmental Sensing Capability (ESC). *Id.* § 96.15. The ESC is a system that detects and communicates the presence of a signal from an incumbent user to an SAS to facilitate shared spectrum access. *Id.* § 96.3.

³⁸³ Broadcom, Cisco, Facebook, Intel, Qualcomm Mar. 1, 2021 *Ex Parte* at 1.

³⁸⁴ *Id.*

³⁸⁵ *U.S. DoT Technical Exhibit on Protection of the V2X 30 MHz (5.895-5.925 GHz) Band*, ET Docket No. 18-295 at 3 (filed Oct. 10, 2023).

³⁸⁶ 47 CFR § 15.407(b)(6); *6 GHz Order*, 35 FCC Rcd at 3925, para. 197; *5.9 GHz Order*, 35 FCC Rcd at 13474-75, paras. 80-83.

³⁸⁷ *5 GHz Order*, 29 FCC Rcd at 4127, para. 114; *see also* *Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Seek Comment on a Request for Nationwide Waiver of Intelligent Transportation System Rules to Use C-V2X Technology in the 5.895-5.925 GHz Band*, ET Docket No. 19-138, Public Notice, DA 22-611, at 3 (WTB/PSHSB June 7, 2022) (Table on page 3 shows the out-of-band emission limits for C-V2X proposed by parties seeking waiver. The limits for zero frequency offset are higher than the out-of-band emission limit for 6 GHz devices.); *C-V2X Joint Waiver Request*. More recently, additional information on the request was submitted to the Commission. *See Letter from the C-V2X Joint Waiver Parties to Marlene H. Dortch, Secretary, FCC*, ET Docket No. 19-138 (filed Apr. 20, 2022) (*C-V2X Joint Waiver Request Supplement*). According to the joint waiver request, C-V2X proponents anticipate operating with a 33 dBm on-board unit EIRP limit within 20 MHz channels. *C-V2X Joint Waiver Request Supplement* at 3.

below C-V2X device's own signal levels. We also believe that maintaining the -27 dBm/MHz emission limit is appropriate in part because the rules for C-V2X operation in the 5.895-5.925 GHz band are the subject of a pending rulemaking proceeding and current C-V2X operations are pursuant to conditional rule waivers.³⁸⁸

91. We decline to adopt the -37 dBm/MHz out-of-band emissions limit suggested by some parties. However, we are seeking additional information in the Second Further Notice on the potential impact that VLP devices operating in motor vehicles could have on C-V2X performance and whether any modification of the out-of-band emission limit or other technical or operational requirements are appropriate.³⁸⁹ Likewise we find the -60 dBm/MHz out-of-band emission limit suggested by AAI for application at the U-NII-5 band edge to be too restrictive. In addition, we find AAI's suggestion to require VLP devices to operate with a 1-2% duty cycle that is averaged over a range of tens of milliseconds is not reasonable. While duty cycle is an important parameter for system operation, we typically do not make rules requiring adherence to specific duty cycle requirements as they may artificially restrict design choices and limit the applications that can be used by the American public. Similarly, we decline to adopt a requirement advocated by Panasonic that VLP devices include sensing technology as we do not believe that such a complex solution is necessary to achieve the protection requirements needed for all users in the band. Moreover, any new sensing technology often requires long development cycles along with extended testing to ensure proper operation, which would only delay the benefits that VLP devices can provide.

92. As discussed above, we remain convinced that the -27 dBm/MHz out-of-band emission level at the lower edge of U-NII-5 will protect C-V2X operations below 5925 MHz and adopt that level for VLP devices. This will create a consistent out-of-band limit for all 6 GHz unlicensed devices throughout the 6 GHz band.

3. Prioritization of Operations on Channels above 6105 MHz

93. We are mindful of the concerns from the auto industry regarding the potential for harmful interference to automotive safety systems operating below the U-NII-5 band. For example, the proponents of the compromise proposal propose that VLP devices prioritize unlicensed operation in channels above 6105 MHz (i.e., the top edge of the first 160 megahertz wide channel in the IEEE band plan) before operating below 6105 MHz and that manufacturers submit with their equipment authorization application a declaration that the equipment complies with this prioritization rule.³⁹⁰ The proponents of the compromise proposal claim that prioritizing channels above 6105 MHz will reduce the likelihood of VLP device traffic adjacent to the 5.9 GHz band when VLP devices are used in vehicles.³⁹¹ The *DoT Exhibit* filed by NTIA also endorses VLP devices prioritizing operation above 6105 MHz.³⁹² Additionally, the 5G Automotive Association and others believe that when operating at that proposed emission limit, unlicensed VLP devices transmitting at 14 dB EIRP inside vehicles in the lowermost U-NII-5 channel could cause interference to C-V2X devices that operate in the ITS band from 5.895-5.925 GHz and propose that the Commission prohibit VLP devices from operating on the lowermost channel in

³⁸⁸ *Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, First Report and Order, Further Notice of Proposed Rulemaking, and Order of Proposed Modification, 35 FCC Rcd 13440, 13474-76, paras. 80-83 (2020); *Request for Waiver of 5.9 GHz Band Rules to Permit Initial Deployment of Cellular Vehicle-to-Everything Technology*, Order, ET Docket 19-138 (PSHSB, OET, WTB April 24, 2023).

³⁸⁹ See *infra* para. 186. Regardless of the OOB limits in place, 6 GHz unlicensed devices are subject to Part 15.5(b) of the Commission's rules.

³⁹⁰ Broadcom, Cisco, Facebook, Intel, Qualcomm Mar. 1, 2021 *Ex Parte* at 1.

³⁹¹ See *supra* footnote 383.

³⁹² *U.S. DoT Technical Exhibit on Protection of the V2X 30 MHz (5.895-5.925 GHz) Band*, ET Docket No. 18-295 at 3 (filed Oct. 10, 2023).

the 6 GHz band.³⁹³ The 5G Automotive Association offers a technical study in which it claims that C-V2X performance will be degraded and its range reduced by up to 50% when operating in the presence of in-vehicle VLP devices.³⁹⁴ NAB expresses concern regarding the aforementioned compromise proposal contending that the compromise proposal could effectively concentrate unlicensed operations in portions of the band used by broadcasters for ENG operations because U-NII-6 and U-NII-8, where broadcasters operate, are above 6105 MHz.³⁹⁵ NAB also claims that this proposal would be inconsistent with the Commission's previous decision to not adopt NAB's proposal to forbid unlicensed operation in an 80 megahertz swath of the 6 GHz spectrum where the Commission stated that providing reduced spectrum for unlicensed devices would increase the likelihood of harmful interference because unlicensed operations would be concentrated into fewer channels.³⁹⁶

94. To ensure that safety of life services below the U-NII-5 band are protected from harmful interference, we adopt the suggestion from the compromise proposal to require VLP devices to prioritize spectrum above 6105 MHz. We disagree with NAB that this is inconsistent with our previous decision not to exclude VLP devices from a portion of the 6 GHz band to protect ENG operations as this requirement does not prohibit operation below 6105 MHz; it merely requires that devices seek to operate in the spectrum above that frequency first before operating below it. Although under this approach, there may be fewer VLP devices operating on the spectrum below 6105 MHz, many devices will still operate on that spectrum and we do not expect abnormal concentrations of VLP devices in U-NII-6 and U-NII-8 where ENG operates as devices would still naturally spread across the available spectrum.

E. Other Matters

1. Restrictions on Very Low Power Device Use on Aircraft, Boats, and Oil Platforms

95. In the *6 GHz Order*, the Commission did not permit mobile (i.e., in cars, trains, boats, or aircraft 10,000 feet and under) unlicensed standard power and LPI access points to operate in the 6 GHz band due to the potential for increasing interference to incumbent licensees.³⁹⁷ Similarly, in the *6 GHz Order*, the Commission prohibited standard power and LPI access points from operating on oil platforms.³⁹⁸ The restrictions on boats and oil platforms were put in place to protect incumbent licensees

³⁹³ 5G Automotive Association Dec. 9, 2019 *Ex-Parte* at 2; *see also* Alliance for Automotive Innovation Reply at 6-7 (filed July 27, 2020) (contending that the Commission should prohibit very low power and mobile standard power access points in the lowermost U-NII-5 channels and generally offers support for the analysis provided by 5G Automotive Association); American Trucking Association Reply at 1-2 (filed July 27, 2020) (offering general support for Automotive Innovative Alliance, 5G Automotive Association, Panasonic and Qualcomm positions regarding adjacent band interference into the C-V2X band); Qualcomm Comments at 9 (filed June 29, 2020) (supporting generally the 5G Automotive Association request asking the Commission to prohibit very low power and mobile standard power access point operations in the lowermost channels of the 6 GHz band to protect the adjacent ITS band); Panasonic Comments at 2-3 (filed June 29, 2020) (stating that “[t]he proposed . . . out of band emissions from [VLP] and mobile standard-power access point unlicensed operations would cause harmful interference to C-V2X Direct receivers if permitted to operate in adjacent channels of the U-NII-5 band in close proximity to C-V2X on-board units (“OBUs”) installed in vehicles” and that VLP devices “should not be permitted to be installed or operated in motor vehicles due to their proximity to the OBU receiver and antenna”).

³⁹⁴ 5G Automotive Association Nov. 16, 2020 *Ex-Parte* at 9, 90-96. (The 5G Automotive Association submitted a technical study in association with the Crash Avoidance Metrics Partners (CAMP) consortium, which asserts that out-of-band emissions into 5895-5925 MHz from U-NII-5 very low power devices will be slightly more interfering than from U-NII-4 devices.)

³⁹⁵ National Association of Broadcasters Mar. 4, 2021 *Ex Parte* at 1.

³⁹⁶ *Id.* at 2 (citing *6 GHz Order*, 35 FCC Rcd at 3852, paras. 103, 117, n.297).

³⁹⁷ *6 GHz Order*, 35 FCC Rcd at 3929, para. 207; *see* 47 CFR § 15.407(d)(1), (4).

³⁹⁸ *6 GHz Order*, 35 FCC Rcd at 3931, para. 212; *see* 47 CFR § 15.407(d)(1), (4).

and protect Earth-Exploration Satellite Service (EESS) sensing operations.³⁹⁹

96. Because VLP access points can operate in motion, unlike standard power and LPI devices that the rules limit to stationary operation, we will permit VLP devices to operate in terrestrial land-based vehicles, including cars, buses, trains, etc.⁴⁰⁰ We will also not prohibit VLP device use on boats in contrast to our decision to prohibit standard power and LPI devices from operating on boats.⁴⁰¹ That decision stemmed from a request from the National Academy of Sciences' Committee on Radio Frequencies (CORF) seeking protection for EESS remote sensing operations over oceans.⁴⁰² Given that VLP devices will operate at much lower power levels than LPI and standard power devices, and many boaters, particularly recreational boaters operate either on inland lakes and waterways or in close proximity to the coastline, we do not believe that they will present an interference threat to EESS sensing over the oceans. However, we are seeking comment in the Second Further Notice of Proposed Rulemaking on whether any restrictions should be put in place for VLP operation on boats. We will continue to prohibit 6 GHz devices, including VLP devices, from operating on oil platforms because EESS operations in this band mainly include oceanic sensing, and operation of VLP devices on oil platforms could potentially interfere with passive and active sensing operations over the oceans and coastal where these oil rigs tend to be concentrated. We also note that ocean based oil platforms, are located anywhere from a few hundred meters to a few hundred miles off of the coast where EESS operations are monitoring critical data oceanographic and weather phenomenon.⁴⁰³ However, we are seeking comment on whether this restriction should be eliminated in the Second Further Notice of Proposed Rulemaking.

97. Consistent with our decision in the *6 GHz Order* to prohibit standard power and LPI devices from operating in low flying aircraft and unmanned aircraft systems (UAS) (i.e., drones), we similarly prohibit such operation for VLP devices. Use on such platforms presents novel propagation paths and introduces the potential for causing harmful interference to fixed microwave receivers, which are typically located on towers and rooftops. Unlike operation that may occur outside on a balcony above ground level, operation on a low flying aircraft or UAS may not have buildings or other structures nearby to attenuate signals and thus will have a higher probability of having a line-of-sight path to an incumbent receiver location resulting in a higher potential for causing harmful interference. Hence, we will apply the same aircraft restriction to VLP devices as we adopted for LPI and standard power devices. VLP devices will not be permitted on aircraft, except in large aircraft while flying above 10,000 feet.⁴⁰⁴ Consistent with our decision in the *6 GHz Order*, we believe that operating at those altitudes along with attenuation provided by an aircraft's fuselage will keep signal levels to such a low level at incumbents' receivers as to pose an insignificant harmful interference risk. We will permit VLP devices operating on aircraft above 10,000 feet to operate across the 5.925-6.425 GHz band.⁴⁰⁵ This is consistent with the 6

³⁹⁹ *6 GHz Order*, 35 FCC Rcd at 3931, para. 212.

⁴⁰⁰ In the Second Further Notice we seek additional information on the OOB limits of VLP devices operating inside motor vehicles.

⁴⁰¹ *6 GHz Order*, 35 FCC Rcd at 3929, para. 207; see 47 CFR § 15.407(d)(1), (4).

⁴⁰² *Id.* at 3931, para. 212 (citing The National Academy of Sciences Committee on Radio Frequencies Comments, ET Docket No. 18-295 at 8-9 (filed Jan. 29, 2019)).

⁴⁰³ See Thomas Kuegler, *7 Interesting Facts About Offshore Oil Rigs* (Dec. 23, 2016), [https://www.eia.gov/energyexplained/oil-and-petroleum-products/offshore-oil-and-gas-in-depth.php](https://www.billypugh.com/newsroom/7-interesting-facts-offshore-oil-rigs/#:~:text=Offshore%20platforms%20are%20located%20anywhere,2%20kilometers%20beneath%20the%20surface; Energy Information Administration, <i>Oil and petroleum products explained</i> (Oct. 4, 2022), <a href=).

⁴⁰⁴ See 47 CFR § 15.407(d)(1), (4); *6 GHz Order*, 35 FCC Rcd at 3931-32, paras. 214-15.

⁴⁰⁵ For example, because transmitting devices are required to be in airplane mode when on flights, compliance with this requirement could be achieved by the VLP access point defaulting to the U-NII-5 band when in airplane mode and thus also forcing any associated client devices to also use only the U-NII-5 band.

GHz Order, which restricted LPI operation on large aircraft flying above 10,000 feet to the U-NII-5 band to prevent harmful interference to radio astronomy and EESS operations in the U-NII-6, U-NII-7, and U-NII-8 bands.⁴⁰⁶ VLP devices will also not be permitted to be used for control of or communications with unmanned aircraft systems.⁴⁰⁷

2. 57-71 GHz Band

98. CTIA opposes expanding AFC-free VLP unlicensed operations in the 6 GHz band and instead proposes that unlicensed proponents consider the 57-71 GHz band for VLP operations.⁴⁰⁸ It claims that the band is “ideal for short-range, very low-power use cases” as there are no incumbent operations that require protection from harmful interference.⁴⁰⁹ In response, Apple, Broadcom et al. assert that the 57-71 GHz band is not compatible with VLP use because short range, high-data applications at those frequencies require line-of-sight propagation to function effectively on battery power and that line of sight will not be achievable for most wearable devices and personal area network applications.⁴¹⁰ We decline to prohibit VLP device operations in the U-NII-5 and U-NII-7 portions of the 6 GHz band in favor of the 57-71 GHz band. The Commission’s policy has been to provide as much flexibility for spectrum users – both licensed and unlicensed – to use spectrum bands that best meet their needs based on their business case and expected use cases.⁴¹¹ VLP operations are no different and, as explained in this Second Report and Order, we believe that permitting VLP operations in the 6 GHz band meets that goal. The rules we are adopting provide flexibility for VLP operations while still protecting authorized services from harmful interference. Furthermore, we note that the 57-71 GHz band has flexible rules for unlicensed operations⁴¹² and that manufacturers could develop similar devices to 6 GHz VLP devices under those rules should they determine that it is both feasible and would meet consumer demand.

99. *LPI and standard power devices as substitute for VLP.* AT&T points to claims by VLP device proponents that 90% of these devices will operate indoors to argue that VLP devices are not necessary to address the use cases purportedly supported by the VLP rules.⁴¹³ According to AT&T, the small residual percentage of applications that are outdoors can be addressed by standard power device regulations requiring devices operate under the control of a AFC system.⁴¹⁴ AT&T also claims that VLP device proponents essentially concede that the burden of adding AFC capability to VLP devices would be minimal, pointing to a filing by Apple, Broadcom, Google, and Meta that discusses implementing exclusion zones for VLP devices.⁴¹⁵ According to Apple, Broadcom, and Meta, LPI is not a substitute for VLP because the Commission’s rules prohibit direct communications by LPI client devices.⁴¹⁶ This would result in applications like virtual reality and augmented reality experiencing increased latency and decreased spectrum efficiency. Apple, Broadcom, and Meta also claim that VLP is essential for

⁴⁰⁶ See 6 GHz Order, 35 FCC Rcd at 3929, 3932, paras. 207, 215; see also 47 CFR § 15.407(d)(1), (4).

⁴⁰⁷ See 6 GHz Order, 35 FCC Rcd at 3931, para. 213.

⁴⁰⁸ CTIA Comments at 2 (filed June 29, 2020).

⁴⁰⁹ *Id.*

⁴¹⁰ Apple, Broadcom et al. Reply at 31 (filed July 27, 2020).

⁴¹¹ See *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959 (2015); *Unlicensed White Space Device Operations in the Television Bands*, ET Docket No. 20-36, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 12603 (2020).

⁴¹² 47 CFR § 15.255.

⁴¹³ AT&T Aug. 29, 2023 Ex Parte 2-3.

⁴¹⁴ *Id.* at 2.

⁴¹⁵ *Id.* at 2-3 (citing Apple, Broadcom, Google, Meta July 26, 2023 Ex Parte).

⁴¹⁶ Apple, Broadcom, and Meta Sept. 14, 2023 Ex Parte at 2.

supporting mobility which would be inconsistent with the indoor-only requirement of LPI.⁴¹⁷

100. We do not agree with AT&T's rationale that if 90% of VLP use is assumed to be indoors, there is no utility in enabling outdoor VLP device operation. VLP proponents describe portable battery-powered consumer products as a primary use case for these devices,⁴¹⁸ and apportioning significant battery resources to the overhead necessary to operate pursuant to an AFC could reduce utility of these devices to the point that they would be infeasible. In addition, as discussed above, we disagree with AT&T's assertion that there is no cost to implement an AFC capability in VLP devices.⁴¹⁹ Adding AFC capability to these small battery-powered portable device would likely increase their complexity and, correspondingly, their cost. We also agree with Apple, Broadcom, and Meta that VLP devices will be suitable for applications that require direct communications between client devices and to support mobility that may require devices to transition between indoor and outdoor use. Therefore, we find AT&T's contention to be without merit.

3. Rule Corrections

101. We are making two minor changes to section 15.407 to correct cross-references that were inadvertently not updated when the Commission previously renumbered paragraphs in this section.⁴²⁰ Specifically, we correct the cross-reference in the introductory text of section 15.407(b) to reference paragraph (b)(10) rather than (b)(7), and we correct the cross-reference in section 15.407(l)(2)(ii) to reference paragraph (b)(7) rather than (b)(6).

F. Benefits and Cost

102. As discussed above, we adopt rules to permit VLP devices to operate in the U-NII-5 and U-NII-7 portions of the 6 GHz band while protecting the licensed services that operate in the band from harmful interference. Enabling new unlicensed use types in the U-NII-5 and U-NII-7 bands will yield important economic benefits and will allow more extensive use of technologies, such as Wi-Fi and Bluetooth, by American consumers. Consumers are using more and more data, on average, and this is expected to continue to grow significantly.⁴²¹ One report estimated that in 2021, the economic benefits associated with Wi-Fi in the United States was valued at almost \$979 billion and that by 2025, 40% of Wi-Fi traffic will rely on 6 GHz.⁴²² Another report estimated that making the 6 GHz band accessible to VLP devices would produce over \$39 billion in economic value over five years.⁴²³ Even if the rules that we adopt herein lead to expected benefits of 5% of \$39 billion, or approximately \$2 billion—a figure we

⁴¹⁷ *Id.*

⁴¹⁸ Qualcomm, Google July 27, 2023 *Ex Parte* at 2; Apple, Broadcom, et al. Nov. 4, 2020 *Ex Parte* at 2; Apple, Broadcom, et al. Reply at 27-28.

⁴¹⁹ *See supra* para. 67.

⁴²⁰ In the *6 GHz Order*, the Commission renumbered paragraph (b)(7) of section 15.407 as paragraph (b)(9) but did not update the cross-reference to this paragraph in the introductory text to paragraph (b). *6 GHz Order*, 35 FCC Rcd at 3951-52, Appx. A. In the subsequent *5.9 GHz Order*, the Commission renumbered paragraph (b)(9) as (b)(10) but also did not update the cross-reference in the introductory text to paragraph (b). *5.9 GHz Order*, 35 FCC Rcd at 13521-22, Appx. A. Additionally, the Commission renumbered paragraph (b)(6) as (b)(7) in the *5.9 GHz Order* but did not update the cross reference in paragraph (l)(2)(ii). *Id.* at 13521-23, Appx. A.

⁴²¹ GSMA, The Mobile Economy, North America 2022 at 13 (Sept. 2022) <https://www.gsma.com/mobileeconomy/wp-content/uploads/2022/09/290922-Mobile-Economy-North-America-2022.pdf>. GSMA estimates that demand for mobile data in North America will increase from 15 GB per subscriber per month in 2021 to 52 GB per subscriber per month in 2027.

⁴²² 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>.

⁴²³ Telecom Advisory Services, LLC, Assessing the Economic Value of Unlicensed Use in the 5.9 GHz & 6 GHz Bands at 49-56 (Apr. 2020), <http://wififorward.org/wp-content/uploads/2020/04/5.9-6.0-FINAL-for-distribution.pdf>.

find to be below the likely benefits of these rules—the expected benefits will be well in excess of the costs that we estimate.

103. Because there are presently no VLP devices in operation, the rules that we promulgate do not have cost implications for the existing unlicensed device ecosystem. And because the harmful interference risk to incumbent operators is insignificant and we are not imposing any specific requirements on any incumbent operator, there is also no cost implication on them. Thus, by promulgating these rules to enable VLP devices to operate in the U-NII-5 and U-NII-7 portions of the 6 GHz band, significant economic benefits will be bestowed on the American public.

IV. SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

104. In this Second Further Notice of Proposed Rulemaking, we seek comment on how we can refine the VLP device rules to provide those devices greater use of the band while continuing to protect licensed incumbents.⁴²⁴ Our intent here is to seek comment on specific rules aimed at providing additional power and flexibility for VLP devices. With the limited exception of seeking comments on some aspects of the VLP out-of-band emission limits, we are not seeking comment on any of the rules adopted in the *Second Report and Order*. Below, we propose to allow VLP devices to operate in the U-NII-5 through U-NII-8 bands (i.e., a total of 1200 MHz of spectrum) at a PSD level greater than -5 dBm/MHz—up to 1 dBm/MHz EIRP PSD and 14 dBm EIRP—provided they operate under the control of a geofencing system that prevents devices from operating in close proximity to co-channel licensed incumbent services in these bands. VLP access points would obtain information from a geofencing system on locations where operation is prohibited on specific frequencies, and VLP client devices would operate only under the control of VLP access points. These geofenced VLP devices would be a new class of higher-power VLP devices in addition to those we are permitting in the *Second Report and Order*. We also seek comment on whether we should relax the restrictions on mobile use of VLP devices (e.g., on aircraft and oil platforms). In addition, we seek comment on whether we could allow VLP devices that operate without a geofencing system in the U-NII-6 and U-NII-8 bands in addition to the U-NII-5 and U-NII-7 bands where the *Second Report and Order* permits them to operate.⁴²⁵ As the Commission stated in the *Policy Statement*, “[r]elevant information about services’ transmitter and receiver standards, guidelines, and operating characteristics is needed to promote effective spectrum management and efficient co-existence.”⁴²⁶ Thus, going forward, we encourage representatives from the unlicensed device community and those representing the incumbent services to work collaboratively and provide relevant information on their systems to the Commission to allow us to continue to refine our rules for the 6 GHz band and to ensure that equipment designed for and used in the 6 GHz band can fully function within the spectral environment.

A. Power Limits for Geofenced VLP Devices in the U-NII-5 through U-NII-8 Bands

105. As discussed above in the *Second Report and Order*, we are permitting VLP devices to operate at power levels up to -5 dBm/MHz EIRP PSD and up to 14 dBm EIRP. Apple, Broadcom, et al. request that we permit a higher maximum level of 1 dBm/MHz EIRP PSD with the same maximum total

⁴²⁴ Southern Company, AT&T, and UTC suggest that the Commission include in this Second Further Notice providing a means for incumbent licensees to recover the cost they incur from receiving harmful interference from 6 GHz unlicensed devices. Southern Company Oct. 10, 2023 *Ex Parte* at 2-3; AT&T Oct. 11, 2023 *Ex Parte* at 3; UTC Oct. 12, 2023 *Ex Parte* at 2. This request was included in a rulemaking petition filed by a group of organizations representing 6 GHz band microwave licensees which the Commission intends to consider at a future date. Petition for Rulemaking of the Utilities Technology Council, American Gas Association, Edison Electric Institute, American Petroleum Institute, American Public Power Association, American Water Works Association, National Rural Electric Cooperative Association, International Association of Fire Chiefs, The Association of American Railroads, APCO International, Nuclear Energy Institute, and the National Public Safety Telecommunications Council, ET Docket No. 18-295, at 11-13 (filed Dec. 7, 2021).

⁴²⁵ 47 CFR § 15.407(a)(4).

⁴²⁶ *Id.* at 3, para. 5 (emphasis omitted); *accord id.* at 11-12, paras. 37-40.

power of 14 dBm EIRP, which they contend would enable important new VLP devices while protecting incumbent operations.⁴²⁷ This PSD level would permit VLP devices to operate at the maximum 14 dBm EIRP levels for any channel bandwidth greater than 20 megahertz, whereas under the rules we are adopting in the Second Report and Order that maximum EIRP level can only be achieved for 80 megahertz and wider channel bandwidths. Based on the record and our analysis of that record, we declined to adopt rules permitting VLP devices to operate at this requested level of 1 dBm/MHz EIRP PSD at this time. However, we believe that we can leverage the AFC systems for use within a framework that combines higher power operation with geofencing to keep these higher powered VLP devices in locations where there have an insignificant potential to cause harmful interference to other users in the band. We note that these proposals are not intended to curtail the VLP use we are adopting in the Second Report and Order. We are fully satisfied that VLP devices operating at -5 dBm/MHz EIRP PSD in the U-NII-5 and U-NII-7 bands will protect incumbent operations and we do not seek comment on these existing rules. Rather, these proposals are designed to explore the possibility for providing more flexibility for higher power use at the expense of additional complexity to implement and use a geofencing capability so that additional use cases and applications can be brought to the American public.

1. In-band Power Limits

106. We believe that we could allow geofenced VLP devices to operate at the higher PSD level suggested by Apple, Broadcom, et al. if we require certain frequency and geographic area restrictions, specifically, that VLP devices with higher PSD be prohibited from operating co-channel and in close proximity to licensed incumbent services receive sites. Accordingly, we propose to allow VLP devices to operate in the U-NII-5 through U-NII-8 bands at a level greater than -5 dBm EIRP PSD and 14 dBm EIRP, specifically up to 1 dBm EIRP PSD and 14 dBm EIRP, provided they operate under the control of a geofencing system to minimize the likelihood of harmful interference to licensed incumbent services. Under this system, geofenced VLP devices would be required to incorporate a capability to ensure that they avoid transmitting on certain channels within certain geographic areas, i.e., this is analogous to erecting a fence to prevent VLP devices from operating on certain channels within certain geographic areas, hence the descriptive term “geofencing system.” While a geofencing system is not identical to an AFC system that several parties requested be required for VLP device operation,⁴²⁸ it will provide similar protection to licensed incumbent operations.

107. We seek comment on these proposals. Should we allow VLP devices to operate with up to 1 dBm EIRP PSD and 14 dBm EIRP, provided they are prevented from operating in areas where there is an elevated risk of harmful interference? What are the advantages and disadvantages of allowing a higher PSD limit? What additional VLP applications could be enabled by this proposed increase? Could we allow a power limit higher than 14 dBm EIRP, e.g., up to 21 dBm EIRP, as suggested by some commenters?⁴²⁹ What are the advantages and disadvantages of a higher power limit? Would higher power limits result in higher data usage and if so by how much? Would a higher power limit create new use cases for VLP? Would even higher PSD and EIRP limits increase the risk of harmful interference to licensed incumbent services, and would the proposed geofencing system described below be sufficient to reduce this risk? What are the costs and benefits of requiring higher power VLP devices to operate under a geofencing system? How would the additional benefits of geofenced U-NII-6 and U-NII-8 operations compare to the benefits we estimate for non-geofenced U-NII-5 and U-NII-7 operations in the Second Report and Order? Would the power level increase that we propose provide a sufficient incentive for equipment manufacturers to develop geofencing systems?

⁴²⁷ Apple, Broadcom et al. Comments Attachs. A, B, C (filed June 29, 2020).

⁴²⁸ See *supra* footnote 304.

⁴²⁹ Apple, Broadcom et al. Comments at 3-10 (filed June 29, 2020). With a PSD limit of 1 dBm/MHz EIRP, a VLP device would have to operate with a channel bandwidth of approximately 125 MHz to achieve an EIRP of 21 dBm.

2. Transmit Power Control

108. Consistent with the rules we adopt for VLP devices in the Second Report and Order, we propose to require geofenced VLP devices operating within the U-NII-5 through U-NII-8 bands to employ a transmit power control mechanism that has the capability to operate at least 6 dB below the maximum EIRP we permit for the bands (e.g., 14 dBm or 21 dBm). Because geofenced VLP devices do not yet exist and we do not know what specific transmit power control algorithm these devices may employ, we do not propose any specific requirements in our rules as to how the transmit power control algorithm of the VLP devices will function. We do not expect that adopting this transmit power control requirement will present an undue burden on geofenced VLP device manufacturers since these are expected to be battery-powered devices that are likely to employ transmit power control to conserve battery power. In the Second Report and Order, we require VLP devices to employ a transmit power control mechanism with the capability to operate at least 6 dB below the permitted power level.⁴³⁰ Because many VLP devices will be capable of both geofenced and non-geofenced operation, these devices will by necessity incorporate the ability to implement at least a 6 dB power reduction. Nevertheless, we seek comment on whether a different transmit power control requirement may be appropriate for geofenced VLP devices. Is there a need to specify any additional transmit power control requirements for geofenced VLP devices that we propose could operate at a higher power than VLP devices? For example, should the Commission adopt a different requirement along the lines of the European requirement in the 5250-5350 MHz and 5470-5725 MHz bands? That requirement specifies that transmit power control shall provide, on average, a mitigation factor of at least 3 dB on the maximum permitted output power of the systems; or, if transmit power control is not in use, then the maximum permitted mean EIRP and the corresponding mean EIRP density limit shall be reduced by 3 dB.⁴³¹ What information should manufacturers be required to include in their application for certification to show compliance with a transmit power control requirement, e.g., an attestation of compliance, a detailed operational description, actual equipment test data? What are the advantages and disadvantages of requiring a transmit power control mechanism in terms of spectrum efficiency, costs, and complexity? Commenters who favor the European requirement should provide specific information regarding how such an requirement could be implemented, verified during the equipment certification process, and enforced. What ramifications, if any, would arise if there were differing transmit power control requirements for VLP devices and geofenced VLP devices?

3. Emission Mask

109. We propose to require emissions from geofenced VLP devices within the U-NII-5 through U-NII-8 bands to comply with the transmission emission mask adopted for standard power and LPI devices in the *6 GHz Order*⁴³² and for VLP devices in the Second Report and Order.⁴³³ That is, the power spectral density would have to be suppressed by 20 dB at one megahertz outside of an unlicensed device's channel edge, suppressed by 28 dB at one channel bandwidth from an unlicensed device's channel center, and suppressed by 40 dB at one and one-half times the channel bandwidth away from an unlicensed device's channel center.⁴³⁴ At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits would be linearly interpolated between the 20 dB and 28 dB suppression levels.⁴³⁵ At frequencies between one and

⁴³⁰ See *supra* para. 56.

⁴³¹ See ECC Decision (04)08, On the harmonised use of the 5 GHz frequency bands for Wireless Access Systems including Radio Local Area Networks (WAS/RLAN), amended 1 July 2022, available at: <https://docdb.cept.org/download/4053>.

⁴³² *6 GHz Order*, 35 Rcd at 3924-25, para. 196.

⁴³³ See *supra* para. 86.

⁴³⁴ *6 GHz Order*, 35 Rcd at 3925, para. 196.

⁴³⁵ *Id.*

one and one-half times an unlicensed device's channel bandwidth from the center of the channel, the limits would be linearly interpolated between the 28 dB and 40 dB suppression levels.⁴³⁶ Emissions removed from the channel center by more than one and one-half times the channel bandwidth, but within the U-NII-5 and U-NII-8 bands, would have to be suppressed by at least 40 dB.⁴³⁷ Because geofenced VLP devices would operate in the same bands and on the same channels as VLP devices, LPI and standard power 6 GHz devices and need to protect the same incumbent operations, we believe that using the same emission mask for geofenced VLP devices as we adopted for VLP devices, LPI and standard power devices is appropriate. Using the same mask would ensure that licensed incumbent operations are fully protected from unlicensed adjacent channel operations. Moreover, by specifying the same emission requirements, we anticipate that these requirements would act to reduce costs by permitting all devices throughout the VLP ecosystem to use the same filters and benefit from economies of scale for their acquisition.

4. Emission Limits Outside the U-NII-5 and U-NII-8 Bands.

110. We propose emissions limits at the edge of the U-NII-5 and U-NII-8 bands for geofenced VLP devices that are identical to the emissions limits that we adopted in the *6 GHz Order* and the Second Report and Order.⁴³⁸ Specifically, we propose a -27 dBm/MHz EIRP limit for 6 GHz VLP devices at frequencies below the bottom of the U-NII-5 band (5.925 GHz) and above the upper edge of the U-NII-8 band (7.125 GHz), but propose to not require it between the sub-bands, i.e., between the U-NII-5 and U-NII-6, the U-NII-6 and U-NII-7, and the U-NII-7 and U-NII-8 bands; those emissions would be subject to the emission mask and OOB limits proposed above.⁴³⁹ These limits are intended to protect cellular vehicle-to-everything (C-V2X) operations below the 6 GHz band and federal operations above the band. The Commission previously determined that the -27 dBm/MHz limit will sufficiently protect C-V2X operations from harmful interference from U-NII devices operating in other bands.⁴⁴⁰ Because geofenced VLP devices could be mobile and potentially used near C-V2X operations, to help protect these services below the U-NII-5 band from harmful interference, we propose to require that geofenced VLP devices prioritize spectrum above 6105 MHz, as we required in the Second Report and Order for VLP devices.⁴⁴¹

111. We seek comment on the proposed emission mask and the proposed emission limits outside the U-NII-5 and U-NII-8 bands. Are these limits appropriate for geofenced VLP devices? Would they adequately protect licensed incumbent services, both within and outside of the U-NII bands? Would different emission limits be more appropriate? If so, what limits should we require and why? Is a requirement for geofenced VLP devices to prioritize spectrum use above 6105 MHz necessary? What are the costs and benefits of the proposed emission mask and limits? Would requiring the same emission limits for geofenced devices that we require for non-geofenced VLP devices reduce the cost of compliance with the emission mask?

B. Geofencing System for Geofenced VLP Devices in the U-NII-5 through U-NII-8

⁴³⁶ *Id.*

⁴³⁷ *Id.*

⁴³⁸ 47 CFR § 15.407(b)(6); *6 GHz Order*, 35 Rcd at 3925, para. 197.

⁴³⁹ *See supra* para.86.

⁴⁴⁰ *6 GHz Order*, 35 FCC Rcd at 3925-26, paras. 197-98 (recognizing that -27 dBm/MHz is the appropriate out-of-band emission limit and that using a root-mean-square (RMS) measurement is sufficient to protect incumbent services from unlicensed 6 GHz devices.); *see Use of the 5.850-5.925 GHz Band*, ET Docket No. 19-138, First Report and Order, Further Notice of Proposed Rulemaking, and Order of Proposed Modification, 35 FCC Rcd 13440, 13474-76, paras. 80-83 (2020) (*5.9 GHz Order*); *see also Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, First Report and Order, 29 FCC Rcd 4127, 4158-60, paras. 114-20 (2014) (*5 GHz Order*); 47 CFR § 15.407(b)(6).

⁴⁴¹ *See supra* para. 94.

Bands

112. We propose to allow VLP devices to operate at a PSD greater than -5 dBm/MHz EIRP PSD, up to a maximum of 1 dBm/MHz EIRP PSD, when they operate under the control of a geofencing system to minimize the likelihood of causing harmful interference to licensed incumbent services.⁴⁴² The proposed geofencing system would ensure that geofenced VLP devices with greater than -5 dBm/MHz EIRP do not operate on the same channels as licensed incumbents inside of defined exclusion zones designed to minimize the potential for geofenced VLP devices to cause harmful interference. We propose requirements for geofencing systems and the criteria that would be used to calculate the exclusion zones as well as technical requirements for geofenced VLP devices. We also propose procedures for testing and approving geofencing systems to ensure that they would operate as intended and correctly restrict co-channel operation with licensed incumbents in the 6 GHz band at certain locations.

1. Requirement to use Geofencing

113. *Background.* Standard power access points and fixed client devices must register with and be authorized by an AFC system prior to their initial service transmission by providing their geographic coordinates, antenna height above ground level, FCC identification number, and manufacturer's serial number.⁴⁴³ They may transmit only on frequencies and at power levels as indicated by an AFC system.⁴⁴⁴ After registration, they must contact an AFC system at least once per day to obtain the latest list of available frequencies and the maximum permissible power the device may use on each frequency at their location.⁴⁴⁵ As discussed in the Second Report and Order, we are permitting VLP device operation at levels up to -5 dBm/MHz PSD EIRP and 14 dBm EIRP maximum without the use of an AFC or other database system because we determined that the risk of harmful interference to licensed incumbent services is insignificant at that power level.

114. *Discussion.* For VLP device operation at PSD levels higher than -5 dBm/MHz EIRP where the risk of harmful interference to incumbent services is elevated, we propose to require VLP access points to use a geofencing system to protect fixed microwave service, BAS, CARS, radio astronomy, and FSS receive sites in the 6 GHz band. We believe that this would be an effective approach to protecting licensed incumbent services since it could be implemented using the same methodology that the Commission previously developed for standard power access points and fixed client devices to protect these services. A geofencing approach, as opposed to requiring VLP devices to access an AFC system, could help preserve VLP device battery life by not requiring each device to re-check a database every time it moves, as is the case for standard power access points. Similarly, a geofencing approach could help protect user privacy since devices would not be required to report their location to a centralized system.⁴⁴⁶ A geofencing system would enable VLP devices to operate at PSD levels greater than -5 dBm/MHz EIRP to enable a variety of uses while protecting licensed incumbent services in the 6 GHz band. The Commission previously required certain types of devices to operate pursuant to a geofencing system. It adopted similar requirements to ensure protection to fixed service receivers in the 5925-6425

⁴⁴² As described below, a VLP access point (e.g., a smartphone) operates in the 5.925–7.125 GHz band and communicates with and receives authorization from a geofencing system to operate on certain frequencies. A VLP client device operates only under the control of a VLP access point.

⁴⁴³ 47 CFR § 15.407(k)(8)(i)-(ii). Devices must also re-register with the database if they are moved after initial registration. *Id.* § 15.407(k)(8)(ii).

⁴⁴⁴ *Id.* § 15.407(k)(8)(i).

⁴⁴⁵ 47 CFR § 15.407(k)(8)(iv). “If the standard power access point or fixed client device fails to successfully contact the AFC system during any given day, the standard power access point or fixed client device may continue to operate until 11:59 p.m. of the following day at which time it must cease operations until it re-establishes contact with the AFC system and re-verifies its list of available frequencies and associated power levels.” *Id.*

⁴⁴⁶ We note that device manufacturers could opt to use a system that requires very low power devices to report their position to a centralized source.

MHz portion of this band when it granted Higher Ground a blanket earth station license to operate SatPaqs on a non-interference basis through an automated frequency coordination system basis to enable cellphones to communicate with FSS space stations.⁴⁴⁷ Additionally, the Commission permits unlicensed white space devices to operate in certain bands subject to their use of a geofencing system to protect licensed incumbent services.⁴⁴⁸

115. We propose to protect licensed services in the 6 GHz band by prohibiting geofenced VLP access points with power levels greater than -5 dBm/MHz EIRP PSD from operating on certain channels within defined exclusion zones around the sites where licensed incumbent services operate. The geofencing system would prevent a VLP access point from operating on the frequencies within these exclusion zones where there may be a higher risk of causing harmful interference. We propose that the exclusion zones be determined based on the operational frequency being used by the incumbent service licensee as well as the power of the geofenced VLP access point. A geofenced VLP access point located within an exclusion zone would be prohibited from operating only on the specific frequencies excluded within that zone and would be permitted to operate on any other frequencies that are available at its location at the maximum power level permitted. Depending on the number of incumbent licensees in an area and the size of the exclusion zones, a geofenced VLP access point could fall within multiple overlapping exclusion zones at a particular location. In such cases, the device would have to avoid all excluded frequencies for all the overlapping zones in which it is located. To provide manufacturers flexibility in developing geofencing systems, we propose that geofencing systems may also determine areas where particular frequencies are available throughout the entire area based on the same protection criteria used to calculate exclusion zones. Each approach may have advantages in terms of spectrum availability or device complexity, so permitting either approach would provide manufacturers with the ability to determine the most suitable implementation for a specific use case.⁴⁴⁹ The proposed methodology for calculating exclusion zones is described below.

116. We seek comment on these proposals. Is a geofencing system necessary to minimize the likelihood of harmful interference from VLP devices with a PSD greater than -5 dBm/MHz EIRP to licensed incumbent services in the 6 GHz band? Is the proposed method of using exclusion zones around licensed incumbent receive sites an appropriate way to protect these sites? Would the proposed alternative method allowing geofencing operators to calculate zones in which a channel is available over an entire zone provide the same protection to incumbent services as determining exclusion zones in which

⁴⁴⁷ See *Higher Ground LLC; Application for Blanket Earth Station License*, IBFS File No.: SES-LIC-20150616-00357, Call Sign: E150095, Order and Authorization, 32 FCC Rcd 728, 739-741, paras. 38-40 (2017). In that Order and Authorization, the Commission permitted Higher Ground to operate up to 50,000 SatPaq earth stations subject to using an automated frequency coordination system with a maximum 9 dBW EIRP/Carrier and a maximum -24 dBW/4 kHz EIRP density/Carrier (this equates to 0 dBW/MHz/Carrier or 30 dBm/MHz/Carrier) over any 8 megahertz band with a limit of no more than 100 SatPaqs operating concurrently and with a maximum 9 dBW EIRP/Carrier and a maximum -21 dBW/4 kHz EIRP density/Carrier (this equates to 3 dBW/MHz/Carrier or 33 dBm/MHz/Carrier) over any 4 megahertz band with a limit of no more than 50 SatPaqs operating concurrently. Note that these power levels are substantially higher than the power levels we are permitting for VLP devices here.

⁴⁴⁸ See 47 CFR § 15.711(d)(5) (permitting a Mode II personal/portable white space device to operate within a bounded area in which channel availability information has been calculated at all locations within the area); 47 CFR § 15.711(k)(1) (permitting mobile white space devices to operate within geo-fenced areas over which the white space database has determined channel availability).

⁴⁴⁹ Determining exclusion zones would make the most spectrum available for a device since it would be prohibited from operating only on specific frequencies in limited areas close to licensed incumbent receive sites, but the device would have to be capable of storing information on all exclusion zones and prohibited frequencies in the area where it will operate. Determining frequencies that are available at every point within a bounded area could be simpler to implement in a device since the device would only need to store information on the boundaries of the zone where operation is permitted and the available frequencies within that zone. However, this approach could result in less available spectrum for a device since a frequency that is excluded at any point within the device's operating area would have to be excluded everywhere in that area.

one or more channels are unavailable? Should we permit use of either method, or is one method preferable to the other, and if so, why? How would the benefits of higher power VLP operations in the 6 GHz band vary with differences in exclusion zone design?

117. We also seek comment on whether an approach other than geofencing, such as requiring the use of an AFC system for higher power VLP devices, would be more appropriate. What are the advantages and disadvantages of requiring a geofencing approach for protecting licensed services as opposed to other approaches? What are the benefits and costs of the various approaches for the public, unlicensed devices manufacturers, and incumbent users of the 6 GHz band? Are there any other factors that the Commission should consider in determining whether to require use of a geofencing system for VLP devices with a PSD greater than -5 dBm EIRP? Commenters advocating for the proposed approach or any alternatives should provide details explaining why their desired approach is most beneficial for enabling these higher powered geofenced VLP devices.

2. Geofencing Architecture

118. *Definition of geofenced VLP devices.* We propose to define a geofenced VLP access point as an access point that operates in the 5.925–7.125 GHz band, has an integrated antenna, and uses a geofencing system to determine channel availability at its location. We propose that these devices could simultaneously operate as clients to other access points or telecommunications systems (e.g., low-power indoor access points, standard power access points, other U-NII band access points, commercial telecommunication carriers' networks, etc.) and very low power access points. We believe that this definition adequately describes the types of VLP devices that could operate under a geofencing system, and the proposed requirement for an integrated antenna, which is consistent with the current rules for indoor access points and subordinate devices, will help ensure that geofenced VLP devices cannot be easily modified to increase their EIRP.⁴⁵⁰

119. We propose to require that geofenced VLP access points obtain or calculate the exclusion zones—where some operational restrictions are required—that will protect licensed services, have the capability to determine their location, and intelligently choose their operating channel to avoid operating on a prohibited frequency within an exclusion zone. We further propose to require that client devices operating under the control of a geofenced VLP access point operate only on channels as determined by its connected geofenced VLP access point. Under these proposals, client devices would not be required to directly obtain or calculate exclusion zone information as they would only be operating on channels already cleared through the geofenced VLP access point. The same client devices may also be capable of operating under the control of LPI access points and standard power access points, in which case the client devices must adjust their power levels depending on which type of access point they are connected to. That is, when connected to an LPI access point or standard power access point, the client device would have to follow the client device rules for those operations, which require those client devices to reduce their power at least 6 dB below the access point power level.⁴⁵¹ Because geofenced VLP access points and client devices would operate at lower power levels than standard power and LPI devices, thus reducing the distance at which harmful interference may possibly occur, we do not propose to require client devices to reduce their power below that of the access point and propose to limit both geofenced VLP access points and client devices operating under the control of a geofenced VLP access point to the same power levels.

120. We seek comment on these proposals. Is the proposed geofenced VLP two-tier model based on access points and client devices in which a geofenced VLP access point is required to obtain

⁴⁵⁰ 47 CFR § 15.407(a)(9).

⁴⁵¹ This is consistent with existing policy as articulated in the KDB guidance for 6 GHz devices, which provides for approval of composite devices where devices may require approval under multiple rule parts or sections. See KDB Pub. No. 987594 D01, U-NII 6GHz General Requirements v01r03, section V available at: <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=277034&switch=P#:~:text=987594-D01%20U%20NII%206GHz%20General%20Requirements%20v01r03,-provides%20general%20requirements>.

geofencing information, but the client device is not, appropriate? Is the proposed definition of VLP access point appropriate, or are different or additional definitions that better describe the types of permissible geofenced VLP devices necessary? Should all geofenced VLP devices be required to incorporate an integrated antenna? Should client devices be permitted to operate at a different power level than geofenced access points? Is there any need for a 6 dB power reduction for a client to a geofenced VLP device?

121. *System architecture.* We propose to allow geofencing systems for VLP devices operating at greater than -5 dBm/MHz flexibility in their design by permitting the use of either a distributed architecture or a centralized model. One possible architecture would have a centralized geofencing system calculate exclusion zones based on information obtained from Commission databases, e.g., the Universal Licensing System (ULS) and Cable Operations and Licensing System (COALS) databases, as well as the Commission's rules.⁴⁵² A VLP access point would contact this centralized geofencing system to download the exclusion zones and then manage its use of spectrum based on these areas. Another possible architecture would be for a VLP access point to regularly send its location to a centralized geofencing system, which would then inform the access point as to the channels it may use. Yet another possible architecture would be for the geofencing system to be integrated within a VLP access point. A VLP access point would download information about the licensed services to be protected from an external source. It would contain the data and software necessary to independently determine exclusion zones and manage its use of spectrum. We are not proposing specific details for the geofencing system architecture for VLP devices because we want to provide manufacturers with the flexibility to design appropriate geofencing systems for different equipment use cases, many of which may not be known at this time.

122. We seek comment on these proposals. How much flexibility should the Commission provide in geofencing system architecture? Should the Commission provide flexibility for different geofencing system implementations or should a single approach be specified? What are the benefits and drawbacks of each approach? How would costs for users of a geofencing system vary between different approaches? Is there a need to specify the overall framework of geofencing systems in more detail, e.g., whether they are centralized or decentralized? Do we need to provide more specific requirements for geofencing system architecture and if so, what requirements should be specified? Do we need to provide further details on the process that the Commission will use to approve geofencing systems, and if so, what additional details are necessary?

3. Protection of Incumbent Services

123. We propose requirements for geofenced VLP devices operating at greater than -5 dBm/MHz EIRP to protect licensed incumbent services in the 6 GHz band, specifically, fixed microwave services, BAS and CARS receive sites, as well as radio astronomy and FSS receive sites. Consistent with the requirements for standard power access points and fixed client devices, we propose that geofencing systems use data from Commission databases to protect fixed microwave services.⁴⁵³ We propose that BAS and CARS receive sites be protected using data provided by licensees, as described below. We further propose that geofenced VLP devices protect certain radio astronomy sites and FSS

⁴⁵² AFC systems are designed to provide lists of available channels and power levels to standard power access points and fixed client devices in the U-NII-5 and U-NII-7 bands at the single set of geographic coordinates where a device is registered. 47 CFR § 15.407(k)(4). Additional functionality would have to be added to an AFC system to enable it to provide information to very low power access points on the boundaries of the geofenced exclusion zones where they are prohibited from operating on certain frequencies, and to include the U-NII-6 and U-NII-8 bands to protect BAS receive sites when determining these exclusion zones. It is important to note that the relevant data to calculate the exclusion zones is currently in multiple Commission databases (i.e., ULS database is for fixed microwave and BAS, and COALS database is used for CARS). The requirements for protecting radio astronomy and fixed satellite receive sites are in section 15.407(q)-(r) of the amended rules and the coordinates of the radio astronomy sites are in section 2.106(c)(131), (c)(385) (United States footnotes US131 and US385).

⁴⁵³ 6 GHz Order, 35 FCC Rcd at 3864, para. 30; see 47 CFR § 15.407(k)(3).

receive sites as provided in the Commission's rules.⁴⁵⁴ Geofenced VLP operations, like all other unlicensed 6 GHz band operations, would have to comply with international agreements with Canada and Mexico.⁴⁵⁵

124. *Fixed microwave services protection.* We propose to require geofencing systems to follow the same criteria for protecting fixed and temporary fixed microwave receive sites used for standard power access points and fixed client devices.⁴⁵⁶ Specifically, we propose that geofenced VLP device exclusion zones be calculated based on the -6 dB I/N interference protection criterion used in the *6 GHz Order*, where N (noise) represents the background noise level at the fixed microwave receiver, and I (interference) represents the co-channel signal from the VLP device at the fixed microwave service receiver.⁴⁵⁷ The Commission noted in the *6 GHz Order* that use of this metric is a conservative approach that will ensure that the potential for harmful interference to the fixed microwave services is minimized and that the important fixed microwave services in the 6 GHz band are protected.⁴⁵⁸

125. We also propose to allow an assumption of 4 dB for body loss in the exclusion zone calculations because of our finding, discussed in the Second Report and Order, that due to the nature of VLP devices and how they will be used, an additional 4 dB attenuation for body loss is appropriate when analyzing the potential effect of their emissions.⁴⁵⁹ We do not propose to consider aggregate interference from geofenced VLP devices since they will operate at a significantly lower power level than standard power access points and fixed client devices for which the Commission previously determined that an aggregate interference limit is not necessary.⁴⁶⁰

126. We seek comment on these proposals. Are the proposed interference metric and body loss assumption appropriate? Would other values be more appropriate? Are there other parameters in addition to body loss that should be accounted for when determining exclusion zones (e.g., transmit power control)? Commenters who advocate for additional parameters should specify the parameters, appropriate values, and a detailed justification for why that parameter and value are appropriate. We seek estimates of the benefits and costs of different parameter proposals. We also seek comment on whether there is a need for an aggregate interference limit. If so, what is the appropriate limit and why? How could we enforce an aggregate interference limit using a geofencing system? Would a centralized system be required and if so, who would build and run such a system?

⁴⁵⁴ 47 CFR §§ 15.407(m), 2.106(c)(131), (c)(385) (United States footnotes US131 and US385).

⁴⁵⁵ 47 CFR § 15.407(k)(14).

⁴⁵⁶ VLP devices will be required to accommodate temporary fixed microwave stations similar to the requirement for standard power devices. *6 GHz Order*, 35 FCC Rcd at 3865, para. 32. The term "fixed microwave services" in this Second Report and Order includes temporary fixed stations. See *Wireless Telecommunications Bureau Announces that Temporary Fixed Stations in the 6 GHz Band Can Now Be Registered*, Public Notice, DA 23-814 (WTB Sep. 6, 2023).

⁴⁵⁷ See 47 CFR § 15.407(l)(2).

⁴⁵⁸ *6 GHz Order*, 35 FCC Rcd at 3878, para. 71. The WinnForum created a consensus functional requirements document for 6 GHz band AFC systems which contains details for implementing the Commission's rules for standard power devices operating under the control of an AFC system. This document includes default input values as well as options for certain propagation model values depending on the amount of information known regarding the fixed service receiver. Wireless Innovation Forum, *Functional Requirements for the U.S. 6 GHz Band under the Control of an AFC System*, WINNF-TS-1014 Version V1.3.0 (Mar. 9, 2023), https://winnf.memberclicks.net/assets/work_products/Specifications/WINNF-TS-1014.pdf. We appreciate the work that industry stakeholders have done to implement the AFC systems and encourage them to continue this collaboration to implement geofencing systems for 6 GHz band very low power devices.

⁴⁵⁹ See *supra* para. 40.

⁴⁶⁰ *6 GHz Order*, 35 FCC Rcd at 3879, para. 72.

127. We propose to require geofencing systems to use the same propagation models that are used for standard power access points and fixed client devices to determine the VLP device exclusion zones.⁴⁶¹ Specifically, we propose to require geofencing systems to use the free space path-loss model at separation distances of up to 30 meters, the Wireless World Initiative New Radio phase II (WINNER II) model at separation distances greater than 30 meters and up to and including 1 kilometer, and the Irregular Terrain Model (ITM) combined with the appropriate clutter model at separation distances greater than 1 kilometer.⁴⁶² Where such data are available, we propose that the exclusion zone calculation use site-specific information, including buildings and terrain data, for determining the line-of-sight/non-line-of-sight path component in the WINNER II model.⁴⁶³ For evaluating paths where such data are not available, we propose that the calculation use a probabilistic model combining the line-of-sight path and non-line-of-sight path into a single path-loss as set forth in the requirements for AFC systems.⁴⁶⁴ We believe that these propagation models are appropriate for determining exclusion zones for geofenced VLP access points for the same reasons that they are appropriate for determining channel availability for standard power devices described in the *6 GHz Order*.⁴⁶⁵ We propose that these propagation models be implemented to determine the exclusion zones consistent with the way that they are being used to determine standard power device exclusion zones and consistent with the consensus methodology WinnForum published for AFC systems, which permits certain allowances for feeder loss and antenna mismatch.⁴⁶⁶ Each of these models could be used at the antenna height above ground (1.5 meters) that we assumed for VLP operation in the Second Report and Order.⁴⁶⁷

128. We seek comment on these proposals. Are the proposed propagation models appropriate for calculating geofenced VLP device exclusion zones? Could we allow the use of different propagation models for calculating geofenced VLP device exclusion zones or simplify the methodology in some way? For example, could we require use of a single propagation model, such as ITM, for all distances? If so, what is the appropriate propagation model? If we specify a different propagation model for determining exclusion zones, should we make its use mandatory or should it be an optional alternative to the proposed propagation models? Parties should address how a different propagation model would ensure that incumbent services in the 6 GHz band are adequately protected. We also seek comment on the benefits and costs of requiring or allowing the use of different propagation models. Could this approach reduce

⁴⁶¹ 47 CFR § 15.407(l)(1).

⁴⁶² *Id.*

⁴⁶³ 47 CFR § 15.407(l)(1)(ii).

⁴⁶⁴ *Id.*

⁴⁶⁵ *6 GHz Order*, 35 FCC Rcd at 3875-77, para. 64-66. The free space path loss model is appropriate at short distances where the potential for a direct line-of-sight between an unlicensed device and a microwave receiver is greatest, and at greater distances (up to 1 kilometer) where the free space model may be overly conservative the WINNER II model is more appropriate because it accounts for obstructions by urban and suburban clutter which the free space model does not. *Id.* at 3875-76, paras. 64-65. The ITM model, which is defined at distances greater than 1 kilometer, is a widely accepted model that has been successfully used by the Commission to model interference in other instances. *Id.* at 3876-77, para. 66.

⁴⁶⁶ 47 CFR § 15.407(l)(1); Functional Requirements for the U.S. 6 GHz Band under the Control of an AFC System, Document WINNF-TS-1014, available at https://winnf.memberclicks.net/assets/work_products/Specifications/WINNF-TS-1014.pdf.

⁴⁶⁷ NTIA Report 82-100, A Guide to the Use of the ITS Irregular Terrain Model in the Area Prediction Mode, at 7 (1982), https://www.ntia.gov/sites/default/files/publications/ntia_82-100_20121129145031_555510_0.pdf (showing that the ITM model can be used with an antenna height above ground as low as 0.5 meters); Information Society Technologies (IST), WINNER II Channel Models D1.1.2 V1.2, at 16-17 (2008), https://www.researchgate.net/publication/234055761_WINNER_II_channel_models (showing that the WINNER II model can be used with antenna heights of 1-2 meters above ground). The free space path loss model does not directly consider the antenna height above ground but rather determines path loss based on the line-of-sight distance from the transmit antenna to a specific point and can be used when the antenna height above ground is 1.5 meters.

the size of the exclusion zones where geofenced VLP devices are prohibited from operating on certain frequencies?

129. We also seek comment on whether there are land-use databases that could account, for example, for actual buildings and other structures, especially in cities and suburbs, that could allow a more accurate determination of where VLP devices can operate without causing harmful interference? If so, what databases are available for this purpose? If this information is not available, would it be possible for parties to develop it, either nationwide or for specific areas? Could we allow modifications to any parameters used in the specified propagation models, and if so, which ones? If we allow modifications to the method of determining spectrum availability for VLP devices, what criteria would the Commission have to specify in the rules? Would we need to develop a process for modifying the locations where VLP devices can and cannot operate? Should a geofencing system operator be required to obtain prior permission from the Commission to use a modified methodology, or could the Commission adopt rules that do not require operators to obtain prior permission?

130. *Electronic news gathering central receive site protection.* We propose to require that geofencing systems protect BAS and CARS operations in the U-NII-6 and U-NII-8 bands, including low power auxiliary devices. Both U-NII-6 and U-NII-8 bands are used by mobile broadcast auxiliary services, including outdoor electronic news gathering (ENG) trucks and low power short range devices, such as portable cameras and microphones. Low Power Auxiliary Stations, which are licensed in portions of the U-NII-8 band, operate on an itinerant basis and transmit over distances of approximately 100 meters for uses such as wireless microphones, cue and control communications, and TV camera synchronization signals.⁴⁶⁸ ENG trucks transmit video programming, generally using telescoping directional antennas that are oriented toward a central receive site from remote sites, such as the location of news or sporting events, to a central receive site.⁴⁶⁹ According to the ITU, ENG collection sites are generally operated by TV networks in major city areas where the typical central collection site is located within the city center, on the roof of a high building (e.g., 150 m above the surrounding terrain) and that many TV networks also have alternative dedicated ENG collection sites mounted on their broadcast transmission towers.⁴⁷⁰ The ITU also states that these receive sites include both steerable antennas and fixed arrays that may have up to 360° of azimuthal coverage.⁴⁷¹ The central receive sites, align with the locations of the ENG trucks. Hence, the communication link between the ENG truck and central receive site shares many of the characteristics of a fixed microwave link—i.e., they use directional antennas to send signals between two fixed locations that are located mostly above the local clutter—and can be protected by the geofencing system by creating exclusion zones to protect the receiver at the central receive site. Due to the steerable nature of the central receive antennas, would exclusion zones surrounding central receive sites need to be circular to ensure protection in all directions, or could they be only part of a circle, i.e., less than 360 degrees, if they only receive from specific directions and the directional pattern and range of orientations of the receive antenna are known?⁴⁷²

131. Because links from ENG trucks to BAS and CARS receive sites are essentially temporary fixed point-to-point links, we propose the use of the same -6 dB I/N interference protection criterion and propagation models along with an additional 4 dB body loss consistent with our proposal for calculating geofenced VLP device exclusion zones for fixed microwave links. Since BAS and CARS operations are

⁴⁶⁸ 47 CFR pt. 74, subpt. H.

⁴⁶⁹ These are referred to as “TV pickup stations” in the part 74 rules. 47 CFR § 74.601(a).

⁴⁷⁰ See Recommendation ITU-R F.1777-3 (02/2022), “System characteristic of television outside broadcast, electronic news gathering and electronic field production in the fixed service for use in sharing studies” at 3-4. ITU Recommendation ITU-R F.1777-3 is available at https://www.itu.int/dms_pubrec/itu-r/rec/f/R-REC-F.1777-3-202202-I!!PDF-E.pdf.

⁴⁷¹ *Id.*

⁴⁷² The Commission’s ULS database currently only has the capability to store receive antenna information as an attachment to an application and not in a machine readable format.

typically licensed for the entire band(s) in which they operate (i.e., U-NII-6, U-NII-8, or both), should geofenced VLP devices avoid operation across the entire band that a BAS/CARS site receives within the area where the interference protection criterion is calculated to be greater than -6 dB I/N unless more information about actual operations are known? Should the exclusion zones be circular when the directivity of the BAS/CARS receive antenna is not known?

132. A full record of BAS and CARS central receive sites would be needed in the Commission's licensing databases to calculate the geofencing exclusion zones.⁴⁷³ The Wireless Telecommunications Bureau, the Media Bureau, and the Office of Engineering and Technology could collect information from BAS and CARS licensees regarding locations and associated information for existing central receive sites to ensure that our databases are complete and up-to-date.⁴⁷⁴ We would not permit geofenced VLP unlicensed devices to operate in the U-NII-6 and U-NII-8 bands until after the Commission's databases are updated.⁴⁷⁵

133. We seek comment on these proposals. Although we are proposing to protect BAS/CARS using the -6 dB I/N ratio and 4 dB body loss assumption, we seek comment on whether a different metric or assumption is more appropriate? Are the propagation models we propose above to protect fixed microwave links also appropriate for BAS/CARS? Commenters should provide detailed technical justification and analysis. We seek comment on whether there are ways that we could reduce the size of the exclusion zones to protect BAS and CARS receive sites, limit the number of frequencies excluded within those zones, or limit receive site protection to only the specific times when they are in use. For example, should we require BAS and CARS users to notify a geofencing system of their ENG operations, and for the geofencing systems to incorporate a push notification feature or similar functionality to provide information (e.g., actual operating locations and frequency usage, on a near real-time basis) to VLP devices so that the exclusion zones in the U-NII-6 and U-NII-8 bands can be tailored to actual usage rather than all possible usage areas?⁴⁷⁶ What specific requirements would the Commission need to

⁴⁷³ BAS licensee information is contained in ULS, and CARS licensing information is contained in the Commission's Cable Operations and Licensing System (COALS).

⁴⁷⁴ This information may include location, antenna gain, antenna height, antenna make/model, antenna tilt, antenna azimuth and beamwidth (if applicable), and equipment make/model.

⁴⁷⁵ We seek comment below on whether non-geofenced VLP operations can be permitted at lower power levels (i.e., up to -5 dBm/MHz EIRP PSD) in the U-NII-6 and U-NII-8 bands.

⁴⁷⁶ The Commission previously adopted rules to enable spectrum sharing where spectrum users with higher priority may begin operation on short notice, thus requiring users with lower priority to change frequency or cease operation. In the Citizens Broadband Radio Service, devices must operate under control of a SAS which is capable of rapidly managing spectrum use by three tiers of authorized users with different levels of priority. Devices are required to cease transmission, move to a different frequency or change power level within 60 seconds of notification by the SAS. 47 CFR § 96.39(c)(2). Unlicensed white space devices must operate only on frequencies that a database indicates are available at a device's location to protect operations in the TV bands, including licensed wireless microphones which may register for protection at any time. To ensure that newly registered licensed wireless microphones receive prompt protection, the Commission previously required the white space database to "push" changes in channel availability information to white space devices when a licensed wireless microphone registers to use a TV channel that is already in use by a white space device. The white space device must then change to a different channel or cease operation if no other channel is available. The Commission decided that requiring white space devices to re-check the database on a more frequent basis is simpler for manufacturers and database administrators to implement, so it replaced the push notification requirement with a requirement for more frequent database checks. However, because a push notification system could potentially be more efficient when the number of unlicensed devices that must contact a database is large, the Commission retained an option for manufacturers and database administrators to develop a push notification system in the future. *Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37; Amendment of Part 74 of the Commission's Rules for Low Power Auxiliary Stations in the Repurposed 600 MHz Band and the 600 MHz Duplex Gap, Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, Unlicensed White Space Device Operations in* (continued....)

specify for a push notification system? Would it be better for the Commission to simply require the geofencing system to provide updated exclusion zone information to devices within a defined time interval from the time it receives updated usage information, similar to the approach in the Citizens Broadband Radio Service, which requires devices to respond to instructions within a specific time limit,⁴⁷⁷ and allow device manufacturers to determine the most appropriate way to comply with this requirement?

134. We seek comment on the benefits of obtaining more detailed information from BAS/CARS licensees and limiting protection to only the associated exclusion zones and times that these services actually operate. We also seek comment on how much spectrum ENG operations typically use. The *Policy Statement* emphasized data-driven regulatory approaches to promote co-existence.⁴⁷⁸ In this regard, the Commission specifically noted that “[r]elevant information about services’ transmitter and receiver standards, guidelines, and operating characteristics is needed to promote effective spectrum management and efficient coexistence.”⁴⁷⁹ We therefore propose that BAS/CARS licensees be required to register their receive site information in Commission databases so that geofencing systems can use site-specific data to create appropriate exclusion zones for these sites. We seek comment on what information should be collected. Should it be limited to information currently collected by Commission databases, such as location, antenna height, antenna model, and azimuth, or are there other information fields that the Commission should collect? Is the current information in ULS and COALS appropriate for estimating the number of affected incumbents and their equipment? Could we use past activity on ULS and COALS systems to extrapolate the future number of necessary updates? We seek comment on this proposal and whether the Commission should conduct an information collection for these sites. Assuming that the Commission does initiate an information collection, what is an appropriate time frame over which to require licensees to provide their information?

135. We also seek comment on whether multiple ENG operations at a location use the same or different receive sites. What is the number of ENG operations that typically occur at a news event, sporting event, or other event where such operations may be used? And what is the maximum that might be used at larger national events such as political conventions or large scale sporting events? How much time do ENG operations typically need to transmit for these events? Is continuous operation required before, during, and after an event or only within discrete timeframes? Are there ways to predict when operation may be heaviest? Looking across these dimensions of time, location, and spectrum occupancy, how much additional spectrum, operating area, and time could this approach make available for VLP devices, as compared to assuming that ENG might always be operating within a circular or part of a circular area around an ENG receive site? How would this differ from a system where ENG operations simply preregistered their entire service areas and operating channels, but with no time limit to account for use at unscheduled breaking news events? If the specific location, antenna pattern, and look angle of an ENG receive antenna are known, is it necessary for the exclusion zone to be circular, or could we consider non-circular exclusion zones, such as keyhole shaped zones or arcs, to protect ENG receive sites? If we were to implement a registration requirement, should the ENG use be updated during in-use times or for non-real-time registration, or should the ENG use be updated on a regular basis? What is a reasonable time period for such updates? Can ENG operations be automated to inform a geofencing system when it is operating and on which channels and to which receive site it is broadcasting, or would registration have to be a manual process? What up-front and ongoing costs would be involved with setting up and using such a system and who would incur them?

136. Although we propose to allow either a distributed or centralized architecture model for VLP device geofencing systems, if we were to adopt a push notification or similar approach to protect

the Television Bands, Unlicensed Operation in the TV Broadcast Bands, ET Docket Nos. 14-165 and 20-36, GN Docket No. 12-268, 37 FCC Rcd 1384, 1393-97 (2022).

⁴⁷⁷ 47 CFR § 96.39(c)(2).

⁴⁷⁸ *Policy Statement* at 3, 11-13, paras. 5, 36-47.

⁴⁷⁹ *Id.* at 3, 11 paras. 5, 37 (emphasis omitted).

BAS/CARS based on actual usage, it appears that there would be a need for one or more centralized systems to register BAS/CARS usage and provide the information to geofencing systems.⁴⁸⁰ We seek comment on whether this would be necessary. If so, who would develop and operate these systems? How should any information be shared amongst geofencing systems? For example, in the white space rules, white space device operators are required to share registration information with all other database administrators.⁴⁸¹ Would such a requirement be necessary here? If so, how would data sharing work to ensure that all geofencing systems, both centralized and decentralized, have up-to-date information to protect ENG operations at scheduled and unscheduled events? What information should licensees be required to file and what procedure would they use to get their information to the system? Should licensees be required to file or update information within a specific timeframe? What would be the burden on licensees for filing this information? Could the filing process be automated? We seek comment on any other options for transmitting channel utilization information to geofencing operators. Are there any other factors that should be considered in this process? Finally, we seek comment on whether there should be any channels (e.g. one or two channels) set aside as a safe harbor for ENG operations in these bands where ENG could operate without risk of harmful interference from VLP devices at times when the operator could not register its parameters? If so, how much spectrum would need to be set aside for such operation? Would spectrum be needed in both U-NII-6 and U-NII-8? Are there particular places in the band that would be most useful; e.g., the top of the band, bottom of the band, middle of the band, or on the same spectrum permitted for satellite downlink operations?⁴⁸² Would such safe harbor be needed nationwide or only in certain areas (e.g., around large cities)? Commenters advocating such an approach should provide detailed information regarding ENG requirements and fully support their position with technical information.

137. We seek comment, especially quantitative, on the benefits and costs of requiring a push notification system. Should any particular protocol or security measures be required? To what extent would a push notification system permit service continuity for geofenced VLP devices, as compared to how often such users would need to modify their channel usage to avoid exclusion zones when those areas are tailored to the specific situation rather than assuming that ENG might always be operating within a circular or part of a circular area around an ENG receive site? How would data rates be affected? What would be the potential costs associated with establishing, maintaining, and operating the push notification system? In particular, we seek comment on the costs for BAS and CARS licensees to report their location information to enable push notifications.

138. *Low-power short range mobile device protection.* We propose that low power short range BAS and CARS devices, such as portable cameras and microphones, and Low Power Auxiliary stations be protected from harmful interference by a combination of a required contention-based protocol and low probability of a VLP device operating on the same channel in a nearby location. This proposal is consistent with the *6 GHz Order* in which the Commission required that all 6 GHz unlicensed LPI access points, subordinate devices, and client devices employ a contention-based protocol.⁴⁸³ Further, the *6 GHz*

⁴⁸⁰ The Commission's ULS would not be suitable for this purpose since it is updated only once daily.

⁴⁸¹ See 47 CFR § 15.715(l).

⁴⁸² Limited satellite downlinks are permitted in the U-NII-7 and U-NII-8 bands. See *supra* para. 8.

⁴⁸³ 47 CFR §§ 15.403, 15.407(d)(6). A contention-based protocol allows multiple users to share spectrum by providing a reasonable opportunity for the different users to transmit. *6 GHz Order*, 35 FCC Rcd at 3889, para. 101. In IEEE 802.11 standards, a "listen-before-talk" medium access scheme based on the Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) protocol functions as a contention-based algorithm to provide spectrum access to all traffic. *Id.* Under this scheme, before initiating any packet delivery, a station listens to the wireless medium and if the medium is idle, the station may transmit; otherwise, the station must wait until the current transmission is complete before transmitting. *Id.*

Order showed that the probability of channel overlap between 6 GHz unlicensed devices and incumbent station operations is low due to unlicensed devices having a full 1200 megahertz over which to operate.⁴⁸⁴

139. We believe that a similar approach for geofenced VLP devices will adequately reduce the risk that mobile service incumbents in the U-NII-6 and U-NII-8 bands will be subjected to harmful interference and keep that risk to an insignificant level. Our reasoning is consistent with the *6 GHz Order*, i.e., the sensing function associated with the contention-based protocol, along with the low probability for co-channel operation, is sufficient to ensure that geofenced VLP devices detect nearby mobile BAS operations and avoid transmitting co-channel to protect those operations from harmful interference.⁴⁸⁵ While we are not proposing a specific technology protocol or contention method, we propose to require geofenced VLP devices to use a contention-based protocol as we require for LPI devices.⁴⁸⁶ We believe that this proposal has additional benefits as it provides multiple geofenced VLP devices as well as LPI devices equal access to the spectrum, while protecting mobile incumbents' services. We also believe that the use of a contention-based protocol will limit the duty cycle of geofenced VLP devices as they will need to share the spectrum with other devices. Additionally, geofenced VLP devices would transmit at lower power levels than LPI devices, further reducing the risk of harmful interference to mobile services. Given all these reasons, we believe that requiring use of a contention-based protocol by geofenced VLP devices would protect mobile service incumbents.

140. We seek comment on this proposal. Would requiring geofenced VLP devices to incorporate a contention-based protocol adequately protect mobile service incumbents? If not, what other protection measures could be used by geofenced VLP devices to protect mobile services? For example, could a registration system with a push notification provide near real-time information to geofenced VLP devices to avoid transmitting near mobile BAS operations? Is there a need to provide greater specificity in the requirements for a contention-based protocol used by geofenced VLP devices? If so, what particular requirements should be specified and why? What are the costs and benefits of requiring the use of a contention-based protocol?

141. *Radio astronomy and fixed satellite protection.* We propose to require that geofencing systems implement the same exclusion zone rules for protecting radio astronomy sites in the 6650-6675.2 MHz band as standard power access points and fixed client devices, which are based on the distance to the radio horizon.⁴⁸⁷ The locations of the protected radio astronomy sites and the protection criteria for these sites are specified in the rules for standard power access points and fixed client devices.⁴⁸⁸ Additionally, the entire 6 GHz band is home to an FSS allocation (Earth-to-space), while the U-NII-8 band has a few space-to-Earth MSS feeder downlink earth stations operated by Globalstar.⁴⁸⁹ The only requirement the Commission adopted to protect the Fixed Satellite Service in the *6 GHz Order* was

⁴⁸⁴ See *6 GHz Order*, 35 FCC Rcd at 3901-02, para. 131, tbl. 6.

⁴⁸⁵ See *6 GHz Order*, 35 FCC Rcd at 3915, para. 168.

⁴⁸⁶ See KDB Publication No. 987594.

⁴⁸⁷ 47 CFR § 15.407(m).

⁴⁸⁸ *Id.*

⁴⁸⁹ 47 CFR § 2.106(b)(458)(ii), (d)(172) (non-federal government footnote NG172 and international footnote 5.458B). The space-to-Earth allocation is limited to use by non-geostationary mobile-satellite service feeder links and earth stations receiving in this band are limited to locations within 300 m of coordinates in Brewster, WA, Clifton, TX, and Finca Pascual, PR. *Id.* Globalstar also operates earth station receive sites at Naalehu, HI; Wasilla, AK; and Sebring, FL. These last two locations are authorized to operate on a co-primary basis for feeder downlinks for FSS, except for 7.025-7.055 GHz band, where they are authorized only on an unprotected basis. See GUSA Licensee LLC (Globalstar) license file numbers [SES-MOD-20210303-00414](#) and [SES-MOD-20210303-00415](#) for Wasilla, AK and license file numbers [SES-MOD-20200728-00811](#), [SES-RWL-20211102-01769](#), [SES-RWL-20211102-01770](#), and [SES-RWL-20211102-01775](#) for Sebring, FL. Each of these licenses is subject to the condition that operation in the 7.025-7.055 GHz band is on an unprotected basis.

restricting standard power access point EIRP to 21 dBm above a 30 degree elevation angle.⁴⁹⁰ Because we propose to limit geofenced VLP devices to 14 dBm EIRP and seek comment on a maximum EIRP of no greater than 21 dBm, we propose no additional restrictions to protect FSS Earth-to-space operations. We seek comment on these proposals.

142. Globalstar operates receiving earth stations for non-geostationary Mobile-Satellite Service feeder links at five locations.⁴⁹¹ We propose to require that geofenced VLP access points protect Globalstar's earth stations using the same exclusion zone calculation methodology used to protect radio astronomy sites. We propose to require the geofencing system to implement these exclusion zones over 6875-7055 MHz at each of Globalstar's five feeder link earth station locations. As these exclusion zones are designed to protect extremely sensitive radio astronomy facilities, we believe that they will provide more than adequate protection for Globalstar's earth stations.

143. We seek comment on this proposal. If different criteria are appropriate, what are the key parameters that must be considered to protect these earth stations? Are parameters such as minimum elevation angle from the earth station to the satellite, gain of earth station antenna, and earth station receiver characteristics readily available? Are Commission databases, such as the International Communications Filing System (ICFS),⁴⁹² able to collect the necessary parameters for calculating exclusion zones? If not, and given the limited number of these Earth stations in the U-NII-8 band, could exclusion zones around these Earth stations be determined based on generalized parameters? What should those parameter values be? Would earth station receivers require a different level of protection than the -6 dB I/N ratio used to protect other incumbents in the band? If so, what is the protection criterion? What would be the cost of implementing and maintaining necessary protections for space-to-Earth stations from geofenced VLP devices? We also seek information on the economic harm from interference that these protections would prevent. Commenters should provide technical analysis to support their positions.

144. *Adjacent channel protection.* We propose that exclusion zones for geofenced VLP access points account for only co-channel operations and not consider adjacent channel operations. We believe that this proposal is appropriate due to the significantly lower power we propose for geofenced VLP devices as compared to standard power and fixed client devices. The out-of-band emission rules for 6 GHz unlicensed devices require such emissions to be suppressed by 20 dB at 1 megahertz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center.⁴⁹³ When compared to standard power devices that may operate at EIRP levels up to 23 dBm/MHz and must meet the same OOB mask, VLP adjacent channel emissions begin at least 22 dBm below those standard power device OOB levels. Thus, VLP OOB levels must begin at -19 dBm/MHz at 1 megahertz outside the channel edge and reduce from that level with spectral distance.⁴⁹⁴ Moreover, we note that adding 20 dB or more additional emission reduction represents at least a tenfold reduction (assuming free space propagation) in distance along any radial for determining adjacent channel protection as compared to standard power device adjacent channel geofenced distances. In the *6 GHz Order*, the Commission concluded that the risk of

⁴⁹⁰ 47 CFR § 15.407(n).

⁴⁹¹ Globalstar indicates in its comments that it has earth stations located at Clifton, TX, Cabo Rojo, PR, Wasilla, AK, and Sebring, FL. Globalstar Comments, ET Docket No. 18-295 at 5 (filed Feb. 15, 2019). Globalstar subsequently received authorization for an additional earth station at Naalehu, HI. See GUSA Licensee LLC (Globalstar) license file numbers [SES-LIC-20201211-01364](#), [SES-LIC-20201211-01365](#), [SES-LIC-20201211-01366](#) ([granted July 2, 2021](#)).

⁴⁹² The ICFS was formerly known as the International Bureau Filing System (IBFS). Only its name has changed; the ICFS functionality remains identical to what was available in IBFS.

⁴⁹³ 47 CFR § 15.407(b)(7).

⁴⁹⁴ Because we are proposing to permit geofenced VLP devices to transmit at a 1 dBm/MHz maximum, a 20 dB reduction evaluates to -19 dBm/MHz.

adjacent channel interference to microwave receivers was low and stated that it expects these adjacent channel zones will be small and not significantly impact the amount of spectrum available to unlicensed devices at any given location, but included adjacent channel protection in the adopted rules for standard power devices as part of a conservative approach to protecting the incumbent receivers.⁴⁹⁵ Given the additional 22 dB in adjacent channel protection provided by geofenced VLP devices as compared to standard power devices, and the further reduction in protection areas size, we conclude that the risk of adjacent channel interference is so low as to not require geofencing systems to account for them. We seek comment on this proposal.

145. *Geofencing update interval.* We propose to require a geofencing system to obtain the most recent public access file data from Commission databases (e.g., ULS and COALS) for registered fixed microwave links and BAS/CARS central receive sites at least once per day and to recalculate the exclusion zones, as necessary, to account for any new or updated information.⁴⁹⁶ We believe that once per day would be an appropriate re-check interval because the ULS and COALS, which contain the data that will be used to determine the exclusion zones to protect fixed microwave services and BAS/CARS central receive sites, are generally updated on a daily basis, and a daily re-check requirement would also ensure that newly registered microwave receive sites and BAS/CARS central receive sites are promptly protected.⁴⁹⁷ We seek comment on this proposal. Is a daily update necessary, or recognizing that not many new stations get licensed on a daily basis and that there is often a lag between licensing and operation, could a longer interval be specified? If so, what update interval should be required? Conversely, as discussed above, could we or should we establish a process to update BAS/CARS information in a much shorter timeframe to enable more efficient use of spectrum in areas near BAS and CARS receive sites? How would the benefits and costs change with differing interval lengths?

4. Other Geofencing Requirements

146. We propose additional requirements for geofencing systems and operators that are similar to certain requirements for 6 GHz AFC systems.⁴⁹⁸ Specifically, we propose that each geofencing system and operator thereof for centralized systems and the equipment certification responsible party for systems internal to the very low power device must: (1) ensure that a regularly updated geofencing system database that contains the information required for geofencing systems by paragraphs (o) through (r) of proposed section 15.407, including incumbent's information and very low power access points authorization parameters, is maintained;⁴⁹⁹ (2) respond in a timely manner to verify, correct, or remove, as appropriate, data in the event that the Commission or a party presents a claim of inaccuracies in the geofencing system;⁵⁰⁰ (3) establish and follow protocols to comply with enforcement instructions from the Commission, including discontinuance of very low power access point operations on specified frequencies in designated geographic areas and predetermined exclusion zones;⁵⁰¹ and (4) comply with instructions from the Commission to adjust exclusion zones to more accurately reflect the potential for harmful interference.⁵⁰²

147. We further propose that for centralized geofencing systems, geofencing system operators must provide continuous service to all VLP devices for which it has been designated to provide service,

⁴⁹⁵ 6 GHz Order, 35 FCC Rcd at 3881, para. 77.

⁴⁹⁶ COALS does not currently support automated data access in the same manner as the ULS. OET and Media Bureau would ensure that the information in COALS is readily accessible to geofencing system operators.

⁴⁹⁷ 6 GHz Order, 35 FCC Rcd at 3869-70, para. 46.

⁴⁹⁸ See 47 CFR § 15.407(k).

⁴⁹⁹ See 47 CFR § 15.407(k)(15)(i).

⁵⁰⁰ See 47 CFR § 15.407(k)(15)(v).

⁵⁰¹ See 47 CFR § 15.407(k)(15)(vi).

⁵⁰² See 47 CFR § 15.407(k)(15)(vi).

and that if a geofencing system ceases operation, the operator must provide at least 30-days' notice to the Commission and a description of any arrangements made for those devices to continue to receive exclusion zone update information.⁵⁰³ In addition, we propose that a geofencing system operator may charge fees for providing service and that the Commission may, upon request, review the fees and can require changes to those fees if the Commission finds them to be unreasonable.⁵⁰⁴ We also propose that at the time that a VLP device receives equipment certification, the device must either have its geofencing system approved or specify an already approved geofencing system that it is using.⁵⁰⁵ We further propose that the Commission may specify criteria for such approval, which could require test results to be submitted.

148. We seek comment on these proposals. Are all the proposed requirements appropriate and necessary? Should we modify any of these proposed requirements or establish additional requirements for geofencing systems and operators? If so, what requirements are necessary? We seek quantitative analysis of the likely fee structure that would result under our proposal allowing fees. What would be the initial cost of developing a geofencing system and the ongoing cost of providing daily information to it? We also seek comment on how any fees would relate to usage or other costs of operating the geofencing system.

149. Finally, in light of the proposals to base higher power VLP operation on using a geofencing system, we seek comment on whether there are alternative methods to achieve the same result. Are there other technical or operational approaches that would similarly permit more flexible VLP operation while protecting incumbent operations? Commenters advocating for alternative approaches should provide specific detail regarding any alternative approach along with descriptions and analysis of how such an approach would protect incumbent operations.

C. Client-to-Client Device Communications

150. In the *6 GHz Order*, the Commission prohibited unlicensed client devices from operating as “mobile hotspots” because “[p]ermitting a client device operating under the control of an access point to authorize the operation of additional client devices could potentially increase the distance between these additional client devices and the access point and increase the potential for harmful interference to fixed service receivers or electronic news gathering operations.”⁵⁰⁶ To avoid this situation, the Commission’s rules prohibit 6 GHz unlicensed client devices from directly communicating with one another.⁵⁰⁷ We propose two limited exceptions to this rule for VLP devices that operate above the -5 dBm/MHz EIRP PSD level.⁵⁰⁸ First, we propose to permit higher powered VLP devices that are all operating under the control of the same LPI access point to directly communicate with each other. We further propose that these communications be limited to the LPI client device power spectral density level (i.e., 6 dB below the LPI access point power level) and the VLP device 14 dBm EIRP limit. Because both VLP devices under this approach would also meet the LPI requirements, we have assurance that their operations are indoors and thus that their emissions are subject to the same building entry loss as LPI devices. With their lower power limit, these client devices will have even lower potential to cause

⁵⁰³ See 47 CFR § 15.407(k)(10).

⁵⁰⁴ See 47 CFR § 15.407(k)(16).

⁵⁰⁵ See KDB Publication No. 987594. An applicant for certification of a standard power or fixed client device must indicate that its device will operate with an approved AFC system.

⁵⁰⁶ *6 GHz Order*, 35 FCC Rcd at 3927, para. 202.

⁵⁰⁷ 47 CFR § 15.407(d)(5) (stating that “[c]lient devices are prohibited from connecting directly to another client device”).

⁵⁰⁸ Under the rules adopted in the Second Report and Order, non-geofenced VLP devices are already permitted to communicate directly with each other. See para. 100, *supra*. In addition, we seek comment below on whether we could permit client-to-client device communications more broadly, including for LPI devices. See paras. 191-194, *infra*.

harmful interference to incumbent operations than the insignificant level the Commission already determined exists for LPI devices. This proposed exception could provide increased flexibility to a limited class of devices, such as laptop computers, that generally do not incorporate GPS or other geolocation technologies while protecting incumbent operations beyond levels that similar devices (i.e., LPI devices) already provide.

151. Second, we propose to permit direct client-to-client communications between VLP client devices when they are both under the control of the same VLP access point and the geofencing system determines that they are operating outside of any geofencing restrictions; i.e., there are channels available for VLP use that are not subject to geofencing requirements in the location where these devices are being used. The rules we propose for geofenced VLP devices would permit up to 1 dBm/MHz EIRP PSD and up to 14 dBm EIRP when operating on channels that are not within an exclusion zone.⁵⁰⁹ Thus, because each client device in this scenario would be permitted to operate at the maximum power permitted for VLP devices, there would be no increase in the potential for causing harmful interference to incumbent operations if the client devices being used are also able to communicate directly with each other. However, all VLP access points would still be subject to the applicable geofencing requirements including location and geofencing recheck intervals and switching channels or ceasing communications should they enter an exclusion zone and are currently using a channel that is prohibited within that area. In that case, client devices operating under the control of a VLP access point that switches channels would also be required to switch channels as directed by the VLP access point. This proposed limited exception, as with the first, could provide additional flexibility to implement novel VLP use cases without increasing the risk of harmful interference to incumbent operations.

152. We seek comment on these proposals. Are these proposed limited exceptions to the prohibition on client-to-client device communications appropriate? Would any other exceptions with respect to VLP devices be appropriate? Do we need to specify any additional requirements or limitations on client-to-client device communications? How much and what kinds of additional usage would these proposals create in client-to-client operations? Would these proposals impose any additional costs to users of the associated spectrum?

D. Very Low Power Device Requirements

153. In the *6 GHz Order*, the Commission established that an AFC system require a device's geographic coordinates—along with the accuracy of those coordinates—and the device's antenna height above ground to determine which channels are available for use at the device's location.⁵¹⁰ Standard power access points (APs) are required to contact an AFC system at least once per day, consistent with the frequency of the update to the ULS public access file, to obtain the latest lists of available channels at their locations.⁵¹¹ The daily update ensures that stationary unlicensed devices do not operate on a channel in proximity of a newly licensed fixed service receiver. Although VLP devices may be mobile or stationary, mobile VLP devices may move to different locations, potentially resulting in a changing available channel list. In lieu of an AFC system, we propose to require that geofenced VLP devices access a simpler geofencing system to prevent them from operating where there may be an elevated risk of causing harmful interference to licensed incumbent services in the 6 GHz band.⁵¹² Under this proposed geofencing system, geofenced VLP devices would have to incorporate provisions to ensure that they avoid transmitting on certain channels within certain geographic areas.

154. A mobile geofenced VLP device operating at a power level greater than -5 dBm/MHz

⁵⁰⁹ See *supra* para. 106.

⁵¹⁰ *6 GHz Order*, 35 FCC Rcd at 3867, para. 38. In the event the ULS is down or a public access file is not created on a given day, the geofencing system may continue to use the most recently downloaded data until update data becomes available.

⁵¹¹ *Id.* at 3870, para. 46.

⁵¹² See *supra* para. 114.

EIRP PSD would have to consider exclusion zone(s) not only at its present location, but also at all areas that may be traversed by a mobile VLP device between the present time and a future location update. Naturally, the area traversed by the mobile VLP device is a function of the VLP device's speed and direction. For example, a mobile VLP device located in a vehicle traveling 35 miles per hour could cover approximately one kilometer within one minute.⁵¹³ However, there are other mobile use cases in which a pedestrian using a VLP device will cover well under a hundred meters in the same one-minute time period. Accordingly, rather than proposing a set time period within which a mobile VLP device must update its location to check if it is in an area with different geofencing requirements than the previous area in which it checked, we propose a flexible approach with varying recheck times based on speed to better meet device usage requirements. Thus, the recheck interval can be tailored to require fewer rechecks when moving at slow speeds and thus ease processing requirements and save battery power.

155. *Incorporated geo-location.* Consistent with the requirements for standard power access points, we propose to require that geofenced VLP access points generally include a geo-location capability to determine their geographic coordinates.⁵¹⁴ We propose to require a geofenced VLP device's geo-location capability to determine its location uncertainty in meters, with a 95% confidence level, and that the applicant for certification of a VLP access point demonstrate the accuracy of the geo-location method used and the location uncertainty.⁵¹⁵ We further propose to require that a geofenced VLP access point, using its geographic coordinates, take this location uncertainty into account when it determines whether the VLP access point is within an exclusion zone. We seek comment on this proposal. We also seek quantitative information on the benefits and costs of this proposal to VLP device users, manufacturers and the wider public.

156. *Location Update.* We propose to require that geofenced VLP access points have the capability to timely adjust their operating frequencies when moving into, out of, or between exclusion zones. We propose flexible requirements to enable device designers to optimize efficiency while still meeting the requirement to avoid operating on channels where -6 dB I/N interference protection criterion is not met. Specifically, we propose that the time interval for a geofenced device to re-check its location and adjust its frequency usage must decrease proportionally based on an increase in the mobile device's speed. Under this proposal, a geofenced VLP access point that is in a powered state must regularly re-check its location and speed and identify its position with respect to any exclusion zones that may exist within the vicinity of its current location. We further propose that this geolocation update be done frequently enough that, based on the geofenced VLP access point's position and speed, the device will not transmit on a channel that is unavailable within an exclusion zone. We believe that this proposal provides flexibility to device designers to adjust how often the VLP access point must obtain geolocation information based on how fast the VLP access point is moving and how far it is from an exclusion zone where it would have to change its operating channel. As an additional safeguard, we propose to require the VLP access point to determine its location and speed at least once a minute. This one-minute update proposal is designed to provide additional assurance that the VLP access point avoids transmitting on frequencies that are not permitted by the geofencing system. We further propose to require applicants for geofenced VLP access point certification to submit an attestation describing their algorithm for updating the device's location with an explanation describing how these requirements are met.

157. We seek comment on these proposals. Do they provide sufficient flexibility for mobile geofenced VLP devices? Is it necessary for us to specify more detailed requirements on how often a

⁵¹³ Speed limits in urban and residential areas generally range between 30 to 40 miles per hour. Interstate highway speeds are generally permitted at rates up to 70 miles per hour. See https://en.wikipedia.org/wiki/Speed_limits_in_the_United_States_by_jurisdiction.

⁵¹⁴ 47 CFR § 15.407(k)(9)(i); 6 GHz Order, 35 FCC Rcd at 3868, para. 40. As noted above, we propose a limited exception from the geo-location requirement when both a VLP access point and client are both also connected to the same LPI access point.

⁵¹⁵ 47 CFR § 15.407(k)(9)(i).

geofenced device must re-check its speed and its position with respect to exclusion zones? If so, what additional requirements should be specified and why? Is a requirement for devices to re-check their location and speed at least once per minute necessary? Is the proposed information that applicants for certification of geofenced VLP access points must submit appropriate, or should any additional information be required? If so, what information? We seek quantitative information on the benefits and costs to VLP device users, manufacturers and the wider public of our proposal and any proposed alternatives.

158. *Antenna Height.* We propose to require geofencing systems to use an assumed antenna height above ground level of 1.5 meters for geofenced VLP access points similar to the approach used in the Second Report and Order for interference modeling of VLP devices.⁵¹⁶ We seek comment on this proposal. Is an assumed 1.5 meter antenna height appropriate, or should we specify a different value? If so, what height should we require for the exclusion zone calculations? We also seek quantitative information on the benefits and costs to VLP device users, manufacturers and the wider public of our proposed antennas height. Commenters proposing alternative values should quantify the benefits and costs of alternatives.

159. *Fixed Infrastructure.* Consistent with our actions in the Second Report and Order, we propose to prohibit geofenced VLP devices from operating as part of a fixed outdoor infrastructure as an additional measure to reduce the likelihood of interference to licensed incumbent services. We seek comment on this proposal. Is a prohibition on fixed outdoor infrastructure necessary when a geofencing system is used? We seek quantitative information on the benefits and costs to VLP device users, manufacturers and the wider public of our proposal versus allowing operations as part of fixed outdoor infrastructure.

160. *Updates to exclusion zones.* The 6 GHz Order established a requirement that standard power access points must recheck the frequency availability with an AFC system once per day.⁵¹⁷ Similarly, we propose to require geofencing systems to update the exclusion zones at least once per day using the data from Commission databases on the licensed microwave links and BAS/CARS central receive sites. We also propose to require geofenced VLP access points to obtain or calculate the updated exclusion zones from the geofencing system at least once per day.⁵¹⁸ This proposal is designed to ensure that newly registered microwave receive sites and BAS/CARS central receive sites are promptly protected.⁵¹⁹ Consistent with the rules for standard power access points and fixed client devices, we also propose that if a VLP device is unable to obtain the latest ULS or COALS data on a given day, it may continue operating until 11:59 p.m. of the following day at which time it must cease operation until it is able to obtain the latest geofencing data.⁵²⁰ We seek comment on these proposals. We also seek quantitative information on the benefits and costs to VLP device users, manufacturers and the wider public of our proposal and alternative update schedules and requirements.

161. *Security Issues.* Consistent with our requirements for standard power devices and AFC systems in the 6 GHz Order, we propose to require that geofenced VLP access points incorporate adequate security measures to: 1) prevent them from accessing geofencing systems and geofencing methods not approved by the Commission, 2) ensure that unauthorized parties cannot modify devices to

⁵¹⁶ The Second Report and Order noted that the computer simulations used to model potential interference independent VLP devices assumed 90% of devices were used at a height above ground of 1.5 meters, but also noted that assuming 10% of devices are used at greater heights is a conservative assumption.

⁵¹⁷ 6 GHz Order, 35 FCC Rcd at 3869-3870, para.46.

⁵¹⁸ As stated in paragraph 121, *supra*, the geofencing system may be integrated into the VLP access point. In that case the requirement that the geofencing system update the exclusion zones daily and the VLP device obtain updated exclusion zones daily are synonymous.

⁵¹⁹ See 6 GHz Order, 35 FCC Rcd at 3870, para. 46.

⁵²⁰ See 47 CFR § 15.407(k)(8)(iv).

operate in a manner inconsistent with the rules and licensed incumbent protection criteria, and 3) ensure that communications between VLP access points and geofencing systems are secure to prevent corruption or unauthorized interception of data. We also propose to require that geofencing systems, whether centralized or internal to a VLP device, must ensure that all communications and interactions between the geofencing system and VLP access points and/or all communications between the geofencing system and Commission databases are accurate and secure and that unauthorized parties cannot access or alter the database, the exclusion zones, or the list of excluded or available frequencies. We further propose to require that a geofencing system incorporate security measures to protect against unauthorized data input or alteration of stored data, including establishing communications authentication procedures between client devices and VLP access points.⁵²¹ These proposed requirements are intended to prevent a VLP device from using geofencing methods not approved by the Commission and to ensure that unauthorized parties cannot modify a device to operate in a manner inconsistent with the rules. We seek comment on these proposals. What would be the cost of implementing our security proposals versus alternatives? We seek quantitative information on the costs of geofenced VLP device security requirements.

162. *Device testing and approval.* As indicated above, we propose to require that VLP devices operating with greater than -5 dBm/MHz PSD EIRP incorporate a geofencing capability that prevents them from operating where there may be an elevated risk of causing harmful interference to licensed incumbents in the 6 GHz band. Under this proposal, geofenced systems in the 6 GHz band would determine exclusion zones within which specific channels are prohibited from use by geofenced VLP access points when 6 dB I/N interference protection criterion is not met (e.g., areas around fixed microwave and BAS/CARS central receive sites), and each geofenced VLP access point would have to be able to connect to a geofencing system or have an integrated geofencing system capability.

163. Applicants seeking VLP device certifications would have to show in their applications how their device will comply with any geofencing requirements adopted in this proceeding. For example, applicants for geofenced VLP access point certification would have to demonstrate that the device operates only pursuant to a geofencing system and that the geofencing system prevents operation in areas where the -6 dB I/N metric is not met when calculated in accordance with the proposed methodology. They would also have to demonstrate that their devices could not operate on any channel that the geofencing system determines is prohibited at its location at a power level greater than 5 dBm/MHz EIRP PSD. Applicants would also be required to demonstrate that their VLP access points comply with the proposed requirements to periodically check their location and comply with the database recheck intervals proposed above as well as adjust their operating channel if they move into an exclusion zone where that channel is not available. They would further have to demonstrate how geofenced VLP access points obtain exclusion zone data either from a geofencing system or through calculations based on data downloaded from Commission databases.

164. We seek comment on testing and certification issues for geofenced VLP access points and client devices. Are there any specific testing or certification issues that the Commission will need to address, either in a subsequent item in this proceeding or subsequent to adopting rules, e.g., through the KDB process? If so, what issues would need to be addressed? Would industry groups such as the Wi-Fi Alliance or WinnForum be likely to develop procedures for testing geofencing systems? We seek quantitative information on the benefits and costs to VLP device users, manufacturers and the wider public of geofenced VLP testing and certification requirements.

E. Spectrum Availability for Very Low Power Devices

165. We seek comment on any changes that we could make that would allow for increased spectrum availability for geofenced VLP devices without increasing the likelihood of harmful interference to incumbent services, i.e., more efficient spectrum use. Consistent with the Commission's recent *Policy Statement*, we seek additional data that can be used to assess geofenced VLP device operation and the

⁵²¹ 6 GHz Order, 35 FCC Rcd at 3881-82, paras. 79-80; 47 CFR § 15.407(k)(8)(v), (k)(13), (k)(15)(iii).

potential impact on incumbent services.⁵²² Are there any particular characteristics of geofenced VLP devices, e.g., size, operating location, specific applications, operating bandwidth, modulation types, data rates, duty cycle/activity factor, or mobility or lack thereof, that could be considered in enabling increased spectrum availability for these devices? Is there currently any operational or other data that would be helpful in this regard? How much additional spectrum could be made available for geofenced VLP devices? Would there be any significant increase in the areas where they could operate as compared to the rules proposed above? We recognize that actual operational data that may help us reach a decision on these issues may not yet be available. In this regard, we encourage parties with additional data to approach the Commission in the future when such data becomes available. We also seek information from incumbents regarding their systems, particularly with respect to the amount of fade margin incorporated into system design, statistics on when fades occur, their severity, and how long they last, and how systems are designed to cope with fading events using techniques such as adaptive modulation or adjusting their data streams to focus on more time-sensitive critical data over less critical data.

F. Restrictions on Very Low Power Device Mobile Operations

166. We also seek comment on whether to relax the restrictions on VLP device mobile operations (e.g., on aircraft, boats on the ocean, oil platforms, and terrestrial vehicles).⁵²³ In the *6 GHz Order*, the Commission prohibited standard power and LPI access points from operating on board aircraft, with the exception of LPI use in the U-NII-5 band on large passenger aircraft while flying above 10,000 feet.⁵²⁴ In the Second Report and Order, we are largely adopting the same operational restriction for VLP devices, except we are permitting them to operate on boats.⁵²⁵ Similar to the rules for standard power and LPI access points, the Commission is prohibiting VLP devices from operating on oil platforms.⁵²⁶ The restrictions on oil platforms is being put in place to protect incumbent EESS remote sensing operations, which, in this band are used *inter alia* for monitoring ocean temperature.⁵²⁷

167. As noted, these decisions were made largely to provide consistency with the Commission's prior decision regarding standard power and LPI devices. However, given the inherent differences between those devices and VLP devices, we seek comment on whether these restrictions on mobile operations on aircraft and oil platforms can be relaxed for non-geofenced VLP devices, geofenced VLP devices, or both. First, emissions from both types of VLP devices will be lower than standard power and LPI devices; geofenced VLP access points and associated client devices are permitted to operate with no more than 1 dBm/MHz EIRP PSD and 14 dBm EIRP while standard power and LPI devices may operate at 23 dBm/MHz EIRP PSD and 36 dBm EIRP and 5 dBm/MHz EIRP PSD and 30 dBm EIRP, respectively. VLP devices operate at an even lower -5 dBm/MHz EIRP PSD. Second, both types of VLP devices are mobile, generally operate close to the ground and in proximity to the body or other objects,

⁵²² In its recent *Policy Statement*, the Commission stated that, “[q]uantitative analyses of interactions between services that are fact- and evidence-based, sufficiently robust, transparent, and reproducible are needed to better inform spectrum management decision-making.” *Policy Statement* at 3, 12, paras. 5, 41 (emphasis omitted). The Commission added that “[t]ransparent and reproducible quantitative analyses best inform the Commission’s decision-making. Transparency—particularly about transmitters, receivers, and degradation metrics—gives stakeholders and the Commission the ability to validate the fidelity of interference models and ensure that they represent realistic operating conditions and scenarios, with balanced protection criteria.” *Id.* at 12, para. 42; *see also id.* at 1-2, 2-3, 12-13, paras. 3, 5, 41-44.

⁵²³ In para. 186 *infra*, we seek additional information on the OOB limits of VLP devices operating inside motor vehicles

⁵²⁴ *6 GHz Order*, 35 FCC Rcd at 3929, para. 207; *see* 47 CFR § 15.407(d)(1), (4).

⁵²⁵ *See supra* para. 96.

⁵²⁶ *6 GHz Order*, 35 FCC Rcd at 3931, para. 212; *see* 47 CFR § 15.407(d)(1), (4).

⁵²⁷ CORF comments at 3 (filed Feb. 14, 2019) (“Instruments operating in the EESS bands provide data that are important ... for scientific research ... Examples are measurement of parameters—such as ocean surface temperature ...”).

are likely to be battery powered, and either operate pursuant to a geo-location system or at or below 5dBm/MHz EIRP PSD.

168. Considering expected use cases and the minimal potential for VLP and geofenced VLP devices to cause harmful interference, we propose to permit mobile operation on commercial and general aviation aircraft more generally, but not on UAS. We can speculate that several prominent use cases will occur on aircraft. We seek comment on permitting more general use of VLP and geofenced VLP devices onboard commercial and general aviation aircraft. For example, because FAA guidance specifies that aircraft operators, when operating aircraft that have been certified to meet portable electronic device tolerance standards, may permit certain portable electronic devices to operate in all phases of flight (i.e., from gate-to-gate), body-worn VLP and geofenced VLP devices could be used to monitor a person's health metrics or to stream a movie (e.g., from a smartphone to smart glasses).⁵²⁸ In such cases, operation is not likely to be near a fixed microwave, BAS, or CARS receive site and is likely to be low power, given the short transmission distance and the fact that emissions will be shielded by the aircraft fuselage and will be subject to clutter losses from nearby seats and passengers. In addition, we note that the worst case for harmful interference potential is likely to be on take-off or landing when the aircraft is lower to the ground and thus, potentially closer to an incumbent receiver. However, good engineering practice should prevent microwave links in locations where aircraft are likely to fly as their mere presence could cause link degradation. And even if an aircraft were to fly in an area where it may be seen by a microwave receive antenna main beam, the aircraft will be moving at significant speed⁵²⁹ and the time a VLP or geofenced VLP device's emission could be within an incumbent's receiver main beam will be fleeting and handled by forward error correction or other techniques. In addition, when operated on the ground, geofenced VLP access points and associated clients would operate under the control of a geofencing system, while non-geofenced VLP devices would operate at even lower power. As an initial matter, considering operation on aircraft, should we consider permitting all VLP devices to operate across all phases of flight or just VLP devices that are not geofenced? Or should geofenced VLP devices be limited to only operating when above 10,000 feet or not permitted to operate on aircraft at all? We are already permitting non-geofenced VLP devices to operate on large aircraft above 10,000 feet and ask if there is a different metric that could be used for the specific case of aircraft. For example, noting the very fast take-off and landing speeds, could we implement a rule stating that if a geofenced VLP access point is moving at an average speed over 100 mph, it would no longer need to check the geofencing system? Moving at or above this speed would imply operation on a very fast moving vehicle, such as an aircraft. If we allow a minimum average speed metric for this purpose, should it apply only to devices operated on aircraft, or could it apply to other modes of transportation such as rail? Is there a different speed or metric that would work better in providing a demarcation between when the geofencing system must be used and when it is not necessary when considering use on aircraft? What other considerations need to be taken into account? For example, could there be issues that affect radio astronomy sites? If so, should certain channels be prohibited from use until an aircraft exceeds 10,000 feet? We seek comment on our proposal

⁵²⁸ See FAA Advisory Circular 91.21-1D, "Use of Portable Electronic Devices Aboard Aircraft." That Advisory Circular, in Section 7.2.1, states that, "[i]f an aircraft model has demonstrated tolerance for both transmitting and non-transmitting PEDs, the operator may allow PED use during all phases of flight on this aircraft model."

⁵²⁹ Aircraft take-off and landing speeds vary based on aircraft size, wing shape and size, aircraft weight, as well as other factors, including weather conditions. See *How Fast Do Airplanes Take Off?*, Flying Magazine (July 12, 2022), <https://www.flyingmag.com/guides/how-fast-do-airplanes-take-off/>; *How Fast Do Commercial Planes Fly*, Flying Magazine (June 24, 2022), <https://www.flyingmag.com/guides/how-fast-do-commercial-planes-fly/>. Take-off speed for a Cessna 172 is about 55 knots (63 mph), while the take-off speed for a Boeing 747 is around 160 knots (184 mph). See *How Fast Do Airplanes Take Off?*, Flying Magazine (July 12, 2022), <https://www.flyingmag.com/guides/how-fast-do-airplanes-take-off/>; *How Fast Do Commercial Planes Fly*, Flying Magazine (June 24, 2022), <https://www.flyingmag.com/guides/how-fast-do-commercial-planes-fly/>. Commercial aircraft typically land between 112 to 156 knots (130-160 mph). See *How Fast Do Airplanes Take Off?*, Flying Magazine (July 12, 2022), <https://www.flyingmag.com/guides/how-fast-do-airplanes-take-off/>; *How Fast Do Commercial Planes Fly*, Flying Magazine (June 24, 2022), <https://www.flyingmag.com/guides/how-fast-do-commercial-planes-fly/>.

to permit any or all VLP devices to operate gate-to-gate while on aircraft.

169. We continue to believe that any VLP operation when such devices are mounted on a UAS could pose more than an insignificant harmful interference risk, given the potential of UAS to fly almost anywhere and to have clear line of sight to an incumbent's receiver. In addition, because the geofencing system determines exclusion zones based on an assumed 1.5 meter antenna height, any exclusion zone associated with a UAS would be much larger than for general VLP device usage. Nevertheless, we seek comment on whether there are operational limitations or guidelines we could adopt that could permit VLP devices to operate when mounted on a UAS. Are there applications that are specifically well-suited for use on a UAS? Are there methods using the geofencing system or otherwise that could be implemented to ensure that incumbent receivers are protected from harmful interference? If so, how complex and feasible would these methods be to implement? Would the costs associated with additional complexity outweigh any benefits that might be gained from permitting such operation?

170. In the Second Report and Order, we maintained our prohibition on all types of 6 GHz device usage on oil platforms to protect EESS operations but did not prohibit the use of VLP devices on boats. We now seek comment on whether the prohibition on all types of 6 GHz device usage on oil platforms can be scaled back or lifted. For example, given the differences between VLP devices (both geofenced and non-geofenced) and standard power and LPI devices, does the use of VLP devices on oil platforms pose the same risk of harmful interference to EESS operations? Could standard power, LPI or either type of VLP devices be used on oil platforms without causing a risk to EESS ocean temperature monitoring operations? We can foresee applications where a 6 GHz device could provide utility through augmented reality to a worker on an oil platform to provide relevant information, such as for safety, maintenance tasks, or general operating instructions. Is any restriction of VLP device use on boats appropriate to protect EESS operations? If such a restriction were adopted, could it be limited to boats located in the ocean, given that EESS is used for sensing over the ocean? How could the prohibition on use of VLP devices on oil platforms or a prohibition on use on boats, if adopted, be implemented for non-geofenced VLP devices?

171. Finally, we seek comment on whether there is additional flexibility that can be provided for terrestrial in-vehicle use (e.g., cars, buses, and trucks). For example, are there devices that are designed to be used solely in vehicles, such as an in-car hotspot, that can only be used in a vehicle where due to the nature of use - within a vehicle cabin, generally in motion at high speeds - different requirements regarding power or exclusion zones could apply? If so, are there requirements that could provide assurance that a VLP device (geofenced or non-geofenced) is, in fact, in a vehicle, such as having a connection to Carplay or Android Auto?

172. We invite commenters to address these issues and provide detailed information regarding whether we can provide more flexibility to VLP devices, both geofenced and non-geofenced, for expanded use in aircraft, on boats, in vehicles, and in more places while still ensuring that incumbent operators' facilities are protected from harmful interference. We seek quantitative estimates of benefits or costs of our proposals for relaxing the VLP prohibition in these locations and potential alternatives. How much and what kinds of additional VLP operations might occur? How much and what kind of costs would be incurred to accommodate these increased operations?

G. Expanding Very Low Power Operations to U-NII-6 and U-NII-8

173. In the Second Report and Order, we adopted rules to permit VLP devices to operate in the U-NII-5 and U-NII-7 bands at power levels up to -5 dBm/MHz EIRP PSD and 14 dBm EIRP. We determined that the risk of harmful interference to incumbent services in those bands, e.g., fixed microwave links and radio astronomy, was insignificant for VLP devices operating at that power level. In this Second Notice of Proposed Rulemaking, we propose to permit VLP devices to also operate in the U-NII-6 and U-NII-8 bands without geofencing. Given that fixed microwave links in the U-NII-8 band have the same characteristics as those in U-NII-5 and U-NII-7, we conclude that any risk of harmful interference from VLP devices to these microwave links is insignificant. We seek comment on whether allowing VLP devices on U-NII-6 and U-NII-8 band devices will yield comparable benefits to those that

stem from allowing VLP devices in the U-NII-5 and U-NII-7 bands in the Second Report and Order. We tentatively conclude that at a minimum the benefits would be in proportion to the amount of spectrum in U-NII-6 and U-NII-8 bands relative to the amount of spectrum in the U-NII-5 and U-NII-7 bands.⁵³⁰ We anticipate that these benefit estimates are conservative, as making available the full 1200 MHz in the 6 GHz band could lead to larger channel sizes that could increase speed and decrease latency. We seek comment on this and alternate methods of estimating these benefits.

1. Protection of Mobile Services

174. As discussed above, both the U-NII-6 and U-NII-8 bands are used by mobile BAS and CARS, including outdoor electronic news gathering (ENG) trucks and low power short range devices, such as portable cameras and microphones. Low Power Auxiliary Stations, which are licensed in portions of the U-NII-8 band, operate on an itinerant basis and transmit over distances of approximately 100 meters for uses such as wireless microphones, cue and control communications, and TV camera synchronization signals. There are also BAS and CARS fixed microwave links in these bands, which are used for such purposes as video links between studios and transmitters and to relay video signals between cities.

175. *Outdoor electronic news gathering central receive sites.* As described above, the communications link between ENG trucks and a central receive site shares many of the characteristics of a fixed microwave link—i.e., they use directional antennas to send signals between two fixed locations that are mostly above the local clutter.⁵³¹ We propose to permit VLP devices to also operate in the U-NII-6 and U-NII-8 bands and seek comment on whether VLP devices could operate at up to -5 dBm/MHz EIRP PSD and 14 dBm EIRP while keeping the risk of harmful interference to ENG central receive sites to an insignificant level. Would the same type of analysis discussed in the Second Report and Order showing an insignificant risk of harmful interference to fixed microwave receive sites be appropriate with respect to ENG receive sites? Are there inherent differences between BAS/CARS operations as compared to fixed point-to-point operations that must be considered when analyzing the harmful interference risk? For example, are there differences in antenna types, e.g., beamwidth and gain, or in typical antenna heights or the locations of receive antennas? Commenters noting differences should provide detailed descriptions and information regarding how any difference could affect the potential for VLP devices to cause harmful interference? Are there specific VLP device characteristics that need to be considered in analyzing their interference potential to ENG operations and if so, what are they? We seek to provide uniform rules for operations across the full 6 GHz band, but recognizing that there could be differences in how VLP emissions may interact with different incumbent systems, we also seek comment on what effect a lower power limit for VLP devices might have regarding protecting ENG operations in the U-NII-6 and U-NII-8 bands. Commenters advocating for a lower power level should provide detailed analysis regarding their preferred power level and the incremental effect such a power level would have on the ability for VLP devices to access spectrum as well as to what extent ENG operations would have additional protection from harmful interference. Are there any other requirements that we could adopt for VLP devices to protect ENG operations?

176. Apple, Broadcom, and Meta submitted a Monte Carlo simulation addressing the potential for VLP devices operating at -5 dBm/MHz to exceed -6 dB I/N for two specific ENG receive sites.⁵³² For the ENG receivers, the simulation used the same two ENG receive sites and technical parameters that were used in a Monte Carlo simulation previously submitted by NAB that examined the potential for 6 GHz band unlicensed access points to interfere with ENG receivers.⁵³³ As the ENG receive antennas are

⁵³⁰ See para. 102 *supra*.

⁵³¹ See para. 130 *supra*.

⁵³² Apple, Broadcom, and Meta Sept. 11, 2023 *Ex Parte* 2; Apple, Broadcom, and Meta Sept. 21, 2023 *Ex Parte* at 3-4.

⁵³³ *Id.*; Alion Study, NAB Dec. 5, 2019 *Ex Parte* at 3-8, 11.

directional but generally are able to provide 360° azimuthal coverage, it is not practical to simulate every azimuth. Thus, Apple, Broadcom, and Meta limited their simulation to the same three antenna orientations that NAB simulated for the two ENG receive sites.⁵³⁴ For the VLP devices, the simulation used similar assumptions for body loss, transmit power control, and propagation models as the Apple, Broadcom et al. and Apple simulations that assessed the potential for VLP devices to exceed -6 dB I/N for microwave links in San Francisco and Houston.⁵³⁵ The Apple, Broadcom, and Meta Monte Carlo analysis found no instances where the VLP devices caused the signal received at the ENG receive sites to exceed -6 dB I/N.⁵³⁶ We note that NAB previously expressed skepticism about the accuracy of a similar Monte Carlo simulation provided by Apple, Broadcom, et al. that likewise found that the -6 dB I/N threshold was never exceeded for one of these ENG receive sites.⁵³⁷ We seek comment on the Apple, Broadcom, and Meta simulation. We seek comment on its conclusions that -6 dB I/N will not be exceeded or will only be exceeded in so few instances at ENG central receive sites that we can conclude that the risk of harmful interference from VLP devices operating at -5 dB/MHz EIRP PSD is insignificant. Given that this simulation used two ENG receive sites that were chosen by NAB, can we assume that they are representative of BAS and CARS receive sites in general? Are there particular scenarios that need further study?

177. *Outdoor electronic news gathering ENG trucks.* ENG trucks are generally situated near news or sporting events and receive signals from hand-held cameras or other portable news gathering devices. Based on a study previously submitted by NAB, the ENG truck receive antenna may be omnidirectional or sectoral with adjustable height and location. Additionally, the ENG truck signals may use various bandwidths between 3 to 20 megahertz.⁵³⁸ For its study, NAB evaluated harmful interference based on free space path loss and on whether an unlicensed device would cause the I/N to exceed -10 dB.⁵³⁹

178. Broadcom submitted a simulation showing a low probability (< 0.001%) that a VLP device operating at -5 dBm/MHz will cause the signal-to-interference-plus-noise ratio (SINR) at the ENG truck receiver to fall below 1 dB.⁵⁴⁰ Broadcom's 1 dB SINR threshold is based on a previously submitted Broadcom study showing that a 10 megahertz ENG channel with a 7/8 coding rate can maintain a signal with a bit-error-rate (BER) less than 1e-8 in the presence of an RLAN signal operating with a 2% duty cycle.⁵⁴¹ Charter, Comcast, Cox and CableLabs also previously submitted studies of the ENG truck signal SINR requirements in the presence of RLANs operating at various duty cycles.⁵⁴² While these studies examined the impact of LPI transmissions, which operate at a higher power than is proposed for VLP, their findings with respect to SINR are also applicable to assessing VLP impact to BAS operations. CableLabs finds that a 10 dB SINR "provides an accurate view of system requirements for high-quality

⁵³⁴ Apple, Broadcom, and Meta Sept. 21, 2023 *Ex Parte* at 4; Alion Study, NAB Dec. 5, 2019 *Ex Parte* at 43, 47-70.

⁵³⁵ Apple, Broadcom, and Meta Sept. 11, 2023 *Ex Parte* at 3; Apple Feb. 13, 2023 *Ex Parte* at 10,11; Apple, Broadcom, et al. Feb. 28, 2023 *Ex Parte* at 8; Apple, Broadcom, Google, Meta Aug. 31, 2023 *Ex Parte* at 1.

⁵³⁶ Apple, Broadcom, and Meta Sept. 11, 2023 *Ex Parte* at 3.

⁵³⁷ NAB claimed that they expected an interference level tens of decibels above the receiver's noise floor. NAB Reply Comments at 7 (filed July 27, 2020) (discussing Apple, Broadcom et al. Comments Attachs. A (filed June 29, 2020)).

⁵³⁸ Alion Study, NAB Dec. 5, 2019 *Ex Parte* at 5.

⁵³⁹ *Id.* Also, note that in the 6 GHz Order, the Commission disagreed with NAB's use of free space path loss and a -10 dB I/N metric as being overly conservative. 6 GHz Order, 35 FCC Rcd at 3914, para. 154.

⁵⁴⁰ Broadcom Study, Sep 11, 2023 *Ex Parte* at 1.

⁵⁴¹ Broadcom Letter, Feb 28, 2020 *Ex Parte* at 2.

⁵⁴² Comcast Communications, Inc. CableLabs, Feb 21, 2020 *Ex Parte* at 1; CableLabs, Charter Communications, Comcast Corporation, Cox Communication, Mar 9, 2020 *Ex Parte* attachment at 1.

BAS video delivery”.⁵⁴³

179. We propose to permit non-geofenced VLP devices operate in the U-NII-6 and U-NII-8 bands and seek comment on whether those devices could operate at up to -5 dBm/MHz EIRP PSD and 14 dBm EIRP while minimizing the risk of harmful interference to ENG truck receive sites. What is the appropriate metric for evaluating the harmful interference risk to a ENG truck receiver, which is fixed during operation but otherwise transportable, from a mobile or transient VLP transmission? Regarding potentially using SINR, because actual signal levels are not known prior to any transmission, what value or range of values should be used for the ENG signal level for any analysis? Commenters should provide insight and data regarding how any assumed signal level is consistent with the signal levels used for ENG operations. Previously submitted studies show that the required SINR will vary according to channel bandwidth and coding rate. What are the typical bandwidths and coding rates used by ENG truck receivers? If the Commission were to rely on evaluating SINR, what SINR threshold should be assumed to be necessary at the ENG truck receive site to maintain a high quality signal? Broadcom’s study predicted an impact when the VLP device was within 5 meters of the receiver.⁵⁴⁴ Under normal operating conditions, how close could a random user’s VLP device actually come to an ENG truck receiver? Is assuming at least a 5 meter separation distance realistic? Or is that distance too short or too long? Will the itinerant nature of VLP devices help reduce the likelihood of a VLP device causing harmful interference? Are there any particular connections we should make between our reliance on an I/N metric when evaluating ENG trucks connecting to a central receive site and potentially evaluating the harmful interference risk from portable devices to an ENG truck based on SINR? In evaluating analysis methodology and protection metrics, commenters should detail how such an approach supports permitting non-geofenced VLP operations at power levels up to -5 dBm/MHz EIRP PSD or indicates that a different power level may be appropriate.

180. *Low-power short range mobile devices.* We propose that low power short range BAS and CARS devices, such as portable cameras and microphones, and Low Power Auxiliary stations be protected from harmful interference by a combination of a required contention-based protocol and the low probability of a VLP device operating on the same channel in a nearby location. This proposal is consistent with the *6 GHz Order* in which the Commission required that all 6 GHz unlicensed LPI access points, subordinate devices, and client devices employ a contention-based protocol as well as our proposal above with respect to geofenced VLP devices.⁵⁴⁵ Further, the *6 GHz Order* showed that the probability of channel overlap between 6 GHz unlicensed devices and incumbent station operations is low due to unlicensed devices having a full 1200 megahertz over which to operate.⁵⁴⁶

181. We believe that a similar approach for VLP devices will adequately reduce the risk that mobile service incumbents in the U-NII-6 and U-NII-8 bands would be subjected to harmful interference and keep that risk to an insignificant level. Our reasoning is consistent with the *6 GHz Order*, i.e., the sensing function associated with the contention-based protocol, along with the low probability for co-channel operation, is sufficient to ensure that VLP devices detect nearby mobile BAS operations and avoid transmitting co-channel to protect those operations from harmful interference.⁵⁴⁷ While we are not

⁵⁴³ Comcast Communications, Inc. CableLabs, Feb 21, 2020 *Ex Parte* at 3.

⁵⁴⁴ Broadcom Study, Sep 11, 2023 *Ex Parte* at 3.

⁵⁴⁵ 47 CFR §§ 15.403, 15.407(d)(6). A contention-based protocol allows multiple users to share spectrum by providing a reasonable opportunity for the different users to transmit. *6 GHz Order*, 35 FCC Rcd at 3889, para. 101. In IEEE 802.11 standards, a “listen-before-talk” medium access scheme based on the Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA) protocol functions as a contention-based algorithm to provide spectrum access to all traffic. *Id.* Under this scheme, before initiating any packet delivery, a station listens to the wireless medium and if the medium is idle, the station may transmit; otherwise, the station must wait until the current transmission is complete before transmitting. *Id.*

⁵⁴⁶ See *6 GHz Order*, 35 FCC Rcd at 3901-02, para. 131, tbl. 6.

⁵⁴⁷ *6 GHz Order*, 35 FCC Rcd at 3915, para. 168.

proposing a specific technology protocol or contention method, we propose to require VLP devices to use a contention-based protocol as we require for LPI devices.⁵⁴⁸ We believe that this proposal has additional benefits as it provides multiple VLP devices as well as LPI devices equal access to the spectrum, while protecting mobile incumbents' services. We also believe that the use of a contention-based protocol will limit the duty cycle of VLP devices as they will need to share the spectrum with other devices. Additionally, VLP devices would transmit at lower power levels than LPI devices, further reducing the risk of harmful interference to mobile services. Given all these reasons, we believe that requiring use of a contention-based protocol by VLP devices would protect mobile service incumbents.

182. We seek comment on this proposal. Would requiring VLP devices to incorporate a contention-based protocol adequately protect mobile service incumbents in the U-NII-6 and U-NII-8 bands? If not, are there any other protection measures that could be used by VLP devices to protect mobile services? Is there a need to provide greater specificity in the requirements for a contention-based protocol used by VLP devices? If so, what particular requirements should be specified and why? What are the costs and benefits of requiring the use of a contention-based protocol?

2. Fixed Satellite Services

183. The U-NII-7 and U-NII-8 bands contain Fixed Satellite Service (FSS) space-to-Earth allocations and are restricted to feeder links for Mobile-Satellite Service non-geostationary satellite systems. No such earth stations are currently licensed in the U-NII-7 band.⁵⁴⁹ The U-NII-8 space-to-Earth allocation is limited to use by Globalstar's non-geostationary Mobile-Satellite Service feeder links and earth stations receiving at locations within 300 m of coordinates in Brewster, WA, Clifton, TX, and Finca Pascual, PR.⁵⁵⁰ Globalstar also operates earth station receive sites at Naalehu, HI, Wasilla, AK, and Sebring, FL. These last two locations are authorized to operate on a co-primary basis for FSS feeder downlinks, except for the 7.025-7.055 GHz band, where they are authorized only on an unprotected basis.⁵⁵¹ In the *6 GHz Order*, the Commission determined that the probability of harmful interference to FSS space-to-Earth stations from LPI device operations in U-NII-8 is low, primarily due to the restriction that LPI devices operate indoors and at EIRP power levels no greater than 30 dBm.⁵⁵²

184. We seek comment on whether any restrictions on VLP device operation is necessary to protect space-to-Earth stations. Because VLP devices would operate at significantly lower PSD levels than geofenced VLP access points and associated client devices, how does this impact the analysis of the potential for harmful interference occurring? As VLP devices operate without the supervision of a geofencing system, how could such restrictions, if needed, be implemented? Would there be differences in the cost of protection for VLP devices compared to geofenced VLP access point and associated client devices? We also seek comment on how the earth station antenna sites themselves provide interference protection by creating a physical barrier (e.g., fencing) or using geographic features to keep members of the public that could be using a VLP device beyond some minimum distance from those earth stations. Commenters should provide technical analysis to support their positions.

⁵⁴⁸ See KDB Publication No. 987594.

⁵⁴⁹ 47 CFR § 2.106(b)(458)(ii) (international footnote 5.458B). In the 2018 Notice of Proposed Rulemaking, the Commission stated that there is an allocation for space-to-Earth satellite use of the 6.7-6.875 GHz portion of the U-NII-7 band for feeder links for non-geostationary Mobile-Satellite Service systems. *Notice*, 33 FCC Rcd at 10518, para. 58. As the Commission noted, however, no earth stations are currently licensed to use this allocation in the space-to-Earth direction. *6 GHz Order*, 35 FCC Rcd at 3885, para. 89 n.224.

⁵⁵⁰ 47 CFR § 2.106(b)(458)(ii), (d)(172) (international footnote 5.458B and non-governmental footnote NG172). The space-to-Earth allocation is limited to non-geostationary Mobile-Satellite Service feeder links and earth stations receiving in this band are limited to locations within 300 meters of coordinates in Brewster, WA, Clifton, TX, and Finca Pascual, PR. *Id.*

⁵⁵¹ See *supra* footnote 489.

⁵⁵² *6 GHz Order*, 35 FCC Rcd at 3916-17, para. 171.

H. Emission Limits Below the U-NII-5 Band

185. The 5.895-5.925 GHz band immediately below the U-NII-5 band is used by the Intelligent Transportation Service (ITS) which the Commission is requiring to transition to C-V2X-based technology.⁵⁵³ In the Second Report and Order, the Commission adopted the same -27 dBm/MHz out-of-band emission (OOBE) limit for VLP devices for emissions below the U-NII-5 band and above the U-NII-8 band as it had already required for standard power and low-power indoor 6 GHz devices.⁵⁵⁴ NTIA filed a technical exhibit into the record that includes a Department of Transportation study (*DoT Exhibit*) addressing C-V2X protection requirements in the 5.895-5.925 GHz band from 6 GHz VLP devices' and mobile access points' out-of-band emissions.⁵⁵⁵ Deployers plan to transmit basic safety messages for crash-avoidance applications that require low-latency, free-from-harmful-interference in the 5.895-5.925 band. According to the *DoT Exhibit*, testing shows that VLP devices operating within a motor vehicle and that comply with the 27 dBm/MHz OOBE limit will decrease the operational range of C-V2X receivers in the same vehicle by more than 50%.⁵⁵⁶ While these tests are based on U-NII-4 (5.850-5.895 GHz) devices in the band immediately below the 5.895-5.925 GHz ITS band, the *DoT Exhibit* contends that the results can be translated to assess the impact of VLP devices in the U-NII-5 band. The *DoT Exhibit* claims that implementing both parts of a two-part compromise submitted by several VLP proponents is necessary to protect C-V2X receivers.⁵⁵⁷ This compromise proposal would require VLP devices to prioritize their operations to frequencies above 6.105 GHz and limit VLP OOBE below 5.925 GHz to -37 dBm/MHz.⁵⁵⁸ The Alliance for Automotive Innovation, 5GAA, and ITS America similarly point to the compromise proposal and advocate that we modify the VLP OOBE limits.⁵⁵⁹ While the rules we adopted for VLP devices implement the former requirement, we adopted the same -27 dBm/MHz OOBE limit.⁵⁶⁰

186. We seek additional information on the potential impact that VLP devices operating in motor vehicles could have on C-V2X performance when a VLP device is operating within the same motor vehicle as the C-V2X receiver. In seeking comment on this issue, we note that the *DoT Exhibit* is narrowly limited to VLP operation as an access point or as a client connected to a 6 GHz enabled mobile access point within motor vehicles and does not address any other 6 GHz device or VLP device operation outside of motor vehicles. In particular, we seek technical information, including studies, analyses, and measurements detailing the interaction between VLP devices operating under our rules and C-V2X receivers in the 5.895-5.925 GHz band when these devices are in close proximity such as in the same motor vehicle. What affect, if any, do VLP devices' OOBE have on C-V2X devices' ability to communicate at distances and with timing necessary to ensure a vehicle has sufficient reaction time to keep passengers safe in various situations? In undertaking studies to submit to the record, commenters should assess realistic scenarios for VLP device deployment, whether VLP devices are installed inside the vehicle or carried by a passenger from outside of the vehicle, as well as realistic scenarios for C-V2X devices as they pertain to device location within the vehicle, power level, OOBE level, antenna directivity, and activity factor. For example, are VLP devices expected to be mounted on dashboards, in headrests, etc. and are C-V2X antennas expected to be mounted inside or outside the vehicle, on the roof, in the grille, etc.? How do the various relative placements between VLP and C-V2X devices affect

⁵⁵³ 5.9 GHz Order, 35 FCC Rcd at 13483-84, para. 107-110.

⁵⁵⁴ See *supra* para. 87. See also 47 CFR §15.407(b)(6).

⁵⁵⁵ U.S. DoT Technical Exhibit on Protection of the V2X 30 MHz (5.895-5.925 GHz) Band, ET Docket No. 18-295 (filed Oct. 10, 2023).

⁵⁵⁶ *Id.* at 2.

⁵⁵⁷ *Id.* at 3.

⁵⁵⁸ Broadcom, Cisco, Facebook, Intel, Qualcomm Mar. 1, 2021 *Ex Parte* at 1.

⁵⁵⁹ Alliance for Automotive Innovation, 5GAA, and ITS America, Oct. 10, 2023 *Ex Parte* at 2.

⁵⁶⁰ See *supra* paras. 87, 94.

performance? We seek comment on whether any adjustments are needed to our VLP device rules to adequately protect C-V2X operation in vehicles. Commenters advocating for adjustments should address whether they believe prioritization and a more stringent emission limit, such as -37 dBm/MHz below 5.925 GHz for VLP devices, is necessary as the *DoT Exhibit* advocates. Or whether either acting on its own provides the protection level being claimed as needed. Similarly, commenters advocating for prioritizing spectrum should address whether a single limit is needed, such as above 6.105 GHz, or whether a variable limit based on channel bandwidth can be implemented to provide more flexibility for VLP devices. For example, would one bandwidth buffer suffice such that 20-megahertz channels would not transmit on the lowest 20 megahertz of the band, 40-megahertz channels would not transmit on the lowest 40 megahertz of the band, etc.? Are there other alternative measures that VLP devices could use to safeguard C-V2X operations? Although, we seek comment on the narrow issue of in-vehicle VLP device use, we ask how any change to the OOB limit might affect the entire VLP device market. Commenters should address whether permanently installed in-vehicle VLP devices should be treated differently than other VLP devices, such as those used as mobile access points or “hotspots,” or would all VLP devices need to comply with a more stringent OOB limit should the record indicate some adjustments to our rules are necessary for in-vehicle VLP operation? Finally, we seek comment on whether or how any changes to our rules would affect device harmonization regarding the global VLP device market. The Alliance for Automotive Innovation, 5GAA, and ITS America state that dozens of countries have adopted a -37 dBm/MHz OOB level to protect ITS services.⁵⁶¹ They claim that the European Union (EU) as well as many non-EU member countries in the CEPT region, adopted a more stringent OOB level of -45 dBm/MHz below 5935 MHz, which may be adjusted to -37 dBm/MHz in 2025 following additional protection studies.⁵⁶² We note, however, that the EU OOB limit is designed to protect urban rail intelligent transport systems, including communication based train control systems, not C-V2X operations. Thus, we seek comment on the applicability of the EU adopted rule to C-V2X operations. Do equipment manufacturers seeking to supply a global market plan to do so with a single device that meets the most stringent OOB level or would they provide variants for different regions based on local rules? What are the costs and benefits of various approaches?

I. LPI Client-to-client Communications

187. In this section, we seek comment on whether the Commission should permit direct communications between clients to LPI devices. We also seek comment on the requirements that we would have to specify to enable client-to-client communications without causing harmful interference to licensed incumbent operations in the 6 GHz band.

188. *Background.* Standard-power access points can operate in the U-NII-5 and U-NII-7 bands and require use of an AFC system for providing access to spectrum in the band.⁵⁶³ LPI access points can operate across the entire 6 GHz band but at lower power levels than standard power devices.⁵⁶⁴ Client devices operate under the control of either a standard-power or LPI access point and communicate using power levels that depend on the type of access point to which they are connected.⁵⁶⁵ To ensure that client devices not associated with standard power access points transmit indoors, the Commission

⁵⁶¹ Alliance for Automotive Innovation, 5GAA, and ITS America, Oct. 10, 2023 *Ex Parte* at 3. They also claim that Japan adopted a -37 dBm/MHz level below 5925 MHz. *Id.*

⁵⁶² *Id.* citing Annex to the Commission Implementing Decision on the harmonized use of radio spectrum in the 5945-6425 MHz frequency band for the implementation of wireless access systems including radio local area networks, European Commission, at Table 2, <https://digital-strategy.ec.europa.eu/en/library/6ghz-harmonisation-decision-more-spectrum-available-better-and-faster-wi-fi>; ECC Decision On the harmonized use of the frequency band 5945-6425 MHz for Wireless Access Systems including Radio Local Area Networks, at Table 2, [https://docdb.cept.org/download/50365191-a99d/ECC%20Decision%20\(20\)01.pdf](https://docdb.cept.org/download/50365191-a99d/ECC%20Decision%20(20)01.pdf).

⁵⁶³ 6 GHz Order, 35 FCC Rcd at 3860, paras. 17-18.

⁵⁶⁴ *Id.*

⁵⁶⁵ *Id.*

required that these devices operate under the control of an indoor access point and prohibited 6 GHz U-NII client devices from directly communicating with one another.⁵⁶⁶ The Commission prohibited unlicensed client devices from acting as “mobile hotspots” because “[p]ermitting a client device operating under the control of an access point to authorize the operation of additional client devices could potentially increase the distance between these additional client devices and the access point and increase the potential for harmful interference to fixed service receivers or electronic news gathering operations.”⁵⁶⁷ To avoid this situation, the Commission’s rules prohibit 6 GHz U-NII client devices from directly communicating with one another.⁵⁶⁸ The Commission did not, however, consider whether a more limited approach to indoor client-to-client communications should be permissible, such as when a client is not acting as a mobile hotspot.

189. In response to suggestions by Apple, Broadcom et al. that client devices could be permitted to directly communicate with each other under certain conditions,⁵⁶⁹ OET released a public notice on January 11, 2021 seeking information regarding client-to-client device communications in the 6 GHz band.⁵⁷⁰ The conditions that Apple, Broadcom et al. suggest for permitting client-to-client communications include requiring client devices to decode an enabling signal transmitted by an LPI device within the last four seconds, and requiring that an enabling signal be received at a signal strength of at least -99 dBm/MHz.⁵⁷¹ These parties assert that these requirements would ensure each individual client participating in client-to-client communications is safely inside the area where a client device is authorized to communicate with an access point.⁵⁷²

190. Fourteen parties filed comments and 12 parties filed reply comments in response to the OET public notice. Advocates of unlicensed operation support permitting client-to-client communications by LPI devices, arguing that they will enable new applications that benefit the public, such as AR/VR and digital education and training.⁵⁷³ Incumbent operators in the 6 GHz band (e.g., fixed microwave and broadcast) and in adjacent bands express concern about permitting client-to-client operations; specifically the potential for harmful interference and a lack of interference testing with

⁵⁶⁶ 6 GHz Order, 35 FCC Rcd at 3926, para. 199; 47 CFR § 15.407(d)(5).

⁵⁶⁷ 6 GHz Order, 35 FCC Rcd at 3927, para. 202.

⁵⁶⁸ 47 CFR § 15.407(d)(5) (stating that “[c]lient devices are prohibited from connecting directly to another client device”).

⁵⁶⁹ Apple, Broadcom et al. Nov. 6, 2020 *Ex Parte* at 1-2. Other submissions by unlicensed proponents also support permitting client-to-client communications. *See, e.g.*, Apple, Broadcom, Google, and Microsoft Comments at 13-14; Wi-Fi Alliance Comments at 19-20; Qualcomm Comments at 7; Dynamic Spectrum Alliance Comments at 19-20; Broadcom, Microsoft Reply at 3-4; Apple, Intel, and Microsoft Oct. 22, 2020 *Ex Parte* at 1-2.

⁵⁷⁰ *The Office of Engineering & Technology Seeks Additional Information Regarding Client-to-Client Device Communications in the 6 GHz Band*, ET Docket No. 18-295, Public Notice, 36 FCC Rcd 36 (2021).

⁵⁷¹ *See supra* footnote 569.

⁵⁷² *Id.* at 2.

⁵⁷³ Wireless Broadband Alliance Comments at 1 (client-to-client technology will support a range of innovative use cases without impacting incumbents); Nokia Comments at 1 (supports client-to-client communications so long as technical rules are established to ensure no potential disruption to incumbent fixed services); Wi-Fi Alliance Comments at 1-3 (client-to-client communications can facilitate important technologies in fields such as industrial/healthcare AR/VR, immersive learning applications for students, and training applications for workers in offices); DSA Comments at 3 (client-to-client technology can allow devices unable to connect to infrastructure to transfer files and enhance immersive indoor applications, e.g., VR/AR/MR, 4K QAM); OTI Comments at 3 (client-to-client technology offers improved capacity and low-latency that will benefit user experiences such as AirDrop, communication with smartphone accessories, and emerging digital educational applications).

devices operating under the current rules.⁵⁷⁴

191. *Discussion.* We invite comment on whether and under what circumstances LPI client devices could be permitted to directly communicate with each other in a limited manner while protecting incumbent licensed services. We recognize that OET previously sought comment on these issues. However, more than two years have passed since we received responses to OET's public notice. During that time, many LPI devices have been certified and put into operation. In addition, the approval process for AFC systems for standard power devices has advanced, and as discussed in the Second Report and Order, several parties have provided detailed analyses on the potential for interference from 6 GHz devices to incumbent services such as fixed microwave and broadcast services. Given that there is now more information available or that could become available in the near future concerning the interference potential of 6 GHz devices, we believe it is now appropriate to refresh and further build the record on whether we could permit LPI client-to-client operations.

192. Specifically, we seek comment on whether the Commission should permit 6 GHz client devices to directly communicate when they are under the control of or have received an enabling signal from a LPI access point. Commenters should explain how to define an enabling signal (e.g., power level, modulation type, how often it should be broadcast if it is discrete from the regular data stream, etc.), what characteristics it should have, how it would be similar or different from signals, such as beacons, that access points already use to connect with client devices, and the degree to which an enabling signal would tether a client device not under the direct control of an access point to that access point. Commenters should also provide information on the types of applications that direct client-to-client communications would enable that cannot be accomplished by communications through an access point. In addition, commenters advocating for rule changes should address whether direct client-to-client communications should be under the current power limits or restricted to lower power limits to reduce the potential for harmful interference to incumbent operations.⁵⁷⁵

193. The requirement that 6 GHz client devices operate under the control of either a standard-power or low-power indoor access point is intended to prevent client devices from causing harmful interference by limiting their operation either to outdoors in areas where an AFC system has determined that interference is unlikely to occur, or in the case of LPI devices to indoor locations where other factors such as building entry loss prevent harmful interference.⁵⁷⁶ It may be possible for a client device to receive an enabling signal from an access point even when the enabling signal is too weak to enable the client device to conduct communications with the access point. In such situations, the weak received signal level makes it more likely that the client device could be outdoors. By requiring that the enabling signal have a specific signal strength, this problem could be potentially avoided. If the Commission were to adopt rules permitting client-to-client communications, should it require the enabling signal from the

⁵⁷⁴ NAB Comments at 1-2 (the proposal to allow client-to-client communications will fail to protect licensed operations, therefore the Commission should not allow such communications in the band); Alliance for Automotive Innovation Comments at 1-2 (the extended range of client-to-client communications would put V2X technologies, and other licensees in the 5.9 GHz band, at increased risk of harmful interference); Southern Company Comments at 1-2 (urges the Commission to wait until sufficient testing between incumbent and unlicensed operations is undertaken to evaluate the effect the current rules may have on incumbent operations); FWCC Comments at 1-3 (opposes permitting any client-to-client operation before current unlicensed operations are rigorously tested and demonstrate no harmful interference); Incumbent Stakeholders of 6 GHz Comments at 1 (oppose client-to-client communications because of the increased risk of interference for licensed microwave systems); AT&T Comments at 1-3 (the Commission should not authorize client-to-client communications unless such devices operate with AFC or other adequate protections in the band); Association of American Railroads Comments at 1-2 (opposes the authorization of client-to-client communications because this technology would extend the transmission range of unlicensed devices closer to fixed microwave links).

⁵⁷⁵ Client devices under the control of a LPI access point are permitted to operate up to 24 dBm EIRP over 320-megahertz channels (or -1 dBm/MHz). 47 CFR § 15.407(a)(8).

⁵⁷⁶ 6 GHz Order, 35 FCC Rcd 3926, para. 199.

low-power indoor access point to be received by the client device with a particular signal level, such as -99 dBm/MHz as suggested by Apple, Broadcom et al.⁵⁷⁷ If not, what signal level would be appropriate? How can a specific signal level be correlated with the requirement that the client device be under the control of an access point? Should the enabling signal level be of sufficient strength to effectively require that the signal levels between the access point and client device be sufficiently strong to permit bi-directional communications between the client devices and the access point, thereby ensuring that both client devices are close to the access point? How frequently should a client device be required to receive an enabling signal to continue transmitting to another client device?

194. We also seek comment on whether client devices should be limited to receiving an enabling signal from the same access point or whether client-to-client communications could be permitted so long as each client device receives an enabling signal from any authorized access point. Apple, Broadcom et al.'s suggestion would potentially permit two client devices to communicate even if they receive enabling signals from two different access points. For example, client devices in two different buildings receiving enabling signals from different low-power indoor access points could attempt to communicate with each other. Would permitting this situation to occur increase the potential for the client devices to cause harmful interference to licensed services? Should other configurations be permitted? For example, could a client device controlled by a standard power access point be permitted to communicate with a client device controlled by a low-power indoor access point? In such a case, should the client device power level be restricted to the standard power client device power level? Could client-to-client communications be permitted between devices when both clients are controlled by a standard power access point? If so, are any changes needed to the AFC systems? Must an enabling signal be received on the same channel for each device under any of the scenarios contemplated? Under any envisioned client-to-client communication scenario, commenters should provide detailed descriptions of how such communications can be enabled including how such communications fit under the current rules that limit client devices to operating only under the control of a standard power access point or a low-power indoor access point or whether, and which, rules would need to be modified. Commenters should provide detailed analysis of how any client-to-client communication configurations they prefer would protect incumbent operations from harmful interference. Finally, commenters should provide any other information relevant to evaluating whether direct client-to-client communications should be permitted, including any alternative methods or necessary rule changes not directly discussed above.

V. MEMORANDUM OPINION AND ORDER ON REMAND

A. Introduction

195. In this order, we address a remand from the United States Court of Appeals for the District of Columbia Circuit concerning the rules that govern the use of unlicensed devices in the 6 GHz band.⁵⁷⁸ After rejecting a number of challenges to the rules, the court of appeals remanded a single narrow issue for further consideration. Specifically, the court directed us to consider whether, in light of broadcasters' claims that they have experienced interference from unlicensed devices in the 2.4 GHz band, a portion of the 6 GHz band should be reserved for mobile broadcast operations.⁵⁷⁹ For the reasons set forth below, we conclude that broadcasters' unsubstantiated claims of interference in the 2.4 GHz band do not warrant any modification of our 6 GHz rules.

B. Background

196. In the spring of 2020, the Commission adopted rules to make 1200 megahertz of spectrum available for use by unlicensed devices in the 6 GHz band (5.925-7.125 GHz).⁵⁸⁰ Those rules

⁵⁷⁷ Apple, Broadcom et al. Nov. 6, 2020 *Ex Parte* at 1-2.

⁵⁷⁸ See *AT&T Servs., Inc. v. FCC*, 21 F.4th 841 (D.C. Cir. 2021).

⁵⁷⁹ *Id.* at 853-54.

⁵⁸⁰ 6 GHz Order.

imposed certain restrictions on unlicensed use of the spectrum in order to protect incumbent licensed operations in the 6 GHz band from harmful interference.⁵⁸¹ In particular, the Commission required that unlicensed low power indoor access points: (1) “operate only indoors,” so that “[t]he signals transmitted by these unlicensed devices will be significantly attenuated when passing through the walls of buildings”;⁵⁸² (2) “employ a contention-based protocol,” such as “a listen-before-talk . . . scheme”;⁵⁸³ and (3) operate at “lower power levels than . . . standard-power access points,” with “a maximum radiated power spectral density of 5 dBm per 1 megahertz”⁵⁸⁴ The Commission concluded that “the[se] restrictions and requirements . . . for low-power indoor access points eliminate[] any significant risk of causing harmful interference” to incumbent licensed services.⁵⁸⁵

197. Several parties, including NAB, filed petitions for review of the rules in the D.C. Circuit.⁵⁸⁶ They asserted that the Commission erred in concluding that its restrictions on unlicensed use of the 6 GHz band would protect incumbent licensed services from a significant risk of harmful interference.⁵⁸⁷ In an opinion issued on December 28, 2021, the D.C. Circuit largely upheld the 6 GHz rules. It held that for the most part, petitioners “failed to provide a basis for questioning the Commission’s conclusion” that the rules “will protect against a significant risk of harmful interference.”⁵⁸⁸ The court denied the petitions for review “in all respects save one.”⁵⁸⁹ The sole issue that the court remanded concerned NAB’s assertion that “after the Commission allowed unlicensed access in the 2.4 GHz band, ‘a contention-based protocol . . . failed to protect . . . licensed users[,] . . . rendering that band partially unusable.’”⁵⁹⁰ Based on broadcasters’ concern that unlicensed devices could create similar problems in the 6 GHz band, NAB had asked the Commission to “reserve a sliver of [the] 6 GHz band for licensed mobile [broadcast] operation.”⁵⁹¹ In the court’s view, “the Commission failed adequately to respond to [this] request”⁵⁹² because it “never responded” to NAB’s concerns about interference in the 2.4 GHz band.⁵⁹³ “Given the Commission’s failure to respond” to these concerns, the court concluded that “further explanation is called for.”⁵⁹⁴ Accordingly, the court “remand[ed] to the

⁵⁸¹ See *id.* at 3861-88, paras. 20-95 (describing restrictions on standard power unlicensed operations); *id.* at 3888-917, paras. 96-173 (describing restrictions on low-power indoor unlicensed operations).

⁵⁸² *Id.* at 3889, para. 100; see 47 CFR § 15.407(d)(3).

⁵⁸³ 6 GHz Order, 35 FCC Rcd at 3889, para. 101 (internal quotation marks omitted); see 47 CFR § 15.407(d)(6).

⁵⁸⁴ 6 GHz Order, 35 FCC Rcd at 3889, para. 103; see 47 CFR § 15.407(a)(5).

⁵⁸⁵ 6 GHz Order, 35 FCC Rcd at 3907, para. 146.

⁵⁸⁶ In addition to NAB, the other parties seeking review of the rules were AT&T Services, Inc., Lumen Technologies, Inc., APCO International, Edison Electric Institute, the Utilities Technology Council, the National Rural Electric Cooperative Association, and the American Public Power Association.

⁵⁸⁷ See Joint Brief of Petitioners, *AT&T Servs., Inc. v. FCC*, D.C. Cir. No. 20-1190 (and consolidated cases) (Petitioners’ Brief).

⁵⁸⁸ *AT&T Services*, 21 F.4th at 843.

⁵⁸⁹ *Id.*

⁵⁹⁰ *Id.* at 853 (quoting Petitioners’ Brief at 71).

⁵⁹¹ *Id.*; see Letter from Patrick McFadden, Associate General Counsel, NAB, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295 & GN Docket No. 17-183, at 1-2 (filed Apr. 15, 2020) (NAB April 15, 2020 Letter).

⁵⁹² *AT&T Services*, 21 F.4th at 843.

⁵⁹³ *Id.* at 853.

⁵⁹⁴ *Id.* at 854.

Commission for it to respond to [NAB's] concerns about interference in the 2.4 GHz band.”⁵⁹⁵

198. After the court issued its mandate, the Office of Engineering and Technology (OET) issued a Public Notice inviting comments regarding the court's remand.⁵⁹⁶ OET sought comment “on NAB's arguments in the Commission's proceeding regarding broadcasters' experience in the 2.4 GHz band, how that experience relates to the kinds of contention-based protocol operations prescribed for indoor use in the 6 GHz rules, and whether the 2.4 GHz experience warrants reservation of a portion of the 6 GHz band for mobile indoor operations or any other modification to the Commission's 6 GHz rules.”⁵⁹⁷ Noting “the limited scope of the court's remand,” OET emphasized that it did not “seek comment on any other aspects of the *6 GHz Report and Order*.”⁵⁹⁸

199. A number of parties submitted comments in response to the Public Notice.⁵⁹⁹ In its comments, NAB reiterated its assertion that “[b]roadcasters' prior experience in the 2.4 GHz band confirms that the use of a [contention-based protocol] . . . has repeatedly failed to prevent harmful interference to licensed users.”⁶⁰⁰ Based on that claim, NAB argued that a contention-based protocol would not protect mobile broadcast operations in the 6 GHz band from interference caused by unlicensed devices.⁶⁰¹ NAB proposed that the Commission reserve 55 MHz of the 6 GHz band (at 7070-7125 MHz) for the exclusive use of licensed mobile broadcast operations, including electronic news gathering (ENG) systems.⁶⁰² In separate submissions, the Society of Broadcast Engineers, Inc. (SBE) and Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (EIBASS) also expressed concern about interference in the 2.4 GHz band and supported NAB's proposal to reserve a portion of the 6 GHz band for licensed mobile broadcast operations.⁶⁰³

200. All of the other parties that filed comments in response to the Public Notice urged the Commission to reject NAB's argument that allegations of interference in the 2.4 GHz band warranted additional measures to protect broadcasters from interference in the 6 GHz band.⁶⁰⁴ Those parties maintained that the record contained insufficient evidence to substantiate NAB's claims that unlicensed

⁵⁹⁵ *Id.* at 853. The court declined NAB's request for vacatur of the *6 GHz Order*. *Id.* at 853-54. It concluded that vacatur would be “disruptive,” and that “the Commission may be able to explain” on remand “why its experience in the 2.4 GHz band supports its ability to protect licensed mobile [broadcast] operators from harmful interference.” *Id.* at 854.

⁵⁹⁶ *Office of Engineering and Technology Seeks Comment Following Court Remand of 6 GHz Band Order*, Public Notice, 37 FCC Rcd 3182, 3182 (OET 2022).

⁵⁹⁷ *Id.* at 3183-84.

⁵⁹⁸ *Id.* at 3184.

⁵⁹⁹ To the extent that any parties have raised issues in their comments that go beyond the scope of the narrow issue presented by the remand, we decline to consider those issues in this order.

⁶⁰⁰ NAB Remand Comments, May 25, 2022, at 3.

⁶⁰¹ *Id.* at 2-4.

⁶⁰² *Id.* at 4-6; *see also* NAB Remand Reply, June 9, 2022, at 6-8. NAB had previously proposed that the Commission reserve “at least 80 MHz” of the 6 GHz band for use by licensed broadcasters. NAB April 15, 2020 Letter at 2.

⁶⁰³ SBE Remand Comments, May 25, 2022, at 7-10; EIBASS Remand Comments, May 25, 2022, at 1-3; EIBASS Remand Reply, June 9, 2022, at 1.

⁶⁰⁴ *See* App Association Remand Comments, May 25, 2022; Apple, Broadcom et al. Remand Comments, May 25, 2022; NCTA Remand Comments, May 25, 2022; Public Knowledge/Open Technology Institute (PK/OTI) Remand Comments, May 25, 2022; Wi-Fi Alliance Remand Comments, May 25, 2022; WISPA Remand Comments, May 25, 2022; Apple, Broadcom et al. Remand Reply, June 9, 2022; NCTA Remand Reply, June 9, 2022; Wi-Fi Alliance Remand Reply, June 9, 2022.

devices have caused harmful interference to broadcast operations in the 2.4 GHz band.⁶⁰⁵ They also argued that even if there were evidence of interference in the 2.4 GHz band, it would not justify any changes to the rules governing unlicensed use of the 6 GHz band because there are material differences between these two spectrum bands.⁶⁰⁶

C. Discussion

201. When NAB challenged the 6 GHz rules in the D.C. Circuit, it argued that broadcasters were particularly vulnerable to interference in the 6 GHz band “because mobile 6 GHz facilities often operate indoors.”⁶⁰⁷ In the *6 GHz Report and Order*, the Commission concluded that a contention-based protocol requirement would ensure that “the risk of harmful interference” to indoor broadcast operations from indoor unlicensed devices in the 6 GHz band would be “insignificant.”⁶⁰⁸ NAB argued before the court that the Commission reached this conclusion without considering NAB’s claims that “a contention-based protocol . . . failed to protect” broadcasters from interference in the 2.4 GHz band, “rendering that band partially unusable.”⁶⁰⁹ In response to the court’s remand, we have further examined NAB’s claims concerning the 2.4 GHz band, and we find that those claims lack merit. The record in this proceeding contains no concrete evidence that unlicensed Wi-Fi devices have caused harmful interference to mobile broadcast operations in the 2.4 GHz band. By contrast, the record contains concrete evidence that contention-based protocols would be effective in the 6 GHz band.⁶¹⁰ Consequently, we find that NAB’s claims of interference in the 2.4 GHz band do not warrant any modifications to our 6 GHz rules.

202. In a series of letters filed before the 6 GHz rules were adopted, NAB told the Commission that a contention-based protocol requirement for unlicensed devices in the 2.4 GHz band had not protected broadcasters and that this experience should lead the Commission to conclude that a contention-based protocol likewise would not protect broadcasters from harmful interference in the 6 GHz band.⁶¹¹ NAB claimed that “the penetration of Wi-Fi has so polluted the shared portion of the 2.4 GHz band as to render it unusable for” ENG operations.⁶¹² But NAB offered no specific evidence to

⁶⁰⁵ See App Association Remand Comments at 4-5; Apple, Broadcom et al. Remand Comments at 4-7; NCTA Remand Comments at 5-8; PK/OTI Remand Comments at 4-6; Wi-Fi Alliance Remand Comments at 5-7; Apple, Broadcom et al. Remand Reply Comments at 3-5; NCTA Remand Reply Comments at 4-5; Wi-Fi Alliance Remand Reply at 5-6.

⁶⁰⁶ See App Association Remand Comments at 5; Apple, Broadcom et al. Remand Comments at 7-10; NCTA Remand Comments at 11-16; PK/OTI Remand Comments at 6-11; Wi-Fi Alliance Remand Comments at 7-8; WISPA Remand Comments at 2-5; Apple, Broadcom et al. Remand Reply at 5-6; NCTA Remand Reply at 6-7.

⁶⁰⁷ Petitioners’ Brief at 71; see also *AT&T Services*, 21 F.4th at 853. In its brief filed with the D.C. Circuit, NAB did not complain about interference with outdoor broadcast operations. Thus, consideration of outdoor operations is not at issue in this remand.

⁶⁰⁸ *6 GHz Order*, 35 FCC Rcd at 3915, para. 168.

⁶⁰⁹ Petitioners’ Brief at 71 (quoted in *AT&T Services*, 21 F.4th at 853).

⁶¹⁰ See discussion *infra* para. 207.

⁶¹¹ See Letter from Patrick McFadden, Associate General Counsel, NAB, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295 & GN Docket No. 17-183, at 2-3 (filed Mar. 23, 2020) (NAB March 23, 2020 Letter); Letter from Patrick McFadden, Associate General Counsel, NAB, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295 & GN Docket No. 17-183, at 1-2 (filed Mar. 27, 2020) (NAB March 27, 2020 Letter); Letter from Patrick McFadden, Associate General Counsel, NAB, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-295 & GN Docket No. 17-183, at 3-4 (filed Apr. 10, 2020) (NAB April 10, 2020 Letter). Although the Commission’s rules do not require the use of a contention-based protocol by unlicensed devices operating in the 2.4 GHz band, all Wi-Fi devices are required by IEEE Standard 802.11 (the industry technical standard for Wi-Fi) to use a contention-based protocol.

⁶¹² See NAB March 23, 2020 Letter at 2-3; NAB March 27, 2020 Letter at 1-2; see also NAB April 10, 2020 Letter at 4 (claiming that a contention-based protocol “has demonstrably failed to control interference in the 2.4 GHz spectrum that is also shared with ENG”).

support this broad claim. Instead, NAB cited comments filed in this proceeding by EIBASS in February 2019.⁶¹³

203. Although EIBASS asserted in its February 2019 comments that “Part 15 devices have a long history of causing chronic interference to TV BAS [Broadcast Auxiliary Service] operations” on certain channels in the 2.4 GHz band,⁶¹⁴ it offered only two very specific pieces of evidence regarding this claim: an unsubstantiated account of an incident that allegedly occurred in a single market more than a decade ago and a spectrum analyzer screenshot from a specific location purporting to show that Wi-Fi caused an increase in the 2.4 GHz band noise floor.⁶¹⁵ EIBASS described a presentation made by the BAS frequency coordinator for Phoenix, Arizona, during a conference of broadcast engineers in April 2004.⁶¹⁶ But EIBASS did not submit either a transcript of the presentation or a sworn declaration from the Phoenix coordinator (whom EIBASS did not identify). Instead, EIBASS simply offered its undocumented recollection of the presentation, which had been made 15 years earlier.⁶¹⁷ According to EIBASS, the Phoenix coordinator stated during the April 2004 presentation that “about every six months or so,” one of the four ENG receive-only sites in the Phoenix area “becomes unusable” for certain channels in the 2.4 GHz band “because of the proliferation of 2.4 GHz WiFi devices at the site.”⁶¹⁸ As EIBASS recounted the presentation, the Phoenix coordinator said that the interference issue was temporarily cured when “the operators of the offending Part 15 devices [were] instructed to cease and desist their interference-causing operations,” but those devices resumed operation after a while, and “the process [had] to be repeated.”⁶¹⁹

204. Even if we were persuaded that broadcasters in the Phoenix area had experienced interference in the 2.4 GHz band nearly two decades ago, as EIBASS claimed, this isolated incident would not convince us that we need to take additional measures that would affect the entirety of the U.S. to protect broadcasters from harmful interference in the 6 GHz band. But we have serious questions concerning the details of EIBASS’s second-hand account of the alleged Phoenix interference episode. According to EIBASS, the Phoenix frequency coordinator in the early 2000s (whom EIBASS did not identify) traced the alleged interference in Phoenix to Wi-Fi devices.⁶²⁰ Even assuming that harmful

⁶¹³ See NAB March 23, 2020 Letter at 3 n.5; NAB March 27, 2020 Letter at 2 n.1.

⁶¹⁴ Comments of EIBASS, ET Docket No. 18-295 & GN Docket No. 17-283, at 8 (rec. Feb. 15, 2019) (EIBASS Comments). The Broadcast Auxiliary Service (BAS) operates in the U-NII-6 band on a mobile basis and in the U-NII-8 band on both a fixed and mobile basis. *6 GHz Order*, 35 FCC Rcd at 3855, para. 8 (citing 47 CFR § 74.602(a), (i)). Licensees use BAS stations to transmit programming material from special events or remote locations, *including electronic news gathering*, back to the studio or other central receive locations. *Id.* (emphasis added) (citing 47 CFR § 74.631).

⁶¹⁵ EIBASS Comments at 8-9, 17.

⁶¹⁶ *Id.*

⁶¹⁷ *Id.*

⁶¹⁸ *Id.*

⁶¹⁹ *Id.* Although EIBASS claimed that the users of the interfering devices resumed operations after they were told to stop using the devices, our records contain no evidence (and neither EIBASS nor NAB provides any) that any of the affected broadcasters filed a complaint with our Enforcement Bureau. If the Bureau had received such a complaint, it could have taken steps to identify the nature of the use (whether Wi-Fi or otherwise) and directed any users of the offending devices to cease operations until the interference issue was resolved. The Bureau also could have warned any such users of the devices that if they resumed operation before the interference issue was addressed, they would be violating federal law and could face “severe penalties, including, but not limited to, substantial monetary fines, *in rem* arrest action to seize the offending . . . equipment, and criminal sanctions including imprisonment.” See, e.g., Notification of Harmful Interference, Victor Rosario, Case No. EB-FIELDNER-17-00025658, 2018 WL 923275, at *1 (EB Feb. 15, 2018) (citing 47 U.S.C. §§ 401, 501, 503, and 510).

⁶²⁰ EIBASS Comments at 8.

interference did in fact occur, we have no way of verifying that Wi-Fi devices caused the problem.⁶²¹ If the alleged interference did, in fact, occur, we note that many unlicensed part 15 non-Wi-Fi devices also operate in the 2.4 GHz band, including baby monitors, cordless phones, wireless microphones, speakers and earbuds, and computer peripherals;—and those devices do not use a contention-based protocol.⁶²² Similarly, industrial, scientific, and medical (ISM) devices operate on a primary basis⁶²³ in the 2.4 GHz band with unlimited power under the Commission’s part 18 rules, and they also do not use a contention-based protocol.⁶²⁴ ISM devices use RF energy for industrial, scientific, medical, domestic, or similar purposes⁶²⁵ and are found in many locations such as factories, medical facilities, and even residences (microwave ovens). Because EIBASS does not attribute any alleged harmful interference to any specific Wi-Fi device(s) and does not appear to consider any of the other numerous devices operating in the band without using a contention-based protocol, the Phoenix incident does not support NAB’s assertion that a contention-based protocol failed to prevent interference in the 2.4 GHz band.

205. The other evidence that EIBASS provided was a spectrum analyzer screenshot that was captured at an ENG receive-only site in Phoenix in 2013.⁶²⁶ According to EIBASS, this screenshot shows that the noise floor increases by 11 dB in 2.450-2.467 GHz and 5 dB in 2.467-2.483.5 GHz compared to ENG channel A10 at the upper end of the 2.4 GHz band.⁶²⁷ While this screenshot shows that some type of signal could have been present in the 2.4 GHz band at that time, it does not provide evidence of what devices may be causing any noise floor increase nor that a contention-based protocol would have failed to protect BAS receivers in the band. In fact, any noise floor increase could be attributable to any of the non-Wi-Fi devices or ISM devices that operate in the 2.4 GHz band and do not employ a contention-based protocol. Moreover, as this screenshot is merely an indication of the spectrum at a single point in time, it offers no indication as to the behavior of a device employing a contention-based protocol when in the vicinity of a BAS transmitter in the band. Given the limited information this screenshot conveys, it provides no grounds to support NAB’s assertion that a contention-based protocol had failed to prevent interference in the 2.4 GHz band.

206. Furthermore, even if the devices that EIBASS alleged were causing interference in Phoenix used a contention-based protocol, we cannot determine from the sparse evidence in the record whether those devices were operating in compliance with the Commission’s part 15 rules.⁶²⁸ Notably, the contention based protocol used by Wi-Fi devices is part of the IEEE 802.11 standard and not required by the Commission’s rules nor do the Commission’s rules limit such devices to indoor locations. In contrast, the Commission adopted a requirement that low-power indoor (LPI) 6 GHz unlicensed devices use a contention-based protocol to work in tandem with other restrictions these unlicensed devices—including indoor-only operation and power limits on LPI access points—to guard against harmful interference to

⁶²¹ See Apple, Broadcom et al. Remand Comments at 5 (noting “the absence of any meaningful detail” in the account of the Phoenix incident that would allow the Commission “to assess the conclusory interference claims”).

⁶²² See *id.* at 7; NCTA Remand Comments at 6-7; PK/OTI Remand Comments at 9; Wi-Fi Alliance Remand Comments at 6; WISPA Remand Comments at 4-5; Apple, Broadcom et al. Remand Reply at 4-5; NCTA Remand Reply at 4-5.

⁶²³ 47 CFR § 2.106(b)(150) (noting, in international footnote 5.150, that the 2400-2500 MHz band is designated for ISM applications and that radiocommunication services operating in that band must accept harmful interference which may be caused by these applications).

⁶²⁴ *Id.* §§ 18.301, 18.305(a).

⁶²⁵ *Id.* § 18.107(c).

⁶²⁶ EIBASS Comments at 8.

⁶²⁷ *Id.* at 8-9, 17.

⁶²⁸ See NCTA Remand Comments at 6; NCTA Remand Reply at 4.

incumbent operations in the 6 GHz band.⁶²⁹ Because of the lack of a Commission-mandated requirement for a contention-based protocol or indoor operation on 2.4 GHz devices, and no insight into whether devices in the Phoenix area at the time of the alleged interference were actually using such a protocol or operating indoors, it is impossible to draw any conclusions from those operations and the operations anticipated in the 6 GHz band. Thus, the alleged Phoenix incidents shed no light on the relevant question raised by NAB: that is, whether the purported experience regarding potential harmful interference to BAS devices in the 2.4 GHz band has any relevance to the potential for such interference from LPI devices in the 6 GHz band. Additionally, as an added safeguard and as several commenters note, the 6 GHz rules impose much lower power limits on unlicensed LPI devices than the 2.4 GHz rules do.⁶³⁰

207. In contrast to NAB's unsubstantiated claims of harmful interference in the 2.4 GHz band, the record persuades us that "the risk of harmful interference to indoor electronic news gathering receivers from indoor unlicensed devices" in the 6 GHz band "is insignificant."⁶³¹ A study by Apple, Broadcom et al. "simulated the receive power level from electronic news gathering transmitters at 20 unlicensed access points operating within the US House of Representatives chamber. The results of this simulation demonstrate[d] that, even at the lowest electronic news gathering transmit power level, all unlicensed access points would detect the electronic news gathering signal at greater than -62 dBm and therefore not transmit co-channel."⁶³² This study "confirm[ed]" that contention-based protocols "could be used to mitigate interference to indoor electronic news gathering receivers" in the 6 GHz band.⁶³³

208. Because the record contains no substantial evidence of harmful interference to broadcast operations in the 2.4 GHz band, we find no basis for NAB's assertion that a contention-based protocol failed to protect broadcasters from interference in that band, much less under the parameters established for operation in the 6 GHz band. As the Commission noted in the *6 GHz Report and Order*, "Wi-Fi devices have been deployed" in the 2.4 GHz band "in abundance for well over 20 years."⁶³⁴ For most of that time, the 2.4 GHz band was the primary band used by Wi-Fi devices. If (as NAB and others have claimed) interference from Wi-Fi devices prevented broadcasters from using portions of the 2.4 GHz band, we would expect the record to reflect evidence of numerous instances of such interference. Yet apart from an unsubstantiated account of an alleged incident in Phoenix almost two decades ago and a spectrum analyzer screenshot captured in Phoenix more than a decade ago, the record contains no specific evidence that any broadcaster has experienced harmful interference from unlicensed Wi-Fi devices in the 2.4 GHz band. Moreover, neither NAB nor any other party has cited a single complaint filed with our Enforcement Bureau by any broadcaster alleging interference by unlicensed Wi-Fi devices in the 2.4 GHz band. The absence of any such complaints undermines NAB's contention that interference from unlicensed Wi-Fi devices is a serious problem for broadcasters in the 2.4 GHz band.

209. Following the remand, SBE and EIBASS attempted to supplement the record by

⁶²⁹ The Commission adopted three restrictions designed to prevent harmful interference from devices using low-power indoor access points. Such devices are (1) limited to indoor operation; (2) required to use a contention-based protocol; and (3) subject to low-power operation. See *6 GHz Order*, 35 FCC Rcd at 3888-90, paras. 99-103. The Commission concluded that these restrictions "eliminate[d] any significant risk" that the devices would cause "harmful interference." *Id.* at 3907, para. 146; see also *AT&T Services*, 21 F.4th at 845, 850-51.

⁶³⁰ See Apple, Broadcom et al. Remand Reply at 6 ("[T]he 6 GHz rules require [low-power indoor unlicensed] devices to operate at far lower power (e.g., at a power spectral density '63 times' less powerful in a 20-megahertz channel) than the 2.4 GHz rules permit.") (quoting NCTA Remand Comments at 13); see also App Association Remand Comments at 5; PK/OTI Remand Comments at 9-10; WISPA Comments at 2-3.

⁶³¹ *6 GHz Order*, 35 FCC Rcd at 3915, para. 168.

⁶³² *Id.* (citing Apple, Broadcom et al. Feb. 28, 2020, *Ex Parte* at 13).

⁶³³ *Id.*

⁶³⁴ *Id.* at 3908, para. 147.

presenting new evidence of harmful interference in the 2.4 GHz band.⁶³⁵ Such evidence falls outside the scope of this remand proceeding. The narrow question presented by the court's remand is whether the Commission adequately considered NAB's concerns about interference in the 2.4 GHz band when it adopted the 6 GHz rules. That is the only question on which OET sought further comment. In this context, the relevant record is "the record before the agency at the time of its decision."⁶³⁶

210. In any event, even assuming that the new evidence proffered by SBE and EIBASS were properly before us, this evidence does not persuade us that Wi-Fi devices have caused harmful interference to broadcast operations in the 2.4 GHz band, much less at the far lower power at which Wi-Fi operations are required to operate in the 6 GHz band. SBE asserts that it conducted an "informal survey" in which local frequency coordinators reported "harmful interference from Wi-Fi systems [in the 2.4 GHz band] . . . in at least 13 markets."⁶³⁷ But as Apple, Broadcom et al. point out, SBE's "informal survey" was "backed in most cases by no supporting evidence or incident descriptions."⁶³⁸ The only evidence offered by SBE to support its "informal survey" is a spectrum plot that purports to show interference in Milwaukee.⁶³⁹ We agree with Apple, Broadcom et al. that this spectrum plot does not constitute "meaningful technical evidence" because it contains "no supporting detail" concerning how the measurement of interference in Milwaukee was made.⁶⁴⁰ In particular, we note that SBE offers "no explanation why" it attributes the alleged interference in Milwaukee "to Wi-Fi, rather than to the many other technologies operating in the 2.4 GHz band that do not use a contention-based protocol."⁶⁴¹ The same is true of EIBASS's comparison of the noise floors for mobile broadcast operations at 2 GHz and 2.5 GHz.⁶⁴² Although EIBASS claims that part 15 Wi-Fi devices are responsible for the higher noise floor at 2.5 GHz,⁶⁴³ the higher noise floor could also be attributable to "the many other technologies operating in the 2.4 GHz band that do not use a contention-based protocol."⁶⁴⁴

211. The post-remand submissions by SBE and EIBASS also fail to cite any complaints filed with our Enforcement Bureau claiming that Wi-Fi devices caused harmful interference to mobile broadcast operations in the 2.4 GHz band. The absence of any such complaints casts further doubt on the assertions made by NAB and its supporters that broadcasters have routinely experienced such interference.

212. In sum, despite NAB's claims that interference issues in the 2.4 GHz band are pervasive and longstanding, the record contains no credible evidence of such interference. The specific incident of

⁶³⁵ See SBE Remand Comments at 5 (citing "an informal survey" in which frequency coordinators reported "harmful interference from Wi-Fi systems" in the 2.4 GHz band "in at least 13 markets"); EIBASS Remand Comments at 2, Figure 1 (attributing the high "noise floor" at 2.5 GHz to the proliferation of unlicensed Wi-Fi devices operating at 2.4 GHz).

⁶³⁶ See *Northstar Wireless, LLC v. FCC*, 38 F.4th 190, 212 (D.C. Cir. 2022); see also NCTA Remand Reply at 11-12.

⁶³⁷ SBE Remand Comments at 5.

⁶³⁸ Apple, Broadcom et al. Remand Reply at 8.

⁶³⁹ See SBE Remand Comments at 5-6.

⁶⁴⁰ See Apple, Broadcom et al. Remand Reply at 8.

⁶⁴¹ *Id.*

⁶⁴² See EIBASS Remand Comments at 2, Figure 1. In this context, the noise floor is the sum of all signals emitted by other noise sources in the same part of the spectrum as a broadcast signal. The higher the noise floor, the more likely the broadcast signal will experience harmful interference.

⁶⁴³ *Id.* at 2.

⁶⁴⁴ See Apple, Broadcom et al. Remand Reply at 8; see also NCTA Remand Reply at 4-5 (stating that "non-Wi-Fi devices" using the 2.4 GHz band "could have caused the alleged harmful interference, and many of those devices do not use a contention-based protocol").

alleged interference cited in the record occurred about two decades ago in Phoenix, and it was never reported to our Enforcement Bureau. EIBASS's sketchy description of the details of that incident does not provide us with enough information to draw any firm conclusions about how—or even whether—interference occurred. The spectrum analyzer screenshot showing an increase in the noise floor in Phoenix more than a decade ago also lacks the details needed to reach a conclusion about whether harmful interference was occurring. Given the absence of any concrete evidence that broadcasters have experienced harmful interference in the 2.4 GHz band or in the 6 GHz band, where LPI devices have been operating since December 2020,⁶⁴⁵ and in light of the substantial record evidence demonstrating that there is no significant risk of harmful interference given the constraints under which Wi-Fi devices are required to operate in the 6 GHz band, we reject NAB's contention that broadcasters' experience with interference in the 2.4 GHz band justifies the reservation of a portion of the 6 GHz band for mobile broadcast operations.

D. Conclusion

213. For the foregoing reasons, we conclude that NAB's unsubstantiated claims of interference in the 2.4 GHz band do not justify any modifications to our 6 GHz rules to provide broadcasters with further protections from harmful interference. We reaffirm that the rules the Commission adopted in the *6 GHz Order* eliminate any significant risk of harmful interference to mobile broadcast operations and other incumbent licensed services in the 6 GHz band. Therefore, we decline to adopt NAB's proposal to reserve part of the 6 GHz band for the exclusive use of mobile broadcast operations.

VI. PROCEDURAL MATTERS

214. *Ex Parte Presentations.* The proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.⁶⁴⁶ 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.

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

⁶⁴⁵ *Grant of Equipment Authorization*, ASUSTek Computer Inc., FCC ID MSQ-RTAXJF00 (granted Dec. 30, 2020).

⁶⁴⁶ 47 CFR § 1.1200 *et seq.*

- 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. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
 - 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, D.C. 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, 35 FCC Rcd 2788 (OMD 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

216. *Paperwork Reduction Act.* The Second Report and Order 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).

217. The Second Further Notice of Proposed Rulemaking contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the 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 might further reduce the information collection burden for small business concerns with fewer than 25 employees.

218. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),⁶⁴⁷ 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.”⁶⁴⁸ 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 C.

219. We have also prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the potential impact of the rule and policy changes contained in the Second Further Notice of Proposed Rulemaking. The IRFA is set forth in Appendix D. Written public comments are requested on the IRFA.

⁶⁴⁷ 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).

⁶⁴⁸ See 5 U.S.C. § 605(b).

Comments must be filed by the deadlines for comments on the Second Further Notice of Proposed Rulemaking indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

220. *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).

221. *Providing Accountability Through Transparency Act.* The Providing Accountability Through Transparency Act requires each agency, in providing notice of a rulemaking, to post online a brief plain-language summary of the proposed rule.⁶⁴⁹ Accordingly, the Commission will publish the required summary of the Second Further Notice of Proposed Rulemaking on <https://www.fcc.gov/proposed-rulemakings>.

222. *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).

223. *Additional Information.* For additional information on this proceeding, contact Nicholas Oros of the Office of Engineering and Technology, Policy and Rules Division, at 202-418-0636 or Nicholas.Oros@fcc.gov.

VII. ORDERING CLAUSES

224. Accordingly, IT IS ORDERED, pursuant to sections 2, 4(i), 302, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 152, 154(i), 302a, and 303, this *Second Report and Order and Second Further Notice of Proposed Rulemaking*, is hereby ADOPTED.

225. IT IS FURTHER ORDERED, pursuant to sections 4(i), 4(j), 201, 302, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), (j), 201, 302a, 303, that this *Memorandum Opinion and Order on Remand* is hereby ADOPTED.

226. IT IS FURTHER ORDERED that the amendments of the Commission's rules as set forth in Appendix A ARE ADOPTED, effective 60 days from the date of publication in the Federal Register.

227. IT IS FURTHER ORDERED that this *Memorandum Opinion and Order on Remand* SHALL BECOME EFFECTIVE thirty (30) days after publication in the Federal Register.

228. IT IS FURTHER ORDERED that the Office of the Secretary, Reference Information Center, SHALL SEND a copy of the *Second Report and Order and Second Further Notice of Proposed Rulemaking* including the Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

229. IT IS FURTHER ORDERED that the Office of Managing Director, Performance Program Management SHALL SEND a copy of this Second 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).

⁶⁴⁹ 5 U.S.C. § 553(b)(4). The Providing Accountability Through Transparency Act, Pub. L. No. 118-9 (2023), amended section 553(b) of the Administrative Procedure Act.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A**Final Rules**

For the reasons discussed in the document, the Federal Communications Commission amends 47 CFR part 15 as follows:

PART 15 – RADIO FREQUENCY DEVICES

1. The authority citation for part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 304, 307, 336, 544a, and 549.

2. Section 15.403 is amended by adding the definition of “Very low power device” in alphabetical order, to read as follows:

§ 15.403 Definitions.

* * * * *

Very Low Power Device. For the purpose of this subpart, a device that operates in the 5.925-6.425 GHz and 6.525-6.875 GHz bands and has an integrated antenna. These devices do not need to operate under the control of an access point.

* * * * *

3. Section 15.407 is amended by:
 - a. Redesignating paragraphs (a)(9) through (a)(12) as paragraphs (a)(10) through (a)(13) and adding new paragraph (a)(9);
 - b. Revising paragraphs (b) introductory text and (c);
 - c. Revising paragraph (d)(1);
 - d. Removing and reserving paragraph (d)(2);
 - e. Adding new paragraphs (d)(8) through (10);
 - f. Revising paragraph (l)(2)(ii).

The revisions and additions read as follows.

§ 15.407 General technical requirements.

(a) * * *

- (9) For very low power devices operating in the 5.925-6.425 GHz and 6.525-6.875 GHz bands, the maximum power spectral density must not exceed -5 dBm e.i.r.p in any 1-megahertz band and the maximum e.i.r.p must not exceed 14 dBm.

* * * * *

- (b) **Undesirable emission limits.** Except as shown in paragraph (b)(10) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

* * * * *

- (c) **Transmission discontinuation requirement.** The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

(d) * * *

(1) Operational restrictions:

- (i) Oil platforms: Operation of standard power access points, fixed client devices, very low power devices, and indoor access points in the 5.925–7.125 GHz band is prohibited on oil platforms.
- (ii) Land vehicles: Operation of standard power access points, fixed client devices, and indoor access points in the 5.925–7.125 GHz band is prohibited on vehicles (e.g., cars, trains).
- (iii) Boats: Operation of standard power access points, fixed client devices, and indoor access points in the 5.925–7.125 GHz band is prohibited on boats.
- (iv) Aircraft: Standard power access points, fixed client devices, very low power devices, and indoor access points in the 5.925–7.125 GHz band are prohibited from operating on aircraft, except that very low power devices and indoor access points are permitted to operate in the 5.925–6.425 GHz bands in large aircraft while flying above 10,000 feet.
- (v) Operation of transmitters in the 5.925–7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

(2) [Reserved]

* * * * *

- 6) All U-NII transmitters, except for standard power access points and fixed client devices, operating in the 5.925–7.125 GHz band must employ a contention-based protocol.

* * * * *

- (8) Very low power devices may not employ a fixed outdoor infrastructure. Such devices may not be mounted on outdoor structures, such as buildings or poles.
- (9) Very low power devices must prioritize operations on frequencies above 6.105 GHz prior to operating on frequencies between 5.925 GHz and 6.105 GHz.
- (10) Transmit power control (TPC). Very low power devices operating in the 5.925–6.425 and 6.525–6.875 GHz bands shall employ a TPC mechanism. A very low power device is required to have the capability to operate at least 6 dB below the maximum EIRP PSD value of -5 dBm/MHz.

* * * * *

(1) * * *

(2) * * *

- (ii) The AFC system must use -6 dB I/N as the interference protection criteria in determining the size of the adjacent channel exclusion zone, where I (interference) is the signal from the standard power access point or fixed client device's out of channel emissions at the fixed microwave service receiver and N (noise) is background noise level at the fixed microwave service receiver. The adjacent channel exclusion zone must be calculated based on the emissions requirements of paragraph (b)(7) of this section.

* * * * *

APPENDIX B**Proposed Rules**

For the reasons discussed in the document, the Federal Communications Commission proposes to amend 47 CFR part 15 as follows:

PART 15 – RADIO FREQUENCY DEVICES

1. The authority citation for part 15 continues to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 304, 307, 336, 544a, and 549.

2. Section 15.403 is amended by adding the definitions of "Geofenced very low power access point" and "Geofencing" in alphabetical order, to read as follows:

§ 15.403 Definitions.

* * * * *

Geofenced Very Low Power Access Point. For the purpose of this subpart, an access point that operates in the 5.925–7.125 GHz band, has an integrated antenna, and uses a geofencing system to determine channel availability at its location.

Geofencing. For the purposes of this subpart, a method of establishing exclusion zones within which very low power devices are not permitted to operate on frequencies specified by the geofencing system.

* * * * *

3. Section 15.407 is amended by redesignating paragraphs (a)(7) and (8) as paragraphs (a)(8)(i) and (ii); adding new paragraphs (a)(7) and (a)(8)(iii); revising paragraphs (a)(10), (d)(3), (d)(5) and (6), redesignating paragraph (d)(7) as paragraph (d)(5)(ii); adding and reserving new paragraph (d)(7); revising paragraphs (d)(8) through (10); and adding paragraphs (o) through (r) to read as follows:

§ 15.407 General technical requirements.

(a) * * *

- (7) For a geofenced very low power access point operating in the 5.925–7.125 GHz band, the maximum power spectral density must not exceed 1 dBm e.i.r.p in any 1-megahertz band. In addition, the maximum e.i.r.p over the frequency band of operation must not exceed 14 dBm.
- (8) Client device operation:
 - (i) For client devices, except for fixed client devices as defined in this subpart, operating under the control of a standard power access point in 5.925–6.425 GHz and 6.525–6.875 GHz bands, the maximum power spectral density must not exceed 17 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm and the device must limit its power to no more than 6 dB below its associated standard power access point's authorized transmit power.
 - (ii) For client devices operating under the control of an indoor access point in the 5.925–7.125 GHz bands, the maximum power spectral density must not exceed –1 dBm e.i.r.p. in any 1-

megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

- (iii) For client devices operating under the control of a geofenced very low power access point in the 5.925–7.125 GHz bands, the maximum power spectral density must not exceed 1 dBm e.i.r.p in any 1-megahertz band, and the maximum e.i.r.p over the frequency band of operation must not exceed 14 dBm.

* * * * *

- (10) Access points operating under the provisions of paragraphs (a)(5), (6), and (7) of this section must employ a permanently attached integrated antenna.

* * * * *

(d) * * *

- (3) Transmitters operating under the provisions of paragraphs (a)(5), (6), and (8)(ii) of this section are limited to indoor locations.

* * * * *

(5) Client Devices:

- (i) In the 5.925–7.125 GHz band, client devices must operate under the control of a standard power access point, low-power indoor access point, subordinate device, or geofenced very low power access point; Subordinate devices must operate under the control of a low-power indoor access point.

- (ii) Fixed client devices may only connect to a standard power access point.

- (iii) In all cases, an exception exists such that a client device may transmit brief messages to an access point when attempting to join its network after detecting a signal that confirms that an access point is operating on a particular channel.

(iv) Client-to-client communications: Client devices are prohibited from connecting directly to another client device, except that client devices under the control of the same indoor access point or geofenced very low power access point may communicate directly with each other.

(v) Client devices under the control of indoor access point, that directly connect to another client, transmit power must not exceed -1 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 14 dBm.

* * * * *

(7) [Reserved]

- (8) Geofenced very low power and very low power devices may not employ a fixed outdoor infrastructure. Such devices may not be mounted on outdoor structures, such as buildings or poles.

- (9) Geofenced very low power and very low power devices must prioritize operations on frequencies above 6.105 GHz prior to operating on frequencies between 5.925 GHz and 6.105 GHz.
- (10) Transmit power control (TPC). Geofenced very low power devices operating in the 5.925-7.125 GHz bands shall employ a TPC mechanism. A very low power device is required to have the capability to operate at least 6 dB below the maximum EIRP PSD value of -5 dBm/ MHz.

* * * * *

(o) *Geofencing system.*

- (1) A geofencing system must obtain information on protected services within the 5.925–7.125 GHz band from Commission databases and use that information to determine frequency-specific exclusion zones where very low power access points and associated client devices may not operate on specified frequencies based on the propagation models and protection criteria specified in paragraph (p) of this section. The geofencing system must access the Commission’s licensing databases and update the frequency-specific exclusion zones at least once per day to ensure that they are based on the most recent information in the Commission’s databases.
- (2) Geofencing systems may be implemented using a centralized database or may be integrated into geofenced very low power access point devices.
- (3) A geofenced very low power access point operating under paragraph (a)(7) of this section must access a geofencing system to obtain frequency-specific exclusion zones for the area in which it is operating or intends to operate (e.g., within a specific point radius or within specific geopolitical boundaries) prior to transmitting. If the geofenced very low power access point moves outside this area, it must obtain additional frequency-specific exclusion zones for the area and adjust its operating frequency, if necessary, prior to operating in this new area. The geofenced very low power access point must obtain updated frequency-specific exclusion zones from the geofencing system at least once per day. If the geofenced very low power access point fails to obtain the updated frequency specific exclusion zones on any given day, the geofenced very low power access point may continue to operate until 11:59 p.m. of the following day at which time it must cease operations until it can obtain updated frequency-specific exclusion zones.
- (4) A geofenced very low power access point must determine its location and avoid transmitting on frequencies that are not available in accordance with the frequency specific exclusion zones. The geofenced very low power access point may not permit a client device operating under its control to transmit on frequencies that are not available in accordance with the frequency specific exclusion zones. The geofenced very low power access point must determine its location frequently enough that, based on its position and speed, it will not transmit on an unavailable frequency. The geofenced very low power access point must determine its location and speed at least once a minute.
- (5) A geofenced very low power access point must incorporate adequate security measures to prevent it from accessing geofencing systems and geofencing methods not approved by the FCC and to ensure that unauthorized parties cannot modify the device to operate in a manner inconsistent with the rules and protection criteria set forth in this section and to ensure that communications between geofenced very low power access points and geofencing systems are secure to prevent corruption or unauthorized interception of data.

-
- (6) Geofenced very low power access point device geo-location capability:
- (i) A geofenced very low power access point must include an internal geo-location capability to automatically determine the geofenced very low power access point's geographic coordinates and location uncertainty (in meters), with a confidence level of 95%. The geofenced very low power access point must use such coordinates and location uncertainty when comparing the device's specific location to the exclusion zone boundaries.
 - (ii) The applicant for certification of a geofenced very low power access point must demonstrate the accuracy of the geo-location method used and the location uncertainty.
- (7) Service requirements:
- (i) For centralized geofencing systems, geofencing system operators must provide continuous service to all very low power devices for which it has been designated to provide service. If a geofencing system ceases operation, the operator must provide at least 30-days' notice to the Commission and a description of any arrangements made for those devices to continue to receive exclusion zone update information.
 - (ii) For geofencing systems internal to the geofenced very low power device, the equipment certification responsible party must ensure that the device continues to be capable of receiving Commission database updates as required by this section.
 - (iii) As required by paragraph (o)(3) of this section, devices that do not receive timely geofencing update information or timely Commission database updates necessary to calculate up-to-date exclusion zones must cease operating.
- (8) The geofencing system whether centralized or internal to the geofenced very low power device must ensure that all communications and interactions between the geofencing system and the geofenced very low power access point and/or all communications between the geofencing system and Commission databases are accurate and secure and that unauthorized parties cannot access or alter the database, the exclusion zones, or the list of excluded or available frequencies. Additionally, the geofencing system must incorporate security measures to protect against unauthorized data input or alteration of stored data, including establishing communications authentication procedures between client devices and geofenced very low power access points.
- (9) A geofencing system must implement the terms of international agreements with Mexico and Canada.
- (10) At the time that the geofenced very low power device receives equipment certification, the device must either have its geofencing system approved or specify an already approved geofencing system that it is using. The Commission may specify criteria for such approval, which could require test results to be submitted.
- (11) Each geofencing system and operator thereof for centralized systems and the equipment certification responsible party for systems internal to the geofenced very low power device must:
- (i) Ensure that a regularly updated geofencing system database that contains the information described in this section, including incumbent's information and geofenced very low power access points authorization parameters, is maintained.
 - (ii) Respond in a timely manner to verify, correct, or remove, as appropriate, data in the event that the Commission or a party presents a claim of inaccuracies in the geofencing system.

- (iii) Establish and follow protocols to comply with enforcement instructions from the Commission, including discontinuance of geofenced very low power access point operations on specified frequencies in designated geographic areas and predetermined exclusion zones.
- (iv) Comply with instructions from the Commission to adjust exclusion zones to more accurately reflect the potential for harmful interference.

(12) A geofencing system operator may charge fees for providing service. The Commission may, upon request, review the fees and can require changes to those fees if the Commission finds them to be unreasonable.

(p) *Incumbent Protection by Geofencing system:* A very low power access point or very low power client device must not cause harmful interference to fixed microwave services and Broadcast Auxiliary Service and Cable Television Relay Service receive sites authorized to operate in the 5.925–7.125 GHz bands. Based on the criteria set forth below, a geofencing system must establish location and frequency-based exclusion zones around fixed microwave receivers, fixed Broadcast Auxiliary Service receive sites, and fixed Cable Television Relay Service receive sites operating in the 5.925–7.125 GHz bands. Individual very low power access points and their associated client devices must not operate co-channel to the frequencies licensed for fixed microwave systems, fixed Broadcast Auxiliary Service receive sites, and fixed Cable Television Relay Service sites within an exclusion zone.

(1) Propagation Models: Geofencing systems must use the following propagation models to determine exclusion zones for very low power access points. For a separation distance between geofenced very low power devices and fixed microwave receive sites, fixed Broadcast Auxiliary Service receive sites, or fixed Cable Television Relay Service receive sites

(i) Up to 30 meters, the geofencing system must use the free space path-loss model.

(ii) More than 30 meters and up to and including one kilometer, the geofencing system must use the Wireless World Initiative New Radio phase II (WINNER II) model. The geofencing system must use site-specific information, including buildings and terrain data, for determining the line-of-sight/non-line-of-sight path component in the WINNER II model, where such data are available. For evaluating paths where such data are not available, the geofencing system must use a probabilistic model combining the line-of-sight path and non-line-of-sight path into a single path-loss as follows:

$$\text{Path-loss (L)} = \sum_i P(i) * L_i = P_{\text{LOS}} * L_{\text{LOS}} + P_{\text{NLOS}} * L_{\text{NLOS}};$$

Where:

P_{LOS} is the probability of line-of-sight;

L_{LOS} is the line-of-sight path loss;

P_{NLOS} is the probability of non-line-of sight;

L_{NLOS} is the non-line-of-sight path loss; and

L is the combined path loss.

The WINNER II path loss models include a formula to determine P_{LOS} as a function of antenna heights and distance. P_{NLOS} is equal to $(1-P_{\text{LOS}})$.

In all cases, the geofencing system will use the correct WINNER II parameters to match the morphology of the path between a very low power access point and a fixed microwave receiver, fixed Broadcast Auxiliary Service receiver, or fixed Cable Television Relay Service receiver (i.e., Urban, Suburban, or Rural).

(iii) More than one kilometer, the geofencing system must use Irregular Terrain Model (ITM) combined with the appropriate clutter model. To account for the effects of clutter, such as buildings and foliage, the geofencing system must combine the ITM with the ITU-R P.2108-0 (06/2017) clutter model for urban and suburban environments and the ITU-R P.452-16 (07/2015) clutter model for rural environments. The geofencing system should use the most appropriate clutter category for the local morphology when using ITU-R P.452-16. However, if detailed local information is not available, the “Village Centre” clutter category should be used. The geofencing system must use 1 arc-second digital elevation terrain data and, for locations where such data are not available, the most granular available digital elevation terrain data.

(iv) Geofencing systems may include up to 4 dB additional loss to account for losses due to scattering and absorption from a nearby body or object.

(v) Geofencing systems may calculate exclusion zones based on a 1.5 meter very low power access point antenna height above ground level, regardless of the actual antenna height above ground level.

(2) Interference Protection Criteria: The geofencing system must use -6 dB I/N as the interference protection criteria when calculating the exclusion zones where I (interference) is the co-channel signal from the very low power access point at the fixed microwave service receiver, fixed Broadcast Auxiliary Service receiver, or fixed Cable Television Relay Service receiver and N (noise) is background noise level at the fixed microwave service receiver, fixed Broadcast Auxiliary Service receiver, or fixed Cable Television Relay Service receiver.

(q) *Incumbent Protection by Geofencing System: Radio Astronomy Services.*

(1) The geofencing system must enforce exclusion zones to the following radio observatories that observe between 6650-6675.2 MHz: Arecibo Observatory, the Green Bank Observatory, the Very Large Array (VLA), the 10 Stations of the Very Long Baseline Array (VLBA), the Owens Valley Radio Observatory, and the Allen Telescope Array.

(2) The exclusion zone sizes are based on the radio line-of-sight and determined using $4/3$ earth curvature and the following formula:

$$dkm\_los = 4.12 * (\sqrt{H_{tx}} + \sqrt{H_{rx}})$$

Where:

H_{tx} is the height of the very low power access point and is set at 1.5 meters above ground level; and

H_{rx} is the height of the radio astronomy antenna in meters above ground level. Coordinate locations of the radio observatories are listed in section 2.106(c)(131), (c)(385) of this part.

(r) *Incumbent Protection by Geofencing System: FSS (space-to-Earth) Earth Stations.*

- (1) The geofencing system must enforce exclusion zones to protect FSS earth stations that receive in the 6875-7055 MHz band at Clifton, TX, Cabo Rojo, PR, Wasilla, AK, Sebring, FL, and Naalehu, HI.
- (2) The exclusion zone sizes are based on the radio line-of-sight and determined using 4/3 earth curvature and the following formula:

$$dkm\_los = 4.12 * (\sqrt{H_{tx}} + \sqrt{H_{rx}})$$

Where:

H_{tx} is the height of the very low power access point and is set at 1.5 meters above ground level; and

H_{rx} is the height of the FSS antenna in meters above ground level. Coordinate locations of the FSS sites are listed in the following table

Location	Coordinates
Clifton, Texas	31° 47' 59.22" N, 97° 36' 46.71" W
Clifton, Texas	31° 48' 2.149" N, 97° 36' 44.37" W
Clifton, Texas	31° 47' 57.4" N, 97° 36' 47.9" W
Clifton, Texas	31° 48' 0.1" N, 97° 36' 48.9" W
Clifton, Texas	31° 48' 3" N, 97° 36' 49.2" W
Clifton, Texas	31° 47' 57.5" N, 97° 36' 44.7" W
Clifton, Texas	31° 48' 0.2" N, 97° 36' 44.3" W
Sebring, Florida	27° 27' 34.3" N, 81° 21' 26.6" W
Sebring, Florida	27° 27' 35.6" N, 81° 21' 26.8" W
Sebring, Florida	27° 27' 35.6" N, 81° 21' 28.4" W
Sebring, Florida	27° 27' 34.3" N, 81° 21' 28.3" W
Wasilla, Alaska	61° 35' 24.9" N, 149° 29' 9.6" W
Wasilla, Alaska	61° 35' 24.1" N, 149° 29' 6" W
Wasilla, Alaska	61° 35' 24.6" N, 149° 29' 2.4" W
Cabo Rojo, Puerto Rico	17° 58' 48" N, 67° 8' 15" W

Cabo Rojo, Puerto Rico	17° 58' 50" N, 67° 8' 13" W
Cabo Rojo, Puerto Rico	17° 58' 49" N, 67° 8' 14" W
Cabo Rojo, Puerto Rico	17° 58' 48" N, 67° 8' 12" W
Naalehu, Hawaii	19° 0' 51.99" N, 155° 39' 47" W
Naalehu, Hawaii	19° 0' 52.99" N, 155° 39' 48.99" W
Naalehu, Hawaii	19° 0' 51" N, 155° 39' 48.9" W

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 *Further Notice of Proposed Rulemaking (Further Notice)* released in April 2020.² 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 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 & Order*, the Commission builds upon existing part 15 rules by permitting the operation of both standard power devices under the control of an Automated Frequency Coordination (AFC) system and of indoor low-power unlicensed devices in the 5.925-7.125 GHz band (6 GHz band) by adding a new class of very low power (VLP) unlicensed devices. Through its *Second Report & Order*, the Commission also adopts rules to permit VLP devices to operate in the U-NII-5 (5.925-6.425 GHz) and U-NII-7 (6.525-6.875 GHz) sub-bands of the 6 GHz band. Further, the rules will permit VLP devices to operate anywhere with a power level up to -5 dBm/MHz EIRP power spectral density (PSD) in order to permit maximum flexibility for such devices. In addition, this action makes 850 megahertz of spectrum available for new and innovative high-speed, short-range devices. The rules adopted in the *Second Report & Order* are designed to balance the need to develop and introduce exciting new applications in the 6 GHz band while protecting the incumbent licensed services currently operating in the 6 GHz band from harmful interference. Specifically, the rules adopted in the *Second Report & Order* will permit VLP devices to operate anywhere in the U-NII-5 (5.925-6.425 GHz) and U-NII-7 (6.525-6.875 GHz) sub-bands of the 6 GHz band at power levels up to -5 dBm/MHz EIRP PSD without using a geofencing system or having a geo-location capability.

3. Through the *Second Report & Order*, the Commission meets two primary objectives. First, the adopted rules meet the demand for new services utilizing the 6 GHz band without sacrificing the quality of existing services. Second, the adopted rules maximize the benefits of growth in the band for small entities, whether they are unlicensed or incumbent operators, without incurring additional costs. Opening usage of the band to VLP unlicensed devices while ensuring there are no cost implications for either unlicensed devices or incumbent operators successfully accomplish these objectives.

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.

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

¹ See 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 *Unlicensed Use of the 6 GHz Band*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3852, Appendix C, 3968-3975, paras. 1-20 (2020) (*6 GHz Order*).

³ 5 U.S.C. § 604.

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

6. 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 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 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 SBA.⁸

8. *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

9. 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 2020, there

⁴ *Id.* § 604 (a)(3).

⁵ *Id.* § 604(a)(4).

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 15 U.S.C. § 632.

⁹ See 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 See 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.

were approximately 447,689 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

10. 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.”¹⁵ U.S. Census Bureau data from the 2017 Census of Governments¹⁶ indicate there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁷ Of this number, there were 36,931 general purpose governments (county,¹⁸ municipal, and town or township¹⁹) with populations of less than 50,000 and 12,040 special purpose governments—-independent school districts²⁰ with enrollment populations of less than 50,000.²¹ Accordingly, based on the 2017 U.S. Census of Governments data, we estimate that at least 48,971 entities fall into the category of “small governmental jurisdictions.”²²

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 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁵ See 5 U.S.C. § 601(5).

¹⁶ See 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/cog/about.html>.

¹⁷ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-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. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

¹⁸ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 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: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 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: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

²¹ While the special purpose governments category also includes local special district governments, the 2017 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 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls.5, 6 & 10.

11. *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 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 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.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.

12. 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

²³ See 47 CFR pt. 101, Subt. C and I.

²⁴ See *id.* Subt. 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 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 pt. 30.

²⁷ See 47 CFR pt. 101, Subt. Q.

²⁸ See *id.* Subt. L.

²⁹ See *id.* Subt. G.

³⁰ See *id.*

³¹ See *id.* Subt. O.

³² See *id.* Subt. 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>.

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).

13. 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 estimate the number of licensees with active licenses that would qualify as small under the SBA's small business size standard.

14. *Public Safety Radio Licensees.* As a general matter, Public Safety Radio Pool licensees include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.³⁹ Because of the vast array of public safety licensees, the Commission has not developed a small business size standard specifically applicable to public safety licensees. Wireless Telecommunications Carriers (*except* Satellite)⁴⁰ is the closest industry with a SBA small business size standard applicable to these services. The SBA small business size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁴¹ U.S. Census Bureau data for 2017 show that there were 2,893 firms that operated in this industry for the entire year.⁴² Of this number, 2,837 firms employed fewer than 250 employees.⁴³ Thus under the SBA size standard, the Commission estimates that a majority of licensees in this industry can be considered small.

15. *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."⁴⁴ Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$38.5 million or less in annual receipts as small.⁴⁵ U.S. Census Bureau data for 2017 show that 275

³⁹ See subparts A and B of pt. 90 of the Commission's Rules, 47 CFR §§ 90.1-90.22. Police licensees serve state, county, and municipal enforcement through telephony (voice), telegraphy (code), and teletype and facsimile (printed material). Fire licensees are comprised of private volunteer or professional fire companies, as well as units under governmental control. Public Safety Radio Pool licensees also include state, county, or municipal entities that use radio for official purposes. State departments of conservation and private forest organizations comprise forestry service licensees that set up communications networks among fire lookout towers and ground crews. State and local governments are highway maintenance licensees that provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. Emergency medical licensees use these channels for emergency medical service communications related to the delivery of emergency medical treatment. Additional licensees include medical services, rescue organizations, veterinarians, persons with disabilities, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities.

⁴⁰ 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>.

⁴¹ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁴² 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&hidePrevie w=false>.

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*, "517410 Satellite Telecommunications," <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

⁴⁵ See 13 CFR § 121.201, NAICS Code 517410.

firms in this industry operated for the entire year.⁴⁶ Of this number, 242 firms had revenue of less than \$25 million.⁴⁷ 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.⁴⁸ Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.⁴⁹ Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

16. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.⁵⁰ 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.⁵¹ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁵² U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁵³ Of that number, 2,837 firms employed fewer than 250 employees.⁵⁴ 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.⁵⁵ Of these providers, the Commission estimates that 511 providers have 1,500 or fewer employees.⁵⁶ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

17. The Commission's own data—available in its Universal Licensing System—indicate that, as of May 17, 2018, there are 264 Cellular licensees.⁵⁷ 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.

⁴⁶ 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>.

⁴⁷ *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.

⁴⁸ 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>.

⁴⁹ *Id.*

⁵⁰ 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>.

⁵¹ *Id.*

⁵² See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁵³ 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>.

⁵⁴ *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.

⁵⁵ 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>.

⁵⁶ *Id.*

⁵⁷ See <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.

Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁵⁸ Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.⁵⁹ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

18. *Auxiliary, Special Broadcast and Other Program Distribution Services.* This service involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit back to the station). Neither the SBA nor the Commission have developed a small business size standard applicable to broadcast auxiliary licensees. The closest applicable industries with a SBA small business size standard fall within two industries - Radio Stations⁶⁰ and Television Broadcasting.⁶¹ The SBA small business size standard for Radio Stations classifies firms having \$41.5 million or less in annual receipts as small.⁶² U.S. Census Bureau data for 2017 show that 2,963 firms operated in this industry during that year.⁶³ Of that number, 1,879 firms operated with revenue of less than \$25 million per year.⁶⁴ For Television Broadcasting, the SBA small business size standard also classifies firms having \$41.5 million or less in annual receipts as small.⁶⁵ U.S. Census Bureau data for 2017 show that 744 firms in this industry operated for the entire year.⁶⁶ Of that number, 657 firms had revenue of less than \$25 million per year.⁶⁷ Accordingly, based on the U.S. Census Bureau data for Radio Stations and Television Broadcasting, the Commission estimates that the majority of Auxiliary, Special Broadcast and

⁵⁸ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁵⁹ See *id.*

⁶⁰ See U.S. Census Bureau, 2017 NAICS Definition, “515112 Radio Stations,” <https://www.census.gov/naics/?input=515112&year=2017&details=515112>.

⁶¹ See U.S. Census Bureau, 2017 NAICS Definition, “515120 Television Broadcasting,” <https://www.census.gov/naics/?input=515120&year=2017&details=515120>.

⁶² See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

⁶³ 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&hidePrevious=false>. We note that the US Census Bureau withheld publication of the number of firms that operated for the entire year.

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. 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.

⁶⁵ See 13 CFR § 121.201, NAICS Code 515120 (as of 10/1/22 NAICS Code 516120).

⁶⁶ 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 515120, <https://data.census.gov/cedsci/table?y=2017&n=515120&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePrevious=false>.

⁶⁷ *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.

Other Program Distribution Services firms are small under the SBA size standard.

19. *Fixed Satellite Small Transmit/Receive Earth Stations.* Neither the SBA nor the Commission have developed a small business size standard specifically applicable to Fixed Satellite Small Transmit/Receive Earth Stations. Satellite Telecommunications⁶⁸ is the closest industry with an SBA small business size standard. The SBA size standard for this industry classifies a business as small if it has \$38.5 million or less in annual receipts.⁶⁹ For this industry, U.S. Census Bureau data for 2017 show that there was a total of 275 firms that operated for the entire year.⁷⁰ Of this total, 242 firms had revenue of less than \$25 million.⁷¹ 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.⁷² Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.⁷³ Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

20. The rules adopted in the *Second Report & Order* will impose new or modified reporting, recordkeeping or other compliance requirements on small and other entities. The Commission is not in a position to determine whether these new rules will require small entities to hire attorneys, engineers, consultants, or other professionals, however the adopted rules will provide opportunities for small entities to grow their businesses by allowing the expansion of VLP devices to operate across the entire 6 GHz band.

21. The adopted rules will permit VLP devices to operate across the U-NII-5 (5.925-6.425 GHz) and U-NII-7 (6.525-6.875 GHz) sub-bands of the 6 GHz band and will also permit VLP devices to operate at a power level no greater than -5 dBm/MHz EIRP PSD to avoid causing harmful interference to fixed microwave, Broadcast Auxiliary Service (BAS), Cable Television Relay Service (CARS), and radio astronomy receive sites.

22. We will require applicants for certification of VLP devices to show in their application for device certification how their devices will comply with all technical requirements set in this proceeding. This new requirement will not increase the cost of applying for certification.

23. The Commission estimates the economic value to service providers operating in the 6 GHz band will vastly exceed their cost. By opening access to the 6 GHz band, the adopted rules will foster extensive growth in the market for VLP devices, with one report estimating that VLP devices

⁶⁸ See U.S. Census Bureau, *2017 NAICS Definition, "517410 Satellite Telecommunications,"* <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

⁶⁹ See 13 CFR § 121.201, NAICS Code 517410.

⁷⁰ 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>.

⁷¹ *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.

⁷² 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>.

⁷³ *Id.*

would product over \$39 billion in economic value over five years.⁷⁴ Lastly, the adopted rules will permit unlicensed small entities to operate VLP devices in the 6 GHz band without the additional complications or costs incurred to obtain a license.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

24. 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.”⁷⁵

25. The rules adopted by the Commission in the *Second Report and Order* should benefit small entities by giving them more options for gaining access to valuable spectrum while creating little to no harmful interference to licensed incumbents sharing the 6 GHz band. Through comments provided during the rulemaking proceeding, the Commission considered various proposals from small and other entities. The adopted rules reflect the Commission’s efforts to balance the desire of unlicensed VLP devices to utilize as much power as possible to maximize the benefits provided to their customers while protecting incumbent operators in the 6 GHz band from harmful interference. Additionally, the Commission considered alternative proposals and weighed their benefits against their potential costs to small businesses and other entities. For example, in determining the maximum power level rules for VLP devices, the Commission considered proposals from various commenters representing incumbents, but ultimately used the Monte Carlo computer simulation analysis submitted by VLP proponents to determine VLP devices should operate at a power level up to -5 dBm/MHz without requiring geofencing or exclusion zones. This decision minimizes the economic impact of small and other entities seeking to operate in the 6 GHz band. Further, it also allows for operations at a higher power level with only insignificant potential for harmful interference to incumbent operators.⁷⁶

26. Many of the entities holding licenses for use of the 6 GHz band qualify as small entities. The adopted rules for unlicensed operation in this band are designed to prevent the unlicensed VLP devices from causing harmful interference to the licensed services operating in the band. Consequently, we do not expect that the current and future licensees in the band, including small entities, would experience a significant economic impact from permitting VLP unlicensed devices to operate in the 6 GHz band. As an alternative, the Commission considered comments by microwave incumbents recommending the adoption of rules requiring the use of Automated Frequency Coordination (AFC) systems to control spectrum access by VLP devices operating at -5 dBm/MHz as a means of preventing interference. However, the Commission concluded that adopting this approach would be both unnecessary and burdensome, as the risk of harmful interference from VLP devices operating at that power level is insignificant and would create an unnecessary cost to VLP device operators.

27. Users of devices operating under our part 15 rules do not need to obtain a Commission license. Therefore, we expect that small entities would make use of 6 GHz VLP devices under the adopted rules and would also provide small entities with access to valuable spectrum without the expense and inconvenience of having to obtain a license.

28. The Commission believes that this rulemaking, by permitting VLP devices to operate in the 6 GHz band, will provide an advantage to small entities, as these entities would benefit from being

⁷⁴ Telecom Advisory Services, LLC, Assessing the Economic Value of Unlicensed Use in the 5.9 GHz & 6 GHz Bands at 49-56 (Apr. 2020), <http://wififorward.org/wp-content/uploads/2020/04/5.9-6.0-FINAL-for-distribution.pdf>.

⁷⁵ 5 U.S.C. § 604(a)(6).

⁷⁶ A Monte Carlo simulation uses random sampling and statistical modeling to estimate mathematical functions and mimic the operations of complex systems. Harrison RL., *Introduction To Monte Carlo Simulation*, AIP Conf Proc. 2010;1204:17–21. doi:10.1063/1.3295638.

able to access this spectrum without the complication or cost of needing to obtain a license. On balance, this would constitute a significant economic benefit for small businesses.

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.⁷⁷ 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.⁷⁸

⁷⁷ See 5 U.S.C. § 801(a)(1)(A).

⁷⁸ See *id.* § 604(b).

APPENDIX D

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 *Second Further Notice of Proposed Rulemaking (Second Further 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 in the *Second Further Notice*. The Commission will send a copy of the *Second Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Second Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposals

2. In the *Second Further Notice*, the Commission seeks comment on several proposals to expand the use of the 5.925-7.125 GHz band (6 GHz band) by unlicensed very low power (VLP) devices operating under the Commission's part 15 rules. These proposals are designed to provide increased flexibility for these unlicensed devices while preventing harmful interference from occurring to the licensed services currently operating in the 6 GHz band such as point-to-point microwave links, broadcast auxiliary service (BAS) operations, and satellite systems. These proposals have evolved in response to the Commission's previous efforts to address these longstanding issues.

3. In April 2020, the Commission adopted rules for two types of unlicensed operations in the 6 GHz band.⁴ First, unlicensed standard-power access points in the U-NII-5 (5.925-6.425 GHz) and U-NII-7 (6.525-6.875 GHz) bands were now able to access spectrum through use of an Automated Frequency Coordination (AFC) system.⁵ Second, unlicensed low-power indoor (LPI) access points were now able to operate without an AFC system over the entire 6 GHz band.⁶ Further in the *Second Report and Order*, the Commission adopted rules to permit very low power (VLP) devices, an additional type of unlicensed device, to operate in the 6 GHz band.

4. Currently, the Commission's rules permit VLP devices to operate at up to -5 dBm/MHz EIRP power spectral density (PSD) and a maximum EIRP of 14 dBm. In the *Second Further Notice*, the Commission seeks comment on several proposals to enhance VLP operations and standard-power operations in the 6 GHz band. One proposal is to permit VLP devices to operate at a power level higher than -5 dBm/MHz EIRP PSD if they incorporate a geofencing system to avoid causing harmful interference to fixed microwave, Broadcast Auxiliary Service (BAS), Cable Television Relay Service (CARS), and radio astronomy receive sites. The geofencing system will ensure that these VLP access points operate only outside of defined exclusion zones designed to protect these services. To achieve this,

¹ See 5 U.S.C. § 603. The RFA, see 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 See 5 U.S.C. § 603(a).

³ *Id.*

⁴ *Unlicensed Use of the 6 GHz Band; Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3852 (2020) (*6 GHz Order*), *reversed in part, aff'd in part and remanded*, *AT&T Servs. Inc., v. FCC*, 21 F.4th 841, 853-54 (D.C. Cir. 2020) (affirming *6 GHz Order* and reversing and remanding to address issue of whether to “reserve a sliver of the 6 GHz band for licensed mobile operation”).

⁵ *6 GHz Order*, 35 FCC Rcd at 3860, para. 17.

⁶ *6 GHz Order*, 35 FCC Rcd at 3860, para. 18.

the proposed rules would adopt requirements for geofencing systems and specify the criteria that will be used to calculate the exclusion zones as well as the technical requirements that VLP devices must meet. Each VLP access point that operates at a power greater than -5 dBm/MHz EIRP PSD should be able to connect to a valid geofencing system and applicants should be able to demonstrate such a capability during device certification and the geofencing system test and approval process.

5. Additional modifications to the current rules could be based on the characteristics of the VLP devices, the use geofencing systems to allow VLP devices to operate at higher power levels without causing harmful interference to licensed incumbents, the use of land use databases to more accurately determine where the devices may operate, the use of different propagation models by the geofencing systems to determine where VLP devices may operate, or the use of a different protection criteria by the geofencing systems for determining exclusion zones.

6. The Commission also seeks comment on proposals to relax several restrictions on the use of VLP devices in the current rules. The current rules prohibit the devices from operating on aircraft, except for large passenger aircraft while flying over 10,000 feet in the U-NII-5 portion of the band. The rules also prohibit the operation of VLP devices on oil platforms. The *Second Further Notice* proposes to permit VLP devices to be used on commercial and general aviation aircraft except for unmanned aircraft. Additionally, the *Second Further Notice* seeks comment on removing or scaling back the prohibition on use of VLP devices on oil platforms, on boats on the ocean, and in terrestrial vehicles.

7. Another area in which the Commission seeks comment regards having the geofencing systems use a push notification method to more efficiently manage spectrum use of VLP devices in the U-NII-6 and U-NII-8 portions of the 6 GHz band. In the U-NII-6 (6.425-6.525 GHz) and U-NII-8 (6.875-7.125 GHz) portions of the band BAS and CARS licensees use pick-up stations to transmit programming from news events or other special events at remote locations. This involves transmitting from trucks which employ directional antennas to central receive sites that also use directional antennas typically located on towers or rooftops. Because news events can occur anywhere at any time, the use of this spectrum by the BAS and CARS licensees changes frequently. Under the current rules the geofencing systems have to protect the BAS and CARS central receive sites in all directions and across the entire U-NII-6 and U-NII-8 bands because they do not know when and where the spectrum will actually be used. The proposal outlined in the *Second Further Notice* would require the BAS and CARS licensees to register the location and times they will use the pickup stations. The geofencing systems will then send a “push” notification to the VLP access points to have them avoid transmitting on frequencies at locations where they could interfere with the BAS and CARS use of the band.

8. At present, the Commission’s rules do not permit standard power unlicensed devices to operate in the U-NII-6 and U-NII-8 bands. In order to address this issue, the *Second Further Notice* proposes directing the Commission’s Office of Engineering and Technology to collect information on the location of receive sites used by BAS and CARS licensees in these bands to enable geofencing systems to create exclusion zones to protect these receivers. Once this information has been collected, the AFC systems which control access to spectrum by standard power devices will be able to protect the BAS and CARS receive sites in these bands. Consequently, the *Second Further Notice* seeks comment on permitting standard power devices to operate in the U-NII-6 and U-NII-8 bands.

9. Currently there are fixed satellite service (FSS) receive earth stations at five location in the 7.025-7.055 GHz band. The Commission’s rules require geofencing systems to prohibit operation of VLP access points in this band for a large zone around these locations. The *Second Further Notice* seeks comment on whether geofencing is necessary to protect the operation of these earth stations from harmful interference from VLP devices, the restriction of VLP device operation that may be necessary, and the technical parameters that could be needed for a geofencing system to determine exclusion zones around these earth station locations. Lastly, the *Second Further Notice* seeks comment on whether any changes to the rules governing standard power devices are needed to protect these earth stations if the Commission permits standard power devices to operate in the U-NII-8 band.

B. Legal Basis

10. The proposed action is taken pursuant to sections 2, 4(i), 302a, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 152, 154(i), 302a, and 303.

C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

11. 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.⁷ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁸ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁹ 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 SBA.¹⁰

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.¹¹ 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.¹² These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹³

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.”¹⁴ 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.¹⁵ Nationwide, for tax year 2020, there

⁷ *Id.* § 603(b)(3).

⁸ *Id.* § 601(6).

⁹ *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.”

¹⁰ 15 U.S.C. § 632.

¹¹ *See* 5 U.S.C. § 601(3)-(6).

¹² *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)

¹³ *Id.*

¹⁴ *See* 5 U.S.C. § 601(4).

¹⁵ 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.

were approximately 447,689 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.¹⁶

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.”¹⁷ U.S. Census Bureau data from the 2017 Census of Governments¹⁸ indicate there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁹ Of this number, there were 36,931 general purpose governments (county,²⁰ municipal, and town or township²¹) with populations of less than 50,000 and 12,040 special purpose governments—-independent school districts²² with enrollment populations of less than 50,000.²³ Accordingly, based on the 2017 U.S. Census of Governments data, we estimate that at least 48,971 entities fall into the category of “small governmental jurisdictions.”²⁴

¹⁶ 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 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁷ See 5 U.S.C. § 601(5).

¹⁸ See 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/cog/about.html>.

¹⁹ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-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. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

²⁰ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

²¹ See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

²² See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State Census Years 1942 to 2017.

²³ While the special purpose governments category also includes local special district governments, the 2017 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.

²⁴ 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 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls.5, 6 & 10.

15. *Fixed Microwave Services.* Fixed microwave services include common carrier,²⁵ private-operational fixed,²⁶ and broadcast auxiliary radio services.²⁷ They also include the Upper Microwave Flexible Use Service (UMFUS),²⁸ Millimeter Wave Service (70/80/90 GHz),²⁹ Local Multipoint Distribution Service (LMDS),³⁰ the Digital Electronic Message Service (DEMS),³¹ 24 GHz Service,³² Multiple Address Systems (MAS),³³ and Multichannel Video Distribution and Data Service (MVDDS),³⁴ where in some bands licensees can choose between common carrier and non-common carrier status.³⁵ Wireless Telecommunications Carriers (*except* Satellite)³⁶ 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.³⁷ U.S. Census Bureau data for 2017 show that there were 2,893 firms that operated in this industry for the entire year.³⁸ Of this number, 2,837 firms employed fewer than 250 employees.³⁹ Thus under the SBA size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

16. 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.⁴⁰

²⁵ See 47 CFR pt. 101, Subts. C and I.

²⁶ See *id.* Subts. C and H.

²⁷ 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.

²⁸ See 47 CFR pt. 30.

²⁹ See 47 CFR pt. 101, Subt. Q.

³⁰ See *id.* Subt. L.

³¹ See *id.* Subt. G.

³² See *id.*

³³ See *id.* Subpart O.

³⁴ See *id.* Subpart P.

³⁵ See 47 CFR §§ 101.533, 101.1017.

³⁶ 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>.

³⁷ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

³⁸ 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>.

³⁹ *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.

⁴⁰ See 47 CFR §§ 101.538(a)(1)-(3), 101.1112(b)-(d), 101.1319(a)(1)-(2), and 101.1429(a)(1)-(3).

17. 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 estimate the number of licensees with active licenses that would qualify as small under the SBA's small business size standard.

18. **Public Safety Radio Licensees.** As a general matter, Public Safety Radio Pool licensees include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.⁴¹ Because of the vast array of public safety licensees, the Commission has not developed a small business size standard specifically applicable to public safety licensees. Wireless Telecommunications Carriers (*except* Satellite)⁴² is the closest industry with a SBA small business size standard applicable to these services. The SBA small business 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 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 licensees in this industry can be considered small.

19. With respect to local governments, in particular, since many governmental entities comprise the licensees for these services, we include under public safety services the number of government entities affected. According to Commission records as of December 2021, there were approximately 127,019 active licenses within these services.⁴⁶ Since the Commission does not collect data on the number of employees for licensees providing these services, at this time we are therefore not

⁴¹ See subparts A and B of Part 90 of the Commission's Rules, 47 CFR §§ 90.1-90.22. Police licensees serve state, county, and municipal enforcement through telephony (voice), telegraphy (code), and teletype and facsimile (printed material). Fire licensees are comprised of private volunteer or professional fire companies, as well as units under governmental control. Public Safety Radio Pool licensees also include state, county, or municipal entities that use radio for official purposes. State departments of conservation and private forest organizations comprise forestry service licensees that set up communications networks among fire lookout towers and ground crews. State and local governments are highway maintenance licensees that provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. Emergency medical licensees use these channels for emergency medical service communications related to the delivery of emergency medical treatment. Additional licensees include medical services, rescue organizations, veterinarians, persons with disabilities, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities.

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).

⁴⁴ 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>.

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 Based on a FCC Universal Licensing System search on December 13, 2021.

<https://wireless2.fcc.gov/UlsApp/UlsSearch/searchAdvanced.jsp>. Search parameters: Service Group = All, "Match only the following radio service(s)", Radio Service = GE, GF, GP, PA, PW, YE, YF, YP, YW; Authorization Type = All; Status = Active. We note that the number of active licenses does not equate to the number of licensees. A licensee can have one or more licenses.

able to estimate the number of licensees with active licenses that would qualify as small under the SBA's small business size standard.

20. **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.”⁴⁷ Satellite telecommunications service providers include satellite and earth station operators. The SBA small business size standard for this industry classifies a business with \$38.5 million or less in annual receipts as small.⁴⁸ U.S. Census Bureau data for 2017 show that 275 firms in this industry operated for the entire year.⁴⁹ Of this number, 242 firms had revenue of less than \$25 million.⁵⁰ 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.⁵¹ Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.⁵² Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

21. **Wireless Telecommunications Carriers (except Satellite).** This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.⁵³ 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.⁵⁴ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁵⁵ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁵⁶ Of that number, 2,837 firms employed fewer than 250 employees.⁵⁷ 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

⁴⁷ See U.S. Census Bureau, *2017 NAICS Definition*, “517410 Satellite Telecommunications,” <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

⁴⁸ See 13 CFR § 121.201, NAICS Code 517410.

⁴⁹ 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>.

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. 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.

⁵¹ 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>.

⁵² *Id.*

⁵³ 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>.

⁵⁴ *Id.*

⁵⁵ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁵⁶ 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>.

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.

wireless services.⁵⁸ Of these providers, the Commission estimates that 511 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.

22. The Commission's own data—available in its Universal Licensing System—indicate that, as of May 17, 2018, there are 264 Cellular licensees.⁶⁰ 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. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁶¹ Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.⁶² Thus, using available data, we estimate that the majority of wireless firms can be considered small.

23. ***Auxiliary, Special Broadcast and Other Program Distribution Services.*** This service involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit back to the station). Neither the SBA nor the Commission have developed a small business size standard applicable to broadcast auxiliary licensees. The closest applicable industries with a SBA small business size standard fall within two industries - Radio Stations⁶³ and Television Broadcasting.⁶⁴ The SBA small business size standard for Radio Stations classifies firms having \$41.5 million or less in annual receipts as small.⁶⁵ U.S. Census Bureau data for 2017 show that 2,963 firms operated in this industry during that year.⁶⁶ Of that number, 1,879 firms operated with revenue of less than \$25 million per year.⁶⁷ For Television Broadcasting, the SBA small business size standard also classifies firms

⁵⁸ 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>.

⁵⁹ *Id.*

⁶⁰ See <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.

⁶¹ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁶² See *id.*

⁶³ See U.S. Census Bureau, 2017 NAICS Definition, "515112 Radio Stations," <https://www.census.gov/naics/?input=515112&year=2017&details=515112>.

⁶⁴ See U.S. Census Bureau, 2017 NAICS Definition, "515120 Television Broadcasting," <https://www.census.gov/naics/?input=515120&year=2017&details=515120>.

⁶⁵ See 13 CFR § 121.201, NAICS Code 515112 (as of 10/1/22 NAICS Code 516110).

⁶⁶ 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.

⁶⁷ *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.

having \$41.5 million or less in annual receipts as small.⁶⁸ U.S. Census Bureau data for 2017 show that 744 firms in this industry operated for the entire year.⁶⁹ Of that number, 657 firms had revenue of less than \$25 million per year.⁷⁰ Accordingly, based on the U.S. Census Bureau data for Radio Stations and Television Broadcasting, the Commission estimates that the majority of Auxiliary, Special Broadcast and Other Program Distribution Services firms are small under the SBA size standard.

24. ***Fixed Satellite Small Transmit/Receive Earth Stations.*** Neither the SBA nor the Commission have developed a small business size standard specifically applicable to Fixed Satellite Small Transmit/Receive Earth Stations. Satellite Telecommunications⁷¹ is the closest industry with an SBA small business size standard. The SBA size standard for this industry classifies a business as small if it has \$38.5 million or less in annual receipts.⁷² For this industry, U.S. Census Bureau data for 2017 show that there was a total of 275 firms that operated for the entire year.⁷³ Of this total, 242 firms had revenue of less than \$25 million.⁷⁴ 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.⁷⁵ Of these providers, the Commission estimates that approximately 42 providers have 1,500 or fewer employees.⁷⁶ Consequently, using the SBA's small business size standard, a little more than half of these providers can be considered small entities.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

25. We expect that the proposed rules set forth in the *Second Further Notice* will impose new or additional filing, recordkeeping and reporting requirements for small and other entities. At this time, the Commission is not in a position to determine whether, if adopted, the proposals and matters upon which we seek comment in the *Second Further Notice* will require small entities to hire attorneys, engineers, consultants, or other professionals in order to comply and cannot quantify the cost of compliance with the potential rule changes discussed herein. Under the proposals set forth in the *Second Further Notice*, and consistent with the Commission's general approach, we expect that all the reporting, recordkeeping, and other compliance requirements associated with the proposals would remain the same

⁶⁸ See 13 CFR § 121.201, NAICS Code 515120 (as of 10/1/22 NAICS Code 516120).

⁶⁹ 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 515120, <https://data.census.gov/cedsci/table?y=2017&n=515120&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

⁷⁰ *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.

⁷¹ See U.S. Census Bureau, *2017 NAICS Definition, "517410 Satellite Telecommunications,"* <https://www.census.gov/naics/?input=517410&year=2017&details=517410>.

⁷² See 13 CFR § 121.201, NAICS Code 517410.

⁷³ 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>.

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. 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.

⁷⁵ 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>.

⁷⁶ *Id.*

for small entities; however, we seek comment on any steps that could be taken to minimize any significant economic impact on small businesses.

26. In the *Second Further Notice*, the Commission proposes to allow VLP devices to operate across the entire 1200 megahertz of the 6 GHz band by utilizing a geofencing system to prevent operation at locations where they may cause harmful interference to licensed incumbents that share the 6 GHz band. The proposed rules will require: (1) VLP access points to obtain updated exclusion zones for particular frequencies from a geofencing system at least once per day; (2) VLP access points to have a geo-location capability and to avoid operating within the exclusion zones on the corresponding frequencies; (3) applicants for certification of these VLP access points to show in their applications how their VLP devices will comply with all geofencing requirements; and (4) VLP client devices to operate under the control of a VLP access point.

27. These proposed rules will require VLP access points operating at greater than -5 dBm/MHz EIRP PSD to use a geofencing system to avoid causing harmful interference to fixed microwave, BAS, CARS, and radio astronomy receive sites. The geofencing system will ensure that these VLP access points operate only outside of defined exclusion zones designed to protect these services. Therefore the proposed rules would adopt requirements for geofencing systems and specify the criteria that will be used to calculate the exclusion zones as well as the technical requirements that VLP device must meet. Each VLP access point that operates at a power greater than -5 dBm/MHz EIRP PSD should be able to connect to a valid geofencing system and applicants should be able to demonstrate such a capability during device certification and the geofencing system test and approval process. A VLP client device will operate only under the control of a VLP access point and will not need to have a geolocation capability or need to obtain geofencing data. Independent VLP devices which operate at power levels up to -5 dBm/MHz EIRP PSD also do not need to have a geolocation capability or obtain geofencing data. The proposed rules will require a VLP access point to obtain updated information from a geofencing system at least once per day and will provide this information based on the most recent data from the Commission's databases. Under the proposed rules, this daily communication would be required in order to keep the exclusion zones up to date and minimize the risk of harmful interference to incumbent operators within the 6 GHz band.

28. Additionally, the proposed rules will require applicants for certification of VLP access points to show in their application for device certification how their devices will comply with all geofencing requirements set in this proceeding. Based on this approach, a fully certified VLP access point is a device that has an approved geo-location capability and that obtains exclusion zones from a geofencing system and a fully certified VLP client device would operate only when under the control of a VLP access point. A geofencing system may be either integrated into the VLP access point or may be an external database from which the VLP access point obtains exclusion zones.

29. The only reporting requirement proposed in the *Second Further Notice* is that under the "push" notification proposal BAS and CARS licensees would be required to report their expected use of pickup stations in the U-NII-6 and U-NII-8 bands. The push notification proposal would require the geofencing systems to have the ability to send notifications to VLP access points to modify exclusion zones based on information provided by BAS and CARS licensees on the locations and times they will use pickup stations. This reported information would enable the geofencing systems to create exclusion zones that would protect BAS and CARS operations from potential harmful interference. While many of these BAS and CARS licensees may be small businesses, we note that the compliance burden to those small entities would likely be minimal, as this would be a one-time reporting requirement of a small amount of information. Reporting this information will provide a significant benefit to many small businesses as it will enable the Commission to make the 6.425-6.525 GHz and 6.875-7.125 GHz portions of the 6 GHz band available for use by VLP unlicensed devices. In considering this proposed requirement, we specifically seek comment from any small entities that would find this requirement to be onerous to them.

30. Lastly, the *Second Further Notice* makes a number of proposals which would change the

operation of the geofencing systems used to manage spectrum access for VLP devices or the AFC systems used to manage spectrum access for standard power devices. One proposal would modify the current rules for how the geofencing systems operate to take into account the characteristics of the VLP devices, the use of land use databases to more accurately determine where the devices may operate, the use of different propagation models by the geofencing systems to determine where VLP devices may operate, or the use of a different protection criteria by the geofencing system for determining exclusion zones. Another proposal would modify the AFC systems to permit standard power devices to operate in the U-NII-6 and U-NII-8 bands, while an additional proposal would modify how receiving earth stations in the 7.025-7.055 GHz band are protected by the geofencing and AFC systems.

31. The Commission acknowledges that some entities who design and manufacture VLP devices may in fact be small entities and welcome their input through their comments. We note the proposed rules requiring VLP access points to use geofencing to prevent harmful interference would place a burden on device manufacturers by making the devices more complex than if there were no geofencing requirement. However, because Part 15 unlicensed devices must not cause harmful interference to licensed services the Commission has concluded that geofencing requirements are necessary to allow operation of the devices at greater than -5 dBm/MHz EIRP PSD. Hence, not including the geofencing requirement would have reduced the utility of VLP devices, thus leading to a negative impact on small and other entities that are users of the devices. As a result, we believe that having a geofencing requirement in the adopted rules is on the whole a significant economic benefit to small entities.

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 for small businesses 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 or reporting requirements under the rule for 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 small entities.”⁷⁷

33. In the *Second Further Notice*, the Commission is taking steps to minimize the economic impact on small entities and is considering significant alternatives by proposing and seeking alternative proposals designed to increase the use of the 6 GHz band by unlicensed devices while protecting licensed incumbents from harmful interference. The Commission considered alternatives that would provide greater protection to incumbent operators in the 6 GHz band but that would also create limitations for growth in the band by unlicensed devices. For example, requiring geofencing at power spectral density (PSD) levels lower than -5 dBm/MHz or restricting unlicensed devices to operate at lower power levels. However, the steps the Commission has taken through its proposed rules will foster significant growth for unlicensed operators that are small entities, as they will provide them with more options for gaining access to valuable spectrum. Many BAS and CARS licensees who will need to report their expected use of pickup stations in the U-NII-6 and U-NII-8 bands under the “push” notification proposal may be small entities. The Commission considered alternatives to the use of a push notification system, such as the Citizens Broadband Radio Service’s approach of requiring VLP devices to respond to instructions within a specific time limit, and allowing device manufacturers to determine the most appropriate way to comply with this requirement. However, while the push notification requirement will be a burden on these licensees, it will also enable the geofencing systems to more efficiently manage use of the U-NII-6 and U-NII-8 bands by users of unlicensed VLP devices, many of which will be small entities. As a result of the increased use of the U-NII-6 and U-NII-8, we believe this reporting requirement overall provides a positive benefit for small entities that outweighs the potential economic burden.

34. Entities that operate geofencing systems and AFC systems may be small entities. If the

⁷⁷ 5 U.S.C. § 604(a)(6).

Second Further Notice proposals which permit the operation of geofencing systems and change the operation of AFC systems are adopted, they may potentially experience a significant economic impact. The Commission considered alternatives such as developing a process for modifying the locations where VLP devices can and cannot operate or rejecting a geofencing approach and instead requiring VLP devices to access an AFC system instead. However, a geofencing approach could help preserve the VLP device battery life of small entities by not requiring each device to re-check a database every time it moves, as is the case for standard power access points. Additionally, the proposed rules will provide protection from harmful interference for small entities that are incumbent operators in the 6 GHz band. Further, these changes will also result in the more intensive use of the 6 GHz band by unlicensed devices. As many of the users of these unlicensed devices are small entities, we believe these proposals overall will have a positive economic benefit for small entities.

35. The Second Further Notice seeks comment from all interested parties. Small entities are encouraged to bring to the Commission's attention any specific concerns they may have with the proposals outlined herein. The rules the Commission adopts should benefit small entities by giving them more options for gaining access to valuable spectrum while still protecting incumbent licensed services that operate in the band from harmful interference. 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 Second Further Notice, prior to reaching its final conclusions and adopting final rules in this proceeding.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

36. None.

APPENDIX E**List of Commenters****Comments**

5G Automotive Association
ACT | The App Association (App Association)
Alliance for Automotive Innovation
Alliant Energy
American Petroleum Institute, Energy Telecommunications and Electrical Association
Apple Inc., Broadcom Inc., Cisco Systems Inc., Facebook Inc., Google LLC, Hewlett Packard Enterprise, Intel Corporation, Microsoft Corporation, NXP Semiconductors, Qualcomm Incorporated, Ruckus Networks
Apple Inc., Broadcom Inc., Google LLC, Microsoft Corporation
The Association of Public-Safety Communications Officials-International, Inc. (APCO)
Association of American Railroads
AT&T Services, Inc.
Broadcom Inc., Microsoft Corporation, Intel Corporation
CenturyLink Communications
CORF – National Academy of Sciences
Consumer Technology Association (CTA)
CTIA
Dominion Energy Services Inc.
Duke Energy Corporation
Dynamic Spectrum Alliance
Edison Electric Institute
Environmental Health Trust
The Evergy Companies
Facebook Inc.
Fixed Wireless Communications Coalition (FWCC)
Hewlett Packard Enterprise (HPE)
International Association of Fire Chiefs
Kevin Mottus
Microsoft Corporation
National Association of Broadcasters (NAB)
NCTA
National Public Safety Telecommunications Council
Nokia
Panasonic Corporation of North America
Public Interest Spectrum Coalition
Qualcomm Inc.
Sirius XM Radio Inc.
Sony Electronics Inc.
Southern Company Services Inc.
Ultra Wide Band Alliance (UWBA)
Utilities Technology Council, American Public Power Association, National Rural Electric Cooperative Association, American Gas Association, American Water Works Association
Wi-Fi Alliance
Wireless Internet Service Providers Association (WISPA)
Wireless Broadband Alliance Ltd.
Zebra Technologies

Reply Comments

Apple Inc., Broadcom Inc., Cisco Systems Inc., Facebook Inc., Google LLC, Hewlett Packard Enterprise, Intel Corporation, Microsoft Corporation, NXP Semiconductors, Qualcomm Incorporated, Ruckus Networks

Alliance for Automotive Innovation
American Trucking Associations
Association of American railroads
AT&T Services Inc.
Broadcom Inc., Microsoft Corporation
CenturyLink Communications
City of Los Angeles, California
CTIA
Dynamic Spectrum Alliance
Edison Electric Institute
Facebook Inc.
Globalstar Inc.

International Association of Fire Chiefs

National Association of Broadcasters (NAB)

NCTA

Public Interest Spectrum Coalition

Sirius XM Radio Inc.

Southern Company Services Inc.

Tucson Electric Power Company

Wi-Fi Alliance

Wireless Internet Service Providers Association (WISPA)

Ultra Wide Band Alliance (UWBA)

Utilities Technology Council, American Public Power Association, National Rural Electric Cooperative Association, American Gas Association, American Water Works Association

Zebra Technologies

Ex Parte Comments

5G Automotive Association

ACT | The App Association (App Association)

Amazon.com

Amazon.com, Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Hewlett Packard Enterprise, Intel Corporation, Meta Platforms, Inc. Microsoft Corporation, Qualcomm Incorporated
Ameren

American Public Power Association, APCO International, Edison Electric Institute, Enterprise Wireless Alliance, National Rural Electric Cooperative Association, Southern Company Services, Utilities Technology Council

APCO International

APCO International, AT&T Services Inc., Comsearch, Edison Electric Institute, Fixed Wireless Communications Coalition, Utilities Technology Council

APCO International, AT&T Services Inc., Comsearch, Edison Electric Institute, Fixed Wireless Communications Coalition, Utilities Technology Council, Verizon

APCO International, Edison Electric Institute, Enterprise Wireless Alliance, National Rural Electric Cooperative Association, Southern Company Services, Utilities Technology Council

Apple Inc.

Apple Inc., Broadcom Inc.

Apple Inc., Broadcom Inc., Cisco Systems Inc., Facebook Inc., Google LLC, Hewlett Packard Enterprise, Intel Corporation, Microsoft Corporation, NXP Semiconductors, Qualcomm Incorporated, Ruckus Networks

Apple Inc., Broadcom Inc., Cisco Systems Inc., Facebook Inc., Google LLC, Intel Corporation, Microsoft Corporation, NXP Semiconductors, Qualcomm Incorporated

Apple Inc., Broadcom Inc., Cisco Systems Inc., Facebook Inc., Google LLC, Intel Corporation, Microsoft Corporation, Qualcomm Incorporated

Apple Inc., Broadcom Inc., Cisco Systems Inc., Facebook Inc., Google LLC, Microsoft Corporation, NXP Semiconductors, Qualcomm Incorporated, Ruckus Networks

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Hewlett Packard Enterprise

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Hewlett Packard Enterprise, Meta Platforms, Inc., Microsoft Corporation

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Hewlett Packard Enterprise, Meta Platforms, Inc., Microsoft Corporation, Qualcomm Incorporated

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Hewlett Packard Enterprise, Intel Corporation, Meta Platforms, Inc., Microsoft Corporation, Qualcomm Incorporated

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Intel Corporation, Meta Platforms Inc.

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Intel Corporation, Meta Platforms Inc., Microsoft Corporation

Apple Inc., Broadcom Inc., Cisco Systems Inc., Google LLC, Qualcomm Incorporated

Apple Inc., Broadcom Inc., Facebook Inc., Intel Corporation, Microsoft Corporation

Apple Inc., Broadcom Inc., Google LLC, Meta Platforms, Inc., Microsoft Corporation, Qualcomm Incorporated

Apple Inc., Broadcom Inc., Google LLC, Meta Platforms, Inc., Microsoft Corporation, Qualcomm Incorporated, Salt Point Strategies

Apple Inc., Broadcom Inc., Google LLC, Meta Platforms, Inc., Qualcomm Incorporated

Apple Inc., Broadcom Inc., Google LLC, Meta Platforms Inc

Apple Inc., Broadcom Inc., Meta Platforms Inc

Apple Inc., Google LLC, Meta Platforms Inc.

Apple Inc., Google LLC, Meta Platforms Inc, Microsoft Corporation, Qualcomm Incorporated

Amazon.com Services LLC

AT&T Services Inc.

Bluetooth Special Interest Group, Inc.

Broadcom Inc.

Broadcom Inc., Apple Inc.

Broadcom Inc., Cisco Systems Inc., Google LLC, Hewlett Packard Enterprise, Meta Platforms Inc., Microsoft Corporation, Qualcomm Incorporated

Broadcom Inc., Cisco Systems Inc., Microsoft Corporation

Broadcom Inc., Facebook Inc., Cisco Systems Inc.

Broadcom Inc., Facebook Inc., Intel Corporation, Cisco Systems Inc., Qualcomm Corporation

Broadcom Inc., Kyrio, Wi-Fi Alliance

Broadcom Inc., Microsoft Corporation, Intel Corporation

Cisco Systems Inc., Hewlett Packard Enterprise

Cisco Systems Inc., Extreme Networks, Hewlett Packard Enterprise, Juniper

Citizens against government waste

Chairs of the 6 GHz Multi-Stakeholder Group

Charter Communications, Inc.

Competitive Carriers Association

Commscope, Inc.

Consumer Technology Association

CTIA

Dominion Energy

Dynamic Spectrum Alliance

Edison Electric Institute

Edison Electric Institute, Evergy, Inc.

Edison Electric Institute, First Energy Corp.
Edison Electric Institute, Pacific Gas & Electric Company
Edison Electric Institute, Pacific Gas & Electric Company, Lockard & White Inc., Utilities
Technology Council
EIBASS
Encina Communications
Enterprise Wireless Alliance
Enterprise Wireless Alliance, Edison Electric Institute
Environmental Health Trust
The Evergy Companies
Facebook Inc.
Facebook Inc., Qualcomm Inc.
First Energy Corp.
Fixed Wireless Communications Coalition (FWCC)
Google LLC
Google LLC, Broadcom Inc., Comsearch, a ComScope Company, Federated Wireless, Inc., Key
Bridge Wireless LLC, Nokia Innovations, Plume Design, Inc., Qualcomm Incorporated, RED
Technologies, Sony Group Corporation, Wi-Fi Alliance
Hewlett Packard Enterprise
Idaho Power
Intel Corporation
International Association of Fire Chiefs
Jon Peha
Kevin Mottus
Land Mobile Communications Council
Meta Platforms Inc.
Major Cities Chiefs Association
Marc-Anthony Signorino
Media Justice, Civil Rights, Public Interest, Labor, and Consumer Advocacy Organizations
Meta Platforms Inc.
Monisha Ghosh
National Association of Broadcasters (NAB)
National Spectrum Management Association
National Telecommunications and Information Administration
National Wireless Communications Council
NCTA – The Internet & Television Association
Netgear Inc.
Nevada Power
Next Energy
Nokia
North End Woodward Community Coalition
Open Technology Institute at New America (OTI)
Open Technology Institute at New America, Public Knowledge
Pacific Gas & Electric
Public Interest Spectrum Coalition
Public Knowledge
Public Knowledge, Open Technology Institute
Qualcomm Corporation, Cambium Networks
Qualcomm Inc., Google LLC
RLAN Group
Rev. Dante King
Southern Company Services Inc.
Ultra Wide Band Alliance

Utilities Technology Council

Utilities Technology Council, APCO, Edison Electric Institute, Enterprise Wireless Alliance, National Rural Electric Cooperative Association, Southern Company

Utilities Technology Council, Edison Electric Institute, American Public Power Association, National Rural Electric Cooperative Association, American Gas Association, American Water Works Association, APCO International, International Association of Fire Chiefs, National Public Safety Telecommunications Council

Utilities Technology Council, Edison Electric Institute, National Rural Electric Cooperative Association, American Gas Association, American Petroleum Institute, American Water Works Association

Utilities Technology Council, Edison Electric Institute, National Rural Electric Cooperative Association, American Gas Association, APCO International, International Association of Fire Chiefs (6 GHz Industry Stakeholders)

Utilities Technology Council, Edison Electric Institute, National Rural Electric Cooperative Association, APCO International, Enterprise Wireless Alliance

Utility Broadband Alliance

Wi-Fi Alliance

Wi-Fi Alliance, The Wireless Innovation Forum (WinnForum)

Wireless Application Corporation

The Wireless Innovation Forum (WinnForum)

Wireless Internet Service Providers Association (WISPA)

Verizon

Xcel Energy

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Unlicensed Use of the 6 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*; ET Docket No. 18-295, GN Docket No. 17-183; Second Report and Order and Second Further Notice of Proposed Rulemaking (October 19, 2023)

Our lives run on unlicensed spectrum. Consider the laptop you pulled open this morning to check your e-mail, the baby monitor you use to keep tabs on your child at night, the fitness tracker you use to count your steps, or the tunes you stream over your phone to power you through a workout. No matter who you are or where you live, the odds are good that all sorts of activities in your day-to-day life depend on wireless airwaves that are unlicensed.

Unlicensed spectrum is an invisible force. It contributes more than \$95 billion to our economy every year. It helps make our lives more convenient, more connected, and more productive.

This was no accident. It is the result of wireless policy choices that were made by the Federal Communications Commission more than three decades ago. Our engineers challenged the status quo by suggesting that spectrum that was not licensed to specific individuals could be useful for all. So the FCC opened a handful of underused frequencies—airwaves that were widely viewed as “garbage bands”—to anyone who followed some basic technical rules.

What followed was revolutionary. We made it possible to access airwaves without licenses, to innovate without permission, and to develop low-power wireless technologies that have changed the way we live and work. But the best-known development from this effort was Wi-Fi. Because unlicensed airwaves are the spectrum where Wi-Fi was born.

The challenge now is to keep this good stuff growing. So a few years ago, when the global pandemic put our Wi-Fi routers centerstage, the FCC determined it was vital to identify additional spectrum to carry our unlicensed wireless activity and set aside a large swath of airwaves in the 6 GHz band. This was the right thing to do. Because as fiber, cable, and commercial wireless move to gigabit speeds, we need to ensure our Wi-Fi connections have the wider channels and additional bandwidth they need to keep pace.

Today we take the effort to support unlicensed activity in the 6GHz band even further. We are opening up 850 megahertz of the 6 GHz band to small mobile devices operating at very low power, while putting in place common sense safeguards to protect incumbent uses. We are also proposing to open up an additional 350 megahertz of the 6 GHz band for very low power devices.

This means we are expanding access to the 6 GHz band to help jumpstart the next generation of unlicensed wireless devices. So get ready. Because we now have unlicensed bandwidth with a terrific mix of high capacity and low latency that can deliver new immersive, real-time applications. That means these are the airwaves where we can develop new wearable technologies and expand access to augmented and virtual reality.

These are the airwaves where the future happens—and with the 6 GHz band the United States is leading the way.

Thank you to the staff responsible for this effort, including Ron Repasi, Ira Keltz, Jamison Prime, Michael Ha, Nick Oros, Bahman Badipour, Hugh VanTuyl, Aole Wilkinsel, Dusmantha Tennakoon, Jim Szeliga, Damian Ariza, Barbara Pavon, Anika Tahsin, and David Duarte from the Office of Engineering and Technology; Roger Noel, Paul Powell, Blaise Scinto, John Schauble, Chris Andes, and Stephen

Buenzow from the Wireless Telecommunications Bureau; Keith McCrickard, Doug Klein, Anjali Singh, and Jim Carr from the Office of General Counsel; Ken Lynch, Kate Mataves, Patrick Sun, and Aleks Yankelevich from the Office of Economics and Analytics; Kathy Harvey, Jason Koslofsky, David Marks, and Neil McNeil from the Enforcement Bureau; David Furth, Renee Roland, John Evanoff, Rasoul Safavian, Brian Marengo, and Tracy Simmons from the Public Safety and Homeland Security Bureau; Michael Gussow and Joy Ragsdale from the Office of Communications Business Opportunities; Sankar Persaud and Franco Hinojosa from the Space Bureau; Ethan Lucarelli and Dante Ibarra from the Office of International Affairs; and Jeff Neumann from the Media Bureau.

**STATEMENT OF
COMMISSIONER BRENDAN CARR**

Re: *Unlicensed Use of the 6 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*; ET Docket No. 18-295, GN Docket No. 17-183; Second Report and Order and Second Further Notice of Proposed Rulemaking (October 19, 2023)

In 2020, the FCC took a historic step to advance U.S. leadership in wireless. Back then, we led the world by opening up the full 6 GHz band for next-generation unlicensed use. By doing so, we effectively increased the amount of mid-band spectrum available for Wi-Fi by almost a factor of five. And by acting early, our 2020 decision ensured that Americans and the businesses that are based here on our shores would benefit from this country's first-mover advantage. The results speak for themselves as consumers here are now benefiting from better, faster Wi-Fi and 5G services in their homes.

The truth is that our action in 6 GHz was part of a broader and forward-thinking approach to spectrum. All told, from 2017 through 2020, the FCC's spectrum efforts opened up more than six gigahertz of spectrum for licensed 5G services in addition to thousands of megahertz of unlicensed spectrum. None of those decisions were easy, but they were all important and for some pretty core reasons.

For one, America's leadership in wireless is vital to our geopolitical interests. When America goes first, the world takes notice. When we free up spectrum, other countries follow suit. And when we are clear about our goals in wireless, it puts the wind at the backs of U.S. officials and our allied stakeholders that are working in international settings to ensure that spectrum bands and technologies develop in ways that work for America's interests—not those of the foreign governments and delegations that do not share our values or goals.

That is why I argued in early 2021 for this new FCC to keep acting on spectrum matters with the same pace and urgency that we did during my first four years on the job. In fact, I detailed a spectrum calendar back in March of 2021 that would ensure America stays on track and keeps leading the world in wireless.

One of the actions I outlined was for the FCC to act that year—in 2021—on authorizing very low power or VLP devices in the full 6 GHz band. VLP operations can unlock even more innovative operations from wearables to augmented and virtual reality.

Unfortunately, the FCC did not act on VLP for over two more years. And that delay has consequences. Again, the U.S. was first to act on the 6 GHz band back in 2020. But in the meantime, something like 50 countries not only caught up to us by authorizing unlicensed operations in 6 GHz, but they moved *faster* than us on authorizing VLP in the band. It is critical for the U.S. to start leading again on wireless.

Now, I am very glad we are unanimous in taking action today in 6 GHz in a way that authorizes VLP operations. But I would have been happy for the FCC to go even further. For instance, I would have preferred for the FCC to address higher power levels for low power indoor or LPI devices today. I would have preferred to move now on authorizing additional power for VLP devices. And I would have preferred authorizing VLP operations in additional portions of the 6 GHz band today. After all, acting on these issues now would have been entirely consistent with both the D.C. Circuit's 2021 decision on 6 GHz as well as the FCC's own 2023 spectrum policy statement. And it would have shown strong spectrum leadership, which would have aided U.S. efforts heading into next month's World Radio Conference in Dubai.

So while the U.S. has been stalling out on spectrum as of late, I am confident that we can get things back on track. One reason is the FCC's talented and dedicated staff. They worked hard on this decision today, and there's no doubt that it tackles many complex and technical matters. So I am very appreciative for their work. And this order has my support. I approve.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Unlicensed Use of the 6 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*; ET Docket No. 18-295, GN Docket No. 17-183; Second Report and Order and Second Further Notice of Proposed Rulemaking (October 19, 2023)

We opened the 6 GHz band to unlicensed devices at a unique moment in American history. It was April 2020. Wi-Fi had emerged as a lifeline of connectivity in places like libraries, restaurants, parking lots, and youth centers. Internet usage had morphed and surged, sparking a new sense of urgency to ensure that our networks—including our home networks—could keep pace with demand. At the same time, new waves of IoT innovation began to grip sectors like healthcare and transportation. Consumer adoption also began to climb as newer and more affordable devices offered fresh ways to make life safer, more convenient, more enriching, and more efficient.

On all these fronts, 6 GHz unlicensed showed a vibrant path forward, from the wide-area to the local-area to the interconnectivity immediately around us. That’s why when we adopted our 2020 order, I spoke about the band’s potential to serve as a lynchpin for a more innovative, and more inclusive, wireless future.

I continue to share that vision for 6 GHz, and today’s action takes another important step towards achieving it. Wearable devices stand at the very leading edge of wireless innovation. They can power applications for everyday users, educators, medical professionals and, yes, gamers, too. But in 2023, consumers don’t want and shouldn’t have to put up with devices that are wired, clunky, or sluggish, or that overheat and need to constantly recharge. With VLP, they can benefit from products that are more capable, sleeker, and more power efficient, and that cost less to make and just plain work better.

This has been a long time coming, and I’m glad we got it done ahead of the upcoming World Radio Conference. Countries around the world are exploring the future of 6 GHz within their borders. As today’s action shows, the promise of 6 GHz unlicensed goes well beyond the millions of Wi-Fi 6E devices that have shipped already. And it will only continue to build as the ecosystem matures and develops.

The incumbents in this band provide vital services, and making sure we protect their operations is critical. That’s why we’ve taken a conservative first step with VLP power levels as we continue to build a record on future possibilities. Speaking of which, I hope we continue to explore our limits for low-power indoor devices, and that we do so quickly. As I said in 2020, raising power can help ensure that people can connect to Wi-Fi throughout their homes without additional equipment that might be too costly or complicated for many Americans. It also can help make 6 GHz networks less expensive to deploy for small businesses. The potential consumer impact here is big, and it’s real. Now, the engineering isn’t easy. But the time has come to work through the questions that remain, and see if we can come up with the right solutions.

I thank the Office of Engineering and Technology for its hard work on this item.

**STATEMENT OF
COMMISSIONER NATHAN SIMINGTON**

Re: *Unlicensed Use of the 6 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*; ET Docket No. 18-295, GN Docket No. 17-183; Second Report and Order and Second Further Notice of Proposed Rulemaking (October 19, 2023)

While I support today's item, I would be remiss if I did not express my reservations about how the *Second Report and Order* dismisses technical arguments made by certain commenters. The analysis within the *Second Report and Order* is thorough and well-reasoned based on the data and simulations it relies upon—the San Francisco and Houston simulations completed by Apple and Broadcom, et al. But what concerns me about today's item is that it does not give adequate consideration to many of the arguments made by commenters who raise concerns about lack of access to crucial data that informs those simulations and the potential for harmful interference to their operations from unlicensed VLP devices.⁸⁰⁵ It does so in many instances by pointing to the same simulations relied upon to make its conclusions, as evidence that the arguments against those conclusions are wrong.

I fear that without a thorough deliberation of licensed incumbent's substantive technical arguments, that the Commission may be failing to anticipate instances of harmful interference from VLP devices. And if my fears bear fruit, the Commission could find itself in the position of attempting to police interference fights in a heavily congested environment where it proves difficult, if not impossible, to enforce its rules.

If 6 GHz licensees are unable to identify the source of the interference, they will be unable to file a complaint with sufficient information to allow Commission staff to conduct any enforcement. I am pleased that the Chairwoman addressed my concerns by including additional language about rules enforcement and equipment certification for VLP devices. This additional language, in addition to the promising benefits of 6 GHz devices, is why I support this item. We must carefully consider, through the proceeding teed up in the *Second Further Notice*, what additional steps can or should be taken to mitigate the potential for harmful interference.

We must be prepared, just in case it turns out that the simulations are in certain instances wrong, and harmful interference is caused by the proliferation of the VLP devices approved of in today's *Second Report and Order*.

As always, thank you to the OET staff for all of their great work.

⁸⁰⁵ See, e.g., *Second Report and Order* at para. 37 (“we do not agree with AT&T that it is necessary for multiple proximate VLP devices communicating with each other to be specifically modeled by the simulations as such use is implicitly accounted for”) referring to AT&T's Aug. 29, 2023 *Ex Parte*; *id.* at para. 52 (“[w]hile Apple Broadcom et al. and Apple have not made their simulation code or the resulting raw data produced by the simulations publicly available, we believe that they have provided sufficient information for knowledgeable engineers to understand the algorithms and models used in the simulations”) referring to Southern Company Aug. 24, 2023 *Ex Parte*. See also Letter from Michael P. Goggin, AT&T to Marlene H. Dortch, Secretary, Federal Communication Commission, ET Docket No. 18-295 (filed Oct. 11, 2023) at 2; Letter from Patrick McFadden, Senior Vice President and Deputy General Counsel, National Association of Broadcasters, to Marlene H. Dortch, Secretary, Federal Communication Commission, ET Docket No. 18-295 (filed Oct. 11, 2023); See Letter from Larry F. Butts, Director, Telecom Services, Southern Company Services, Inc. to Marlene H. Dortch, Secretary, Federal Communication Commission, ET Docket No. 18-295 (filed Oct. 10, 2023); Letter from Brett Kilbourne, Senior Vice President Policy and General Counsel, Utilities Technology Council to Ms. Marlene H. Dortch Secretary Federal Communications Commission, (ET Docket No. 18-295 (filed Oct. 13, 2023).

**STATEMENT OF
COMMISSIONER ANNA M. GOMEZ**

Re: *Unlicensed Use of the 6 GHz Band, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz*; ET Docket No. 18-295, GN Docket No. 17-183; Second Report and Order and Second Further Notice of Proposed Rulemaking (October 19, 2023)

Spectrum is the heart of wireless innovation. And as wireless innovation flourishes, shared use of limited spectrum continues to be key. Around the world, spectrum management is one of the most important functions national communications regulatory bodies undertake, and it certainly is for us at the FCC.

The Second Report and Order will allow a new class of devices, Very Low Power devices, for unlicensed use in the 6 GHz band, and the Second Further Notice of Proposed Rulemaking proposes to allow an additional class of Very Low Power devices to operate unlicensed at slightly higher power levels, in some portions of the band, but Geofenced. The FCC has given careful consideration to all perspectives and relied on rigorous analysis. As the new unlicensed uses are carried out, we remain open to hearing from all. Bring your demonstrable evidence, your experiences, your complaints and your success stories. We are here to hear you.

Today, by adopting the Second Report and Order, we expand access to unlicensed use of the 6 GHz band. And by adopting the Second Further Notice of Proposed Rulemaking we continue to explore further unlicensed use of the band. This action achieves two important and interrelated goals. Nationally, we strike a balance of spectrum use that fosters innovation while setting parameters that protects incumbent operations. Our action demonstrates the continued implementation of the FCC's historic 2020 decision to dedicate 1200 megahertz of mid-band spectrum to unlicensed innovation. Internationally, we send a powerful message about the United States' continued commitment to next generation Wi-Fi operations in the 6 GHz band in advance of the 2023 World Radiocommunication Conference. With these decisions, we support innovation at home, and uphold our leadership internationally. I want to thank the Office of Engineering and Technology for their hard work on this item.

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

In the Matter of	)	
	)	
Inquiry Concerning Deployment of Advanced	)	GN Docket No. 22-270
Telecommunications Capability to All Americans	)	
in a Reasonable and Timely Fashion	)	
	)	

SEVENTEENTH SECTION 706 REPORT NOTICE OF INQUIRY

Adopted: October 25, 2023

Released: November 1, 2023

Comment Date: December 1, 2023

Reply Comment Date: December 18, 2023

By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements; Commissioners Carr and Simington concurring in part and issuing separate statements.

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I. INTRODUCTION

1. With this Notice of Inquiry (Notice), pursuant to section 706 of the Telecommunications Act of 1996, we initiate the next annual assessment concerning the “availability of advanced telecommunications capability to all Americans.”¹ We begin this annual inquiry in the wake of the

¹ 47 U.S.C. § 1302(b).

COVID-19 pandemic during which time Americans increasingly turned to their broadband connections to conduct their lives online by using telemedicine to access healthcare, working from home, attending classes remotely, connecting by video with out-of-town family and friends, and streaming entertainment. Our experiences with the pandemic made it clear that broadband is no longer a luxury but a necessity that will only become more important with time. Never before has the critical importance of ensuring that all Americans have access to high-speed, affordable broadband been more evident.

2. In light of the increasing uses and demands for high-speed broadband and the Congressional directives embodied in the Infrastructure Investment and Jobs Act (Infrastructure Act), which includes the largest ever federal investment in high-speed broadband,² we propose in this Notice to take a long overdue fresh look at our standards for evaluating broadband deployment and availability, the quality of our available data, and the framework that we use to make our finding under section 706. More specifically, we propose to focus our inquiry on the universal service goals of section 706—universal deployment, affordability, adoption, availability, and equitable access to broadband throughout the United States.

3. We also propose to make this inquiry our first to use the new Broadband Data Collection (BDC) data. The Commission's prior Broadband Deployment Reports have for many years relied primarily on the FCC Form 477 deployment data to evaluate consumers' broadband options for fixed and mobile services.³ In March 2020, Congress passed the Broadband DATA Act,⁴ which required the Commission, among other things, to collect biannual data relating to the availability and quality of service of fixed and mobile broadband Internet access service for the Commission to create broadband coverage maps.⁵ Pursuant to the Act, we now collect more precise, location-by-location broadband availability data through the BDC. Accordingly, in December 2022, the Commission sunset the collection of broadband deployment data through the FCC Form 477.⁶ The Commission completed its third round of BDC data collections on September 15, 2023. In this Inquiry, we will examine how these improvements to our data collection may impact the standards and inform our conclusions about broadband availability.

4. In response to this Notice, we seek objective data and other evidence to evaluate the universal service goals for broadband. We encourage individual consumers, providers of broadband services, consumer advocates, analysts, policy institutes, governmental entities, and all other interested parties to help us determine the most effective ways to complete this statutorily mandated task.

² Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021) (Infrastructure Act).

³ See, e.g., *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 20-269, *Fourteenth Broadband Deployment Report*, 36 FCC Rcd 836, 847-48, para. 21 (2021) (2021 Report); *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 17-199, 2018 Broadband Deployment Report, 33 FCC Rcd 1660, 1677, para. 43 (2018) (2018 Report); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 15-191, 2016 Broadband Progress Report, 31 FCC Rcd 699, 729, para. 73 (2016 Report).

⁴ Broadband Deployment Accuracy and Technology Availability Act, Pub. L. No. 116-130, 134 Stat. 228 (2020) (codified at 47 U.S.C. §§ 641-646) (Broadband DATA Act).

⁵ 47 U.S.C. § 642(a)(1)(A).

⁶ *Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Order, FCC 22-93 (Dec. 9, 2022) (2022 Form 477 Order) (sunsetting the collection of broadband deployment data through FCC Form 477). The Commission clarified that it will continue to collect broadband and voice subscription data using the FCC Form 477, but filers will submit their data through the BDC system. *Id.* at 1, para. 1.

II. STATUTORY STANDARD FOR THE SECTION 706 INQUIRY

5. Section 706 requires us to annually conduct an inquiry “concerning the availability of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms)” as part of an effort to “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”⁷ If that determination is negative, the Commission “shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”⁸

6. Notably, for the first time since enacting section 706, Congress, in the Infrastructure Act, provided additional statutory text regarding the meaning of the provision. Specifically, Congress describes section 706 as setting out “the statutorily mandated goals of universal service for advanced telecommunications capability.”⁹ We therefore believe the Infrastructure Act supports the view that the Commission must determine whether advanced telecommunications capability is available universally throughout the country, or, in the words of the statute, “to *all* Americans.”¹⁰ We seek comment on this analysis. How should we apply it in the context of the statutory language that we must assess whether such capability “is being deployed to all Americans in a reasonable and timely manner”?¹¹ To what extent should the Commission evaluate the progress and pace of recent broadband deployment?

7. In addition, we note that the Infrastructure Act refers to section 706 as embodying “the statutorily mandated *goals* of universal service for advanced telecommunications capability,”¹² which we believe is best read to mean that the Commission’s inquiry must include an examination of multiple universal service goals and should not be limited to the narrow question of physical deployment of service. Although Congress did not define the terms “deployment” and “availability” as used in section 706, Congress stated that the Commission must assess the “availability” of advanced telecommunications capability, and it then directed that specific findings be made regarding “deployment.”¹³ Section 706 does not equate these two terms, and we therefore believe that in order to give meaning to both terms we have discretion in assessing “availability” to consider factors other than solely the state of “deployment.”¹⁴

⁷ *Id.*

⁸ *Id.* Since enacting section 706, Congress has shown a continued interest in improving the data and analysis the Commission uses in conducting its inquiry. In 2008, Congress made certain revisions to the Commission’s statutory directive based on a finding that “[t]he deployment and adoption of broadband technology has resulted in enhanced economic development and public safety for communities across the Nation, improved health care and educational opportunities, and a better quality of life for all Americans.” Broadband DATA Act, § 102(1); 47 U.S.C. § 1301(1). These revisions included clarifying that the inquiry must be annual and requiring the Commission to provide demographic information for unserved areas, including population density, per capita income, and median household income. See Broadband DATA Act § 103(a)(1), (3); 47 U.S.C. § 1302(b), (c). For an example of such demographic information, see *2021 Report*, 36 FCC Rcd at 860, para. 39, Fig. 5. As initially enacted, the Broadband DATA Act required the Commission to include in its annual inquiry a comparison between broadband deployment in the United States and at least 25 countries abroad. See Broadband DATA Act § 103(b). This comparison is no longer required for the section 706 inquiry but, instead, is included in the biannual Communications Marketplace Report. See 47 U.S.C. §§ 163, 1303(b)(1).

⁹ Infrastructure Act, div. F, tit. I, § 60104(c)(2).

¹⁰ 47 U.S.C. § 1302(b) (emphasis added).

¹¹ *Id.*

¹² Infrastructure Act, div. F, tit. I, § 60104(c)(2) (emphasis added).

¹³ *Id.*

¹⁴ See, e.g., *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the* (continued....)

Consistent with this discretion and the additional context provided by the Infrastructure Act, the Commission, in the Future of Universal Service Fund Report issued pursuant to the requirements of the Infrastructure Act, determined the broadband universal service goals of section 706 to be “universal deployment, affordability, adoption, availability, and equitable access to broadband throughout the United States.”¹⁵ We propose to use these same goals to conduct our section 706 inquiry and seek comment on this proposal.

III. DEFINING ADVANCED TELECOMMUNICATIONS CAPABILITY

8. We believe that it is time to take a fresh look at the standards that we use to determine what constitutes “advanced telecommunications capability.” In this section, we seek comment on the appropriate standards for evaluating the physical deployment of fixed and mobile broadband service, including proposing to increase our benchmark for fixed broadband download speed to 100 megabits per second (Mbps) and the upload speed to 20 Mbps, and the relationship between fixed and mobile broadband service.

A. Benchmarks for Advanced Telecommunications Capability

9. We seek comment on benchmarks to define advanced telecommunications capability for the purposes of evaluating section 706’s universal service goals for broadband. In addition to proposing an increase from the existing fixed broadband speed benchmark of 25/3 Mbps to 100/20 Mbps¹⁶ we seek comment on adopting a long-term fixed broadband speed goal of 1,000 Mbps, or 1 gigabit per second (Gbps), download speed paired with 500 Mbps upload speed. We also seek comment on whether we should adopt upload and download speed benchmarks for mobile service, and propose to include an assessment in our final report of the number of fixed and mobile broadband providers to which consumers have access.

1. Fixed Broadband Service

10. *Speed.* We propose to raise the download/upload speed benchmark for fixed broadband service to 100/20 Mbps. Congress confirmed the need to update this speed through passage of the Infrastructure Act that provides providing funding for broadband only when such service providers offer broadband service at speeds of at least 100 Mbps download and 20 Mbps upload. Specifically, the Infrastructure Act directed the National Telecommunications and Information Administration (NTIA) to establish the Broadband Equity, Access, and Deployment Program (BEAD Program), through which NTIA will allocate \$42.45 billion to states for grants “to bridge the digital divide.”¹⁷ Broadband networks funded by the BEAD Program must provide download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps.¹⁸ Any areas that do not meet these requirements are considered underserved.¹⁹ In light

(Continued from previous page) _____

Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, Eighth Broadband Progress Report, 27 FCC Rcd 10342, 10363, para. 27 (observing that these terms are broader than physical deployment).

¹⁵ *Report on the Future of the Universal Service Fund*, WC Docket No. 21-476, Report, FCC 22-67, at para. 12 (Aug. 15, 2022) (*USF Report*).

¹⁶ When we denote broadband speeds in formats such as 100/20 Mbps, we are presenting both the download and upload speeds. In the case of 100/20 Mbps, for example, we refer to broadband service that has a download speed of 100 Mbps and an upload speed of 20 Mbps.

¹⁷ Infrastructure Act, div. F, tit. I, § 60102(b)(1). On June 26, 2023, the BEAD Program allocations for all 50 states and the U.S. Territories were announced. National Telecommunications and Information Administration, U.S. Department of Commerce, *Biden-Harris Administration Announces State Allocations for \$42.45 Billion High-Speed Internet Grant Program as Part of Investing in America Agenda* (June 26, 2023), <https://www.ntia.gov/press-release/2023/biden-harris-administration-announces-state-allocations-4245-billion-high-speed>.

¹⁸ Infrastructure Act, div. F, tit. I, § 60102(h)(4)(A)(i).

¹⁹ Infrastructure Act, div. F, tit. I, § 60102(a)(1)(C)(ii).

of Congress' judgment that areas receiving broadband speeds of less than 100/20 Mbps are not adequately served, we believe that our speed benchmark for fixed advanced telecommunications capability must be updated to at least the 100/20 Mbps level.

11. Consumer use trends strongly suggest that Americans expect and need faster broadband connections. During the COVID-19 pandemic, families adapted to working, learning, receiving healthcare, and interacting with the outside world simultaneously using multiple devices on the same household connection. Higher speeds have frequently become a necessity. We believe many of the adaptations Americans made during the COVID-19 pandemic are here to stay—for example, more widespread teleworking and continued expansion of telehealth.²⁰ Indeed, households tend to subscribe to services meeting a 100 Mbps download speed threshold where it is available. For instance, the number of American households subscribing to services meeting a 100 Mbps download speed threshold increased from approximately 66.4 million in December 2019 to approximately 91.1 million in December 2022.²¹ As of December 2022, the mean download speed for all residential broadband subscriptions was 440 Mbps while the median residential download speed was 300 Mbps, and nearly 78% of all residential subscriptions had a download speed of at least 100 Mbps.²²

12. The COVID-19 pandemic increased the demand for faster broadband service, increased consumers' bandwidth needs, and increased the typical household's bandwidth usage. According to OpenVault, average U.S. household bandwidth consumption increased by approximately 71% between the end of 2019 and the end of 2022.²³ OpenVault also found that consumers are migrating to higher speed tiers, mainly due to an increase in subscribers working and learning from home, an increase in the number of devices accessing broadband services for longer periods of time, and an increase in the use of high-bandwidth applications such as videoconferencing and real-time e-learning.²⁴ In addition, many Internet service providers (ISPs) upgraded the speed provided to customers to accommodate their consumers' need for higher bandwidth services.²⁵ Even while customers are moving to higher speed tiers,

²⁰ See, e.g., U.S. Bureau of Labor Statistics, U.S. Business Response Summary (Mar. 22, 2023), <https://www.bls.gov/news.release/brs1.nr0.htm> (Bureau of Labor Statistics 3Q2022 Survey); GMMMA Staff Members, *Telehealth utilization and patient demand in 2023: Best guesses and best practices* (Nov. 3, 2022), <https://www.mgma.com/data/data-stories/telehealth-utilization-and-patient-demand-in-2023> (GMMMA Telehealth Survey).

²¹ Based upon staff evaluation of FCC Form 477 subscription data as of December 31, 2019 and December 31, 2022.

²² Based upon staff evaluation of FCC Form 477 subscription data as of December 31, 2022.

²³ See OpenVault, Broadband Insights Report 4Q 2022, at 4 (2023), <https://www.telecompetitor.com/clients/openvault/2022/Q4/index.php> (OpenVault 4Q2022 Report).

²⁴ See, e.g., *id.* at 8; OpenVault, Broadband Insights Report 4Q 2020 at 9 (2021), <https://openvault.com/resources/ovbi/> (OpenVault 4Q2020 Report).

²⁵ See, e.g., Charter Launches Spectrum One, Offering Customers Unrivaled Connectivity and Value (Oct. 31, 2022), <https://corporate.charter.com/newsroom/charter-launches-spectrum-one> (announcing the launch of Spectrum One for new and existing subscribers across all its markets with starting speeds of 300 Mbps); Comcast Boosting Speeds for more than 20 Million Xfinity Internet Customers Across the Country (Oct. 17, 2022), <https://corporate.comcast.com/press/releases/faster-internet-speeds-xfinity-customers-2022> (announcing upgraded speeds at all plan levels for customers in Xfinity's Northeast, Central, and West divisions); Eli Blumenthal, *AT&T is boosting the speeds of its Fiber home internet plans for new and existing users*, CNET (Apr. 28, 2021), <https://www.cnet.com/home/internet/at-t-is-boosting-the-speeds-of-its-fiber-home-internet-plans-for-new-and-existing-users/>; *Spectrum Continues to Double Internet Starting Speed to 200 Mbps* (Mar. 3, 2021), <https://corporate.charter.com/newsroom/spectrum-doubles-spectrum-internet-starting-speed-to-200-mbps-in-17-additional-markets>.

OpenVault observes that Internet users are increasingly pushing against the limit of the services to which they subscribe, using the vast majority of their available speed for much of the day.²⁶

13. More than three years since the COVID pandemic began, bandwidth consumption continues to increase steadily and shows no sign of stopping.²⁷ Telehealth has become an established method of providing and receiving healthcare, with one survey finding that 72% of medical groups expect patient demand for telehealth to stay the same or increase in 2023.²⁸ With regard to telework, a Bureau of Labor Statistics survey conducted in the third quarter of 2022 of private-sector establishments found that over 27% have some or all of their employees teleworking some or all of the time (with over 11% of respondents reporting that all of their employees teleworked all of the time), and over 95% expecting current levels of telework to stay the same over the next six months.²⁹ Similar to telehealth and telework, increased levels of online learning are likely to outlive the COVID-19 pandemic. For example, virtual school enrollment across ten states increased 176% in the 2021-22 school year, as compared to the 2019-20 school year.³⁰ And even students who are attending school in person are still relying on home connectivity for schoolwork outside of school hours.³¹ We seek comment on these trends and the foregoing views.

14. The Commission's Universal Service Fund efforts to deploy broadband also support an increase in the speed benchmark for what is considered advanced telecommunications capability. In recent years, the Commission has awarded high-cost universal service support almost exclusively to projects with broadband service at speeds of 100/20 Mbps or faster. All recipients of the Bringing Together Puerto Rico Stage 2 fixed support program, for example, are required to provide service at a minimum speed of 100/20 Mbps, with service obligations at some locations as high as 1 Gbps/500 Mbps.³² In addition, 1 Gbps/500 Mbps service will have to be deployed to all locations subject to

²⁶ OpenVault, Broadband Insights Report 3Q 2021 at 9-11 (2021), <https://openvault.com/resources/ovbi/> (*OpenVault 3Q2021 Report*).

²⁷ See generally *OpenVault 4Q2022 Report*.

²⁸ *GMMA Telehealth Survey* (Nov. 3, 2022), <https://www.mgma.com/data/data-stories/telehealth-utilization-and-patient-demand-in-2023>; Tanya Albert Henry, *Millions of Medicare Patients Kept Telehealth Habit Post-Vaccines*, AMA (Feb. 6, 2023), <https://www.ama-assn.org/practice-management/digital/millions-medicare-patients-kept-telehealth-habit-post-vaccines> (finding that about 4 million Medicare patients received medical care through telehealth in each of the first two quarters in 2022); Jiang Li, *Telemedicine And Telehealth In 2023 And Beyond: From Leveling Out To Leveling Up* (Dec 27, 2022), <https://www.forbes.com/sites/forbestechcouncil/2022/12/27/telemedicine-and-telehealth-in-2023-and-beyond-from-leveling-out-to-leveling-up/?sh=5a02ef654843>; FAIR Health, *Monthly Telehealth Regional Tracker*, <https://www.fairhealth.org/fh-trackers/telehealth>.

²⁹ See Bureau of Labor Statistics 3Q2022 Survey. See also Jennifer Liu, *More Americans are Now Working Fully Remote than 3 Months Ago, Despite Fewer WFH Job Openings*, CNBC (Feb. 13, 2023) <https://www.cnbc.com/2023/02/13/remote-work-ticked-up-in-january-and-could-signal-the-future-of-wfh.html> (noting that 46 percent of respondents in a January 2023 LinkedIn survey are working a hybrid or remote schedule); Kim Parker, *About a Third of U.S. Workers Who Can Work From Home Now Do So All the Time*, Pew Research Center (Mar. 30, 2023) <https://www.pewresearch.org/fact-tank/2023/03/30/about-a-third-of-us-workers-who-can-work-from-home-do-so-all-the-time/> (finding that 59 percent of hybrid workers work from home three or more days in a typical week).

³⁰ Asher Lehrer-Small, *Virtual School Enrollment Kept Climbing Even As COVID Receded, New Data Reveal*, The 74 (Nov. 14, 2022), <https://www.the74million.org/article/virtual-school-enrollment-kept-climbing-even-as-covid-receded-new-data-reveal/> (updated Nov. 16, 2022).

³¹ CoSN, *CoSN Releases Findings of 2022 Home Connectivity Study* (July 14, 2022), <https://www.cosn.org/cosn-news/cosn-releases-findings-of-2022-home-connectivity-study/>.

³² See *Wireline Competition Bureau Authorizes Stage 2 Support for Puerto Rico Telephone Company and Liberty Communications of Puerto Rico*, WC Docket Nos. 18-143 and 10-90, Public Notice, 36 FCC Rcd 9914 (WCB 2021) (continued....)

Connect USVI Stage 2 fixed support in the U.S. Virgin Islands.³³ Rural Digital Opportunity Fund auction winners that have been announced as ready to authorize as of January 2023 have committed to providing 1 Gbps/500 Mbps service to roughly 98% of locations being funded.³⁴

15. In addition, numerous states and executive agencies have set broadband download speed targets of at least 100 Mbps. Many states have developed broadband deployment programs requiring funded projects to deliver speeds at or exceeding this threshold benchmark.³⁵ At least one state has set 100 Mbps as a goal for all state programs and at least one other has made 100 Mbps an official standard for multiple state programs.³⁶ The U.S. Department of Agriculture's Rural Utilities Service (RUS) provides broadband loans with a set of minimum speed requirements, which vary based on the duration of the project. For 5-10 year award terms, which are comparable to the term of support for many high-cost

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(*Bringing Together Puerto Rico Winning Applicant Announcement*) (identifying Puerto Rico Telephone Co., Inc. (PRTC) and Liberty Communications of Puerto Rico (Liberty) as the winning applicants); PRTC Uniendo a Puerto Rico Fund Stage 2 Fixed Support Application Form, WC Docket Nos. 18-143 and 10-90, Initial Overview at 1 (filed June 22, 2021) (*PRTC Network Description*); Liberty Uniendo a Puerto Rico Fund Stage 2 Fixed Support Application Form, WC Docket Nos. 18-143 and 10-90, Initial Overview at 4 (filed June 22, 2021) (*Liberty Network Description*). We refer to the *Bringing Together Puerto Rico Winning Applicant Announcement*, *PRTC Network Description*, and *Liberty Network Description* together as the *Bringing Together Puerto Rico Broadband Speed Requirements*.

³³ See *Connect USVI Fund Stage 2 Support Authorized for Broadband VI*, WC Docket Nos. 18-143 and 10-90, Public Notice, 36 FCC Rcd 9405 (WCB 2021) (*USVI Fund Winning Applicant Announcement*) (identifying Broadband VI as the winning applicant); Broadband VI Uniendo a Puerto Rico Fund Connect USVI Fund Stage 2 Fixed Support Application Form, WC Dockets Nos. 18-143 and WC 10-90, Initial Overview at 1 (filed June 11, 2021) (together with the *USVI Fund Winning Applicant Announcement*, the *USVI Fund Broadband Speed Requirements*).

³⁴ See FCC, *Auction 904: Rural Digital Opportunity Fund*, <https://www.fcc.gov/auction/904> (Results tab, last visited Oct. 23, 2023).

³⁵ See, e.g., Iowa Department of Management, Empower Rural Iowa Broadband Grant Program Notice of Funding Availability at 4 (2023), https://ocio.iowa.gov/sites/default/files/exhibit_a_-_notice_of_funding_availability_-_nofa_008.pdf (Iowa Program) (offering definitions only for 100/100 and 100/20 broadband in grant funding notice); Maine Connectivity Authority, Broadband Service Triennial Strategic Plan 2022-24 (2022), https://www.maine.gov/connectme/sites/maine.gov.connectme/files/inline-files/Plan_Triennial_2022.pdf (declaring 25 Mbps/3 Mbps insufficient and “designat[ing] broadband service as 100/100mbps”); Maryland Department of Housing and Community Development, Connect Maryland: FY23 Network Infrastructure Grant Program: Request for Applications at 6 (2022), <https://dhcd.maryland.gov/Broadband/Documents/FY23NIGP/ApplicationPackage.pdf> (Maryland Program) (defining “broadband service” as providing “the minimum data rate of one hundred (100) megabits per second downstream and twenty (20) megabit per second upstream”); Michigan Department of Labor and Economic Opportunity, Realizing Opportunities with Broadband Infrastructure Networks (ROBIN) Grant Program Guidance at 2 (2023), https://www.michigan.gov/leo/-/media/Project/Websites/leo/Documents/MIHI/ROBIN-Grant/ROBIN_Program_Guidance.pdf (Michigan Program) (defining “broadband service” as supporting “a symmetrical rate of at least 100 megabits per second downstream and upstream”); Miss. Code Ann. § 77-19-3(b) (defining “broadband service” as mass-market retail service at speeds of at least 100/20 Mbps); North Dakota Legislative Branch, 2018-2019 Annual Report, Appendix at 8 (2019), https://www.legis.nd.gov/files/committees/66-2019/21_5124_03000appendixj.pdf (noting that their objective is statewide Gigabit connectivity and that “more than 75% of North Dakotans already have access to Gigabit broadband delivered in more than 325 communities”); Washington State Department of Commerce, *CERB Rural Broadband Program*, <https://www.commerce.wa.gov/building-infrastructure/community-economic-revitalization-board/rural-broadband/> (last visited Oct. 23, 2023) (Washington Program) (setting speed benchmarks for broadband provided via cable modem, powerlines, and microwave at 100/20 Mbps, 100/100 Mbps, and 100/20 Mbps, respectively).

³⁶ California Broadband Council, Broadband Action Plan 2020 at 20 (2020), <https://broadbandcouncil.ca.gov/wp-content/uploads/sites/68/2020/12/BB4All-Action-Plan-Final-Draft-v26.pdf> (setting 100 Mbps as a goal); Neb. Rev. Stat. §§ 86-135(1), 86-324(1), 86-5, 109, 86-1302(11).

Universal Service broadband programs,³⁷ the RUS requires awardees to provide service at a minimum speed of 100/12 Mbps.³⁸ In addition, the U.S. Department of Treasury, as part of its implementation of the American Rescue Plan Act's provisions relating to broadband infrastructure funding,³⁹ has adopted a requirement that projects to be designed to deliver service that reliably meets or exceeds 100/100 Mbps.⁴⁰ Further, the Commission's Precision Agriculture Task Force in 2021 advocated increasing the Commission's benchmark speed to 100/20 Mbps, explaining that the current benchmark is too low to enable sufficient innovation and utilization of precision agriculture and for purposes of transferring large amounts of data from field or farm to the cloud for storage.⁴¹

16. Most of the nation's largest ISPs focus their marketing efforts on fixed broadband speeds of at least 100 Mbps download. For example, the slowest Internet speed plan marketed by Charter is 300 Mbps.⁴² In addition, Verizon appears to market three tiers of fixed service with discounts for low-income customers, with the slowest tier being 300 Mbps.⁴³ Google Fiber appears to market only 1 and 2 Gbps service.⁴⁴

17. Deployment trends also suggest that raising the benchmark is a reasonable course of action. According to December 2022 BDC data, approximately 91% of broadband-serviceable locations had access to a terrestrial fixed broadband service with download speeds of at least 100 Mbps in December 2022.⁴⁵ FCC Form 477 deployment data showed that since 2017, more than 90% of the population has had access to terrestrial fixed broadband service with download speeds of at least 100 Mbps, with that percentage increasing to 95.1% by December 2021.⁴⁶

³⁷ See, e.g., 47 CFR § 54.309(a)(2)(ii) (10-year term for CAF Phase II Auction Support); 47 CFR § 54.802(b) (10-year term for Rural Digital Opportunity Fund); 47 CFR § 54.1504(a) (10-year term for Stage 2 fixed support under the Bringing Together Puerto Rico and Connect USVI Funds).

³⁸ See Department of Agriculture, Rural Broadband Loans, Loan/Grant Combinations, and Loan Guarantees, 85 Fed. Reg. 49, 14393, 14396 (Nov. 30, 2022) (noting that the RUS's broadband lending speed benchmark is currently set at 25/3 Mbps); 7 CFR § 1738.55(a)(2) (requiring projects with an award term of 5-10 years to provide service at a benchmark of "four times the broadband lending speed," which equates to a benchmark of 100 Mbps in download speed for such loans).

³⁹ American Rescue Plan Act of 2021 (ARPA) Pub. L. No. 117-2, § 9901 (codified at 42 U.S.C. § 802(c)(1)(D)).

⁴⁰ The Department of Treasury initially adopted this requirement as an interim final rule, 31 CFR § 35.6(e)(2), and the requirement is scheduled to become a final rule on April 1, 2022. See Department of the Treasury, Coronavirus State and Local Fiscal Recovery Funds, 87 Fed. Reg. 4338 (Jan. 27, 2022) (*ARPA Final Rule*). Both the interim and final rule state that if providing an upload speed of 100 Mbps "is not practicable, because of the excessive cost of the project or geography or topography of the area to be served by the project," recipients are permitted to deploy service at an upload speed of 20 Mbps, so long as the upload speed is scalable to 100 Mbps. 31 CFR § 35.6(e)(2), *ARPA Final Rule*.

⁴¹ Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States, Report of the Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States at 6 (2021), <https://www.fcc.gov/sites/default/files/precision-ag-report-11102021.pdf>.

⁴² Charter Communications, *Spectrum Internet Speeds*, <https://www.spectrum.com/internet> (last visited Oct. 23, 2023) (Charter Communications provides broadband service under the brand Spectrum).

⁴³ Verizon, *Get free Verizon Home Internet with ACP and the Verizon Forward Program*, <https://www.verizon.com/home/acp/free-internet/> (last visited Oct. 23, 2023) (see "Prices with programs applied").

⁴⁴ Choose the speed you need — from the 1 Gig we're known for to the fastest we've ever offered, <https://fiber.google.com/internet/> (last visited Oct. 23, 2023).

⁴⁵ Staff calculations based on December 31, 2022, data from the BDC.

⁴⁶ Based upon staff evaluation of FCC Form 477 Data from December 31, 2017, through December 31, 2021. These figures include all 50 States, the District of Columbia, and Puerto Rico. Evaluation of data is based on 2010 census geographies for 2017 through 2020 and 2020 census geographies for 2021. The population data are based upon the
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18. In addition to raising our download speed benchmark to 100 Mbps, we also believe it is time to raise the current 3 Mbps upload speed benchmark for fixed services to 20 Mbps. Broadband funding programs have evolved not only to expect faster download speeds, but faster upload speeds, as well. For example, the BEAD Program requires an upload speed of 20 Mbps and winning bidders in the Bringing Puerto Rico Together and USVI Fund programs are committed to providing minimum upload speeds of 20 and 500 Mbps, respectively.⁴⁷

19. Moreover, consumer subscription patterns and usage trends indicate that upload speed is increasingly important. The pandemic has taught us all the importance of upstream broadband transmission speeds. This is borne out by the subscription patterns and consumer uses discussed above that support not only increasing the download speed benchmark, but also the upload speed benchmark. Based on OpenVault's data, average household monthly upload broadband usage increased over 40% faster than download usage increased between December 2019 and December 2022.⁴⁸ Multiple household members simultaneously using today's applications may often need more than 3 Mbps. A 2021 study conducted by the Consortium for School Networking (CoSN) concluded that 3 Mbps is an inadequate upload speed to support even a single student in a household, let alone multiple students in the same household.⁴⁹ Instead, CoSN recommends a per-student benchmark upload speed of 12 Mbps.⁵⁰ Zoom suggests 1.2 Mbps upload for a single 720p one-on-one video call and far more for higher quality video (3.8 Mbps) and video calls with groups of people (2.6-3.8 Mbps).⁵¹ Thus it appears that in many instances, simultaneous use of telework, telehealth, remote learning, or personal video calling would outstrip a 3 Mbps upload capability. A 20 Mbps upload speed benchmark is not only consistent with the threshold set by the Infrastructure Act,⁵² it will better accommodate increased usage patterns and bandwidth-intensive applications that require greater upload capacity.

20. We seek comment on our proposal to adopt 100/20 Mbps as the benchmark speed for fixed broadband service to constitute "advanced telecommunications capability." Do commenters agree that the changes in telehealth, work, and e-learning patterns, the market behavior of consumers and ISPs, and recent policy developments requiring higher speed services necessitate a speed benchmark of at least 100/20 Mbps to satisfy the definition of "high-speed, switched, broadband telecommunications capability

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Commission staff's population estimates. FCC, *Staff Block Estimates*, <https://www.fcc.gov/staff-block-estimates> (last visited Oct. 23, 2023).

⁴⁷ Infrastructure Act, div. F, tit. I, § 60102(h)(4)(A)(i); *Bringing Together Puerto Rico Broadband Speed Requirements*; *USVI Fund Broadband Speed Requirements*. Multiple state programs also require upload speeds of at least 20 Mbps. See, e.g., Iowa Program (20 Mbps), Maryland Program (20 Mbps), Michigan Program (100 Mbps), Washington Program (20 Mbps).

⁴⁸ See *OpenVault 4Q2022 Report* at 15; *OpenVault 4Q2020 Report* at 7. OpenVault reports average monthly download bandwidth consumption was 551.4 GB in December 2022, compared to 344 GB in December 2019 (a roughly 60% increase), while it reports average monthly upload bandwidth consumption was 35.3 GB in December 2022, compared to 19 GB in December 2019 (a roughly 86% increase).

⁴⁹ Consortium for School Networking, Student Home Connectivity Study, at 8 (2021), https://emma-assets.s3.amazonaws.com/paqab/37cf06d0de533f59eb780f4ec065d766/Home_Connectivity_Study_Report_5.3.21_FINAL.pdf.

⁵⁰ *Id.*

⁵¹ Zoom, *Zoom system requirements: Windows, macOS, Linux*, <https://support.zoom.us/hc/en-us/articles/201362023-System-requirements-for-Windows-macOS-and-Linux> (last visited Oct. 23, 2023). Microsoft recommends 1.5 Mbps upload for a single 720p one-on-one video call, 4.0 Mbps for higher quality video (3.8 Mbps), and 2.5-4.0 for video calls with groups of people using Teams, which Microsoft states "is always conservative on bandwidth utilization." Microsoft, *Prepare your organization's network for Microsoft Teams*, <https://learn.microsoft.com/en-us/microsoftteams/prepare-network> (last visited Oct. 23, 2023).

⁵² See Infrastructure Act, div. F, tit. I, § 60102(a)(1)(C)(ii), (h)(4)(A)(i).

that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology”⁵³ Do commenters believe a different speed benchmark is appropriate, and if so, why? Should the benchmark be set at an even higher speed? If so, why? Would increasing the benchmark have any effect on broadband competition? For instance, if the benchmark was increased to 100/20 Mbps, would that artificially reduce the appearance of competition by limiting the number of providers or technologies that the Commission reports as providing advanced telecommunications capability?

21. Is it necessary for the Commission to examine particular consumer use cases in selecting a speed benchmark? If so, what do such use cases demonstrate? We seek comment on the online applications, use cases, and technologies that commenters believe a sufficient number of consumers are using today and will use in the foreseeable future. How can the Commission set relevant speed and other broadband thresholds to enable those applications, use cases, and technologies? For example, as 4K video increases in popularity, individual households may have an increasing number of 25 Mbps video streams serving applications such as video conferencing, telehealth, and remote learning, not to mention streaming of video entertainment and gaming.⁵⁴ Graphics-intensive telework, alone, can require 45 Mbps or more.⁵⁵ We believe that in examining household use cases, a simple summation of required speeds for individual activities may provide a misleading picture of actual broadband needs for at least three reasons. First, we believe it is appropriate to take into account at least occasional downloads of very large files which can be bandwidth-intensive.⁵⁶ Second, it is important to account for larger households; in 2022, approximately 21% of all U.S. households had four or more people, and the number of families seeking out multigenerational homes to live with additional relatives rose.⁵⁷ Households of all sizes must have sufficient bandwidth to satisfy their needs. In addition, the number of connected devices per household continues to grow, from 18.6 in the average household in 2021 to 20.2 in the first half of 2022.⁵⁸ Taking these factors into account suggests that fixed broadband download/upload needs could easily exceed 100/20 Mbps. We seek comment on these views.

⁵³ See 47 U.S.C. § 1302(d)(1).

⁵⁴ Some recommend 25 Mbps download speed for streaming 4K video. See, e.g., Anthony Spadafora, *What internet speed do I need? Here's how many Mbps is enough*, <https://www.tomsguide.com/us/internet-speed-what-you-need-news-24289.html> (last visited Oct. 23, 2023); Find movies with 4K, HDR, Dolby Vision, or Dolby Atmos in the Apple TV app, <https://support.apple.com/en-us/HT207949>, (last visited Oct. 23, 2023). But see, Google, *System requirements & supported devices for YouTube*, <https://support.google.com/youtube/answer/78358?hl=en> (last visited Oct. 23, 2023) (YouTube Video Bandwidth Recommendations) (recommends 20 Mbps); Netflix, *Internet connection speed recommendations*, <https://help.netflix.com/en/node/306> (last visited Oct. 23, 2023) (recommends 15 Mbps).

⁵⁵ Fast Feed Editorial Staff, *How To Get the Fastest Internet in a Home Office* (Mar. 12, 2020), <https://blog.frontier.com/2020/03/how-much-speed-do-you-need-to-do-your-job-from-home/>; see also Chantel Buchi, *The Best Internet Setup for Working from Home* (Sept. 26, 2023), <https://www.reviews.org/internet-service/work-from-home-internet-guide/> (recommending 100 Mbps for “most” teleworkers”).

⁵⁶ Morgan Park, *The era of 100GB games is upon us, and the average PC gamer is underprepared*, PC Gamer (May 12, 2023), <https://www.pcgamer.com/the-era-of-100gb-games-is-upon-us-and-the-average-pc-gamer-is-underprepared/>; RJ Pierce, *Why Are Games Getting MASSIVE Install Sizes? Here's a Tech Explainer*, Tech Times (Sept. 2, 2021), <https://www.techtimes.com/articles/264914/20210902/why-games-getting-massive-install-sizes-heres-tech-explainer.htm>. At 25 Mbps, it would take roughly nine hours to download 100 GB.

⁵⁷ U.S. Bureau of the Census, *Historical Households Tables*, <https://www.census.gov/data/tables/time-series/demo/families/households.html> (Nov. 2022) (Table HH.4 Households by Size: 1960 to Present); Oyin Adedoyin, *More Parents are Moving In With Adult Children – at Younger Ages*, Wall Street Journal, (Feb. 22, 2023) <https://www.wsj.com/articles/more-parents-are-moving-in-with-adult-children-at-younger-ages-a931f3d7> (reporting that 14% of all home buyers in 2022 set up multigenerational homes, up from 11% in 2021).

⁵⁸ Plume, *Smart Home Market Report at 7* (2022), <https://discover.plume.com/plume-iq-smart-home-1h-2022-smart-home-report.html>.

22. Given the increasing importance of upload speed, is there a continuing reason to differentiate download and upload speeds in our benchmark or should we consider setting a benchmark with symmetrical download and upload speeds? Are the demands of upload broadband uses growing at a rate at which they may soon be the same as download demands? We recognize that, to some degree, the potential need for a symmetrical benchmark depends on where the benchmark is set—whether, for example, it is 500/500 Mbps or 100/100 Mbps. Rather than adopt a speed benchmark of 100/20 Mbps as proposed, is there sufficient cause to instead adopt a symmetrical benchmark of 100/100 Mbps? Are the arguments against the adoption of a symmetrical benchmark of 100/100 Mbps sufficient to outweigh the attendant benefits to users and the country at large of establishing such a speed threshold? For example, would a symmetrical benchmark adversely affect competition by minimizing other technologies or providers that can provide non-symmetrical download speeds but that might otherwise satisfy consumer demands?

23. Regardless of the benchmark that we select for fixed broadband service, we believe it is valuable for fixed providers to report on a wide range of download speeds and, in addition, multiple upload speeds for each download speed. We invite commenters to suggest what they consider relevant combinations of benchmark download and upload speeds that we should report for both fixed and mobile broadband service. As part of their suggestions, we request that commenters consider the availability of reliable and comprehensive data and suggest available sources.

24. We also seek comment, consistent with a recent recommendation by the Government Accountability Office (GAO), on means by which we could make our current and future consideration of our benchmark for fixed broadband service as consistent and transparent as possible.⁵⁹ What steps could we take that the Commission has not taken before to explain the scope and steps of its research and analysis, the data and analysis used to support our assertions, and the rationale for why we agree or disagree with stakeholder comments that we receive?⁶⁰

25. *Small Business Needs.* We seek comment on what needs of small businesses should be taken into consideration in our determination of a new speed benchmark. The GAO recommended that the Commission solicit input from stakeholders, conduct analysis of small business broadband needs and incorporate the results of this analysis into its determination of the benchmark speed for broadband.⁶¹ We agree with GAO that soliciting additional stakeholder input regarding small business broadband needs, assuming adequate data are available, could assist the Commission in determining whether the current fixed speed broadband benchmark is adequate to deliver “advanced telecommunications capability.” GAO’s view is that the current minimum benchmark speed of 25/3 Mbps is likely not fast enough to meet the needs of small businesses, particularly with regard to upload speeds.⁶² Do commenters agree? What are the needs of small businesses with respect to broadband that the Commission should take into account in determining a speed benchmark?

26. *Long-Term Speed Goal.* In evaluating broadband deployment, we must not only look at the present, but also to the future. We therefore seek comment on adoption of a long-term speed goal for fixed broadband service, with a benchmark of 1 Gbps/500 Mbps, a speed adopted for many locations in recently-established Commission Universal Service Fund programs.⁶³ Establishing a long-term goal

⁵⁹ See U.S. Government Accountability Office, FCC Should Improve Its Communication of Advanced Telecommunications Capability Assessments at 19 (2023), <https://www.gao.gov/assets/gao-23-105655.pdf> (GAO *Small Business Report*).

⁶⁰ *Id.*

⁶¹ See U.S. Government Accountability Office, FCC Should Analyze Small Business Needs at 27 (2021), <https://www.gao.gov/assets/gao-21-494.pdf>.

⁶² *Id.* at 26.

⁶³ See, e.g., *Bringing Together Puerto Rico Broadband Speed Requirements; USVI Fund Broadband Speed Requirements; Rural Digital Opportunity Fund Report and Order*, 35 FCC Rcd at 702-03, para. 3.

could not only give notice to policymakers and market participants as to how advanced telecommunications capability is likely to be defined in the near future, but also give all parties, government and industry alike, a collective goal toward which to strive—a better, faster, more robust system of communication for American consumers. Although, as we discuss above, some states have standards faster than 25/3 Mbps for policymaking purposes, it appears that some states may still be using 25/3 Mbps as their standard for some programs.⁶⁴ While funding recipients may well dramatically exceed such benchmarks, we are concerned that our lack of a long-term goal may be sending an inappropriate signal to other policymakers. In light of these considerations, we seek comment on whether 1 Gbps/500 Mbps is an appropriate long-term goal. Would an aspirational standard encourage deployment? Should we adopt such a long-term benchmark? How should we define “long-term”? We note that the length of support for many Commission high-cost programs is 10 years.⁶⁵ Would a different speed than 1 Gbps/500 Mbps be a more appropriate long-term benchmark? We seek comment on the online applications, use cases, and technologies that commenters believe consumers may use that would be supported by this long-term benchmark. Should we adopt a symmetrical long-term benchmark?

27. *Service Quality.* We recognize that other factors, besides the speed of a broadband connection, can affect consumers’ ability to use the services effectively. Chief among these factors is latency, which is the measure of the time it takes a packet of data to travel from one point in the network to another, and which is typically measured by round-trip time in milliseconds (ms).⁶⁶ As a measurement of advanced telecommunications capability, latency can be critical because it affects a consumer’s ability to use real-time applications, including voice over Internet Protocol, video calling, distance learning applications, and online gaming.⁶⁷ Actual (as opposed to advertised) speed received, consistency of speed, and data allowances are also important.⁶⁸ Such factors are not simply a matter of service interruptions and consumer satisfaction—they have a real and significant effect on Americans’ ability to use critical web-based applications, including those that facilitate telehealth, telework, and virtual learning.

⁶⁴ See, e.g., Georgia Code § 50-40-1(2), 50-40-2(a) (defining “broadband services” for purposes of “state-wide efforts to promote and facilitate deployment of broadband services” as services with a capability to transmit at a minimum speed of 25/3 Mbps); Business Oregon, *Rural Broadband Capacity Program*, https://www.oregon.gov/biz/aboutus/boards/bac/Pages/Rural_Broadband_Capacity_Pilot_Program.aspx (last visited Oct. 23, 2023) (permitting grants to fund construction of broadband infrastructure capable of delivering service at speed of at least 25/3 Mbps). At least two states tie the speed requirements for at least one of their programs to the Commission’s benchmark (to change as the Commission’s benchmark changes). See Minn. Stat. § 116J.394(b) (citing, in turn, Minn. Stat. § 116J.39(b)); State of West Virginia, *West Virginia Broadband Infrastructure Loan Insurance Guide* at 5 (2018), <https://broadband.wv.gov/assets/files/pdfs/inner-pages/loan-insurance/WVEDA-Loan-Insurance-Guide-and-Form-2018.11.9.pdf>.

⁶⁵ See, e.g., 47 CFR §§ 54.802(a) (Rural Digital Opportunity Fund), 1504(a) (Bringing Together Puerto Rico and Connect USVI Funds).

⁶⁶ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 15-191, Eleventh Broadband Progress Notice of Inquiry, 30 FCC Rcd 8823, 8835, para. 32 (2016).

⁶⁷ *Id.* at 8835, para. 32 n.69. High latencies may affect the perceived quality of some interactive services such as phone calls over the Internet, video chat and video conferencing, or online multiplayer games. FCC, *Measuring Broadband America Fixed Broadband Report* at 1.C (2023), [https://www.fcc.gov/reports-research/reports/measuring-broadband-america/measuring-fixed-broadband-twelfth-report#:~:text=The%20Twelfth%20Measuring%20Broadband%20America,Broadband%20America%20\(MBA\)%20\(Twelfth%20Measuring%20Broadband%20America%20Report\)](https://www.fcc.gov/reports-research/reports/measuring-broadband-america/measuring-fixed-broadband-twelfth-report#:~:text=The%20Twelfth%20Measuring%20Broadband%20America,Broadband%20America%20(MBA)%20(Twelfth%20Measuring%20Broadband%20America%20Report).). By consistency of speed, we refer to the extent to which the speed received by a consumer fluctuates over a period of time. See *id.* at 2.C.

⁶⁸ Certain metrics may be combined. For example, we could measure the minimum speed that a consumer actually receives 99.999% of the time.

28. Given these considerations regarding service quality, we seek comment on whether and to what extent we should consider these factors in making our determination pursuant to section 706. Should we establish concrete benchmarks by which to judge such factors? Broadband networks funded by the BEAD Program must provide “latency that is sufficiently low to allow reasonably foreseeable, real-time, interactive applications.”⁶⁹ Should we adopt the same or similar standard by which to judge latency or quality of service, generally? Are the limitations of a provider’s customer-premises equipment (CPE), such as modems and routers, relevant in determining where to set any such benchmarks and, if so, how? How should we account for deficiencies in CPE that consumers themselves may provide? Are there other factors, beyond latency, such as actual versus advertised speed, and consistency of speed, that we should consider in making our determination pursuant to section 706? Should we consider packet loss as part of this inquiry? Are there other service quality metrics that we should consider? To what extent should such considerations affect our eventual finding of whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion?

29. We also seek comment on whether the available quality of service data are sufficient to establish quantifiable benchmarks for factors such as latency and consistency. Is there sufficient information available to allow us to set benchmarks that govern service quality and to determine whether these thresholds are being met? For instance, do these studies and data collections, such as Measuring Broadband America,⁷⁰ have sufficient representation by providers across the nation to accurately address the question of whether providers have achieved the prescribed levels of latency and consistency? Might a lack of sufficient quality of service data support the adoption of a less quantitative and more qualitative standard, such as that adopted for the BEAD Program?⁷¹

2. Mobile Broadband Service

30. *Speed.* The Commission has not adopted a mobile advanced telecommunications capability benchmark in previous reports primarily due to the inherent variability in the performance characteristics of mobile service, both geographically and temporally.⁷² Rather, the Commission has evaluated the deployment of advanced telecommunications capability for mobile services using multiple metrics. For example, in previous reports, the Commission has analyzed FCC Form 477 4G LTE coverage data, where mobile service providers reported a minimum advertised or expected speed of 5/1 Mbps, and then supplemented these provider-reported data with Ookla speed test data.⁷³ In particular, in those areas where providers claimed to provide 4G LTE with a minimum 5/1 Mbps advertised (or expected) speed, the Commission supplemented these data with Ookla speed-test data showing median speed tests of at least 10/3 Mbps, to help the Commission understand the extent to which American consumers were receiving mobile speeds higher than 5/1 Mbps.⁷⁴

⁶⁹ Infrastructure Act, div. F, tit. I, § 60102(h)(4)(A)(i).

⁷⁰ See, e.g., *Twelfth Measuring Broadband America Report*. The participants for the most recent report were Altice Optimum, CenturyLink, Charter, Cincinnati Bell, Comcast, Cox, Frontier, Mediacom, Verizon (fiber), and Windstream. *Id.* at 2.A. AT&T no longer participates in the program. *Id.*

⁷¹ Infrastructure Act, div. F, tit. I, § 60102(h)(4)(A)(i).

⁷² See, e.g., *2021 Report*, 36 FCC Rcd at 843-44, para. 15.

⁷³ *Id.* at 844, para. 15. The data collected by the Ookla Speedtest mobile app include test results for download speed, upload speed, and latency, as well as other information, such as the location of the test and operating system of the handset. *Id.* at 852, para. 30 n.128.

⁷⁴ *Id.* at 843-44, para. 15. Ookla’s speed-test data provide a large set of observations of actual speeds that customers receive. *Id.* at 852, para. 30. In those areas with sufficient observations, these data are used to supplement the Commission’s Form 477 data, which provide service providers’ self-reported coverage polygons. *Id.* at 844, 852, paras. 15, 29. In the previous report, the Commission concluded that consumers were likely to be covered by 4G LTE services if there is at least one service provider serving that census block that reports 5/1 Mbps as the benchmark speed, based on their FCC Form 477 submission, using the centroid method. *Id.* at 852, para. 29. To

(continued....)

31. The Commission is now collecting both mobile and fixed broadband availability data through the BDC, and has already collected three rounds of data (as of June 30, 2022, as of December 31, 2022, and as of June 30, 2023). The June 30, 2022, data were published on the National Broadband Map on November 18, 2022, and the public map was updated with December 31, 2022, data on May 30, 2023. Both datasets are available on the public map.⁷⁵ We therefore propose to use the two mobile datasets for this report. The BDC standardizes several of the mobile propagation map parameters that were not standardized in the FCC Form 477 data collection, such as minimum speeds for each technology (3G, 4G LTE, and 5G-NR) and parameter values for cell edge probability, cell loading, and spatial resolution.⁷⁶ We seek comment, for purposes of the next report, on whether we should continue to use the multiple speed metrics approach and whether we should also rely on Ookla data in addition to BDC data. If we also use on-the-ground speed test data as part of a multiple speed metrics approach, what on-the-ground speed metrics should we use for 5G-NR coverage? Should we continue to present 4G LTE availability data also?

32. We note that 5G-NR is the next-generation technology that several mobile providers are deploying and advertising to consumers.⁷⁷ As part of the BDC, the Commission is collecting 5G-NR coverage data using 35/3 Mbps and 7/1 Mbps minimum speed at the cell edge, including other standardized parameters.⁷⁸ In contrast, the FCC Form 477 data were not based on standardized speed metrics.⁷⁹ As a result, the 5G-NR coverage data submitted by carriers pursuant to FCC Form 477 varied substantially in the minimum advertised or expected speeds depicted. Although the Commission no longer collects deployment data through FCC Form 477, should we nonetheless consider using FCC Form 477 5G-NR data to assess deployment for historical context covering the time period before the BDC was implemented?

33. Should we adopt a speed benchmark to assess whether mobile services provide advanced telecommunications capability, and if so, what should that benchmark be? Should we consider using one

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identify counties with a median measured 4G LTE speed of at least 10/3 Mbps, the FCC Form 477 data were supplemented with Ookla data in counties that contained at least 300 Ookla test observations. *Id.* at 852-53, paras. 30. In December 2022, the Commission sunset the collection of broadband deployment data through the FCC Form 477, and we now collect broadband availability data through the BDC. *See 2022 Form 477 Order.*

⁷⁵ *Broadband Data Task Force Releases Pre-Production Draft of the National Broadband Map; Announces the Start of the Broadband Availability Challenge Processes*, WC Docket Nos. 11-10, 19-195, Public Notice, DA 22-1210 (WCB/WTB/OEA Nov. 18, 2022). *See* Chairwoman Rosenworcel Note, *National Broadband Map: It Keeps Getting Better*, <https://www.fcc.gov/national-broadband-map-it-keeps-getting-better> (May 30, 2023) (announcing release of new National Broadband Map which includes December 31, 2022 coverage data, results of challenges to the June 30, 2022 data, as well as other improvements to the data).

⁷⁶ *Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Second Report and Order and Third Further Notice of Proposed Rulemaking, 35 FCC Rcd 7460, 7474-81, paras. 32-47 (2020) (*Second BDC Order*).

⁷⁷ *See, e.g.,* CTIA, *2022 Annual Survey Highlights* at 6 (Sept. 13, 2022), <https://www.ctia.org/news/2022-annual-survey-highlights> (“Today, 5G touches every facet of our lives, with 315 million Americans covered.”).

⁷⁸ 47 CFR § 1.7004(c)(3); *Second BDC Order*, 35 FCC Rcd at 7479-80, para. 45 (2020); *see also Inaugural Filing Window for Broadband Data Collection Has Opened; Filers May Begin Submitting Broadband Availability Data*, WC Docket Nos. 11-10, 19-195, Public Notice, 37 FCC Rcd 7656 (WCB/WTB/OEA 2022) (*Initial BDC Filing Window PN*). The Broadband Data Collection standardizes several of the mobile propagation map parameters that are not standardized in the FCC Form 477 data collection, such as minimum cell edge probabilities and cell loading factors, and maximum modeling resolution. *Second BDC Order*, 35 FCC Rcd at 7476-83, paras. 38-51.

⁷⁹ *See* FCC Form 477, Local Telephone Competition and Broadband Report, Instructions for Filings as of December 31, 2019 – June 30, 2022 at 24 (2022), <https://us-fcc.app.box.com/v/Form477InstThruJune2022> (*June 2022 Form 477 Instructions*) (instructing mobile providers to submit polygons representing geographic coverage with the minimum advertised or expected speeds for a particular technology).

of the BDC availability speed thresholds (for example, a minimum speed of 35/3 Mbps) as a benchmark for determining whether advanced telecommunications capability is being deployed in a reasonable and timely fashion?⁸⁰ Are there other speed benchmarks the Commission should consider? Or should we refrain from adopting a standardized speed benchmark at this time? Should we consider only 5G-NR in determining whether mobile services provide advanced telecommunications capability or still continue to report 4G LTE?

34. If we establish a mobile benchmark, is it necessary for us to examine particular consumer use cases? We seek comment on the use cases for mobile services and on the minimum speeds they require. Should we identify both a minimum upload and a minimum download speed? If so, what speeds should we consider as sufficient to be considered “advanced telecommunications capability”?⁸¹ Next-generation applications, such as virtual and augmented reality, would benefit from a faster download throughput that corresponds to what the latest generation mobile networks should be capable of handling.⁸² Do these applications qualify as the “high-quality voice, data, graphics, and video telecommunications” contemplated by section 706?⁸³

35. *Service Quality.* In addition to upload and download speeds, other characteristics of mobile service quality include latency, jitter, and packet loss, especially while in motion. It may be correspondingly appropriate to analyze these metrics from report to report. As mobile networks transition to higher performance standards, such as those required by 5G-NR,⁸⁴ should the Commission analyze additional criteria for the section 706 report going forward, and, if so, should it consider benchmarks for those criteria that would affect a mobile network’s performance? For example, if data show certain levels of high latency, would that be evidence that a provider’s network is not providing “advanced telecommunications capability”? We seek comment generally regarding how to address additional potential criteria for the purposes of these reports and what data sources the Commission could rely on for analysis of additional metrics from year-to-year.

3. Number of Providers

36. As part of the next report, we propose to include an assessment of the number of fixed

⁸⁰ See *Establishing a 5G Fund for Rural America*, GN Docket No. 20-32, Report and Order, 35 FCC Rcd 12174, 12206, para. 78 (2020) (requiring support recipients to deploy 5G-NR service with median speeds of at least 35/3 Mbps). *Uniendo a Puerto Rico Fund and the Connect USVI Fund; Connect America Fund; ETC Annual Reports and Certifications*, WC Docket Nos. 18-143, 10-90, and 14-58, Report and Order on Reconsideration, 34 FCC Rcd 9109, 9163, para. 102 (2019) (requiring 5G-NR deployments to be capable of at least 35/3 Mbps).

⁸¹ Live stream of a 1080p video at 30 frames per second is achievable with a 3 Mbps upload speed. 4K live streams can require up to between 8 Mbps and 51 Mbps upload depending on, among other things, frame rate. Boxcast, *Upload Speeds for 4K Live Streaming* (Dec. 20, 2022), <https://www.boxcast.com/blog/internet-speeds-for-4k-live-streaming>; YouTube Help, Choose Live Encoder Settings, Bitrates, and Resolutions, <https://support.google.com/youtube/answer/2853702?hl=en#zippy=%2Cp-fps%2Cp%2Ck-p-fps> (YouTube *Recommended Live Encoder Settings*) (last visited Oct. 23, 2023). Bandwidth recommendations for live streaming tend to be higher than for merely watching video of the same quality to ensure consistent throughput at the necessary speed. See Restream, *What is a good upload speed for streaming?* (July 1, 2022), <https://restream.io/blog/what-is-a-good-upload-speed-for-streaming/>. Compare, e.g., YouTube *Recommended Live Encoder Settings* with YouTube *Video Bandwidth Recommendations*.

⁸² See, e.g., Qualcomm Technologies, VR and AR Pushing Connectivity Limits at 10, 14-18 (2018), <https://www.qualcomm.com/media/documents/files/vr-and-ar-pushing-connectivity-limits.pdf>.

⁸³ 47 U.S.C. § 1302(d)(1).

⁸⁴ See, e.g., 3GPP, Technical Specification Group Services and System Aspects; Release 15 Description, Technical Report 21.915 v.15.0.0 at 10 (2019), https://www.etsi.org/deliver/etsi_tr/121900_121999/121915/15.00.00_60/tr_121915v150000p.pdf (discussing Ultra Reliable and Low Latency Communications support).

and mobile broadband provider options to which consumers have access. Such data may help us understand barriers to deployment because the number of providers may correlate, at least to some degree, with such barriers. Further, where there are provider options for broadband service, there may also tend to be more competitive pricing and better quality of service.⁸⁵ We seek comment on this proposal. Do commenters agree that examining the number of providers available to consumers would have these benefits? Are there any other benefits?⁸⁶ Are there any conclusions that we should be drawing based on this information? If so, what evidence must we find in order to draw any such conclusions? Should we assess the number of broadband providers on an individual location basis (if data are available), census block basis, or a more aggregated level such as census block group? The latter would enable us to look at how demographic data may differ across areas by the number of providers.

B. Relationship Between Fixed and Mobile Broadband Service

37. In considering the extent of substitutability between fixed and mobile services, the Commission has recognized that consumers have distinct broadband uses in the home and on the go.⁸⁷ For instance, a fixed service is typically needed to connect all of the smart devices in the home with sufficient bandwidth to enable all those devices' use at the same time. In contrast, while consumers may also access the Internet on a mobile device in their homes, a mobile service is necessary for Internet access when consumers are on the go.⁸⁸ These services are often marketed as complementary,⁸⁹ and the Commission has previously cited evidence that consumers who have the means to subscribe to both mobile and fixed services are likely to subscribe to both.⁹⁰ This suggests that mobile and fixed broadband services may not be substitutes for all consumers' needs.⁹¹ Many households continue to subscribe to both fixed and mobile broadband service, suggesting that these separate services offer benefits that households may view as complementary or independent of each other.⁹² We seek comment, for the purposes of the next report, on whether to continue not treating fixed and mobile services as full substitutes.

38. Does deployment of advanced telecommunications capability require access to both fixed and mobile broadband services? We also seek comment on the degree of substitutability between mobile and fixed services and how that has changed over time. What data exist concerning the cross-elasticity of demand between the services?⁹³ How do the plan characteristics of typical fixed and mobile broadband

⁸⁵ See, e.g., Jonathan Sallet, Benton Institute for Broadband & Society, *Broadband for America's Future: A Vision for the 2020s* at 49-51 (2019) https://www.benton.org/sites/default/files/BBA_full_F5_10.30.pdf (Benton Foundation 2019) (citing multiple studies).

⁸⁶ We seek comment below in Section IV.A.1.a. on the extent to which the apparent number of providers in a particular geographic location may or may not serve as useful information regarding the validity of the underlying deployment data.

⁸⁷ 2021 Report, 36 FCC Rcd at 840-41, para. 10.

⁸⁸ *Id.* at 840, para. 10.

⁸⁹ See, e.g., AT&T, *Let's get you connected*, <https://www.att.com/> (showing the ability to subscribe to fixed and mobile broadband, respectively, on the same website) (last visited Oct. 23, 2023); Verizon, *Mix and match Fios Internet and TV*, <https://www.verizon.com/home/bundles/fios/> (offering discounts when subscribing to both mobile service and home Internet service) (last visited Oct. 23, 2023).

⁹⁰ 2021 Report, 36 FCC Rcd at 840, para. 10.

⁹¹ See *id.*

⁹² *Communications Marketplace Report*, GN Docket No. 22-203, 2022 Communications Marketplace Report, FCC 22-103, 116, para. 158 (Dec. 30, 2022).

⁹³ By cross-elasticity of demand, we mean the extent to which demand for one service is affected by a change in price of another service.

service plans compare—for example, in terms of price, data allowances, throttling policies, overage fees, etc.?

39. For the purpose of evaluating access to advanced telecommunications capability, we propose that the next section 706 report should present the following categories as part of the Commission's section 706 deployment evaluation: (1) the percentage of Americans with access to fixed services meeting our benchmarks; (2) the percentage of Americans with access to mobile services meeting certain stated characteristics (whether these characteristics constitute a benchmark or otherwise); and (3) the percentage of Americans with access to *both* fixed broadband service meeting our benchmarks and mobile services meeting certain stated characteristics (whether these characteristics constitute a benchmark or otherwise). We seek comment on this proposal.

IV. EVALUATING SECTION 706'S UNIVERSAL SERVICE GOALS FOR BROADBAND

40. In this section we seek comment regarding each of our proposed universal service goals for broadband—deployment, affordability, adoption, availability, and equitable access. We seek comment on how to define these goals, how these goals can be evaluated, and what data is available to assess each goal.

A. Deployment

41. We propose to evaluate whether broadband has been universally deployed by evaluating the physical deployment of broadband networks that are capable of providing service at what we select as our speed benchmark(s) for advanced telecommunications capability. We seek comment on this proposal. Are there alternative ways for the Commission to evaluate the universal service broadband goal of deployment? For instance, is there available data on the number of additional miles of fiber built, new tower construction, or new spectrum licenses that would assist us in our inquiry?

1. Physical Deployment Data

42. We propose to use the broadband availability data collected by the BDC to evaluate physical deployment in the next Report and seek comment on this proposal. This will be the first section 706 inquiry in which BDC data are available to the Commission. Since 2016, the Commission relied exclusively on FCC Form 477 data to conduct this evaluation.⁹⁴ The BDC data are substantially improved from the FCC Form 477 data due to more precise location-specific data from fixed broadband service providers and the application of more uniform standards to mobile broadband providers.⁹⁵ Further, unlike the FCC Form 477 data, BDC data are subject to a more stringent BDC verification

⁹⁴ 2021 Report, 36 FCC Rcd at 847-48, para. 21-22; *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 19-285, 2020 Broadband Deployment Report, 35 FCC Rcd 8986, 8997-98, para. 24 (2020) (2020 Report); *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 18-238, 2019 Broadband Deployment Report, 34 FCC Rcd 3857, 3868, para. 24 (2019 Report); 2018 Report, 33 FCC Rcd at 1677, para. 43; 2016 Report, 31 FCC Rcd at 729, para. 73; *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 14-126, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375, 1414, para. 68 (2015) (using other data for references to prior years). It relied exclusively on such data for mobile service in 2016 and began supplementing FCC Form 477 data with Ookla data in 2018 (there was no 2017 report). 2021 Report, 36 FCC Rcd at 844, para. 15; 2020 Report, 35 FCC Rcd at 9001-02, para. 33; 2019 Report, 34 FCC Rcd at 3871, para. 30; 2018 Report, 33 FCC Rcd at 1677, para. 43; 2016 Report, 31 FCC Rcd at 729, para. 73. Service providers did not begin filing BDC data until last year. See *Initial BDC Filing Window PN*.

⁹⁵ 2022 Form 477 Order, FCC 22-93, at 5-6, para. 12.

process and also iterative challenge processes required by Congress.⁹⁶ These considerations led the Commission to sunset the collection of FCC Form 477 broadband deployment data in December 2022, making the deployment data submitted as of June 30, 2022, the last vintage.⁹⁷

43. Do commenters agree that the Broadband DATA Act requires us to use the National Broadband Map “to determine the areas in which . . . broadband internet access service is and is not available; and . . . when making any new award of funding with respect to the deployment of broadband internet access service intended for use by residential and mobile customers”⁹⁸ as our primary source in this section 706 inquiry? Are there any special considerations regarding the iterative BDC process that we should take into account when using BDC data? For example, the initial National Broadband Map published on November 18, 2022 was a pre-production draft based on the inaugural BDC collection of data as of June 2022, and the subsequent release on May 30, 2023, based on December 31, 2022, data, incorporated the results of challenges to the locations identified in the June 2022 Broadband Serviceable Location Fabric and those challenges to availability data which had been resolved as of that time. That map contained significant updates and improvements to the data.⁹⁹ Should we only rely on BDC data released on or after May 30, 2022? Further, can BDC data or any other sufficiently reliable data be used to inform any conclusions we may make on the broadband needs specific to small businesses, particularly data at a geographically disaggregated level?¹⁰⁰ We remind commenters, however, that we do not intend to use this Inquiry to entertain any proposals to make changes to the BDC, FCC Form 477 (with respect to subscribership and voice availability information), or any other Commission data collection.¹⁰¹

44. Section 706 requires the Commission to compile a list of geographic areas lacking access to advanced telecommunications capability in its report.¹⁰² We are further required to provide population, population density, and average per capita income for each of these unserved areas.¹⁰³ Income, however, is only one demographic category—other categories may also be significant. In addition to fulfilling the minimum requirements of section 706, are geographically disaggregated data sources available that would enable the Commission also to provide additional demographic information regarding both deployment and adoption of advanced telecommunications capability, for example, considering the unserved population by race, ethnicity, age, or disability status?

a. Fixed deployment data

45. We propose to use BDC data for measuring physical deployment of fixed broadband services for the next section 706 report, including fixed terrestrial, fixed wireless, and fixed satellite service. The BDC remedies one of the primary shortfalls of the FCC Form 477 by requiring reporting of

⁹⁶ See 47 U.S.C. § 642(b)(5); 47 CFR § 1.7006; *Second BDC Order*, 35 FCC Rcd at 7484-91, paras. 56-76; *Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Third Report and Order, 36 FCC Rcd 1126, 1146-74, paras. 47-124.

⁹⁷ *2022 Form 477 Order*, FCC 22-93, 5-6, para. 13.

⁹⁸ Broadband Deployment Accuracy and Technology Availability Act, Pub. L. No. 116-130, 134 Stat. 228, 236 (2020) (codified at 47 U.S.C. § 642(c)(2)).

⁹⁹ See Chairwoman Rosenworcel Note, *National Broadband Map: It Keeps Getting Better*, <https://www.fcc.gov/national-broadband-map-it-keeps-getting-better> (May 30, 2023).

¹⁰⁰ See GAO *Small Business Report*.

¹⁰¹ Comments regarding the Broadband Data Collection, our implementation of the Broadband DATA Act, and FCC Form 477 should be filed in either or both WC Docket No. 19-195 (*Establishing the Digital Opportunity Data Collection*) and WC Docket No. 11-10 (*Modernizing the FCC Form 477 Data Program*).

¹⁰² 47 U.S.C. § 1302(c). In the past, the Commission has provided this list in an appendix providing county-by-county statistics. See, e.g., *2021 Report*, 36 FCC Rcd at 910-1008 (Appendix D).

¹⁰³ *Id.*

deployment on a more granular basis. The FCC Form 477 required facilities-based providers of fixed broadband service to report the census blocks in which they provide broadband service to end-user customers.¹⁰⁴ These FCC Form 477 data did not, however, reveal the number of discrete locations within a census block to which a provider makes fixed broadband service available.¹⁰⁵ As a result, as the Commission has recognized since 2015, coverage analyses based on FCC Form 477 likely overstated the broadband coverage experienced by some consumers, especially in large or irregularly-shaped census blocks. The BDC, in contrast, requires terrestrial fixed and satellite broadband providers to submit polygon shapefiles or a list of locations at which they make service available,¹⁰⁶ which we believe is particularly useful when attempting to measure whether deployment is truly universal. Further, as discussed above, BDC data submissions are subject to challenge and verification processes, as well as audits. We seek comment on our proposal. Even if we primarily base our analysis on BDC data, is there a means by which historical FCC Form 477 deployment data should inform our analysis?

46. The Broadband DATA Act requires us to use the BDC map(s) “to determine the areas in which . . . broadband internet access service is and is not available; and . . . when making any new award of funding with respect to the deployment of broadband internet access service intended for use by residential and mobile customers.” We seek comment on whether there are additional data that we should use to supplement the BDC data, such as BroadbandNow’s quarterly reports.¹⁰⁷ Do other sources measure speeds that would be relevant to our analysis? Are those sources sufficiently comprehensive geographically? Should we use data from NTIA, the U.S. Department of Agriculture (USDA), the Treasury Department, or other federal, state, or local sources in conjunction with BDC data to assess the state of fixed deployment?¹⁰⁸ We also seek comment on how to ensure that fixed broadband deployment data received outside of the BDC process are reliable. To the extent that a commenter proposes that we use additional data sources as supplements to the BDC data, we request that commenters describe the precise manner in which this should be done. For example, where there is a contradiction between the datasets, which data should take precedence?

b. Mobile deployment data

47. We seek comment on the appropriate mobile broadband deployment data that we should use for the next section 706 report. We propose to use mobile broadband deployment data collected through the BDC. As noted above, these data are based on standardized parameters for speed, cell edge probability, cell loading, and spatial resolution. In addition to data collected through the BDC, should we also use FCC Form 477 mobile broadband deployment data for historical context? Would a comparison of FCC Form 477 mobile broadband deployment data with the data collected through the BDC provide useful information with which to assess changes in the deployment of mobile broadband services over the past several years? Are there other data sources that would be appropriate for the Commission to use?

¹⁰⁴ *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, Report and Order, 28 FCC Rcd 9887, 9902, para. 32 (2013); *June 2022 Form 477 Instructions* at 17-18 (requiring a fixed service provider to report census blocks in which it “does, or could, within a service interval that is typical for that type of connection,” provide access to broadband connections to end-user premises).

¹⁰⁵ *2022 Form 477 Order*, FCC 22-93, 1, para. 2.

¹⁰⁶ 47 CFR § 1.7004(c)(1). Specifically, a service provider must report where it “has actually built out its broadband network infrastructure, such that the provider is able to provide service, and where the provider is capable of performing a standard broadband installation.” *Id.*

¹⁰⁷ See BroadbandNow Research, *BroadbandNow Research*, <https://broadbandnow.com/research> (last visited Oct. 23, 2023).

¹⁰⁸ The Commission’s Broadband Funding map provides data regarding funding from broadband programs administered by the Commission, NTIA, the USDA’s Rural Utilities Service, and the Treasury Department. Federal Communications Commission, Broadband Funding Map, <https://fundingmap.fcc.gov/home> (last visited Oct. 23, 2023).

Should we use data from NTIA, USDA, the Treasury Department, or other federal, state, or local sources in conjunction with BDC data to assess the state of mobile deployment?

48. Should we use Ookla on-the-ground speed test data to supplement BDC data or are other data sources available? In the previous report, the Commission supplemented provider-reported FCC Form 477 data with Ookla speed-test data in those areas where providers claimed to provide 4G LTE with a minimum 5/1 Mbps advertised speed to identify areas showing median speed tests of at least 10/3 Mbps. The analysis of the availability of mobile 4G LTE services with a median speed of 10/3 Mbps was performed in counties with at least 300 test observations in a given timeframe, and the results were assigned to each census block within the county.¹⁰⁹ If we use the Ookla data in conjunction with mobile broadband deployment data we have collected in the BDC, are there any changes we should make to the methodology we currently use to determine deployment? We seek comment generally regarding use of on-the-ground testing for the Commission's understanding of mobile broadband speeds and whether to continue to use these tests for 4G LTE and 5G-NR data. What are the advantages and disadvantages of using Ookla or any other alternative forms of on-the-ground testing data?

2. Criteria and Standards for School and Classroom Broadband Access

49. Section 706 requires the Commission to focus on the deployment and availability of advanced telecommunications capability to “elementary and secondary schools and classrooms.”¹¹⁰ During the course of the global COVID-19 pandemic, access to broadband became even more critical in ensuring that American schoolchildren do not fall behind. Especially during the first year of the pandemic, many students were forced to stay at home, which further exposed the gaps in connectivity as some students lacking access to fixed broadband service were prevented from keeping pace with students who have access to such service.¹¹¹ Accordingly, teachers and administrators were forced to take extraordinary measures—including purchasing cellular data for students with phones or tablets, and setting up hotspots and outdoor work areas on school grounds so students can download lesson materials and upload homework assignments—to ensure that students were able to participate in remote instruction.¹¹² Even though in-person schooling has resumed, many students still lack connections at home, making it difficult to complete homework. It is imperative that schools have the speed and bandwidth required to adequately educate America's children both in schools and at home.

50. Since 2015, the Commission has used two speed benchmarks to measure deployment for schools: (1) a short-term speed benchmark of 100 Mbps per 1,000 students and staff, and (2) a long-term speed benchmark of 1 Gbps per 1,000 students and staff.¹¹³ We note that according to the *2019 State of*

¹⁰⁹ 2021 Report, 36 FCC Rcd at 853, paras. 29-30 & n.130.

¹¹⁰ 47 U.S.C. § 1302(b).

¹¹¹ See Monica Chin, *America's Internet Wasn't Prepared For Online School: Distance learning shows how badly rural America needs broadband*, The Verge (Oct. 7, 2020), <https://www.theverge.com/21504476/online-school-covid-pandemic-rural-low-income-internet-broadband>; *What COVID-19 Underscores About How Broadband Connectivity Affects Educational Attainment: Johannes Bauer of the Quello Center for Media & Information Policy discusses what leaders can do to prepare for long-term remote learning*, The Pew Charitable Trusts (Dec. 7, 2020), <https://www.pewtrusts.org/en/research-and-analysis/articles/2020/12/08/what-covid-19-underscores-about-how-broadband-connectivity-affects-educational-attainment>.

¹¹² See Alice Opalka et al., *Rural school districts can be creative in solving the internet connectivity gap--but they need support*, Brookings (Aug. 10, 2020), <https://www.brookings.edu/blog/brown-center-chalkboard/2020/08/10/rural-school-districts-can-be-creative-in-solving-the-internet-connectivity-gap-but-they-need-support/> (noting that, in order to help students participate in remote instruction, some rural school districts have been forced to map locations in the community that offer free Internet access, purchase cellular data for students who have phones or tablets, connect families with companies that offer free or low-cost Internet, and set up hotspots and outdoor work areas on school grounds so students can download materials and upload assignments).

¹¹³ See 2015 Report, 30 FCC Rcd at 1410, para. 62.

the States Report, 99% of school districts have met the 100 Mbps goal.¹¹⁴ In light of the available data and the increased demand for one-to-one device use necessitated by the COVID-19 pandemic,¹¹⁵ we seek comment on whether we should increase either or both of the short and long term goals.¹¹⁶ Specifically, we propose raising the short-term speed benchmark to 1 Gbps per 1,000 students and staff, which would necessitate also raising the long-term goal. If we increase either goal, are there adequate data sources to use in our assessment? If so, what are they? Should we consider student access to advanced telecommunications capability outside of school, and if so, how?

51. What data should we use to evaluate the extent of broadband deployment to America's elementary and secondary schools? Should we use data from the next iteration of Connected Nation's Connect K-12 Report?¹¹⁷ We also seek comment on any alternative data sources available for us to evaluate broadband deployment in America's schools as required by section 706 prior to the statutory deadline for our inquiry. For example, if the CoSN publishes an updated version of its Annual Infrastructure Survey Report, should we use those data?¹¹⁸ Are there any independent studies that could be helpful in analyzing broadband deployment to schools? Should we try to evaluate student access to broadband outside of schools?

3. Tribal Lands

52. Today, too many people living on Tribal lands lack access to adequate broadband. In 2020, the President of the Navajo Nation testified to Congress that over half of Navajo chapters lack *any* broadband access at all, let alone access that meets our current definition of advanced telecommunications capability.¹¹⁹ For us to measure not only how far is left to go in deploying broadband on Tribal lands, but also how such deployment stacks up against that on non-Tribal lands, the Commission must first accurately measure such deployment. We propose to use the same standards for analyzing fixed and

¹¹⁴ See EducationSuperHighway, 2019 State of the States Report, at 7-8 (2019), <https://s3-us-west-1.amazonaws.com/esh-sots-pdfs/2019%20State%20of%20the%20States.pdf> (2019 State of the States Report). EducationSuperHighway reports the Commission's short-term goal in terms of 100 kbps per user, rather than 100 Mbps per 1,000 users, and reports the long-term goal in terms of 1 Mbps per user, rather than 1 Gbps per 1,000 users. See *id.* at 7, 13; *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8885, para. 34 (2014) (2014 First E-rate Order).

¹¹⁵ Alyson Klein, *During COVID-19, Schools Have Made a Mad Dash to 1-to-1 Computing. What Happens Next?* (Apr. 20, 2021), <https://www.edweek.org/technology/during-covid-19-schools-have-made-a-mad-dash-to-1-to-1-computing-what-happens-next/2021/04>.

¹¹⁶ According to the 2022 Connect K-12 Report, the most recent comprehensive data available, 67% of school districts currently meet the long-term goal. See Connected Nation, Report on School Connectivity for Funding Year 2022 at 3 (2022) (2022 Connect K-12 Report), <https://learns.ade.arkansas.gov/File/qs5agsnu.pdf>. The Connect K-12 Report is the successor to the EducationSuperHighway's State of the States Report. See Connected Nation, Report on School Connectivity for Funding Year 2021 at 14 (2022), https://www.fundsforlearning.com/wp-content/uploads/2022/01/Connect_K12_Connectivity_Report_2021.pdf; 2021 Report, 35 FCC Rcd at 853-54, para. 31).

¹¹⁷ The Connect K-12 Report tracks and provides analyses of public school progress toward the Commission's long-term goal for K-12 school connectivity based on 2022 application data from the Commission's E-rate program. 2022 Connect K-12 Report at 13. It includes data from 12,911 public school districts that serve 44.9 million students across all 50 states. *Id.*

¹¹⁸ At present, the most recent CoSN Annual Infrastructure Report is the 2018-19 report, which does not include data for 2019. See 2021 Report, 36 FCC Rcd at 853 n.134.

¹¹⁹ Testimony of Jonathan Nez, President of the Navajo Nation, Before the United States House of Representatives Committee on Energy and Commerce Full Committee Hearing on "Addressing the Urgent Needs of Our Tribal Communities," July 8, 2020, <https://docs.house.gov/meetings/IF/IF00/20200708/110874/HHRG-116-IF00-Wstate-NezJ-20200708.pdf>.

mobile broadband deployment on Tribal lands as we do for all areas and present the same data, to whatever extent such data are available. Do commenters agree with this proposed approach? Are there any special factors that should guide our analysis of deployment and access on Tribal lands?

53. How should we measure broadband deployment on Tribal lands? Are the considerations regarding the Commission's deployment data for Tribal lands any different than for non-Tribal lands? For example, are there alternative sources of data concerning broadband deployment on Tribal lands? If so, how should we incorporate the data from such sources into our analyses of broadband deployment on Tribal lands? Further, we invite parties to comment on our manner of presenting data regarding Tribal lands and whether a different or more extensive method of disaggregation would be useful and practical.¹²⁰

B. Affordability

54. It is more apparent than ever before that broadband is a necessity for all Americans. Yet far too many households across the country wrestle with how to pay for gas and groceries and also keep up with the broadband bill, and the lack of access to and adoption of home broadband has amplified and reinforced existing inequities in our society. To truly close the connectivity gap and ensure that all Americans have access to advanced telecommunications capability, broadband services must be affordable. A Pew Research Center survey conducted in 2021 indicated that adults with household incomes of \$30,000-\$49,999 per year were nine times more likely to not have Internet service than those with incomes of \$75,000 or more per year, and those with incomes less than \$30,000 per year were 14 times more likely not to have Internet service.¹²¹ A 2022 Brookings Institution survey study found that in rural areas, 54.7% of people with an annual income of less than \$10,000 subscribed to high-speed broadband at home, but 74.9% of people with an annual income of \$100,000 to \$149,000 subscribed to high-speed broadband at home.¹²² Many studies have reported that cost is a primary obstacle for non-adopters.¹²³ The COVID-19 pandemic highlighted the importance of obtaining affordable broadband.

¹²⁰ See 2021 Report, 36 FCC Rcd at 846, n.84.

¹²¹ Pew Research Center, *Internet/Broadband Fact Sheet* at 2 (Apr. 7, 2021), <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>. Further, a University of Kansas study conducted between January 2021 and January 2022 found that cost is the top reason that respondents living in cities do not have broadband access at home. Donna Ginther et al., University of Kansas, *Broadband in Kansas: The Challenges of Digital Access and Affordability* at 24 (2023), <https://ipsr.ku.edu/broadband/BroadbandinKansas.pdf>.

¹²² Nicol Lee et al., *Why the federal government needs to step up efforts to close the rural broadband divide*, Brookings (Oct. 4, 2022), <https://www.brookings.edu/research/why-the-federal-government-needs-to-step-up-their-efforts-to-close-the-rural-broadband-divide/>.

¹²³ See, e.g., National Telecommunications and Information Administration, *New Analysis Shows Offline Households are Willing to Pay \$10-a-Month on Average for Home Internet Service, Though Three in Four Say Any Cost is Too Much* (Oct. 6, 2022), (survey finding three in four offline households reported that paying any cost for internet would be too much); EveryoneOn, *Affordability and the Digital Divide* (Dec. 2021), <https://static1.squarespace.com/static/5aa8af1fc3c16a54bcb0415/t/61ad7722de56262d89e76c94/1638758180025> (*EveryoneOn 2021*) (survey finding that 40% of households making \$50,000 or less report being unable to pay anything for high-speed internet and 22% of them report being able to pay only \$25/month for it); Andrew Perrin, *Mobile Technology and Home Broadband 2021*, Pew Research Center (June 3, 2021), <https://www.pewresearch.org/internet/2021/06/03/mobile-technology-and-home-broadband-2021/> (finding that 45% of non-adopters "do not subscribe to high-speed internet at home . . . [because] the monthly cost of a subscription is too expensive"); Becky Chao & Claire Park, *The Cost of Connectivity 2020* at 10 (2020), https://d1y8sb8igg2f8e.cloudfront.net/documents/The_Cost_of_Connectivity_2020_XatXnf.pdf; Benton Foundation 2019 at 65-66 (discussing multiple studies); Rafi Goldberg, National Telecommunications and Information Administration, *Unplugged: NTIA Survey Finds Some Americans Still Avoid Home Internet Use*, <https://www.ntia.doc.gov/blog/2019/unplugged-ntia-survey-finds-some-americans-still-avoid-home-internet-use> (with respect to families with incomes of less than \$25,000/year) (last visited Oct. 23, 2023); John B. Horrigan & (continued....)

For instance, according to an EveryoneOn survey taken during the COVID-19 pandemic, 18% of households making \$50,000 or less lost broadband connectivity and 49% were on the brink of doing so due to an inability to pay.¹²⁴ The need for affordable broadband during the pandemic became so acute that Congress, as part of the Consolidated Appropriations Act, 2021, established the \$3.2 billion Emergency Broadband Connectivity Fund, under which eligible low-income households could receive a discount off the cost of broadband service and certain connected devices during an emergency period relating to the COVID-19 pandemic, and participating providers can receive a reimbursement for such discounts.¹²⁵ In recognition of the continued broadband affordability issue facing the nation, Congress, in the Infrastructure Act,¹²⁶ appropriated an additional \$14.2 billion for the Affordable Connectivity Program, which changes the monthly support amount but maintains a monthly discount and the one-time connected device reimbursement.¹²⁷ As of October 23, 2023, over 21 million households currently benefit from the Affordable Connectivity Program.¹²⁸ We seek comment on how we should measure affordability as part of our section 706 inquiry. Can low adoption rates for particular services indicate that the service is perceived as not affordable rather than merely demonstrating the revealed preferences of consumers given their overall service requirements and budget constraints? What other factors may lead to differential subscription rates for higher speed services between higher income and lower income areas? We also seek comment on the extent to which the answers to these questions depend on the technology deployed, such as mobile, fixed terrestrial, fixed wireless, or fixed satellite.

55. If we were to look beyond subscriber patterns in examining affordability, should we examine prices for broadband services and compare them against a selected benchmark to determine affordability? Are there other methods of measuring affordability? If we were to compare price to a benchmark, are there adequate sources to enable us to adopt a benchmark? To what would we compare the price information that we collect? Could we use as a benchmark a percentage of a certain level of income? How would we take into account the fact that a single household might have multiple mobile accounts (either individually or grouped into a family plan) while it would likely only have a single fixed

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Maeve Duggan, Pew Research Center, Home Broadband 2015 at 15-18 (2015), <https://www.pewresearch.org/wp-content/uploads/sites/9/2015/12/Broadband-adoption-full.pdf>.

¹²⁴ *EveryoneOn 2021*. See also Colleen McClain et al., Pew Research Center, *90% of Americans say the internet has been essential or important to them, many made video calls and 40% used technology in new ways. But while tech was a lifeline for some, others faced struggles* (Sept. 1, 2021), <https://www.pewresearch.org/internet/2021/09/01/the-internet-and-the-pandemic/> (survey finding that more than half of lower-income broadband users said they worried a lot or some about being able to pay for high-speed internet). For a description of the methodology used to determine lower income, see Pew Research Center, *53% of Americans Say the Internet Has Been Essential During the COVID-19 Outbreak*, (Apr. 30, 2020), at n.1, <https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/>.

¹²⁵ Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, 134 Stat. 1182, 2130, 2135, div. N, tit. IX, div. N, tit. V, § 904(i) (2020)); *Emergency Broadband Benefit Program*, WC Docket No. 20-445, Report and Order, 36 FCC Rcd 4612 (2021).

¹²⁶ Infrastructure Act, div. F, title V, § 60502(a); div. J, title IV.

¹²⁷ The Affordable Connectivity Program (ACP) launched on December 31, 2021, and the Emergency Broadband Benefit Program ceased accepting new enrollments on December 30, 2021. *Emergency Broadband Benefit Program*, WC Docket Nos. 20-445, 21-450, Order, 36 FCC Rcd 16484 (WCB 2021); Press Release, FCC, FCC Launches Affordable Connectivity Program, (Dec. 31, 2021), <https://docs.fcc.gov/public/attachments/DOC-378908A1.pdf>. The Commission adopted final ACP rules in January 2022. *Affordable Connectivity Program, Emergency Broadband Benefit Program*, WC Docket Nos. 21-450, 20-445, Report and Order and Further Notice of Proposed Rulemaking, 37 FCC Rcd 484 (2022).

¹²⁸ Universal Service Administrative Service Company, *ACP Enrollment and Claims Tracker* (Oct. 23, 2023), <https://www.usac.org/about/affordable-connectivity-program/ACP-enrollment-and-claims-tracker/#total-enrolled>.

broadband account? Should a household be able to afford mobile and fixed broadband service simultaneously in order for advanced telecommunications capability to be available to them? Should an affordability determination change depending on the area of the country we are evaluating? We also seek comment on how we should account for federal and state programs that provide broadband consumer subsidies, such as the Lifeline program, the Emergency Broadband Benefit Program, and the Affordable Connectivity Program.¹²⁹

56. If we were to conduct an analysis of the affordability of broadband service, what data should we use to measure the affordability of service? How should we analyze such data? For example, is the adoption rate a sufficient proxy, at least for services for which we are able to calculate valid adoption rates? Is there a way for us to conduct such an analysis while accounting for the factors that drive consumer decisions concerning what kind of broadband service to purchase? The Commission has previously provided some demographic analysis of adoption based upon FCC Form 477 subscriber data.¹³⁰ Is this analysis helpful for the purposes of analyzing affordability?¹³¹ Would there be a useful way to apply demographic information to adoption data to draw any inferences? Are adequate data available to do this? Is there a particular analysis that we should conduct using such methods? What other types of information might be relevant, such as studies on the sensitivity of demand to changes in price and consumer income?

57. If we were to use pricing data to determine affordability, are there adequate sources available sufficient to comprehensively document price variation between plans and across geographic locations? Do these sources measure pricing in a manner that is relevant to the consumer experience? For example, to what extent do they take into account equipment rental, promotions and discounts (such as family plans and commonly subscribed to bundles), early termination fees for contracts, other recurring fees, and nonrecurring charges (such as installation)? Should the data we rely on include such factors? How should we account for the price of pre-paid mobile plans? To what extent should fixed and mobile data allowances and overage charges affect our analysis?

C. Adoption

58. We propose to examine the universal service goal of adoption by examining the rate at which people who have a service available to them actually subscribe to the service. We seek comment on this proposal and whether there are alternative ways to conceive of adoption. Adoption rates can be heavily influenced by, among other things, how affordable the service is. The Commission has previously measured fixed broadband adoption by dividing the number of subscribed fixed connections at

¹²⁹ See, e.g., FCC, *Lifeline Support for Affordable Communications*, <https://www.fcc.gov/lifeline-consumers#:~:text=Lifeline%20is%20the%20FCC's%20program,participating%20wireline%20or%20wireless%20providers> (last visited Oct. 23, 2023); Cal. Pub. Util. Comm'n, Order Instituting Rulemaking Regarding Revisions to the California Universal Telephone Service (LifeLine) Program, Rulemaking 11-03-013, Decision Adopting Revisions to Modernize and Expand the California Lifeline Program, Decision 14-01-036 (2014), <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M086/K541/86541587.PDF>; Kan. Stat. Ann. § 66-2006 (2020); Kentucky Pub. Serv. Comm'n, An Inquiry Into the State Universal Service Fund, Case No. 2016-00059, Order (2020), https://psc.ky.gov/psscscf/2016%20Cases/2016-00059/20200710_PSC_ORDER.pdf.

¹³⁰ See, e.g., 2021 Report, 36 FCC Rcd at 867, para. 47.

¹³¹ The FCC Form 477 subscriber data is collected at the census tract level and does not include demographic information about the subscriber. While demographic data can be considered with subscriber patterns for Internet services at a more granular level with the American Community Survey data, that data is of limited use because there is no speed associated with the household. Furthermore, the most granular data that would be unaffected by the difficulties of collecting household level data are the 2015-2019 ACS 5-Year estimates. See e.g., Census Bureau Releases Experimental 2020 American Community Survey 1-Year Data, <https://www.census.gov/newsroom/press-releases/2021/experimental-2020-acs-1-year-data.html>.

the pertinent speed by the total number of households in the area with access to such service.¹³² Thus, calculating adoption requires not only having deployment data, but also subscriber data.

59. We collect fixed subscribership information as part of the FCC Form 477 data collection, which can be used in conjunction with deployment data to estimate the adoption rates for the census tract and less granular areas such as the county and the state.¹³³ While this subscribership collection is now made through the BDC filing platform, it remains FCC Form 477 data.¹³⁴ We have also presented an adoption analysis for Tribal Lands and “urban core” versus non-urban core areas.¹³⁵ Should we use FCC Form 477 data to measure adoption rates for fixed broadband service? Are there any weaknesses to these data? If so, what are they? Should we present fixed broadband adoption data only generally, or also on a technology-specific basis, such as with separate data for fixed terrestrial, fixed wireless, and fixed satellite?

60. Should we use FCC Form 477 data to also measure mobile broadband subscribership, that is, handset count data? We note that such data are only collected at the state level, as opposed to the fixed subscribership data, which are collected at the more granular census tract level,¹³⁶ which prevents us from disaggregating mobile subscribership between urban and rural areas. How should we take this into account? While providers report the number of consumer connections for mobile broadband (defined as a connection not billed to a corporate, non-corporate business, government, or institutional customer account), we are unable to determine the percentage of our mobile subscriber data that are part of a single account (for example, a family plan). Are any potential weaknesses in the FCC Form 477 subscribership data sufficient reasons for not using such data in any particular way?

61. Are there potential sources of data other than the FCC Form 477 subscribership data that can be used to measure adoption? For example, would data from the National Telecommunications and Information Administration’s Current Population Survey Supplement for Computer and Internet Usage, the Census Bureau’s American Community Survey, BroadbandNow, or the Pew Research Center be useful? We note that each of these data sources uses sampling methods to estimate the percentage of the total population within an area that subscribes to broadband.¹³⁷ Could these data be used to estimate total

¹³² See, e.g., *2021 Report*, 36 FCC Rcd at 865, para. 45; *2020 Report*, 35 FCC Rcd at 9015, para. 49; *2019 Report*, 34 FCC Rcd at 3884, para. 47.

¹³³ FCC Form 477, Local Telephone Competition and Broadband Report, Instructions for Filings as of December 31, 2022 and Beyond at 14-15, 21, <https://us-fcc.box.com/v/Form477Instructions> (last visited Oct. 23, 2023). See also, e.g., *2021 Report*, 36 FCC Rcd at 865-68, paras. 45-47; *2018 Report*, 33 FCC Rcd at 1698-1703, paras. 72-78; *2016 Report*, 31 FCC Rcd at 743-48, paras. 98-113; *2015 Report*, 30 FCC Rcd at 1429-35, paras. 91-99.

¹³⁴ See *2022 Form 477 Order*, FCC 22-93, at 6, para. 13. The continuing collection of FCC Form 477 subscribership data is in contrast to FCC Form 477 deployment data, which has been sunset. See generally *2022 Form 477 Order*.

¹³⁵ For purposes of this report, a census tract can be designated as “urban core” if it has a land area less than three square miles and a population density of at least 1,000 people per square mile. We designate a census tract as “Non-urban core” if we have not designated the census tract as urban core. A census tract is designated as Tribal lands if at least 50 percent of the land area is on Tribal Lands.

¹³⁶ Census tracts generally have a population size between 1,200 and 8,000 people, with an “optimum” size of 4,000 people. United States Census Bureau, *Glossary*, <https://www.census.gov/programs-surveys/geography/about/glossary.html> (last visited Oct. 23, 2023). Missouri, with a state-wide population of roughly six million, has 1,393 census tracts. United States Census Bureau, *Missouri*, <https://www.census.gov/geographies/reference-files/2010/geo/state-local-geo-guides-2010/missouri.html> (last visited Oct. 23, 2023).

¹³⁷ See, e.g., National Telecommunications and Information Administration, United States Department of Commerce, Digital Nation Research Center, <https://www.ntia.doc.gov/page/digital-nation-research-center> (last visited Oct. 23, 2023) (sampling discussed under heading “Using Datasets to Calculate Statistics”); United States (continued....)

subscription levels in a particular geographic area by multiplying the survey results by the population of the pertinent area? Are subscribership estimates provided at a sufficient level of geographic granularity to be useful, such as delineating between urban, rural, and Tribal areas? We seek comment on how regularly these data are published and how they compare to the vintage of data the Commission will be producing. How should we reconcile any differences in the vintages of the data? To what extent do these potential data sources differentiate between broadband service speeds in a manner that would be useful to our analysis? Are there any other potential sources of subscription (or more directly, adoption) data? What are the strengths and weaknesses of such sources?

D. Availability

62. When discussing the universal service goal of availability of service, we refer to consumers' ability to purchase broadband service in areas where service is physically deployed.¹³⁸ For instance, broadband service may be physically deployed to a location but the wiring of a building does not support all of its tenants. For purposes of this universal service goal and in the context of this inquiry, we seek comment on factors that lead to a service being physically deployed but unavailable in certain locations.¹³⁹ Are there other elements of service availability that we should consider? For instance, should this goal be understood to encompass the quality of broadband service, including for example the frequency of service outages? If so, what criteria should the Commission rely upon to define availability for the purposes of this inquiry? Is there quantitative or qualitative data that the Commission can rely upon to analyze service availability for this purpose?

E. Equitable Access

63. Available data suggests that minority groups often do not have the same access to broadband. For example, we note that according to at least one Pew Research Center survey, while 80% of white adults reported having home broadband access, only 71% of Black adults, and 65% of Hispanic adults, had such access.¹⁴⁰ In addition, the subscription figures for the Affordable Connectivity Program indicate that 54.2% of the program subscribers chose to use their monthly benefit for mobile broadband compared to less than 45.8% that used their subsidy for fixed services.¹⁴¹ What can we infer from these statistics? Can we identify a lack of equitable access from the revealed preferences of consumers given their overall service requirements and budget constraints? Moreover, the lack of broadband availability on Tribal Lands appears to be particularly acute.¹⁴² Are there steps that the next report can and should

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Census Bureau, American Community Survey Design and Methodology (January 2014) (2014), <https://www.census.gov/history/pdf/acsdesign-methodology2014.pdf>.

¹³⁸ See *USF Report*, FCC 22-67, at para. 12.

¹³⁹ Our use of the term “availability” in this proceeding should therefore be distinguished from our use of the term in implementing the Broadband DATA Act, and in establishing the BDC. See 47 U.S.C. § 642(a)(1)(A); *Establishing the Digital Opportunity Data Collection*; *Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Report and Order and Second Further Notice of Proposed Rulemaking, 34 FCC Rcd 7505, 7510-11, para. 13 (2019) (fixed); *Establishing the Digital Opportunity Data Collection*, WC Docket No. 19-195, Order, 37 FCC Rcd 3007 (WTB/OEA/OET Mar. 9, 2022) (mobile).

¹⁴⁰ Sara Atske & Andrew Perrin, *Home Broadband Adoption, Computer Ownership Vary by Race, Ethnicity in the U.S.* (July 16, 2021), <https://www.pewresearch.org/fact-tank/2021/07/16/home-broadband-adoption-computer-ownership-vary-by-race-ethnicity-in-the-u-s/>. See also, e.g., Paul Flahive, *Who Gets 5G — And Who Gets Left Behind — Has Some Worried About Digital Inequality* (Feb. 25, 2020), <https://www.npr.org/2020/02/25/809012775/who-gets-5g-and-who-gets-left-behind-has-some-worried-about-digital-inequality>.

¹⁴¹ See Universal Service Administrative Co., Additional ACP Data, <https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/additional-acp-data/> (last visited Oct. 23, 2023).

¹⁴² See Section IV.A.3, *supra*.

take to address diversity, equity, inclusion, and accessibility? What additional steps can the Commission take to promote equitable access to broadband?

64. The Commission, as part of its continuing effort to advance digital equity for all, 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 considerations¹⁴³ and benefits (if any) that 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.

V. DETERMINING THE NEXT SECTION 706 FINDING

65. We seek comment on how our analysis of the universal service goals of universal deployment, affordability, adoption, availability, and equitable access to broadband should inform our section 706 inquiry regarding “the availability of advanced telecommunications capability to all Americans” and our determination as to whether “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”¹⁴⁴ If universal access is the benchmark by which we should examine physical deployment, what benchmarks should we use to evaluate our other goals of adoption, availability, and equitable access? Can anything less than universal access in these areas be sufficient to reach a positive finding under section 706? How do we adequately determine if these goals have been fulfilled to sufficiently merit a positive section 706 finding?

66. Are any issues with the available data significant enough, either individually or cumulatively, to prevent us from making a definitive finding under section 706, regardless of what the data may show? If commenters believe this to be the case, would use of any supplemental sources or methods of verification be sufficient to allow us to make a definitive finding? Is there sufficient data to evaluate the proposed non-deployment universal service goals?

67. Section 706 states that if we make a negative finding as to the availability of advanced telecommunications capability, we are required to “take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”¹⁴⁵ If we do, in fact, make a negative finding, what actions should the Commission take to further our universal service goals for broadband, both in the immediate future and over the long-term? More specifically, what can the Commission do to further promote competition? Are there currently regulatory barriers that exist which impede broadband deployment or investment that the Commission should consider eliminating? We recognize the recent significant private sector investments to deploy broadband.¹⁴⁶ Are there additional efforts the Commission can undertake to encourage more private investment in broadband buildout? Would a long term strategy to coordinate

¹⁴³ The term “equity” is used here consistent with Executive Order 13985, to mean “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 (Jan. 20, 2021).

¹⁴⁴ 47 U.S.C. § 1302(b).

¹⁴⁵ *Id.*

¹⁴⁶ See, e.g., ACA Connects, Closing the Gaps, <https://acaconnects.org/closing-the-gaps/> (last visited Oct. 23, 2023); NCTA, Broadband Stats: Cable's Network Investment, <https://www.ncta.com/whats-new/broadband-stats-cables-network-investment> (last visited Oct. 23, 2023); USTelecom, 2022 Broadband Capex Report, <https://www.ustelecom.org/research/2022-broadband-capex/> (last visited Oct. 23, 2023).

Federal broadband programs, as recommended last year by GAO,¹⁴⁷ help to advance the goals of this inquiry? We also seek comment on whether additional waste, fraud, and abuse protections within the Universal Service Fund and other FCC programs would help advance the goals of this inquiry.

VI. PROCEDURAL MATTERS

68. *Ex Parte Presentations.* This proceeding shall be treated as a “permit-but-disclose” proceeding pursuant to the Commission’s *ex parte* rules.¹⁴⁸ 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 (for example, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

69. *Comment Filing Procedures.* 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: <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 commercial overnight courier, or by first-class or overnight U.S. Postal Service mail.¹⁴⁹ All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

¹⁴⁷ See U.S. Government Accountability Office, National Strategy Needed to Guide Federal Efforts to Reduce Digital Divide at 35 (2022), <https://www.gao.gov/assets/gao-22-104611.pdf>.

¹⁴⁸ 47 CFR §§ 1.1200 *et seq.*

¹⁴⁹ Due to the COVID-19 pandemic, the Commission closed its hand-delivery filing location at FCC Headquarters effective March 19, 2020. *See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Filing*, Public Notice, 35 FCC Rcd 2788 (2020). As a result, hand or messenger delivered filings in response to this Notice of Proposed Rulemaking will not be accepted. Parties are encouraged to take full advantage of the Commission’s various electronic filing systems for filing applicable documents. Except when the filer requests that materials be withheld from public inspection, any document may be submitted electronically through the Commission’s ECFS. *See* 47 CFR § 1.49(f)(3). Persons that need to submit confidential filings to the Commission should follow the instructions provided in the Commission’s March 31, 2020 public notice regarding the procedures for submission of confidential materials. *See FCC Provides Further Instructions Regarding Submission of Confidential Materials*, Public Notice, 35 FCC Rcd 2973 (2020).

- 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.

70. *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).

71. *Contact Person.* For further information about this proceeding, please contact David Brodian, FCC Wireline Competition Bureau, Competition Policy Division, 45 L Street, N.E., Washington, D.C. 20554, 202-418-0825, David.Brodian@fcc.gov.

VII. ORDERING CLAUSE

72. Accordingly, IT IS ORDERED, that pursuant to section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302, this Notice of Inquiry IS ADOPTED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Seventeenth Section 706 Report Notice of Inquiry (October 25, 2023).

The pandemic made crystal clear that access to broadband is no longer just nice-to-have, it is need-to-have for everyone, everywhere. When so many of us had to readjust to life in lockdown, we turned online for our community, education, work, healthcare, and more. During this time and even before it, the needs of internet users surpassed the Federal Communications Commission's standard for broadband of 25 Megabits per second down and 3 Megabits per second up. This standard is not only outdated, it masks the extent to which low-income neighborhoods and rural communities are being left offline and left behind. Ultimately, I believe it is essential in the United States to set big goals in order to get big things done. That is why we are kicking off this inquiry to update our national broadband standard to better align it with the standards in pandemic-era legislation of 100 Megabits per second down and 20 Megabits per second up and also set a long-term goal for gigabit speeds.

**STATEMENT OF
COMMISSIONER BRENDAN CARR
APPROVING IN PART AND CONCURRING IN PART**

Re: *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Notice of Inquiry (October 25, 2023).

In the years leading up to 2018, the FCC used the Section 706 proceeding to ask whether 100% of Americans already have access to advanced telecommunications capability. Of course, this answers the wrong question—or, more specifically, it fails to answer the question Congress posed to the Commission in Section 706 of the Telecommunications Act of 1996. The Commission corrected this error with the inquiries we conducted from 2018 to 2020.

In Section 706, Congress determined that the Commission “shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.” It then directs the Commission to conduct an inquiry to determine “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.” If it is not, Section 706 states that the Commission “shall take immediate action to accelerate deployment of such capability.”

During the prior Administration, the FCC’s Section 706 reports properly read the statute as directing the Commission to measure the *progress* that providers of advanced telecommunications capability are making in deploying those capabilities to all Americans and to determine whether such progress is reasonable and timely. Reading Section 706 as directing the Commission to determine whether advanced telecommunications capability has already been deployed to 100% of Americans reads the “reasonable and timely” language out of the statute and is inconsistent with Congress’s use of the present progressive tense “is being deployed.” This conclusion is further reinforced by the language Congress used for FCC inquiries that result in a negative determination. In such cases, Congress states that the Commission “shall take immediate action to accelerate deployment,” thus confirming Congress’s focus in Section 706 on the pace of deployment and the progress that providers are making.

As a policy matter, it makes sense that Congress would task the Commission with this type of progress-based inquiry. Assessing the pace at which advanced telecommunications capability is being deployed provides far more—and more helpful—information to Congress and to the public than a binary inquiry into whether or not 100% of Americans already have access to such capability. In fact, it makes no sense to read the statute as requiring the FCC to answer that latter question. There is simply no need to run an entire administrative proceeding to answer it.

In the Section 706 reports issued under the prior Administration, the Commission reoriented the inquiry to align with our statutory directive—namely, whether broadband “is being deployed . . . in a reasonable and timely fashion.” Those reports rightly focused on the *pace* of deployment, not whether the U.S. has already achieved “universal availability of advanced telecommunications capability.”

So, I was disappointed but not surprised to see that this NOI proposes to torture the language of Section 706 once again by focusing on whether or not 100% of Americans have access to advanced telecommunications capability—an inquiry that plainly does not require a record. But of course, that is the point. We all know where this is going. The FCC is not going to use this proceeding to shed light on the pace of broadband build—although, I have to say, it will be interesting to see how this FCC grades the Biden Administration on the progress it is making towards its promised goal of “Internet for all.”

As for the item before us today, I do appreciate that my colleagues agreed to make some meaningful changes to the draft to improve the scope of the inquiry.

For one, the NOI now seeks specific comment on whether the agency should maintain its focus on the pace of progress that covered providers are making. In doing so, the NOI now solicits additional data to quantify recent builds and new service offerings.

For another, the NOI now takes a more holistic approach to the question of setting broadband speed metrics and other benchmarks. I have no objection to identifying aggressive speed or other goals. By all means, let's shoot for the moon. As we do so, we must, consistent with Section 706 itself, not define advanced telecommunications capability in a manner that narrowly focuses on one specific technology. Indeed, the statute requires the FCC to proceed "without regard to any transmission media or technology." As Section 706 indicates, the FCC should be looking first to identify the voice, video, and data applications that consumers are demanding and then, as a second step, adopt metrics that define advanced telecommunications capability based on that determination. Not the other way around. So I am pleased that the NOI now asks for comment along these lines.

For yet another, the NOI now seeks more even-handed comment in several places. For instance, it now seeks comment on whether or not competing mobile and fixed technologies should be viewed as substitutes, rather than proposing a conclusion here.

Finally, the NOI now includes new lines of inquiry. It asks whether the government should adopt a national coordinating strategy that covers the various federal broadband programs, as GAO recommended last year. It asks whether the FCC should remove barriers to broadband builds. And it asks whether the FCC should include new protections against waste, fraud, and abuse in the agency's USF programs as a means of advancing the Commission's Section 706 goals.

Ultimately, while I still have serious concerns regarding the orientation of this Section 706 inquiry, I believe these revisions will help create a robust record. As a result, I approve in part and concur in part.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*; GN Docket No. 22-270, Seventeenth Section 706 Report Notice Of Inquiry (October 25, 2023).

I'm glad that with this *Notice* we begin the process to complete our statutorily required annual assessment concerning the "availability of advanced telecommunications capability to all Americans."¹⁵⁰ We last issued this Congressionally-mandated report in 2021,¹⁵¹ and since then much has changed in the broadband marketplace. So, I support the *Notice's* proposal to update our broadband benchmark to 100 Mbps download speed and 20 Mbps upload speed to be responsive the current reality consumers encounter. In proposing to increase our broadband benchmark, we would establish a target that matches speeds now required in many of our Universal Service Fund programs,¹⁵² as well as those required in other federal broadband programs, including BEAD.¹⁵³ The alternative is to retain a benchmark that was originally adopted in 2015,¹⁵⁴ and that has been outdated for years.

I support seeking comment on the *Notice's* aspirational long-term speed goal of 1 gigabit download speed/500 Mbps upload speed. As innovation and technology continue to increase, including real-time use cases and new advances like telehealth and AI, we must set a long-term target that allows us and broadband providers to support the next breakthroughs in the future.

I am also pleased to see that this Notice considers adoption and affordability, which can go hand in hand. And to that end, this item has my full support.

¹⁵⁰ 47 U.S.C. § 1302(b).

¹⁵¹ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 20-269, Fourteenth Broadband Deployment Report, 36 FCC Rcd 836 (Jan. 19, 2021).

¹⁵² See e.g., *Connect America Fund: A National Broadband Plan for Our Future High-Cost Universal Service Support*, WC Docket 10-90 *et al.*, Report and Order, Notice of Proposed Rulemaking, and Notice of Inquiry, FCC 23-60, para. 19 (July 23, 2023).

¹⁵³ *Notice of Funding Opportunity*, Broadband Equity, Access, and Deployment Program, National Telecommunications and Information Administration at 64 ("Funded Networks shall deliver Reliable Broadband Service with speeds of not less than 100 Mbps for downloads and 20 Mbps for uploads"), available at <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf>.

¹⁵⁴ *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket 14-126, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375, 1403, para. 25 (Jan. 29, 2015).

**STATEMENT OF
COMMISSIONER NATHAN SIMINGTON
APPROVING IN PART AND CONCURRING IN PART**

Re: *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Notice of Inquiry (October 25, 2023).

In addition to sharing Commissioner Carr's concerns about the misframing of our inquiry, I am also concerned by the suggestion that the FCC adopt a "long-term speed goal" of 1000/500Mbps for the definition of broadband. All else being equal, no one would choose 100/20Mbps service over 1000/500Mbps service, but the vast majority of consumers do not materially benefit from such high speeds, and deploying such high-speed service is not free. A 100/20Mbps connection is fast enough to watch multiple 4K-quality streams, make multiple video calls, and play multiple online games, all at the same time. New applications may one day require more bandwidth, but it is premature to set a target based on hypothetical use cases that may not materialize or, that when they do, might require even more than 1000/500Mbps anyway.

This is not a mere rhetorical concern. Adopting a long-term target of 1000/500Mbps would send the message that in the near future, the FCC will consider speeds below that to be inadequate. By operation of the principles that have long guided our high-cost programs, this would put ISPs on notice that the FCC could soon subsidize competitors in any area where 1000/500Mbps connections are not available. Subsidized competition undermines the already tenuous profitability of rural ISPs, so they will choose to invest their limited resources into serving fewer locations at 1000/500Mbps, thereby protecting themselves from future subsidized competition, rather than into serving more locations at lower but very adequate speeds such as 100/20Mbps or 200/100Mbps. The bottom line is that more Americans would be left unserved because the FCC pursued science fiction instead of sober policy.

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

In the Matter of	)	
	)	
Radiotelephone Requirements for Vessels	)	WT Docket No. 23-357
on the Great Lakes	)	

ORDER

Adopted: October 30, 2023

Released: October 31, 2023

By the Commission:

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I. INTRODUCTION

1. In this Order, we take action to ensure the continued safety of vessels navigating the Great Lakes by amending part 0 and part 80 of the Commission’s rules to retain the radiotelephone requirements for vessels subject to the current Great Lakes Agreement (GLA or Agreement).¹ The GLA is a treaty between the United States and Canada that, among other things, established requirements regarding the “usage and maintenance of radiocommunications equipment for safety purposes aboard” certain vessels navigating on the Great Lakes.² These requirements are codified primarily in subpart T of

¹ Agreement Between Canada and the United States for the Promotion of Safety on the Great Lakes by Means of Radio, U.S.-Canada, April 26, 1973, 25 UST 935, T.I.A.S. 7837, amended 30 UST 2523, T.I.A.S. 9352 (GLA).

² *Id.* art. II.

part 80 of the Commission's rules (subpart T).³ Because the GLA will cease to be effective on November 2, 2023, pursuant to Canada's notice of termination on November 2, 2022,⁴ we must take expedited action to amend subpart T and certain other rules in part 0 and part 80 to remove the references to the GLA and maintain the applicability of rules in the Great Lakes. This will ensure that our rules continue to promote the safety of life and property on the Great Lakes, provide regulatory stability going forward, and accurately reflect the GLA's status.

2. Further, after careful consideration of information we have recently received from the U.S. Coast Guard (USCG), which also contains information from the Canadian government,⁵ we find it to be necessary and in the public interest to amend one of the subpart T rules requiring an inspection of the required radiotelephone installation at least once every 13 months by extending the time period to once every 48 months.⁶ As described in further detail herein, we take this action to align our rules with the Canadian inspection interval that will apply upon termination of the GLA and to more closely conform to the current needs of the industry given improvements in maritime safety and equipment.⁷ The USCG supports this change, noting that the GLA's termination was prompted after "a three-year unsuccessful effort by the Canadian Government through diplomatic efforts to renegotiate the Agreement" concerning the terms of the inspection requirement.⁸

II. BACKGROUND

3. Ensuring the availability of critical maritime communications has been one of the Commission's fundamental obligations since the earliest days of the Communications Act. The Act not only charges the Commission generally with making available wire and radio service for the purpose of promoting safety of life and property, but it also specifically entrusts us with obligations relating to maritime radio communications. Today, similar to the terrestrial emergency 911 system, the maritime services provide for the unique distress, as well as the operational and personal communications, needs of vessels at sea and on inland waterways.⁹ While the maritime community has pioneered the use of radio for

³ 47 CFR §§ 80.951–971. These requirements were also codified in other scattered sections of part 0 and part 80 of the Commission's rules. *Id.* §§ 0.131(s)(2), 0.491, 80.1(a), 80.5, 80.59, 80.161, 80.308, 80.401, 80.409(f), 80.411(b), 80.1005, 80.1065(b).

⁴ See Letter from the Department of Foreign Affairs, Trade and Development, Canada, to the Embassy of the United States of America to Canada, Note No. JLI-0061, dated Nov. 2, 2022 (*Termination Notice*); see also GLA art. XXI (providing that either the United States or Canada may unilaterally terminate the GLA by providing written notification and that the termination will take effect twelve months after the date of that notification).

⁵ See Letter from Jerry L. Ulcek, Chief, Spectrum Management and Communications Policy Division, USCG, to Scott S. Patrick, Executive Director, Office of Spectrum Management, NTIA (Oct. 11, 2023) (USCG Oct. 11 Letter); Letter from Jerry L. Ulcek, Chief, Spectrum Management and Communications Policy Division, USCG, to Scott S. Patrick, Executive Director, Office of Spectrum Management, NTIA (Sept. 29, 2023) (USCG Sept. 29 Letter).

⁶ See 47 CFR § 80.953(a) (requiring that "[e]ach U.S. flag vessel subject to the Great Lakes Agreement . . . have an inspection of the required radiotelephone installation at least once every 13 months").

⁷ See *infra* paras. 17–20.

⁸ USCG Oct. 11 Letter at 1; see also *id.*, Encl., at 6 (discussing Canada's termination of the GLA and its change to the frequency of the required radio inspection).

⁹ For additional description of the maritime services, see *Amendment of the Commission's Rules Concerning Maritime Communications*, Second Report and Order and Second Further Notice of Proposed Rule Making, 12 FCC Rcd 16949, 16953–54, paras. 4–6 (1997).

safety purposes,¹⁰ maritime services also provide a wide range of communications services to vessels to support a multibillion-dollar industry.¹¹ Along with other applicable rule parts, part 80 of the Commission's rules contains the requirements for stations in the maritime services, and specifically states that the rules are promulgated under the provisions of the Communications Act of 1934, "which vests authority in the Federal Communications Commission to regulate radio transmission and to issue licenses for radio stations," and in accordance with various applicable statutes, treaties, and agreements, including the GLA.¹² It also notes that the USCG also has rules that affect radiotelecommunication equipment carriage and power source requirements on certain ships.¹³ This extensive history and these requirements reflect the importance of having radio equipment aboard vessels to facilitate communication and promote maritime safety without causing harmful interference to each other or to other spectrum users.

A. The Great Lakes Agreement

4. The GLA was signed on February 26, 1973, entered into force on May 6, 1975, and was amended in 1978 and 1988.¹⁴ The GLA is generally intended to promote the safety of life and property and efficiency of navigation on the Great Lakes and their connecting and tributary waters¹⁵ by coordinating the use of radiocommunications equipment for distress, safety, and navigational purposes.¹⁶ The purposes of the GLA include not only "provid[ing] the highest practicable standards in matters concerning use of radiocommunication and associated equipment for maritime distress, safety and efficiency of navigation on the Great Lakes," but also "provid[ing] uniformity of regulations on radiocommunications for safety purposes" to all ships operating on the Great Lakes.¹⁷ Both the United States and Canada agreed to cooperate to maintain similar rules "to the highest practicable degree."¹⁸

5. The GLA provides that vessels of all countries are "subject to the requirements of this Agreement and the Technical Regulations while being navigated on the Great Lakes" if they fall within

¹⁰ *Amendment of the Commission's Rules Concerning the Inspection of Radio Installations on Large Cargo and Small Passenger Ships*, Notice of Inquiry, 10 FCC Rcd 5424, 5424, para. 3 (1995).

¹¹ *Amendment of the Commission's Rules Regarding Maritime Radio Equipment and Related Matters et al.*, Notice of Proposed Rulemaking, 29 FCC Rcd 2516, 2518, para. 3 (2014).

¹² 47 CFR § 80.1.

¹³ *See id.* § 80.2.

¹⁴ *See generally* GLA. The GLA, upon entry into force on May 6, 1975, terminated the treaty between the United States and Canada—i.e., the Agreement for the Promotion of Safety on the Great Lakes by Means of Radio, Can.-U.S., Feb. 21, 1952, 3 U.S.T. 4926. *See* GLA art. XIX. Although the 1952 and 1973 treaties generally addressed the same subject matter, the 1973 treaty set forth different criteria for its applicability. *See Amendment of Part 83 of the Rules to Implement the Mandatory VHF Requirements of the Agreement Between the United States of America and Canada for Promotion of Safety on the Great Lakes by Means of Radio*, 1973, Docket No. 20273, Notice of Proposed Rulemaking, 50 F.C.C.2d 83, 83–85, para. 2 (1974) (comparing the criteria for the 1952 and 1973 treaties).

¹⁵ The GLA defines the "Great Lakes" as "all waters of Lakes Ontario, Erie, Huron (including Georgian Bay), Michigan, Superior, their connecting and tributary waters and the River St. Lawrence as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada." GLA art. I(d); *accord* 47 CFR § 80.951. However, the definition does "not include any connecting and tributary waters . . . other than: the St. Marys River, the St. Clair River, Lake St. Clair, the Detroit River, and the Welland Canal. GLA, Technical Regulations, reg. 8; *accord* 47 CFR § 80.951.

¹⁶ GLA art. II.

¹⁷ *Id.* art. II(b)–(c).

¹⁸ *Id.* art. III, para. 1.

certain specific categories.¹⁹ The GLA requires, among other things, that all vessels 65 feet or over in length, most towing vessels, and vessels carrying more than six passengers for hire be equipped with a marine VHF radiotelephone installation.²⁰ In order to further the purposes of the GLA, applicable vessels also need to comply with certain other requirements, such as meeting listening and frequency requirements, having at least one certified radio operator, and retaining certain records on the use of the radiotelephone station for safety purposes, among others.²¹

6. The GLA also requires that radiotelephone stations be inspected at least once every thirteen months either by officers of the United States or Canada or by persons nominated for that purpose or organizations recognized by either the United States or Canada.²² Following inspection, the inspector must certify that the relevant provisions of the GLA have been complied with, and that certification must be kept on board the vessel and available for inspection.²³

¹⁹ *Id.* art. V. Article V provides that a vessel “which falls in any of the following specific categories of paragraphs (a), (b) or (c), and not excepted by paragraphs (b) and (d), shall be subject to the [GLA]”:

- (a) Every vessel 65 feet or over in length (measured from end to end over the deck exclusive of sheer), except that [Canada and the United States], each with respect to its own vessels, may specify a smaller dimension;
- (b) Every vessel engaged in towing another vessel or floating object, except:
 - (i) where the maximum length of the towing vessel, measured from end to end over the deck exclusive of sheer, is less than twenty-six (26) feet and the length or breadth of the tow, exclusive of the towing line is less than sixty-five (65) feet;
 - (ii) where the vessel towed complies with the requirements of this Agreement and the Technical Regulations annexed thereto;
 - (iii) where the towing vessel and tow are located within a booming ground; or
 - (iv) where the tow has been undertaken in an emergency and neither the towing vessel nor the tow can comply with this Agreement and the Technical Regulations annexed thereto;
- (c) Any vessel carrying more than six passengers for hire;
- (d) A vessel shall not be subject to the requirements of this Agreement if such vessel falls in any of the following specific categories:
 - (i) Ships of war and troop ships;
 - (ii) Vessels owned and operated by any government and not engaged in trade.

Id. art. V. Article III also provides that “any vessel which is not subject to the [GLA], and which is permitted by [Canada or the United States] to use any radio frequency designated by [the GLA], shall be required, while on the Great Lakes, to use such radio frequency in the same manner as a vessel subject to [the GLA].” *Id.* art. III, ¶ 4.

²⁰ *Id.*, Technical Regulations, regs. 1, 2. The Technical Regulations appended to the GLA describe detailed obligations and conditions that must be met to satisfy the GLA requirements. See GLA art. III, ¶ 2. The GLA also has other requirements involving communications and electrical equipment, such as where it needs to be placed on the vessel and what frequencies it uses. See *id.*, Technical Regulations, regs. 1, 2.

²¹ GLA arts. VII, X, XI; *id.*, Technical Regulations, regs. 1, 2, 4, 5.

²² GLA art. XII; see also *Amendment of Part 80 of the Commission's Rules Regarding the Inspection of Great Lakes Agreement Ships*, Report and Order, 11 FCC Rcd 18661, 18662, para. 2 (1996) (*Inspection R&O*).

²³ GLA art. XIII.

B. Commission Rules Implementing the Great Lakes Agreement

7. The Commission adopted rules implementing the GLA primarily in subpart T of part 80 and in other scattered sections of part 0 and part 80.²⁴ The subpart T rules apply to “vessel[s] to which the Great Lakes Radio Agreement applies” that fit into the specific GLA categories—i.e., all vessels 20 meters (65 feet) or over in length, most towing vessels, and vessels carrying more than six passengers for hire—“while navigated on the Great Lakes,”²⁵ unless they have received an exemption from the Commission.²⁶ Subpart T not only incorporates the GLA requirements for use of VHF equipment, but also mandates, consistent with the GLA, the frequencies to be used and other technical requirements, including reserve power, operator, maintenance and inspection requirements.²⁷

8. Besides the rules in subpart T, the GLA is mentioned in and effectuated by other sections of part 80 and part 0 of the Commission’s rules. In part 0, sections 0.131(s)(2) and 0.491 specifically mention the GLA in delegating authority to the Wireless Telecommunications Bureau to grant emergency exemption requests, extensions or waivers of inspection to ships and in providing filing instructions for exemption requests, respectively.²⁸ Apart from subpart T, the following rules in part 80, in most cases, contain references to the GLA that need to be replaced, but, in some cases, augment subpart T by clarifying technical and other requirements applicable to Great Lakes vessels. These rules are as follows: 80.1(a) (referencing the GLA in a list of documents providing the basis for the Commission’s maritime rules),²⁹ 80.5 (referencing the GLA in the definition of passenger carrying vessel in the categories of ships section and the Great Lakes definition and defining compulsory ships in the categories of ships section),³⁰ 80.59 (identifying the inspection requirements for the various categories of compulsory vessels and referencing the GLA),³¹ 80.161 (referencing the GLA in an operator requirement rule),³² 80.308 (referencing the GLA in a watch requirement rule),³³ 80.401 (referencing the GLA in a station document requirement rule),³⁴ 80.409(f) (providing how different categories of vessels must comply with requirements for station log entries and referencing the GLA),³⁵ 80.411(b) (identifying the certificate posting requirements of various vessels and referencing the GLA),³⁶ 80.1005 (referencing the GLA in the inspection rule in subpart U, which applies to Bridge-to-Bridge Act vessels),³⁷ and 80.1065(b)

²⁴ See *supra* note 3.

²⁵ 47 CFR § 80.951(a)–(d).

²⁶ *Id.* § 80.951(e) (“The Commission may if it considers that the conditions of the voyage or voyages affecting safety (including but not necessarily limited to the regularity, frequency and nature of the voyages, or other circumstances) are such as to render full application of the Great Lakes Agreement unreasonable or unnecessary, exempt partially, conditionally or completely, any individual vessel for one or more voyages or for any period of time not exceeding one year.”); see also GLA art. IX (exemptions from the GLA).

²⁷ See 47 CFR §§ 80.953–971.

²⁸ *Id.* §§ 0.131(s)(2), 0.491.

²⁹ *Id.* § 80.1(a).

³⁰ *Id.* § 80.5.

³¹ *Id.* § 80.59.

³² *Id.* § 80.161.

³³ *Id.* § 80.308.

³⁴ *Id.* § 80.401.

³⁵ *Id.* § 80.409(f).

³⁶ *Id.* § 80.411(b).

³⁷ *Id.* § 80.1005.

(referencing the GLA in the applicability rule in subpart W, which applies to vessels that must carry the Global Maritime Distress and Safety System).³⁸

9. With regard to inspection and certification, section 80.953 describes the requirements that apply to each “vessel subject to the Great Lakes Agreement.”³⁹ As described in further detail below, “[e]ach U.S. flag vessel subject to the Great Lakes Agreement must have an inspection of the required radiotelephone installation at least once every 13 months.”⁴⁰

C. Termination of the Great Lakes Agreement

10. Article XXI of the GLA provides that the Agreement may be terminated unilaterally by either the United States or Canada upon written notice, with termination taking effect twelve months after the date of such notification.⁴¹ As noted above, on November 2, 2022, Canada provided written notice to the United States of the termination of the GLA.⁴² Accordingly, the GLA will cease to be effective on November 2, 2023. The Commission and the USCG have been working diligently during this time to arrive at a solution that will maintain safety and regulatory certainty for how maritime radio equipment aboard vessels in the Great Lakes operates to permit communications, including but not limited to during emergencies.

III. DISCUSSION

A. Reinstatement of the Commission’s Rules for the Great Lakes

11. The Commission’s rules promoting the safety of vessels navigating the Great Lakes generally would not be valid and in effect after the termination of the GLA on November 2, 2023, without today’s action to extend these safety measures. The subpart T rules, by their terms, apply only to vessels that are subject to the GLA, not to all vessels that are on voyages in those specific waters. Section 80.951 specifically states: “A vessel to which the *Great Lakes Radio Agreement* applies . . . must comply with this subpart while navigated on the Great Lakes.”⁴³ Other rules in part 0 and part 80 use similar terminology to establish their applicability to vessels that are subject to the GLA.⁴⁴ Furthermore, in

³⁸ *Id.* § 80.1065(b).

³⁹ *Id.* § 80.953. Section 80.59(b) also discusses certain aspects of the inspection requirement, such as who can do inspections and exemption procedures, for vessels subject to the GLA. *Id.* § 80.59(b) (discussing inspection requirements for compulsory ships).

⁴⁰ *Id.* § 80.953(a). Although the rules originally required Commission personnel to conduct inspections, the Commission amended its rules to permit inspections to be performed by qualified licensed or certificated technicians in the private sector, consistent with the GLA. See *Inspection R&O*, 11 FCC Rcd at 18661, 18663–66, paras. 1, 4–12.

⁴¹ GLA art. XXI (providing that either the United States or Canada may unilaterally terminate the GLA “at any time after the expiration of 5 years from the date on which th[e] Agreement comes into force,” i.e., at any time after May 6, 1981).

⁴² See *Termination Notice*.

⁴³ 47 CFR § 80.951 (emphasis added).

⁴⁴ See, e.g., *id.* §§ 80.5 (defining the term “passenger carrying vessel” “when used in reference to . . . the *Great Lakes Radio Agreement*” (emphasis added)), 80.59(b) (setting forth the rules for the “inspection and certification of a ship *subject to the Great Lakes Agreement*” (emphasis added)), 80.59(c)(1) (listing the requirements for “[a]pplications for exemption from the radio provisions of . . . the *Great Lakes Radio Agreement*” (emphasis added)), 80.161 (stating the operator requirements for “[e]ach ship *subject to the Great Lakes Radio Agreement*” (emphasis added)), 80.308 (setting forth the watch requirements for “[e]ach ship of the United States that is equipped with a radiotelephone station *for compliance with the Great Lakes Radio Agreement*” (emphasis added)), 80.401 (establishing station documents requirements for certifications of a “*Great Lakes Agreement inspection*”

(continued....)

adopting many of these rules, the Commission stated that its purpose was to implement the GLA.⁴⁵ Accordingly, given that the applicability of the current subpart T rules and certain other rules in part 0 and part 80 is predicated on the continued existence of the GLA, the effective date of termination of the GLA on November 2, 2023, would render those rules a nullity with no practical effect on any vessels, leaving the Commission with no means of carrying forward the enforcement of important Great Lakes-specific radiotelephone installation requirements in the absence of replacement rules. To remedy a situation that could negatively impact safety on the Great Lakes, we find it necessary and in the public interest to amend the subpart T rules and certain other rules in part 0 and part 80—i.e., to remove the references to the GLA and clarify some rules given the termination of the GLA—to ensure the continued applicability of the substantive requirements governing vessels that are currently subject to the GLA.⁴⁶ By continuing the effectiveness of these rules, we will maintain the important public safety requirements that have been in place for decades applicable to certain vessels navigating the Great Lakes.

12. We find that these rules are necessary and in the public interest, first and foremost, to preserve safety of life and property on the Great Lakes. As noted above, the rules at issue implemented the GLA requirements to install, use, and maintain basic equipment (marine VHF radio) as a means of serving safety, as well as operational and business, purposes for vessel operators.⁴⁷ The installation and maintenance of VHF radios are critical to navigation safety on the Great Lakes for purposes including intership navigation, port safety, and operation in vessel traffic areas.⁴⁸ Due to limits on coverage from land-based mobile networks over the Great Lakes waters, the USCG operates an extensive network of towers to listen to distress calls, and in addition, “commercial ships, the Rescue 21 network, bridge tenders, and countless others rely on the VHF marine radio.”⁴⁹ VHF radios operating in compliance with the GLA rules are essential to Search and Rescue proceedings and other important emergency and non-emergency safety functions including “navigation, Vessel Traffic Service (VTS), port operations, port safety,” and the dissemination of Urgent Marine Information Broadcasts and weather warnings.⁵⁰ For example, vessels entering the Great Lakes traffic areas need radios to check into the VTS centers.⁵¹ VTS, the primary tool used by operators to communicate with mariners in a VTS operating area, provides a

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(emphasis added)), 80.409(f)(2) (setting forth station log requirements for “[r]adiotelephony stations *subject to the Great Lakes Agreement*” (emphasis added)), 80.411(b) (establishing posting requirements for “[s]hips *subject to the Great Lakes Agreement*” (emphasis added))).

⁴⁵ See, e.g., *Amendment of Part 83 of the Rules to Implement Changes in the Technical Regulations Annexed to the Agreement Between the United States of America and Canada for Promotion of Safety on the Great Lakes by Means of Radio*, 1973, Report and Order, 70 F.C.C.2d 1071, 1071–72, 1073, paras. 2, 7 (1979); *Amendment of Part 83 of the Rules to Implement the Mandatory VHF Requirements of the Agreement between the United States of America and Canada for Promotion of Safety on the Great Lakes by Means of Radio*, 1973, Report and Order, 52 F.C.C.2d 947, 949, para. 11 (1975).

⁴⁶ With the exception of the amendment to the inspection requirement, described in detail herein, the substance of the requirements in subpart T will be retained in its entirety. The only difference will be the removal of references to the GLA and clarifying some rules given the termination of the GLA. Appendix A includes all the subpart T rule amendments adopted herein, as well as any other Commission rules that require amendment in order to remove references to the GLA or clarify technical and other requirements applicable to Great Lakes vessels. See *supra* para. 8; see *infra* Appx. A.

⁴⁷ GLA art. II.

⁴⁸ USCG Oct. 11 Letter at 2.

⁴⁹ *Id.*, Attach., at 1.

⁵⁰ *Id.* at 2.

⁵¹ *Id.* at 3.

wide range of techniques and capabilities aimed at preventing vessel collisions, rammings, and groundings in the harbor, expedites ship movements, increases transportation systems efficiency, and improves operating capability.⁵² While it is unlikely that vessel operators would stop carrying and using basic VHF radio equipment immediately upon the effective date of the GLA's termination on November 2, 2023, over time, it is possible that some vessels would stop installing or maintaining VHF radio equipment if it is not required, affecting the efficiency of navigation and making essential communications challenging. We find that, as a result, safety would be compromised in both emergency and non-emergency situations.

13. Existing rules also provide for inspections of required equipment, maintenance contracts, reserve power, use of licensed operators, or maintenance of a continuous watch on certain frequencies.⁵³ The USCG demonstrates that, if the pending termination of the GLA is not immediately addressed, there will be “an inherent risk to mariner’s safety.”⁵⁴ While the GLA has been successful in promoting safety on the Great Lakes, USCG data demonstrates that there are a few vessels that are not in compliance. Not only do some of these vessels not have VHF radios or FCC licenses, but some also have faulty equipment or do not have reserve power, the required certifications, or radio logs.⁵⁵ These failures were discovered during USCG inspections, demonstrating the general importance of inspection requirements as a vital means of maintaining safety and ensuring compliance with rules.⁵⁶ Thus, the amendment of subpart T and certain part 0 and part 80 rules is necessary to maintain these important safety requirements.

14. Further, one of the primary purposes of the GLA—and, thus, of our implementing rules—is to provide “uniformity of regulations on radiocommunications for safety purposes to ships of all nationalities operating on the Great Lakes.”⁵⁷ Uniformity is important not only for distress situations, but also to “facilitate and improve maritime safety and efficiency of navigation on the Great Lakes.”⁵⁸ Canada has recently adopted rules that are similar to the GLA requirements and, therefore, the equipment carriage requirements will remain the same even after the GLA terminates.⁵⁹ Accordingly, with the exception of a modification to the inspection interval explained below,⁶⁰ as of November 2, 2023, the substance of the current GLA requirements would continue to apply to vessels in Canadian waters of the Great Lakes, but not to vessels in U.S. waters, if these rules are not amended. Amending our rules to retain the existing requirements is necessary to ensure the uniformity of rules in the United States and Canada.

15. Maintaining uniformity in regulations between the United States and Canada simplifies the obligations of vessel operators on the Great Lakes and prevents unnecessary confusion, delay, and

⁵² USCG Sept. 29 Letter, Attach., at 2.

⁵³ See GLA arts. VII, X, XII, Technical Regulations.

⁵⁴ USCG Sept. 29 Letter at 1.

⁵⁵ *Id.*, Attach., at 4.

⁵⁶ The Commission has imposed penalties for non-compliance with the inspection and certification requirements of subpart T, stating that “[n]avigation without a valid GLA certification increases the risk to the safety of life and, therefore, is a significant violation.” *Shepler's Inc.*, Forfeiture Order, 16 FCC Rcd 14547, 14549, para. 11 (EB 2001); *accord KYS, Inc.*, Forfeiture Order, 17 FCC Rcd 5815, 5817, para. 9 (EB 2002).

⁵⁷ GLA art. II(c).

⁵⁸ *Id.* art. III, para. 1.

⁵⁹ USCG Oct. 11 Letter at 1; *id.*, Encl. at 2; Navigation Safety Regulations, 2020, SOR/2020-216, at Part 2 (Can.) (NSR 2020), <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2020-216/>.

⁶⁰ *Id.* See *infra* paras. 17–20.

cost. If we were not to maintain the GLA rules in the same way as implemented under the GLA, vessel operators subject to current GLA requirements could be confused about which rules apply as they voyage on the Great Lakes—the Canadian rules that are based on the GLA, or different, non-GLA rules in the United States that apply to some U.S. vessels in the Great Lakes.⁶¹ As the USCG explains, “[t]here will be Flag State/Port State Control issues and confusion with different requirements and inspection criteria between the two countries.”⁶² For example, a U.S. vessel that is not subject to the GLA rules in U.S. waters and may no longer be in compliance with existing GLA rules, could be detained or subject to penalties for violations of the radio and inspection requirements in Canadian waters where the Canadian GLA rules do apply. Indeed, because there is no “innocent passage” in the Great Lakes, a vessel navigating the Great Lakes passes through both U.S. and Canadian waters multiple times, subjecting that vessel to multiple rule violations.⁶³ Vessels would need to be cognizant of which set of rules they need to follow and what equipment needs to be on board based on whether they are in the U.S. or Canadian waters of the Great Lakes or if they are going to a port in the other country.⁶⁴ By amending our rules to retain generally the requirements already applicable to these vessels, we promote clarity, certainty, and ultimately safety while minimizing burdens on operators.

16. Additionally, if we were not to maintain the current Great Lakes rules that are consistent with the GLA and Canada’s requirements, commerce and travel could be adversely affected as a result of the lack of certainty to vessels navigating the Great Lakes and going between ports in the United States and Canada. After the effective date of termination of the GLA, unless we maintain the existing GLA rules to match Canada’s rules, vessels on the Great Lakes may have the burden and cost of complying with two different and possibly conflicting sets of requirements. Vessels may be refused access to or detained at the foreign port if they are not in compliance with the other country’s rules. Not only is detention and delay of vessels a possibility, but also vessels could be subject to monetary fines for violations of rules governing VHF radio installations and inspections, along with other GLA requirements.⁶⁵ This scenario could hinder trade if vessels cannot freely travel on the Great Lakes between ports in the United States and Canada in the absence of a certain, uniform set of applicable rules.

⁶¹ Other Commission rules applicable to some U.S. vessels in the Great Lakes differ from the GLA rules and could contribute to the potential confusion. For example, if our GLA rules were no longer in effect, the Canadian rules would still reflect the GLA, but certain U.S. vessels in the Great Lakes would have to comply with rules implementing the Vessel Bridge-to-Bridge Radiotelephone Act (B2BA). 47 CFR §§ 80.1001–1023. While the B2BA rules require certain vessels to have VHF radio installations, the definition of which vessels need these radios is different from the definition of vessels in the GLA, meaning some vessels required to carry VHF radios under the GLA would not be required to under the B2BA. Compare 47 CFR § 80.951 with § 80.1001. Further, the rules also differ in regard to reserve power, inspection, and some frequency requirements, among others. Compare 47 CFR § 80.965 with § 80.1015, § 80.953 with § 80.1005, § 80.956 with §§ 80.1011, 80.1013. Owners and operators would need to know these differences to comply with the applicable rules depending on whether they were in U.S. or Canadian waters.

⁶² USCG Oct. 11 Letter, Attach., at 1.

⁶³ *Id.*

⁶⁴ See *supra* note 61. We expect that, even during a period when there is no Great Lakes Agreement, vessels would continue to have radio equipment on board, and we find that the public interest, convenience, and necessity requires this Commission to regulate the kind of apparatus to be used, to prevent interference between stations, and otherwise to maintain rules about how that radio equipment may be operated. See 47 U.S.C. § 303.

⁶⁵ USCG Oct. 11 Letter, Attach., at 2.

B. Update to the Commission's Inspection Requirement for the Great Lakes

17. Although we are amending subpart T and certain part 0 and part 80 rules to retain the existing requirements in their entirety, we hereby amend the inspection requirement in section 80.951 by changing the required inspection interval from at least once every 13 months, to at least once every 48 months.⁶⁶ Certifications of inspection that are valid on the effective date of the GLA termination—therefore, dated between October 2, 2022 and November 2, 2023—will be valid for 48 months from the date of inspection, as opposed to 13 months.⁶⁷ We take this action to align our requirement with Canada's inspection interval currently applicable to inland waterways that will be applicable to GLA vessels upon the effective termination of the GLA.⁶⁸ This alignment will promote uniformity and more closely conform to the current needs of the industry and the realistic practices of both the United States and Canada in maintaining safety and beneficial commerce for vessels navigating on the Great Lakes.

18. This inspection requirement change is supported by the USCG, which has had extensive conversations with Great Lakes mariners regarding concerns about the 13-month-inspection requirement, and has stated that changing the inspection requirement will not hinder the safety of life and property.⁶⁹ As the USCG explains, improvements in maritime safety and equipment have resulted in the GLA's inspection interval requirement becoming “antiquated” and in need of revision to allow a longer period of time between required inspections.⁷⁰ Specifically, although the original 13-month-inspection interval may have been necessary decades ago when the GLA was first executed and vessels used “crystal radios” requiring more frequent monitoring and adjusting, improvements in VHF radio technology mean that the equipment is reliable for a significantly longer period of time.⁷¹ More specifically, “VHF radios today use low cost, highly stable, highly reliable frequency synthesizers and integrated circuitry.”⁷² Thus, the USCG concludes that “due to the increase in the reliability and stability of today's modern VHF marine radio compared to the old vacuum tube counterparts from the 1970s,” changing the inspection interval from 13 months to 48 months “will not impact safety.”⁷³

19. We note that a 48-month inspection interval for Great Lakes vessels that are likely within range of VHF radio communications, and therefore available for quicker safety response according to the USCG, is appropriate in contrast to vessels subject to the Safety Convention (SOLAS) and subpart W of

⁶⁶ We also amend rules in section 80.401 note 4 and 80.953(d) to update the requirement that vessels must retain a log entry or issuance of a Great Lakes certificate from two years until the date of the next radio inspection. See 47 CFR §§ 80.401 note 4, 80.953(d); see also *infra* Appx. A. We make this rule change so that the log retention rule is consistent with a 48-month inspection requirement.

⁶⁷ Vessels with valid certifications on the effective date of the GLA termination that wish to use that inspection for 48 months from the date of inspection to comply with the Great Lakes inspection requirement should keep a copy of this Order with the inspection documentation.

⁶⁸ See USCG Oct. 11 Letter at 2; NSR 2020, Part 2, Div. 2, § 240; Marine Safety Management System – TP 13585 E: Tier 1 – Policies – Validity Period of a Radio Inspection Certificate issued under the Navigation Safety Regulations, 2020, § 2.1, <https://tc.canada.ca/en/marine-transportation/marine-safety-management-system-tp-13585-e-tier-i-policies/tier-i-policy-validity-period-radio-inspection-certificate-issued-under-navigation-safety-regulations-2020>.

⁶⁹ USCG Oct. 11 Letter, Attach., at 3–4.

⁷⁰ *Id.* at 1.

⁷¹ *Id.*, Attach., at 3.

⁷² USCG Sept. 29 Letter, Attach., at 2–3.

⁷³ *Id.* at 1.

the Commission's rules.⁷⁴ These SOLAS and subpart W vessels have an annual inspection requirement, but they travel further offshore, navigate the oceans and typically are outside of VHF range, and travel for longer time periods.⁷⁵ In contrast to Great Lakes vessels that solely navigate the Great Lakes and are specifically exempt from SOLAS, SOLAS vessels must carry longer range communications and more complex navigation equipment.⁷⁶ Accordingly, SOLAS vessels are subject to a more stringent annual inspection interval, which will continue to apply separate from vessels navigating the Great Lakes.

20. By lengthening the inspection interval for Great Lakes vessels, we intend to lessen the costs and burdens for applicable vessel owners and operators, but without any decrease in safety. Inspections of Great Lakes vessels cost on average \$300 per vessel.⁷⁷ Accordingly, as an example, if a company operates 20 vessels, it would be required to pay \$6,000 (20x\$300) for the 13-month inspection, and \$24,000 (4x\$6,000) over the course of 48 months. By changing the inspection interval to once every 48 months, that vessel company would only be required to pay \$6,000 over the course of 48 months, saving \$18,000 (\$24,000–\$6,000).⁷⁸ This burden reduction will not negatively impact safety because, as noted above, technological advances in radio installations have translated to a reduced need for frequent inspections. We note that in 1996, when the Commission privatized the inspection of GLA vessels, it stated that “[i]n the past five years the Commission has inspected almost 2,500 Great Lakes Agreement vessels and in only 25 instances, or one percent, did the vessel fail inspection because of radio problems.”⁷⁹ Earlier in that proceeding, in 1995, the Commission explained that “improvements in the reliability of radiotelephone equipment and the industry practice of a preinspection examination[]” have resulted in this extremely low failure rate.⁸⁰ As stated above, USCG data supports that, while some vessels fail inspection, there is a low failure rate of the equipment.⁸¹ Still, we continue to believe that inspections are an integral part of our rules and necessary to ensure that vessels navigating the Great Lakes have a reliable means of communications to support efficient and safe navigation and to notify others when in distress.

C. Notice and Comment

21. The Administrative Procedure Act (APA) and the Commission's rules permit the amendment of rules without public notice and comment “when the agency for good cause finds . . . that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.”⁸²

⁷⁴ Safety of Life at Sea annex Chap. IV, part A, reg. 3(b), Nov. 1, 1974, T.I.A.S. 9700, 32 U.S.T. 47 (SOLAS); 47 CFR §§ 80.1065–1135 (implementing GMDSS requirements).

⁷⁵ See USCG Oct. 11 Letter at 2; USCG Sept. 29 Letter at 1–2, Attach., at 1.

⁷⁶ Even vessels otherwise subject to the Global Maritime Distress and Safety System (GMDSS) requirements in subpart W of the Commission's rules imposed under SOLAS, 47 CFR § 80.1065–1135, do not have to comply with those requirements while navigating the Great Lakes. See SOLAS, Annex Chap. IV, Part A, Reg. 1(b); 47 CFR § 80.1065.

⁷⁷ USCG Sept. 29 Letter, Attach., at 3.

⁷⁸ *Id.*

⁷⁹ *Inspection R&O*, 11 FCC Rcd at 18663, para. 5.

⁸⁰ *Amendment of Part 80 of the Commission's Rules Regarding the Inspection of Great Lakes Agreement Ships*, Notice of Proposed Rulemaking, 10 FCC Rcd 5418, 5419, para. 5 (1995).

⁸¹ See *supra* para. 13.

⁸² 5 U.S.C. § 553(b)(B); accord 47 CFR § 1.412(c). Additionally, notice and comment is not required when an agency is implementing “interpretive rules, general statements of policy, or rules of agency reorganization, procedure, or practice.” 5 U.S.C. § 553(b)(A); accord 47 CFR § 1.412(b)(3)–(5). Therefore, the revisions to 47 CFR § 0.131(s)(2) (Functions of the Bureau) and 47 CFR § 0.491 (Application for exemption from compulsory ship (continued....))

Additionally, notice and comment procedures do not apply to matters involving the “military or foreign affairs function of the United States.”⁸³ While the prior notice and public comment procedure is ordinarily an essential part of our rulemaking process, we find, in this instance,⁸⁴ that it is appropriate to take today’s action without public notice and comment, as such procedure would be impracticable, unnecessary, and contrary to the public interest.⁸⁵

22. We find good cause to conclude that prior notice and comment are unnecessary before adopting these amendments because the amended rules will simply retain existing legal requirements,⁸⁶ except for the amendment to the inspection requirement adopted herein. Notice and comment are “unnecessary” when “the administrative rule is a routine determination, insignificant in nature and impact, and inconsequential to the industry and to the public.”⁸⁷ The “unnecessary” prong is met when the rule amendments do not “substantively alter the existing regulatory framework” or produce any “detrimental impact on the rights of the parties regulated.”⁸⁸ In this Order, we are maintaining rules that have been in place for decades without change and simply make minor, technical amendments—such as deleting references to the GLA, which will no longer be in effect—to ensure their continued applicability.⁸⁹ The same rules will apply to the same vessel owners and operators as they have in the past, and therefore, vessel owners and operators on the Great Lakes will experience no additional burdens and no effect on their substantive rights or obligations. In fact, the burdens would increase on vessel owners if we initiated a notice and comment proceeding that would continue beyond November 2, 2023, because stakeholder confusion could ensue about what rules apply when operating on the Great Lakes, especially in the absence of uniform applicable regulations with Canada during the pendency of such proceeding, as discussed above.⁹⁰

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radio requirements) do not require notice and comment, as they deal with agency organization – the delegation of authority to the Bureau to consider emergency exemption, extensions or waivers of ship inspections requests – and filing procedures for exemptions.

⁸³ 5 U.S.C. § 553(a)(1); accord 47 CFR § 1.412(b)(1).

⁸⁴ See, e.g., *Sorenson Commc’ns Inc. v. FCC*, 755 F.3d 702, 706 (D.C. Cir. 2014).

⁸⁵ See 5 U.S.C. § 553(b)(B); 47 CFR § 1.412(c); *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Order, 35 FCC Rcd 10347, 10354, para. 21 (WCB 2020) (*Schools and Libraries ULS Order*); *Bendix Aviation Corp. v. FCC*, 272 F.2d 533, 536 (D.C. Cir. 1959), cert. denied sub nom. *Aeronautical Radio, Inc. v. U.S.*, 361 U.S. 965 (1960). We also note that this matter does arise due to a foreign affairs matter of the United States, an independent basis for permitting the adoption of rules without notice and comment. See 5 U.S.C. § 553(a)(1); 47 CFR § 1.412(b)(1).

⁸⁶ Cf. *Application of Generally Accepted Accounting Principles for Federal Agencies and Generally Accepted Government Auditing Standards to the Universal Service Fund, Application of Generally Accepted Accounting Principles for Federal Agencies and Generally Accepted Government Auditing Standards to the Telecommunications Relay Services Fund*, CC Docket Nos. 96-45, 03-123, Order, 18 FCC Rcd 19911, 19914, para. 8 (2003).

⁸⁷ *Util. Solid Waste Activities Grp. v. EPA*, 236 F.3d 749, 755 (D.C. Cir. 2001) (internal quotation marks omitted); accord *Mack Trucks, Inc. v. EPA*, 682 F.3d 87, 94 (D.C. Cir. 2012).

⁸⁸ *Nat’l Helium Corp. v. Fed. Energy Admin.*, 569 F.2d 1137, 1146 (Temp. Emer. Ct. App. 1977); see also *Amendment of Subpart S and T of Part 90 of the Rules to Permit Licensing of Channels in the 896–901/935–904 MHz and 220–222 MHz Bands in the U.S./Mexico Border Area*, Order, 7 FCC Rcd 7154, 7154, para. 5 (1992).

⁸⁹ See *infra* Appx. A.

⁹⁰ See *supra* paras. 14–16.

23. Moreover, given the safety concerns, we find good cause to conclude that prior notice and comment would be contrary to the public interest. We are faced with a potential emergency situation where serious harm could result if the rules ensuring the safety of vessels navigating the Great Lakes were suddenly not applicable and enforceable beginning on November 2, 2023. Good cause has been found to exist in emergency situations in which a rule responds to an immediate threat to safety or physical property.⁹¹ As explained above, these rules were put in place to ensure the safety of life and property on the Great Lakes and to ensure communications when vessels are in distress or facing emergency situations, including with the USCG and their Canadian counterparts.⁹² The USCG stresses the importance of maintaining the requirements beyond November 2, 2023, particularly because properly placed and operating VHF radiocommunications “not only provides a means for immediately contacting search and rescue authorities and other ships” in emergency situations, but also allows authorities and other vessels in the vicinity to facilitate the assistance of nearby vessels in distress.⁹³ The USCG also notes that there is limited cell phone coverage on the Great Lakes, making VHF radios the only reliable means to make contact if vessel is in distress.⁹⁴ We, therefore, find good cause to forgo notice and comment to ensure, in particular, that these communications and public safety rules designed to address distress situations are effective and continue to be applicable to vessels on the Great Lakes after the effective date of termination of the GLA.

24. Additionally, the Commission had limited time to coordinate a joint regulatory response to Canada’s termination of the GLA, making public participation impracticable in this case. Good cause has been found to exist when a rule is necessary, due to circumstances beyond the agency’s control, to avoid or ameliorate expected harm to important public interests.⁹⁵ On November 2, 2022, Canada unilaterally terminated the GLA in a letter to the U.S. Department of State.⁹⁶ Since the date of Canada’s termination letter, the Commission has expended considerable time and effort in coordinating with the various interested stakeholders, including the U.S. Department of State, USCG, and Canada, to determine the appropriate regulatory paradigm going forward.⁹⁷ These events, including the termination of the treaty, were largely beyond the Commission’s control. Once that coordination process was completed, there was insufficient time for public participation in this rulemaking proceeding. Doing so would have significantly delayed our effort to ensure that there will be rules in place beginning on the effective date of termination of the GLA. Allowing the GLA to terminate without having rules in place would not be in the public interest, as it would endanger public safety, cause commercial harm, and cause confusion for vessel owners and operators as to what regulations applied in the Great Lakes.

25. This Order substantively amends only one existing rule by relaxing the inspection requirement for applicable vessels on the Great Lakes from once every 13 months to once every 48

⁹¹ See, e.g., *Jifry v. FAA*, 370 F.3d 1174, 1179–80 (D.C. Cir. 2004).

⁹² See GLA art. II; *supra* paras. 12–13.

⁹³ USCG Sept. 29 Letter, Attach., at 1. While the current GLA rules have been mostly successful, the information provided by the USCG demonstrates that there are some vessels that are not in compliance with our rules. In the past five years, the USCG has found vessels without the appropriate certifications, lacking FCC licenses, and even some with no radios. See *id.*, Attach., at 4. Therefore, it is necessary to ensure that our rules are in place to protect the safety of the people and vessels on the Great Lakes. See *id.*, Attach., at 1.

⁹⁴ USCG Oct. 11 Letter, Attach., at 1.

⁹⁵ See, e.g., *Nat’l Fed’n of Fed. Emps v. Devine*, 671 F.2d 607, 611 (D.C. Cir. 1982); *Am. Fed’n of Gov’t Emps. v. Block*, 655 F.2d 1153, 1157 (D.C. Cir. 1981); see also *Petry v. Block*, 737 F.2d 1193, 1200–02 (D.C. Cir. 1984).

⁹⁶ See *Termination Notice*.

⁹⁷ See, e.g., *Council of the S. Mountains, Inc. v. Donovan*, 653 F.2d 573, 581–82 (D.C. Cir. 1981).

months, at the request of the USCG.⁹⁸ As stated above, Canada terminated the GLA because of concerns about the frequency of a 13-month inspection requirement,⁹⁹ which Canada will replace with a 48-month inspection requirement currently applicable to inland waterways.¹⁰⁰ If we do not amend our inspection interval to mirror Canada's interval, then there will be an inconsistency between Canada's requirement and the United States's current 13-month requirement. We, therefore, make this same change to our rules to maintain uniformity in the inspection interval rules between the United States and Canada, which will benefit international relations between the two countries.

26. If the United States and Canada maintain different inspection requirements, vessel owners and operators could be fined or detained for unwittingly following the wrong rules when unknowingly crossing into U.S. or Canadian waters or when entering the other country's port.¹⁰¹ Both the USCG and Canadian government have stated that they will fully enforce their rules.¹⁰² Therefore, as the USCG explains, a vessel traveling from Cleveland, Ohio to Duluth, Minnesota will pass between the countries' waters numerous times, potentially resulting in multiple violations for each transit which could lead to excessive fines or being detained.¹⁰³ Such enforcement actions by the United States and Canada involving the other country's flagged vessels could harm commerce by raising prices and halting the transport of goods, travel, and foreign relations between the countries.¹⁰⁴ The USCG states that "[i]n the spirit of cooperation with our Canadian counterparts over the shared coverage of the Great Lakes, we implore that our requirements are in sync with Canada."¹⁰⁵ Requiring notice and comment for this rule change would result in excessive delay and prevent the maintenance of uniformity and international stability, and we therefore find additional good cause to conclude that following notice-and-comment procedures would be contrary to the public interest. For these reasons, we also find that the amendment to the inspection requirement falls under the foreign affairs exception for notice and comment procedures.¹⁰⁶

D. Effective Date

27. For similar reasons, we find good cause to make these rules effective immediately upon publication in the Federal Register. While rules issued by the Commission generally must be published at least 30 days before they become effective, the APA and the Commission's rules make an exception "for good cause found and published with the rule."¹⁰⁷ Given that the imminent lapse of the GLA rules on November 2, 2023, would pose a risk to the safety of life and property on the Great Lakes, it is necessary that we have these rules adopted and effective prior to the GLA's termination date. Further, because we are by and large simply retaining rules that are in existence today, vessels on the Great Lakes should

⁹⁸ See amended rule section 80.953, 47 CFR § 80.953, in Appx. A hereto; USCG Oct. 11 Letter at 1–2.

⁹⁹ See *supra* para. 2.

¹⁰⁰ See *supra* para. 17.

¹⁰¹ USCG Oct. 11 Letter, Attach., at 1.

¹⁰² USCG Sept. 29 Letter, Attach., at 3; USCG Oct. 11 Letter, Encl. 2, at 1.

¹⁰³ USCG Oct. 11 Letter, at 2.

¹⁰⁴ See *id.*

¹⁰⁵ USCG Sept. 29 Letter, Attach., at 3.

¹⁰⁶ 5 U.S.C. § 553(a).

¹⁰⁷ *Id.* § 553(d)(3); 47 CFR § 1.427(b); see, e.g., *Schools and Libraries ULS Order*, 35 FCC Rcd at 10354, para. 22; *Amendment of Part 2 of the Commission's Rules to Allocate the Band 33–36 GHz to the Fixed-Satellite Service for Federal Government Use*, Memorandum Opinion and Order, 16 FCC Rcd 2799, 2801, para. 6 (2001).

already be equipped with the requisite VHF radios and meet the other communications requirements maintained by today's action, and, therefore, vessel owners and operators do not need time to come into compliance with these rules.¹⁰⁸

28. We also conclude that the revised inspection requirement should likewise become effective immediately upon publication in the Federal Register. This rule change relieves a burden on industry by permitting vessels to be inspected every 48 months, instead of every 13 months. Because our action relieves a restriction, it is exempt from the requirement that the rule be published for at least 30 days in the Federal Register before becoming effective.¹⁰⁹ Further, this rule change ensures that the U.S. and Canadian rules remain uniform, thereby avoiding a disruption in trade or international disputes regarding what rules apply to various vessels. To maintain uniformity, this rule change needs to be effective as of November 2, 2023.¹¹⁰ As with the retention of the other Great Lakes rules, the only way to accomplish this is to make this rule effective upon publication in the Federal Register.

IV. PROCEDURAL MATTERS

29. *Regulatory Flexibility Act.* Because this rule change is being adopted without notice and comment, the Regulatory Flexibility Act¹¹¹ does not apply.

30. *Paperwork Reduction Analysis.* This document does not contain any new or substantively modified information collection requirements subject to the Paperwork Reduction Act of 1985 (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 107-198.¹¹² This document may contain non-substantive modifications to approved information collections. Any such modifications will be submitted to the Office of Management and Budget (OMB) for approval pursuant to OMB's non-substantive modification process.

31. *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 Order to Congress and the Government Accountability Office, pursuant to 5 U.S.C. § 801(a)(1)(A).

V. ORDERING CLAUSES

32. ACCORDINGLY, IT IS ORDERED that, pursuant to the authority contained in sections 1, 4(i), 301, 303, and 321 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), 301, 303, and 321, this Order IS ADOPTED.

33. IT IS FURTHER ORDERED that part 0 and part 80 of the Commission's rules ARE AMENDED as set forth in Appendix A. These amendments shall become effective upon publication of this Order in the Federal Register, pursuant to 5 U.S.C. § 553(d)(3) and section 1.427(b) of the Commission's rules, 47 CFR § 1.427(b).

¹⁰⁸ See, e.g., *Omnipoint Corp. v. FCC*, 78 F.3d 620, 630 (D.C. Cir. 1996).

¹⁰⁹ 5 U.S.C. § 553(d)(1).

¹¹⁰ *Id.* § 553(d)(3).

¹¹¹ *Id.* § 601 *et seq.*; see *id.* § 601(2).

¹¹² See 44 U.S.C. § 3506(c)(4).

34. IT IS FURTHER ORDERED that the Office of Management and Budget, Performance Program Management, SHALL SEND a copy of this Order 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**

Chapter I of Title 47 of the Code of Federal Regulations, Parts 0 and 80 are amended as follows:

PART 0—COMMISSION ORGANIZATION

1. The authority citation for part 0 continues to read as follows:

AUTHORITY: 47 U.S.C. 151, 154(i), 154(j), 155, 225, and 409, unless otherwise noted.

2. Section 0.131 is amended by revising paragraph (s)(2) to read as follows:

§ 0.131 Functions of the Bureau.

* * * * *

(s)(1) * * *

(2) Grants emergency exemption requests, extensions or waivers of inspection to ships in accordance with applicable provisions of the Communications Act, the Safety Convention, or the Commission's rules.

3. Section 0.491 is revised to read as follows:

§ 0.491 Application for exemption from compulsory ship radio requirements.

Applications for exemption filed under the provisions of sections 352(b) or 383 of the Communications Act; Regulation 4, chapter I of the Safety Convention; Regulation 5, chapter IV of the Safety Convention; or subpart T of Part 80, must be filed as a waiver request using the procedures specified in § 0.482. Emergency requests must be filed via the Universal Licensing System or at the Federal Communications Commission, Office of the Secretary.

PART 80—STATIONS IN THE MARITIME SERVICES

4. The authority citation for part 80 continues to read as follows:

AUTHORITY: 47 U.S.C. 151-155, 301-609; 3 U.S.T. 3450, 12 U.S.T. 2377.

5. Section 80.1 is amended by revising paragraph (a) to read as follows:

§ 80.1 Basis and purpose.

* * * * *

(a) Basis. The rules for the maritime services in this part are promulgated under the provisions of the Communications Act of 1934, as amended, which vests authority in the Federal Communications Commission to regulate radio transmission and to issue licenses for radio stations. The rules in this part are in accordance with applicable statutes, international treaties, agreements and recommendations to which the United States is a party. The most significant of these documents are listed below with the short title appearing in parenthesis:

Communications Act of 1934, as amended—(Communications Act).

Communications Satellite Act of 1962, as amended—(Communications Satellite Act).

International Telecommunication Union Radio Regulations, in force for the United States—(Radio Regulations).

International Convention for Safety of Life at Sea, 1974, as amended, and the Annex thereto—(Safety Convention).

Vessel Bridge-to-Bridge Radiotelephone Act—(Bridge-to-Bridge Act).

* * * * *

6. Section 80.5 is amended by revising paragraphs (3) and (6) under the definition of Categories of ships and the definition of Great Lakes to read as follows:

§ 80.5 Definitions.

* * * * *

Categories of ships

* * * * *

(3) The term *passenger carrying vessel*, when used in reference to Part III, Title III of the Communications Act or subpart T of this part, means any ship transporting more than six passengers for hire.

* * * * *

(6) *Compulsory ship*. Any ship which is required to be equipped with radiotelecommunication equipment in order to comply with the radio or radio-navigation provisions of a treaty, statute, or subpart T of this part to which the vessel is subject.

* * * * *

Great Lakes. This term means all of Lakes Ontario, Erie, Huron (including Georgian Bay), Michigan, Superior, their connecting and tributary waters and the St. Lawrence River as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada, but does not include any connecting and tributary waters other than: the St. Marys River, the St. Clair River, Lake St. Clair, the Detroit River and the Welland Canal.

* * * * *

7. Section 80.59 is amended by revising paragraphs (a) introductory text, (a)(1) introductory text, (b), and (c)(1) introductory text to read as follows:

§ 80.59 Compulsory ship inspections.

(a) Inspection of ships subject to part II or III of title III of the Communications Act or the Safety Convention.

(1) The FCC will not normally conduct the required inspections of ships subject to the inspection requirements of part II or III of title III of Communications Act or the Safety Convention.

* * * * *

(b) Inspection and certification of a ship subject to subpart T of this part. The FCC will not inspect vessels that are subject to subpart T of this part. An inspection and certification of a ship subject to subpart T of this part must be made by a technician holding one of the following: an FCC General Radiotelephone Operator License, a GMDSS Radio Maintainer's License, a Second Class Radiotelegraph Operator's Certificate, a First Class Radiotelegraph Operator's Certificate, or a Radiotelegraph Operator License. The certification required by § 80.953 must be entered into the ship's log. The technician conducting the inspection and providing the certification must not be the vessel's owner, operator, master, or an employee of any of them. Additionally, the vessel owner, operator, or ship's master must certify that the inspection was satisfactory. There are no FCC prior notice requirements for any inspection under this section.

(c) * * *

(1) Applications for exemption from the radio provisions of part II or III of title III of the Communications Act, the Safety Convention, or subpart T of this part, or for modification or renewal of

an exemption previously granted must be filed as a waiver request using FCC Form 605. Waiver requests must include the following information:

* * * * *

8. Section 80.161 is retitled and revised to read as follows:

§ 80.161 Operator requirements for subpart T vessels on the Great Lakes.

Each ship subject to subpart T of this part must have on board an officer or member of the crew who holds a marine radio operator permit or higher class license.

9. Section 80.308 is retitled and amended by revising paragraph (a) introductory text to read as follows:

§ 80.308 Watch required for subpart T vessels on the Great Lakes.

(a) Each ship of the United States that is equipped with a radiotelephone station for compliance with subpart T of this part must when underway keep a watch on:

* * * * *

10. Section 80.401 is revised to read as follows:

§ 80.401 Station documents requirement.

Licensees of radio stations are required to have current station documents as indicated in the following table:

	LEGEND: R = REQUIRED Documents:	Station License	Appropriate Operator Authorization	Station Logs	Appropriate Safety Convention Certificate	Communications Act Safety Certificate	Great Lakes Safety Certificate	Bridge-to-Bridge Act Safety Certificate	Part 80; FCC Rules and Regulations	Alphabetical List of Maritime Mobile Call Signs	List of Ship Stations	Manual for Use by Maritime Mobile (M/M) Service and M/M Satellite Service	List of Coast Stations	List pf Radiodetermination and Speed Services Stations	Station Equipment Records	GMDSS Master Plan	NGA Publication 117	Admiralty List of Radio Signals	IMO Circ. 7
	Radio Station Category																		
Ship:	Cargo ships (300 tons and up)	R ¹	R	R	R				R	R ⁶	R ⁶	R	R ⁵	R		R ⁵	R	R ⁵	R ⁵
	Passenger Vessels – SOLAS	R ¹	R	R		R			R	R	R	R	R ⁵	R		R ⁵	R	R ⁵	R ⁵
	Passenger Vessels – Domestic	R ¹	R	R					R										
	Telephone; Subpart T Great Lakes Vessels	R	R	R ⁴			R ⁴												
	Telephone; Bridge-to-Bridge Act	R	R	R				R											
	Radar	R																	
	On Board	R													R				
	Voluntary	R																	
Land:	Public Coast (MF)	R	R	R					R	R ³	R ³	R ³							
	Public Coast (HF)	R	R	R					R	R	R	R							
	Public Coast (VHF)	R	R	R					R										
	Private Coast	R	R																
	Radio Determination	R	R																
	Operational Fixed	R	R																
	Maritime Support	R	R																
	Alaska – Public Fixed	R	R	R															
	Alaska – Private Fixed	R	R																
Ship/ Coast	Marine Utility	R	R																

Notes: 1. The expired station license must be retained in the station records until the first Commission inspection after the expiration date.

2. Alternatively, a list of coast stations maintained by the licensee with which communications are likely to be conducted, showing watch-keeping hours, frequencies and charges, is authorized.

3. Required only if station provides a service to ocean-going vessels.

4. Certification of a Great Lakes inspection may be made by either a log entry or issuance of a Great Lakes certificate. The ship's radiotelephone logs containing entries certifying that a Great Lakes safety inspection has been conducted must be retained on board and available for inspection until the next radio inspection.

5. The requirements for having the GMDSS Master Plan, NGA Publication 117, Admiralty List of Radio Signals or IMO Circ. 7 are satisfied by having any one of those four documents.

11. Section 80.409 is amended by revising paragraph (f)(1) introductory text and (f)(2) introductory text and (f)(2)(v) to read as follows:

§ 80.409 Station logs.

* * * * *

(f) * * *

(1) Radiotelephony stations subject to part II or III of title III of the Communications Act and/or the Safety Convention must record entries indicated by paragraphs (e)(1) through (e)(13) of this section. Additionally, the radiotelephone log must provide an easily identifiable, separate section relating to the required inspection of the ship's radio station. Entries must be made in this section giving at least the following information.

* * * * *

(2) Radiotelephony stations subject to subpart T of this part and the Bridge-to-Bridge Act must record entries indicated by paragraphs (e)(1), (3), (5), (6), (7), (8), (10), (11), and (13), and of this section. Additionally, the radiotelephone log must provide an easily identifiable, separate section relating to the required inspection of the ship's radio station. Entries must be made in this section giving at least the following information:

* * * * *

(v) The inspector's signed and dated certification that the vessel meets the requirements for certain vessels operating in the Great Lakes and of the Bridge-to-Bridge Act contained in subparts T and U of this part and has successfully passed the inspection; and

* * * * *

12. Section 80.411 is amended by revising paragraph (b) to read as follows:

§ 80.411 Vessel certification or exemption.

* * * * *

(b) *Posting.* Part II or III of Title III of the Communications Act, Safety Convention, and Great Lakes certificates or exemptions must be posted in a prominent, accessible place in the ship. Ships subject to subpart T of this part may, in lieu of a posted certificate, certify compliance in the station log required by section 80.409(f).

* * * * *

13. Part 80 – Stations in the Maritime Services, Subpart T – Radiotelephone Installation Required for Vessels on the Great Lakes is revised to read as follows:

Subpart T—Radiotelephone Installation Required for Vessels on the Great Lakes**§ 80.951 Applicability.**

The rules in this subpart apply to vessels of all countries when navigated on the Great Lakes. The Great Lakes are defined as all waters of Lakes Ontario, Erie, Huron (including Georgian Bay), Michigan, Superior, their connecting and tributary waters and the River St. Lawrence as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada, but do not include any connecting and tributary waters except the St. Marys River, the St. Clair River, Lake St. Clair, the Detroit River and the Welland Canal. A vessel that falls into a category specified in paragraph (a), (b) or (c) of this section and is not excepted by paragraph (d) or (e) of this section must comply with this subpart while navigated on the Great Lakes.

(a) Every vessel 20 meters (65 feet) or over in length (measured from end to end over the deck, exclusive of sheer).

(b) Every vessel engaged in towing another vessel or floating object, except:

(1) Where the maximum length of the towing vessel, measured from end to end over the deck exclusive of sheer, is less than 8 meters (26 feet) and the length or breadth of the tow, exclusive of the towing line, is less than 20 meters (65 feet);

(2) Where the vessel towed complies with this subpart;

(3) Where the towing vessel and tow are located within a booming ground (an area in which logs are confined); or

(4) Where the tow has been undertaken in an emergency and neither the towing vessel nor the tow can comply with this part

(c) Any vessel carrying more than six passengers for hire.

(d) The requirements of this subpart do not apply to:

(1) Ships of war and troop ships;

(2) Vessels owned and operated by any national government and not engaged in trade.

(e) The Commission may if it considers that the conditions of the voyage or voyages affecting safety (including but not necessarily limited to the regularity, frequency and nature of the voyages, or other circumstances) are such as to render full application of the rules of this subpart unreasonable or unnecessary, exempt partially, conditionally or completely, any individual vessel for one or more voyages or for any period of time not exceeding one year.

§ 80.953 Inspection and certification.

(a) Each U.S. flag vessel subject to this subpart must have an inspection of the required radiotelephone installation at least once every 48 months. This inspection must be made while the vessel is in active service or within not more than one month before the date on which it is placed in service.

(b) An inspection and certification of a ship subject to this subpart must be made by a technician holding one of the following: a General Radiotelephone Operator License, a GMDSS Radio Maintainer's License, a Radiotelegraph Operator License, a Second Class Radiotelegraph Operator's Certificate, or a First Class Radiotelegraph Operator's Certificate. Additionally, the technician must not be the vessel's owner, operator, master, or an employee of any of them. The results of the inspection must be recorded in the ship's radiotelephone log and include:

(1) The date the inspection was conducted;

(2) The date by which the next inspection needs to be completed;

(3) The inspector's printed name, address, class of FCC license (including the serial number);

(4) The results of the inspection, including any repairs made; and

(5) The inspector's signed and dated certification that the vessel meets the requirements contained in this subpart and the Bridge-to-Bridge Act contained in subpart U of this part and has successfully passed the inspection.

(c) The vessel owner, operator, or ship's master must certify that the inspection required by paragraph (b) was satisfactory.

(d) The ship's radiotelephone logs containing entries certifying that a Great Lakes safety inspection has been conducted must be retained on board and available for inspection until the next radio inspection.

§ 80.955 Radiotelephone installation.

(a) Each U.S. flag vessel of less than 38 meters (124 feet) in length while subject to this subpart must have a radiotelephone meeting the provisions of this subpart in addition to the other rules in this part governing ship stations using telephony.

(b) Each U.S. flag vessel of 38 meters (124 feet) or more in length while subject to this subpart must have a minimum of two VHF radiotelephone installations in operating condition meeting the provisions of this subpart. The second VHF installation must be electrically separate from the first VHF installation. However, both may be connected to the main power supply provided one installation can be operated from a separate power supply located as high as practicable on the vessel.

(c) This paragraph does not require or prohibit the use of other frequencies for use by the same "radiotelephone installation" for communication authorized by this part.

§ 80.956 Required frequencies and uses.

(a) Each VHF radiotelephone installation must be capable of transmitting and receiving G3E emission as follows:

(1) Channel 16—156.800 MHz—Distress, Safety and Calling; and

(2) Channel 6—156.300 MHz—Primary intership.

(b) The radiotelephone station must have additional frequencies as follows:

(1) Those ship movement frequencies appropriate to the vessel's area of operation: Channel 11—156.550 MHz, Channel 12—156.600 MHz, or Channel 14—156.700 MHz.

(2) The navigational bridge-to-bridge frequency, 156.650 MHz (channel 13).

(3) Such other frequencies as required for the vessel's service.

(4) One channel for receiving marine navigational warnings for the area of operation.

(c) Every radiotelephone station must include one or more transmitters, one or more receivers, one or more sources of energy and associated antennas and control equipment. The radiotelephone station, exclusive of the antennas and source of energy, must be located as high as practicable on the vessel, preferably on the bridge, and protected from water, temperature, and electrical and mechanical noise.

§ 80.957 Principal operating position.

(a) The principal operating position of the radiotelephone installation must be on the bridge, convenient to the conning position.

(b) When the radiotelephone station is not located on the bridge, operational control of the equipment must be provided at the location of the radiotelephone station and at the bridge operating position. Complete control of the equipment at the bridge operating position must be provided.

§ 80.959 Radiotelephone transmitter.

- (a) The transmitter must be capable of transmission of G3E emission on the required frequencies.
- (b) The transmitter must deliver a carrier power of between 10 watts and 25 watts into 50 ohms nominal resistance when operated with its rated supply voltage. The transmitter must be capable of readily reducing the carrier power to one watt or less.
- (c) To demonstrate the capability of the transmitter, measurements of primary supply voltage and transmitter output power must be made with the equipment operating on the vessel's main power supply, as follows:
 - (1) The primary supply voltage measured at the power input terminals to the transmitter terminated in a matching artificial load, must be measured at the end of 10 minutes of continuous operation of the transmitter at its rated power output.

- (2) The primary supply voltage, measured in accordance with the procedures of this paragraph, must be not less than 11.5 volts.

- (3) The transmitter at full output power measured in accordance with the procedure of this paragraph must not be less than 10 watts.

§ 80.961 Radiotelephone receiver.

- (a) The receiver must be capable of reception of G3E emission on the required frequencies.
- (b) The receiver must have a sensitivity of at least 2 microvolts across 50 ohms for a 20 decibel signal-to-noise ratio.

§ 80.963 Main power supply.

- (a) A main power supply must be available at all times while the vessel is subject to the requirements of this subpart.
- (b) Means must be provided for charging any batteries used as a source of energy. A device which during charging of the batteries gives a continuous indication of charging current must be provided.

§ 80.965 Reserve power supply.

- (a) Each passenger vessel of more than 100 gross tons and each cargo vessel of more than 300 gross tons must be provided with a reserve power supply independent of the vessel's normal electrical system and capable of energizing the radiotelephone installation and illuminating the operating controls at the principal operating position for at least 2 continuous hours under normal operating conditions. When meeting this 2 hour requirement, such reserve power supply must be located on the bridge level or at least one deck above the vessel's main deck.

- (b) Instead of the independent power supply specified in paragraph (a) of this section, the vessel may be provided with an auxiliary radiotelephone installation having a power source independent of the vessel's normal electrical system. Any such installation must comply with §§ 80.955, 80.956, 80.957, 80.959, 80.961, 80.969 and 80.971, as well as the general technical standards contained in this part. Additionally, the power supply for any such auxiliary radiotelephone must be a "reserve power supply" for the purposes of paragraphs (c), (d) and (e) of this section.

- (c) Means must be provided for adequately charging any batteries used as a reserve power supply for the required radiotelephone installation. A device must be provided which, during charging of the batteries, gives a continuous indication of charging.

- (d) The reserve power supply must be available within one minute.

- (e) The station licensee, when directed by the Commission, must prove by demonstration as prescribed in paragraphs (e)(1), (2), (3) and (4) of this section that the reserve power supply is capable of meeting the requirements of paragraph (a) of this section as follows:

(1) When the reserve power supply includes a battery, proof of the ability of the battery to operate continuously for the required time must be established by a discharge test over the required time, when supplying power at the voltage required for normal operation to an electric load as prescribed by paragraph (e)(3) of this section.

(2) When the reserve power supply includes an engine driven generator, proof of the adequacy of the engine fuel supply to operate the unit continuously for the required time may be established by using as a basis the fuel consumption during a continuous period of one hour when supplying power, at the voltage required for normal operation, to an electrical load as prescribed by paragraph (e)(3) of this section.

(3) For the purposes of determining the electrical load to be supplied, the following formula must be used:

(i) One-half of the current of the radiotelephone while transmitting at its rated output, plus one-half the current while not transmitting; plus

(ii) Current of the required receiver; plus

(iii) Current of the source of illumination provided for the operating controls prescribed by § 80.969; plus

(iv) The sum of the currents of all other loads to which the reserve power supply may provide power in time of emergency or distress.

(4) At the conclusion of the test specified in paragraphs (e)(1) and (2) of this section, no part of the reserve power supply must have excessive temperature rise, nor must the specific gravity or voltage of any battery be below the 90 percent discharge point.

§ 80.967 Antenna system.

The antenna must be omnidirectional, vertically polarized and located as high as practicable on the masts or superstructure of the vessel.

§ 80.969 Illumination of operating controls.

(a) The radiotelephone must have dial lights which illuminate the operating controls at the principal operating position.

(b) Instead of dial lights, a light from an electric lamp may be provided to illuminate the operating controls of the radiotelephone at the principal operating position. If a reserve power supply is required, arrangements must permit the use of that power supply for illumination within one minute.

§ 80.971 Test of radiotelephone installation.

At least once during each calendar day a vessel subject to this subpart must test communications on 156.800 MHz to demonstrate that the radiotelephone installation is in proper operating condition unless the normal daily use of the equipment demonstrates that this installation is in proper operating condition. If equipment is not in operating condition, the master must have it restored to effective operation as soon as possible.

14. Section 80.1005 is revised to read as follows:

§ 80.1005 Inspection of station.

The bridge-to-bridge radiotelephone station will be inspected on vessels subject to regular inspections pursuant to the requirements of Parts II and III of Title III of the Communications Act, the Safety Convention, or subpart T of this part at the time of the regular inspection. If after such inspection, the Commission determines that the Bridge-to-Bridge Act, the rules of the Commission and the station license are met, an endorsement will be made on the appropriate document. The validity of the endorsement will run concurrently with the period of the regular inspection. Each vessel must carry a

certificate with a valid endorsement while subject to the Bridge-to-Bridge Act. All other bridge-to-bridge stations will be inspected from time-to-time. An inspection of the bridge-to-bridge station on a vessel subject to subpart T of this part must normally be made at the same time as the inspection required under subpart T of this part and must be conducted by a technician holding one of the following: a General Radiotelephone Operator License, a GMDSS Radio Maintainer's License, a Radiotelegraph Operator License, a Second Class Radiotelegraph Operator's Certificate, or a First Class Radiotelegraph Operator's Certificate. Additionally, the technician must not be the vessel's owner, operator, master, or an employee of any of them. Ships subject to the Bridge-to-Bridge Act may, in lieu of an endorsed certificate, certify compliance in the station log required by section 80.409(f).

15. Section 80.1065 is amended by revising paragraph (b) to read as follows:

§ 80.1065 Applicability.

* * * * *

(b) The requirements of this subpart do not modify the requirements for ships navigated on the Great Lakes or small passenger boats. The requirements contained in subpart T of this part continue to apply. The requirements contained in part III of title III of the Communications Act continue to apply (see subpart S of this part).

* * * * *

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

In the Matter of)
)
Addressing the Homework Gap through the E-Rate) WC Docket No. 21-31
Program)

NOTICE OF PROPOSED RULEMAKING

Adopted: November 1, 2023

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By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements;
Commissioners Carr and Simington dissenting and issuing separate statements.

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I. INTRODUCTION

1. High-speed Internet is critical to educational equity, economic opportunity, job creation, and civic engagement. Since its inception, the Federal Communications Commission’s (Commission) E-Rate program has supported high-speed, affordable Internet services to and within school and library buildings, and has been instrumental in providing students and library patrons with access to the essential broadband services that are required for next-generation learning.¹ But advances in technology have changed the modern learning environment to increasingly employ interactive online education tools that

¹ The E-Rate program is formally known as the schools and libraries universal service support mechanism.

can be used anywhere, at any time, allowing students to develop the digital skills needed to prosper in the 21st Century.² The ongoing proliferation of innovative digital learning technologies and the need to connect students, teachers, and library patrons to jobs, life-long learning, and information have led to a steady rise in the demand for broadband connectivity both inside and outside of school and library buildings. In response to those needs, today we propose and seek comment on updates to the E-Rate program to ensure the program is equipped to support the ongoing remote learning needs of today's students, school staff, and library patrons.

2. In recent years, the demand for connectivity beyond school and library buildings became a crisis when the COVID-19 pandemic disrupted operations and caused schools and libraries across the country to temporarily close their doors.³ Millions of students caught in the “Homework Gap”—i.e., students unable to *fully* participate in educational opportunities because they lack broadband connectivity in their homes—suddenly found themselves unable to participate in education *at all*.⁴ Library patrons who relied on their local libraries for remote learning opportunities and Internet access suddenly experienced a loss of these critical services when most, if not all, library buildings closed their doors by the summer of 2020.⁵ However, even before the COVID-19 pandemic, the Homework Gap affected somewhere between 8.5 to 16 million K-12 students, leaving 15% of U.S. households with children ages six to seventeen lacking a high-speed Internet connection at home and approximately one in four households without high-speed Internet access.⁶ Although the E-Rate program helped approximately

² See, e.g., U.S. Department of Education, *Reimagining the Role of Technology in Education* at 9 (2017), <https://tech.ed.gov/files/2017/01/NETP17.pdf> (“Historically, a learner’s educational opportunities have been limited by the resources found within the walls of a school. Technology-enabled learning allows learners to tap resources and expertise anywhere in the world, starting with their own communities.”); Common Sense Media & Boston Consulting Group, *Closing the Digital Divide Benefits Everyone, Not Just the Disconnected* at 5 (2022), https://www.commonsensemedia.org/sites/default/files/research/report/2022-cs-bcg-closing-digital-divide_final-release-3-for-web.pdf (Common Sense 2022 Report) (explaining that the use of Internet-based technologies in education provides students with “better access to teachers, tutors, information sources, platforms for content creation and sharing, and collaborative workspaces” and allows teachers to “employ edtech tools and advanced technology (AR/VR), individualized curricula, and comprehensive grading and feedback systems, and they can better collaborate with parents and caregivers”).

³ Colleen McClain et al., *Parents, their children and school during the pandemic* (Sept. 1, 2021), <https://www.pewresearch.org/internet/2021/09/01/parents-their-children-and-school-during-the-pandemic/> (finding that 93% of families with children in grades K-12 reported shifting to online learning during the pandemic).

⁴ See Common Sense Media, *Closing the K-12 Digital Divide in the Age of Distance Learning* (2020), https://www.commonsensemedia.org/sites/default/files/featured-content/files/common_sense_media_report_final_7_1_3pm_web.pdf (Common Sense 2020 Report) (highlighting that before the pandemic, there were approximately 16 million students nationwide that lived in homes without a broadband connection).

⁵ See, e.g., Lisa Guernsey, Sabia Prescott, & Claire Park, *Public Libraries and the Pandemic* (Feb. 25, 2021), <https://www.newamerica.org/education-policy/reports/public-libraries-and-the-pandemic/> (describing how the closure of public library buildings by the summer of 2020 hastened the transition to virtual library services for most public libraries); Gretchen Corsillo, *COVID-19: The Impact On Public Libraries* (Mar. 30, 2020), <https://publiclibrariesonline.org/2020/03/covid-19-its-impact-on-public-libraries/> (explaining that “[b]ecause libraries play such a vital role in keeping their patrons educated, connected, and entertained, librarians nationwide have been working around the clock to find ways to keep services going despite being closed to the public”); Frank Catalano, *How Library Closures Hurt Adult Learners as Kids Doubled Down on Digital Reading* (Mar. 8, 2021), <https://www.edsurge.com/news/2021-03-08-how-library-closures-hurt-adult-learners-as-kids-doubled-down-on-digital-reading> (reporting that “15 percent of U.S. adults lost their main source of internet access as libraries started to shut down in March 2020”).

⁶ See Catherine McNally, *Nearly 1 in 4 Households Don’t Have Internet—and a Quarter Millions Still Use Dial-up* (Aug. 17, 2021), <https://www.reviews.org/internet-service/how-many-us-households-are-without-internet-connection/>; Amanda Litvinov, *Coronavirus Brings ‘Homework Gap’ to the Forefront* (May 4, 2020),

(continued....)

98% of the K-12 schools and districts in the country meet the Commission's connectivity goals by 2018 by providing support for broadband connections to and within schools, and approximately 12,000 distinct libraries from across the nation receive E-Rate support each year for broadband connections to and within libraries,⁷ the increasing shift to online and remote instruction highlighted the need to connect the millions of students, school staff, and library patrons who had no at-home broadband connectivity.⁸ To address this longstanding critical need, Congress created the Emergency Connectivity Fund (ECF), which allowed the Commission to create the nation's first ever federal program designed to address the Homework Gap by providing funding for connected devices, Wi-Fi hotspot devices, broadband connections, and other eligible equipment and services for students, school staff, and library patrons in need for use at locations outside of their school or library.⁹

3. Over the past two years, the ECF program's funding of Internet access services through Wi-Fi hotspots has enabled significant progress in expanding digital learning, addressing digital and educational equity, and closing the Homework Gap by providing students, school staff, and library patrons with access to broadband connections. Schools in Oakland, California reported that they nearly closed the Homework Gap for their students through the use of ECF-funded Wi-Fi hotspots and Internet access services.¹⁰ Libraries, like the Boston Public Library, established ECF-funded Wi-Fi hotspot lending programs to provide the hotspot equipment and monthly mobile broadband services needed to connect thousands of their most vulnerable residents to library resources.¹¹ These are just two examples of the many ways that schools and libraries across the nation have relied on ECF support to fulfill the remote learning needs of their students, school staff, and library patrons who otherwise lacked access to these resources.¹²

<https://www.nea.org/advocating-for-change/new-from-nea/coronavirus-brings-homework-gap-forefront> (providing data from research conducted in 2017 and 2018); Pew Research Center, Nearly One-In-Five Teens Can't Always Finish Homework Because of the Digital Divide at 2 (2018), https://internet.psych.wisc.edu/wp-content/uploads/532-Master/532-UnitPages/Unit-11/Anderson_Pew_2018.pdf (providing an analysis based on 2015 U.S. Census Bureau data); Common Sense 2020 Report.

⁷ See USAC, *E-Rate Recipient Details and Commitments*, <https://opendata.usac.org/E-rate/E-Rate-Recipient-Details-And-Commitments/avi8-svp9> (last visited Oct. 31, 2023).

⁸ CoSN, *Addressing the Homework Gap Through Public-Private Partnerships*, <https://www.cosn.org/addressing-the-homework-gap-through-public-private-partnerships/> (last visited Oct. 31, 2023).

⁹ See American Rescue Plan Act, 2021, H.R. 1319, Pub. L. No. 117-2, 117th Cong., tit. VII, § 7402(a)(1)-(2) (2021) (enacted), available at <https://www.congress.gov/bill/117th-congress/house-bill/1319/text> (American Rescue Plan Act) (enrolled bill).

¹⁰ See Javeria Salman, *How One City Closed the Digital Divide for Nearly all its Students* (Apr. 14, 2022), <https://hechingerreport.org/how-one-city-closed-the-digital-divide-for-nearly-all-its-students/> (reporting that schools in Oakland, California have used ECF support and other funds to connect 98% of their student population through the distribution of Wi-Fi hotspots and connected devices).

¹¹ See Press Release, City of Boston, *Over \$12 Million Invested in Digital Equity and Inclusion* (Feb. 2, 2022), <https://www.boston.gov/news/over-12-million-invested-digital-equity-and-inclusion> (explaining that the Boston Public Library's Long Term Device Lending Program will provide ECF-funded equipment and services to "target the unmet digital needs of vulnerable and eligible library patrons").

¹² See, e.g., Aaron Stuve, *Blue Earth County Library System to Offer Wi-Fi Hotspots for Checkout* (Oct. 25, 2021), <https://www.keyc.com/2021/10/25/blue-earth-county-library-system-offer-wi-fi-hotspots-checkout/> (explaining that Wi-Fi hotspots would be available to patrons "if they don't have Internet access at home, if they need internet, as so many do, for school, for work, for job applications, for so many things"); Marla K. Kuhlman, *Federal Grant Gives Westerville Middle Schoolers Access to Laptops, Hot Spots for Homework* (Dec. 2, 2021), <https://www.dispatch.com/story/news/local/communities/westerville/2021/12/02/grant-gives-westerville-middle-schoolers-access-laptops-hot-spots-for-homework/8837114002/> (reporting that students in Westerville, Ohio were provided connected devices and Wi-Fi hotspot service to meet their remote learning needs); Samantha Silva, *Emergency Connectivity Program gives \$2.4 million in Grant Funding to Corpus Christi Public Libraries* (Aug. 6, 2021), <https://www.kprc.com/story/news/local/2021/08/06/emergency-connectivity-program-gives-24-million-in-grant-funding-to-corpus-christi-public-libraries/> (continued....)

4. Following three successful application filing windows and more than two years of funding broadband services for students, school staff, and library patrons with unmet needs, ECF funding is nearly fully obligated, and the program will sunset on June 30, 2024.¹³ As we approach the sunset of the ECF program, the Commission has committed more than \$123 million for the purchase of Wi-Fi hotspot devices and nearly \$1.3 billion for the associated services to provide off-premises broadband connectivity to students, school staff, and library patrons who otherwise would lack sufficient broadband access needed to fully engage in remote learning.¹⁴ Building on our experience with the ECF program, we now reexamine the E-Rate program and seek comment on proposals and potential actions the Commission could take to support the needs of students, school staff, and library patrons who risk losing access to essential broadband connections necessary to engage in educational opportunities once the ECF program sunsets.

5. In this Notice of Proposed Rulemaking (NPRM), we initiate a proceeding to address the ongoing remote learning needs of today's students, school staff, and library patrons through the E-Rate program and to ensure the millions who have benefitted from ECF program support do not fall back onto the wrong side of the digital divide once the program ends. Specifically, we propose to permit eligible schools and libraries to receive E-Rate support for Wi-Fi hotspots and wireless Internet services¹⁵ that can be used off-premises. We propose to find that the off-premises use of Wi-Fi hotspots and Internet services by students, school staff, and library patrons for remote learning and the provision of virtual library services constitutes an educational purpose as defined by the Commission and enhances access to advanced telecommunications and information services for schools and libraries.¹⁶ We also seek comment on how to adapt the E-Rate program to reflect the virtual nature of today's modern educational environment. Additionally, we seek comment on the applicability of the Children's Internet Protection Act (CIPA) requirements and the off-premises use of E-Rate-supported hotspots and services. In considering whether to support the off-premises use of Wi-Fi hotspots and Internet access services, this NPRM seeks to balance the need to modernize the E-Rate program to support today's technology-based learning environment with the need to ensure the limited E-Rate funding remains available for its primary purpose of providing connectivity to schools and libraries, and is protected from potential waste, fraud, and abuse.

II. BACKGROUND

6. *E-Rate Program.* The E-Rate program was authorized by Congress as part of the Telecommunications Act of 1996, and created by the Commission in 1997, as a universal service support mechanism to ensure the delivery of affordable telecommunications and information services to eligible schools and libraries.¹⁷ Sections 254(c)(1), (c)(3), (h)(1)(B), and (h)(2) of the Communications Act of 1934, as amended (Communications Act) collectively grant the Commission broad and flexible authority to establish the list of services that will be supported for eligible schools and libraries, as well as to design

2022), <https://www.kiiitv.com/article/news/local/grant-funding-corpus-christi-public-libraries/503-7320a4fd-bc31-42c1-9d33-024ff36a83e6> (providing 5,000 Wi-Fi hotspots and services for Corpus Christi Public Libraries' patrons who are otherwise without access).

¹³ See H.R. 1319, tit. VII, § 7402(d)(5)(B). See also 47 CFR § 54.1711(e) (establishing the service delivery date for ECF program funding requests).

¹⁴ See Universal Service Administrative Company, *Emergency Connectivity Fund FCC Form 471*, <https://opendata.usac.org/Emergency-Connectivity-Fund/Emergency-Connectivity-Fund-FCC-Form-471/i5j4-3rvr> (last visited Oct. 31, 2023) (reporting data on what Wi-Fi hotspot devices and services have been requested in the ECF program to date).

¹⁵ For the purposes of this NPRM, unless otherwise noted, references to E-Rate support for Wi-Fi hotspots or services include both the purchase and distribution of hotspot devices and the provision of service to the hotspots.

¹⁶ 47 U.S.C. § 254(h)(1)(B) and (h)(2)(A).

¹⁷ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. § 151 *et seq.*) (Communications Act).

the specific mechanisms of support.¹⁸ This authority reflects recognition by Congress that technology needs are constantly evolving in light of “advances in telecommunications and information technologies and services.”¹⁹

7. Under the E-Rate program, eligible schools, libraries, and consortia (comprised of eligible schools and libraries) may request universal service discounts for eligible services and/or equipment (collectively, eligible services). Eligible services are divided into “category one” services (which provide connectivity, including broadband connectivity, to eligible school and library locations) and “category two” services (which provide connectivity *within* eligible school and library locations).²⁰ Category one services generally include data transmission and Internet access services, while category two services include internal connections (e.g., Wi-Fi, routers, switches), managed internal broadband services (e.g., managed Wi-Fi), and basic maintenance of internal connections.²¹ The E-Rate program currently supports wireless Internet access services for use at a school or library only in very limited circumstances.²²

8. Section 254(h)(1)(B) of the Communications Act provides that E-Rate discounts be applied to services provided to eligible schools and libraries for “educational purposes.”²³ As a result, E-Rate rules require schools and libraries to use eligible services “primarily for educational purposes.”²⁴ In the case of schools, “educational purposes” is defined as “activities that are integral, immediate, and proximate to the education of students.”²⁵ In the case of libraries, “educational purposes” is defined as activities that are “integral, immediate, and proximate to the provision of library services to library patrons.”²⁶ The Commission also established a presumption that activities that occur on library or school

¹⁸ 47 U.S.C. § 254(c)(1), (c)(3), (h)(1)(B), (h)(2).

¹⁹ 47 U.S.C. § 254(c)(1).

²⁰ See 47 CFR §§ 54.501, 54.502.

²¹ 47 CFR § 54.502(a)(1)-(2).

²² In 2014, the Commission found that individual data plans for mobile devices are generally not cost-effective when those users already have access to the Internet through internal wireless broadband networks on wireless-enabled devices within a school or library without the help of stand-alone data plans. See *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8932-34, paras. 151-53 (2014) (*First 2014 E-Rate Order*); *Modernizing the E-Rate Program for Schools and Libraries; Connect America Fund*, WC Docket Nos. 13-184, 10-90, Second Report and Order and Order on Reconsideration, 29 FCC Rcd 15538, 15601, para. 158 (2014) (*Second 2014 E-Rate Order*). However, recognizing that there could be locales where wireless local-area networks (WLANs) could be impracticable (e.g., bookmobiles) or difficult to install or there may be some schools or libraries where installation of a wireless network would be possible but more costly than individual data plans, the Commission allows applicants to seek funding for individual data plans only if the school or library can demonstrate that the plans are the most cost-effective option for providing internal broadband access for mobile devices. *Id.*; see also *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, DA 22-1313, 2022 WL 17886489, at *11 (WCB Dec. 14, 2022) (*FY2023 Eligible Services List Order*).

²³ 47 U.S.C. § 254(h)(1)(B).

²⁴ *Schools and Libraries Universal Service Support Mechanism*, WC Docket No. 02-6, Sixth Report and Order, 25 FCC Rcd 18762, 18774, para. 22 (2010) (*Schools and Libraries Sixth Report and Order*) (amending the rules to require that services be used *primarily* for educational purposes and explaining that “[t]o primarily use services supported by E-rate, E-rate recipients must ensure that students always get first priority in use of the schools’ resources”). See 47 CFR §§ 54.503(c)(2)(ii)(A), 54.504(a)(1)(v).

²⁵ *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6, Second Report and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 9202, 9208, para. 17 (2003) (*Schools and Libraries Second Report and Order*) (clarifying the meaning of educational purposes); 47 CFR § 54.500 (defining “educational purposes”).

²⁶ *Schools and Libraries Second Report and Order*, 18 FCC Rcd at 9208, para. 17; 47 CFR § 54.500.

property serve an educational purpose and, therefore, are eligible for E-Rate funding.²⁷

9. Section 254(h)(2)(A) of the Communications Act directs the Commission to promulgate rules “to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms . . . and libraries.”²⁸ While Congress has made clear that the goal of such universal service funding is to enhance access “to Americans everywhere via schools and libraries” to ensure that “no one is barred from benefiting from the power of the Information Age,”²⁹ neither Congress nor the Commission has defined the term “classroom” or placed any explicit location restrictions on schools or libraries. As a general matter, however, the E-Rate program does not currently provide support for the off-premises use of eligible services, and applicants are usually required to cost-allocate the portion of services used off-premises from their funding requests.³⁰

10. In certain instances, the Commission has provided support for the off-premises use of E-Rate supported services, after first finding that the off-premises provision of such service is “integral, immediate, and proximate to the education of students or the provision of library services to library patrons, and thus, serves an educational purpose.”³¹ For example, in 2003, the Commission determined that “a school bus driver’s use of wireless telecommunications services while delivering children to and from school, a library staff’s person’s use of wireless telecommunications services on a library’s mobile library unit van, and the use by teachers or other school staff of wireless telecommunications services while accompanying students on a field trip or sporting event” are permissible activities that could be supported by the E-Rate program.³² Similarly, recognizing the unique challenges of certain residential student populations, the Commission allowed E-Rate support for eligible services serving the residential areas of schools that serve unique populations—including schools on Tribal lands and schools designed to serve students with medical needs, among others—because such services are primarily, if not exclusively, for educational purposes.³³

11. The Commission has also examined other measures to help address the digital and educational divide, including allowing E-Rate support for wireless connectivity services used outside of the school or library building. For example, in the *2010 E-Rate Broadband NPRM*, the Commission sought comment on whether to adopt the National Broadband Plan’s recommendation to provide E-Rate support for wireless Internet access service for portable learning devices that are used beyond school or library premises.³⁴ In response, commenters generally agreed that students need to be able to learn

²⁷ *Schools and Libraries Second Report and Order*, 18 FCC Rcd at 9208, para. 17.

²⁸ 47 U.S.C. § 254(h)(2)(A).

²⁹ S. Rep. No. 104-230, at 132-33 (1996) (Joint Explanatory Statement).

³⁰ See *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, DA 22-1313, 2022 WL 17886489, at *11 (WCB Dec. 14, 2022) (*FY2023 Eligible Services List Order*) (adopting the eligible services list for funding year 2023, which requires that off-campus use be cost-allocated from a funding request, among other things); 47 CFR § 54.504(e) (detailing the requirement to cost-allocate ineligible services from requests).

³¹ See *Schools and Libraries Second Report and Order*, 18 FCC Rcd at 9208-09, para. 19.

³² See *id.* at n.28.

³³ See *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18779, paras. 31-32.

³⁴ See *Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Notice of Proposed Rulemaking, 25 FCC Rcd 6872, 6891-93, paras. 45-51 (2010) (*E-Rate Broadband NPRM*); see also FCC, Connecting America: The National Broadband Plan at 239 (2010), <https://www.fcc.gov/general/national-broadband-plan> (National Broadband Plan).

“anytime/anywhere,” which requires Internet access outside of school and library buildings.³⁵ Accordingly, the Commission launched a pilot program—E-Rate Deployed Ubiquitously (EDU2011)—to investigate the merits and challenges of funding wireless off-premises connectivity services for mobile learning devices through the E-Rate program.³⁶ As part of the pilot program, for funding year 2011, the Commission authorized up to \$10 million in E-Rate support for a small number of off-premises wireless connectivity projects that were submitted by schools and libraries and approved by the Commission.

12. In addition to the above-referenced proceedings, multiple applicants and other stakeholders have also requested that the Commission allow the use of E-Rate-funded equipment and services off-premises to enhance broadband access for students and library patrons who lack reliable access outside of their school or library without requiring the removal of the costs of this ineligible use from their E-Rate funding requests.³⁷ The volume of requests asking to allow the off-premises use of E-Rate-supported equipment and services increased dramatically during the COVID-19 pandemic, when schools and libraries were abruptly forced to close their doors and unexpectedly had to transition to full-time remote learning. In February 2021, the Wireline Competition Bureau (Bureau) issued a Public Notice seeking comment on several emergency relief petitions requesting to allow applicants to enable remote learning during the pandemic³⁸ by opening their E-Rate-funded broadband networks to students and library patrons located near the school or library³⁹ or by providing off-premises Wi-Fi hotspots and

³⁵ See, e.g., San Diego Unified School District Reply Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 5 (rec. July 25, 2010) (SDUSD Reply Comments) (explaining that “[m]obile broadband equipment, access and applications will allow our teachers to reach our students, and vice versa, no matter where they are during the day and in the evenings”); AT&T Inc. Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 9 (rec. July 11, 2010) (AT&T Comments) (“[T]oday’s educational systems increasingly require students to have access to information outside of the classroom.”); Cisco Systems, Inc. Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 5-6 (rec. July 8, 2010) (Cisco Comments) (“[T]echnological advances create educational opportunities for students anywhere students have access to a broadband connection, allowing learning to continue even after students leave school grounds.”); eChalk, Inc. Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 3-4 (rec. July 8, 2010) (eChalk Comments) (supporting the “learning outside of the classroom that is increasingly occurring with the advent of new technologies focused on educating students”); Dr. Anthony D. Machado Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 6 (rec. July 8, 2010) (filed on behalf of Miami-Dade County Public Schools) (MDCPS Comments) (supporting E-Rate funding for Internet access services used for learning both on and off school premises); Ohio E-Rate Consortium Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 15-16 (rec. July 8, 2010) (Ohio E-Rate Consortium Comments) (“For elementary and high school students to maintain a level of competency (both technological and general) comparable to that of their peers, they must have Internet access outside of the classroom.”); Public Broadcasting Service Comments, CC Docket No. 02-6, GN Docket No. 09-51, at 2-4 (rec. July 8, 2010) (PBS Comments) (explaining that students without broadband access at home are increasingly being left behind and the E-Rate program should “close the gap so that more children can take advantage of the vast library of educational content on the Internet both inside and outside the classroom”).

³⁶ *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18783-87, paras. 41-50.

³⁷ See, e.g., *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Notice of Proposed Rulemaking, 28 FCC Rcd 11304, 11397-99, paras. 319-23 (2013) (seeking comment on two petitions for waiver to permit E-Rate funding for offsite use of community hotspots); *Wireline Competition Bureau Seeks Comment on Petitions Regarding Off-Campus Use of Existing E-Rate Connectivity*, CC Docket 02-6, WC Docket Nos. 10-90 and 13-184, Public Notice, 31 FCC Rcd 10510 (WCB 2016) (seeking comment on two petitions for waiver of E-Rate program cost allocation rule to allow off-campus use of E-Rate funded services by students at home for educational purposes).

³⁸ *Wireline Competition Bureau Seeks Comment on Petitions for Emergency Relief to Allow the Use of E-Rate Funds to Support Remote Learning During the COVID-19 Pandemic*, WC Docket No. 21-31, Public Notice, 36 FCC Rcd 1304 (WCB 2021) (*Remote Learning Public Notice*).

³⁹ See Petition for Waiver on behalf of the State of Colorado, WC Docket No. 13-184 (filed Sept. 2, 2020), <https://www.fcc.gov/ecfs/filing/10902218280692> (Colorado Petition).

services to students and library patrons who lacked access to the Internet at their homes.⁴⁰ In response, the vast majority of commenters asserted that because of the massive shift to remote learning, students' homes became "virtual classrooms" and students without broadband access were being left behind during the pandemic.⁴¹ They also urged the Commission to provide E-Rate support for the off-premises use of Wi-Fi hotspots and services on a permanent basis,⁴² arguing that the pandemic only underscored that Internet access at home is essential to the modern technology-based learning environment of today's schools and libraries.⁴³

13. *Emergency Connectivity Fund Program.* As part of the American Rescue Plan Act of 2021, Congress appropriated \$7.171 billion to the ECF and directed the Commission to promulgate rules providing for the distribution of funding to eligible schools and libraries for the purchase, during the COVID-19 emergency period, of eligible equipment and/or advanced telecommunications and information services for use by students, school staff, and library patrons at locations that include locations other than a school or library.⁴⁴ On May 10, 2021, the Commission adopted a Report and Order establishing the program and allowing eligible schools and libraries to request funding for the purchase of

⁴⁰ See, e.g., Petition for Expedited Declaratory Ruling and Waivers filed by the Schools, Health & Libraries Broadband Coalition, et al., WC Docket No. 13-184, at 8-10, 18-19 (filed Jan. 26, 2021), <https://www.fcc.gov/ecfs/filing/101260036427898> (SHLB Petition) (arguing that connectivity solutions to expand broadband accessibility for remote learning during the pandemic are for educational purposes, including personal hotspots with mobile data connections); Letter from John Kraman, Chief Information Officer, Mississippi Department of Education, to Ajit Pai, Chairman, FCC, WC Docket No. 02-6, at 1 (filed Mar. 24, 2020), <https://www.fcc.gov/ecfs/filing/1032470516353> (asking the Commission to make data cards and Wi-Fi hotspots eligible as long as schools provide remote education due to the COVID-19 pandemic); Letter from Lyell Walker, State E-Rate Coordinator, Florida Department of Management Services, to Ajit Pai, Chairman, FCC, WC Docket No. 02-6, at 1 (filed Mar. 12, 2020), <https://www.fcc.gov/ecfs/filing/10312280696180>; Letter from Terry Loftus, Assistant Superintendent & Chief Technology Officer, San Diego County Office of Education, to Ajit Pai, Chairman, FCC, at 1-2 (filed Apr. 9, 2020), <https://www.fcc.gov/ecfs/filing/104231014223661> (asking the Commission to deem mobile Wi-Fi hotspots and the monthly recurring services eligible for E-Rate support).

⁴¹ See, e.g., Education & Libraries Network Coalition Comments at 7 (EdLiNC Comments) (explaining that home Internet access is now a prerequisite for receiving an education); Internet Association Comments at 5 (IA Comments) (stating that the COVID-19 emergency has "drastically changed the way all students are able to learn and educators are able to teach"); Infinity Communications & Consulting, Inc. Comments at 1 (Infinity Comments) (arguing that the "presumption that educational opportunities and environments occur only in the school or library is an antiquated concept").

⁴² See, e.g., New York State Education Department Comments at 4 (NYSED Comments) (recommending that the E-Rate program provide support for the off-campus use of hotspots during and after the pandemic to close the Homework Gap); Lee County School District Comments at 1-2 (LCSO Comments) (urging the Commission to provide funding for mobile hotspots to address the Homework Gap, both during and after the pandemic); Qualcomm Incorporated Comments at 10 (Qualcomm Comments) (arguing that the E-Rate program should cover mobile hotspots "without restriction" and noting that mobile hotspots provide important benefits because students can use them whenever and wherever); Aurora Institute Comments at 2-3 (Aurora Comments) (explaining that the E-Rate program should step in as a more permanent solution to funding wireless hotspots to continue the temporary solutions provided through emergency pandemic relief); Kellogg & Sovereign Consulting, LLC Comments at 3-5 (KSLLC Comments) (surveying 12 school districts that reported needing E-Rate support to cover wireless hotspots the most because students with the greatest need are often high mobility and require mobile connectivity solutions like hotspots).

⁴³ See, e.g., IA Comments at 2 (supporting the use of E-Rate funds for remote learning as a way of adapting to modern educational needs in "the age of the 'virtual' campus"); Qualcomm Comments at 1-2 (referring to connectivity as "the 21st Century version of textbooks"); INCOMPAS Reply Comments at 6 (INCOMPAS Reply) (recognizing the need to prepare for future emergencies that may cause additional campus closures); Los Angeles Unified School District Comments at 4-5 (LAUSD Comments) (urging the Commission to re-examine the E-Rate rules to support the rapidly changing face of education, even beyond the pandemic).

⁴⁴ H.R. 1319, tit. VII, § 7402(a)(1)-(2).

eligible equipment and/or services needed to support remote learning during the COVID-19 pandemic.⁴⁵ The ECF program provides funding to connect students, school staff, and library patrons who would otherwise be unable to fully engage in remote learning and included funding for the purchase of Wi-Fi hotspots and services for use at locations, including locations other than at their school or library, among the eligible equipment and services that are available through the program.⁴⁶

14. The Commission opened an initial ECF application filing window from June 29, 2021 to August 13, 2021,⁴⁷ and a second application filing window from September 28, 2021 to October 13, 2021, to allow schools and libraries to request ECF program support for eligible equipment and services to be provided or delivered between July 1, 2021 and June 30, 2022 for students, school staff, and library patrons with unmet needs.⁴⁸ During the first two filing windows, applicants requested over \$6.4 billion in ECF support.⁴⁹ In view of the outstanding demand, the Bureau opened a third application filing window from April 28, 2022 to May 13, 2022, during which applicants could request support for eligible equipment and up to 12 months of recurring services to be provided or delivered between July 1, 2022 and December 31, 2023 for students, school staff, and library patrons with unmet needs.⁵⁰ Applicants requested over \$2.81 billion during the final ECF filing window with demand exceeding the amount of available funding.⁵¹ Pursuant to ECF rules, the remaining funding is being prioritized to schools and libraries with the greatest need,⁵² and the current service delivery deadline for these ECF third window funding requests for equipment, and recurring and nonrecurring services is June 30, 2024.⁵³

⁴⁵ See generally *Establishing the Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Report and Order, 36 FCC Rcd 8696 (2021) (*Emergency Connectivity Fund Report and Order*).

⁴⁶ See, e.g., *id.* at 8708, 8712-13, paras. 29, 35 (allowing schools and libraries to use ECF support to purchase Wi-Fi hotspots and commercially available Internet access services to provide off-premises broadband connections to students, school staff, and library patrons who otherwise lack sufficient broadband access).

⁴⁷ News Release, FCC, FCC Announces Emergency Connectivity Fund Application Window Will Open on June 29 (June 15, 2021), <https://www.fcc.gov/document/emergency-connectivity-fund-application-window-opens-june-29> (*First ECF Application Window News Release*).

⁴⁸ News Release, FCC, FCC Announces Over \$5 Billion in Funding Requests Received in Emergency Connectivity Fund Program (Aug. 25, 2021), <https://www.fcc.gov/document/fcc-announces-over-5-billion-emergencyconnectivity-fund-requests> (*Second ECF Application Window News Release*). On February 22, 2022, the Bureau waived and extended the service delivery deadline for ECF first and second window funding requests for equipment, other non-recurring services, and recurring services from June 30, 2022 to June 30, 2023. See *Establishing Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Order, 37 FCC Rcd 1915, 1917, para. 8 (WCB 2022). See also *infra* n.53 (explaining additional waivers and extensions of the service delivery deadlines).

⁴⁹ *Wireline Competition Bureau Announces Third Application Filing Window for the Emergency Connectivity Fund Program*, WC Docket No. 21-93, Public Notice, DA 22-309, 2022 WL 867322, at *3 (WCB Mar. 23, 2022) (*Third ECF Application Window PN*).

⁵⁰ *Id.*

⁵¹ News Release, FCC, FCC Announces Over \$2.8 Billion in Funding Requests for Final Window in Ongoing Work to Close the Homework Gap (May 25, 2022), <https://docs.fcc.gov/public/attachments/DOC-383685A1.pdf> (*Third ECF Application Window News Release*).

⁵² See 47 CFR § 54.1708(c).

⁵³ See 47 CFR § 54.1711(e)(2). On April 5, 2023, the Schools, Health, and Libraries Broadband (SHLB) Coalition and the Consortium for School Networking (CoSN) filed a request for a waiver asking to extend the service delivery deadline for Windows 1 and 2 applications that received funding commitment decisions after March 1, 2022, and all Window 3 applications to June 30, 2024. See Petition of Schools, Health & Libraries Broadband Coalition and Consortium for School Networking, WC Docket No. 21-93, at 6-7 (filed Apr. 5, 2023), <https://www.fcc.gov/ecfs/filing/104051359207045>. The request was granted, in part, in the *May 2023 Service Delivery Deadline Extension Order*, which extended the service delivery date for certain applicants who applied for (continued....)

15. Further, we note that the U.S. Department of Health and Human Services (HHS) permitted the COVID-19 public health emergency to expire on May 11, 2023,⁵⁴ triggering the ECF program's statutory requirement to sunset on the June 30 that first occurs one year after the date that the Secretary of HHS determines that a public health emergency no longer exists – i.e., June 30, 2024.⁵⁵ In preparation for the impending end of the ECF program, several stakeholders have echoed earlier requests to continue the ECF-funded off-premises connectivity services and devices for students and library patrons with unmet needs through the E-Rate program.⁵⁶

16. Online instruction and remote learning are poised to continue post-pandemic, with parents, students, teachers, and library patrons increasingly embracing digital learning opportunities after the end of the pandemic emergency,⁵⁷ and with 30% of school districts and charter management organizations either considering or implementing an online or hybrid approach to K-12 education.⁵⁸ In fact, pre-pandemic data showed that up to 70% of teachers assigned homework requiring an Internet connection and almost half of K-12 students were required to complete online homework daily.⁵⁹ Similarly, libraries have accelerated their reliance on digital technology and content, increasing the use of digital collections and online programs.⁶⁰ According to the 2020 Public Library Technology Survey, at least 36.7% of public libraries employ dedicated staff for digital literacy and technology programs and

ECF support in the first, second, and third filing windows but did not receive a funding commitment decision letter (FCDL) or revised funding commitment decision letter (RFCDL) early enough to make full use of the committed funding or were approved for new construction services but were unable to use the full amount of their approved funding for monthly recurring services associated with the construction. *See Establishing Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Order, DA 23-405, 2023 WL 3579192 (WCB May 12, 2023) (*May 2023 Service Delivery Deadline Extension Order*).

⁵⁴ The Public Health Emergency concerning COVID-19 was originally declared on January 30, 2020 “as in existence since January 27, 2020,” by the Secretary of HHS, pursuant to section 319 of the Public Health Service Act. *See* 47 U.S.C. § 247d. The public health emergency has been renewed repeatedly, most recently on February 11, 2023. Although the COVID-19 national emergency declared pursuant to section 202 of the National Emergencies Act (50 U.S.C. § 1622) terminated on April 10, 2023, when President Biden signed bipartisan congressional resolution H.J. Res. 7, the public health emergency declared by HHS pursuant to section 319 of the Public Health Service Act expired on May 11, 2023. *See* News Release, Department of Health and Human Services (HHS), HHS Secretary Xavier Becerra Statement on End of the COVID-19 Public Health Emergency (May 11, 2023), <https://www.hhs.gov/about/news/2023/05/11/hhs-secretary-xavier-becerra-statement-on-end-of-the-covid-19-public-health-emergency.html>; Department of Health and Human Services (HHS), COVID-19 Public Health Emergency (PHE), <https://www.hhs.gov/coronavirus/covid-19-public-health-emergency/index.html> (last visited Oct. 31, 2023).

⁵⁵ *See* H.R. 1319, tit. VII, § 7402(d)(5)(B).

⁵⁶ *See, e.g.*, Letter from Debra Duardo, Superintendent, Los Angeles County Office of Education and Los Angeles County Library et al., to Jessica Rosenworcel, Chairwoman, FCC, WC Docket No. 21-476, at 2 (filed Feb. 16, 2022) (Los Angeles Schools and Library *Ex Parte*) (urging the Commission to consider the off-premises use of E-Rate supported services to enable remote learning an educational purpose and to modify E-Rate rules to support devices funded by the ECF program, including Wi-Fi hotspots).

⁵⁷ Natasha Singer, *Online Schools Are Here to Stay, Even After the Pandemic* (Apr. 11, 2021), <https://www.nytimes.com/2021/04/11/technology/remote-learning-online-school.html>.

⁵⁸ Common Sense 2022 Report at 7.

⁵⁹ School on Wheels, *The Impact of the Digital “Homework Gap” on our Students* (Nov. 21, 2019), <https://schoolonwheels.org/the-impact-of-the-digital-homework-gap-on-our-students/>; Alia Wong, *Why Millions of Teens Can’t Finish Their Homework* (Oct. 30, 2018), <https://www.theatlantic.com/education/archive/2018/10/lacking-internet-millions-teens-cant-do-homework/574402/>.

⁶⁰ Dave Shumaker, *The Next Normal: The Post-Pandemic Future of Library Services* (Apr. 27, 2021), <https://newsbreaks.infotoday.com/NewsBreaks/The-Next-Normal-The-PostPandemic-Future-of-Library-Services-146346.asp>.

training, while some form of digital literacy programming is offered by more than 88% of public libraries.⁶¹ Embracing digital options has allowed libraries to “overcome transportation and distance barriers and attract attendees from a wider geographic area than programs offered solely in person in a single branch library.”⁶² Taken together, this data signals that although schools and libraries have returned to in-person operations, Internet access remains necessary to fully engage in educational opportunities that arise outside of the physical confines of school and library buildings and after the close of the traditional school day. As noted by the Center on Reinventing Public Education, “[v]irtual learning is not going away, but it must improve, especially for students of color and those facing economic insecurity.”⁶³

III. DISCUSSION

17. Today, we propose to modernize the E-Rate program in recognition of the technologically advanced educational needs of students, school staff, and library patrons that persist even when they are not physically at their school or library, by making the off-premises use of Wi-Fi hotspots and services eligible for E-Rate support. Broadband access is proven to improve individuals’ educational outcomes, while lack of access has been shown to severely hamper educational opportunities.⁶⁴ Yet, for years, the adoption of broadband connectivity in today’s educational settings has outpaced the adoption of broadband connectivity in the homes of students, school staff, and library patrons throughout the country.⁶⁵ As a result, students, school staff, and library patrons who lack adequate access to broadband connectivity are left further and further behind.⁶⁶ Over the course of the last two years, the ECF program

⁶¹ Public Library Association, 2020 Public Library Technology Survey at 2, 6-7, 20 (2020), <https://www.ala.org/pla/sites/ala.org.pla/files/content/data/PLA-2020-Technology-Survey-Summary-Report.pdf>.

⁶² Dave Shumaker, *The Next Normal: The Post-Pandemic Future of Library Services* (Apr. 27, 2021), <https://newsbreaks.infotoday.com/NewsBreaks/The-Next-Normal-The-PostPandemic-Future-of-Library-Services-146346.asp>.

⁶³ The Center on Reinventing Public Education, *Virtual Learning, Now and Beyond* (January 2022), <https://crpe.org/wp-content/uploads/final2-Virtual-learning-post-COVID-report.pdf>.

⁶⁴ See Common Sense Media, Boston Consulting Group, & Southern Education Foundation, *Looking Back, Looking Forward: What it Will Take to Permanently Close the K-12 Digital Divide* at 8 (2021), https://www.common Sense Media.org/sites/default/files/featured-content/files/final_-_what_it_will_take_to_permanently_close_the_k-12_digital_divide_vfeb3.pdf (explaining that historically, students caught in the digital divide have had overall GPAs about 0.4 points lower than students with Internet access, leading to a 4% to 6% lower expected annual income for disconnected students); Michigan State University, *Broadband and Student Performance Gaps* at 33, 48 (2020), https://quello.msu.edu/wp-content/uploads/2020/03/Broadband_Gap_Quello_Report_MSU.pdf (finding that students on the wrong side of the digital divide tend to have lower overall GPAs and middle and high school students with high-speed Internet access at home benefit from increased digital skills, higher grades, better performance on standardized tests, and are more likely to attend college); John B. Horrigan and Maeve Duggan, *The Growing Value People Place on Broadband* (Dec. 21, 2015), <https://www.pewresearch.org/internet/2015/12/21/2-the-growing-value-people-place-on-broadband/> (reporting that lack of Internet access is considered a major disadvantage to finding job opportunities, accessing government services, getting health information, or accessing other key information).

⁶⁵ See EducationSuperHighway, *Overcoming the Barriers to Broadband Adoption* at 3 (2021), <https://www.educationsuperhighway.org/wp-content/uploads/Broadband-Adoption-Center-Whitepaper.pdf> (listing affordability as the number one cause of the digital divide); Anna Read, *How Can the United States Address Broadband Affordability* (Apr. 29, 2022), <https://www.pewtrusts.org/en/research-and-analysis/articles/2022/04/29/how-can-the-united-states-address-broadband-affordability> (discussing the related but distinct concepts of high average monthly costs for home broadband connections and cost as a barrier to broadband adoption for low-income families).

⁶⁶ See Michael Calabrese and Amir Nasr, *The Online Learning Equity Gap Innovative Solutions to Connect All Students at Home, Pandemic Disruption from Homework Gap to Remote Learning Chasm*, Open Technology Institute, <https://www.newamerica.org/oti/reports/online-learning-equity-gap/i-pandemic-disruption-from->

(continued....)

has bridged some of the gap between individuals with home broadband access and individuals caught on the wrong side of the digital and educational divide. Schools and libraries have maximized their limited ECF funding by establishing Wi-Fi hotspot lending programs,⁶⁷ and ensuring that as many students, school staff, and library patrons in need as possible had access to broadband connectivity outside of the school or library building.⁶⁸ With ECF support, approximately 6,800 schools, libraries, and consortia of schools and libraries purchased Wi-Fi hotspot devices and associated services, and were able to provide much-needed mobile broadband connectivity through ECF-funded Wi-Fi hotspots to more than 1.1 million students, school staff, and library patrons who otherwise lacked Internet access services sufficient to engage in remote learning.⁶⁹ In this NPRM, we seek to continue supporting ECF-funded broadband connectivity and propose to allow E-Rate support to fund the off-premises use of Wi-Fi hotspots and services to ensure that the students, school staff, and library patrons who lack broadband connectivity remain supported after the ECF program sunsets. We also seek comment on how the Commission can implement funding for the off-premises use of Wi-Fi hotspots and services within existing E-Rate program processes, what actions are necessary to safeguard these critical funds from any potential waste, fraud, or abuse, and our authority to adopt the measures described in this NPRM.

A. Making Off-Premises Use of Wi-Fi Hotspots and Services Eligible for E-Rate Support

18. We propose to permit schools and libraries to receive E-Rate support for Wi-Fi hotspots and services that can be used off-premises by students, school staff, and library patrons, finding that these services serve a critical educational purpose and enhance the ability of students, school staff, and library patrons to access advanced telecommunications and information services. We seek comment on this proposal and, if adopted, how best to implement the proposed measures in a manner that ensures that schools and libraries target their students, school staff, and library patrons who lack Internet access, while simultaneously protecting limited E-Rate funds. In particular, we seek information and data from schools and libraries that have used Wi-Fi hotspots and services for remote learning and/or implemented Wi-Fi hotspot lending programs to provide service to students, school staff, and library patrons who would otherwise lack broadband access outside of their school or library.

1. Equipment and Service Eligibility

19. In proposing to make Wi-Fi hotspot devices eligible for E-Rate support, we seek

[homework-gap-to-remote-learning-chasm](#) (last updated Nov. 17, 2020) (projecting that students could face a 9.1% loss in lifetime earnings due to the significant learning loss that could occur after a year of school closures); Emma Dorn, Bryan Hancock, Jimmy Sarakatsannis, and Ellen Viruleg, *COVID-19 and Learning Loss – Disparities Grow and Students Need Help*, McKinsey & Company (Dec. 8, 2020), <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-learning-loss-disparities-grow-and-students-need-help> (“Students on average could lose five to nine months of learning by the end of June 2021.”).

⁶⁷ See, e.g., Brad Grimes, *Libraries Loan Mobile Devices and Laptops as a Vital Service* (Apr. 25, 2022), <https://statetechmagazine.com/article/2022/04/libraries-loan-mobile-devices-and-laptops-vital-service> (reporting how Harris County Public Libraries in Texas created a long-term lending program to allow their patrons to check-out Wi-Fi hotspots); Taylor Griffith, *Coolidge Library Adds Wi-Fi Hotspot Lending Program to Growing List of Amenities* (June 8, 2022), https://www.pinalcentral.com/coolidge_examiner/news/coolidge-library-adds-wi-fi-hotspot-lending-program-to-growing-list-of-amenities/article_57e71748-0b40-58af-abe4-e80153852d4a.html (explaining how a library in Arizona coordinated a lending program with ECF support to connect its patrons who cannot take advantage of the public Wi-Fi service available at the library).

⁶⁸ See, e.g., Caroline LeCour, *Waterbury Public Schools to Give Free Internet Access to Families* (Nov. 10, 2021), <https://www.nbcconnecticut.com/news/local/waterbury-public-schools-to-give-free-internet-access-to-families/2648588/> (using ECF support to provide one year of Wi-Fi hotspot service to students for remote learning).

⁶⁹ See Universal Service Administrative Company, *Emergency Connectivity Fund FCC Form 471*, <https://opendata.usac.org/Emergency-Connectivity-Fund/Emergency-Connectivity-Fund-FCC-Form-471/i5j4-3rvr> (last visited Oct. 31, 2023) (reporting data on what Wi-Fi hotspot devices and services have been requested in the ECF program to date).

comment on what devices should be covered. In the ECF program, a Wi-Fi hotspot is defined as a device that is capable of (a) receiving advanced telecommunications and information services; and (b) sharing such services with a connected device through the use of Wi-Fi.⁷⁰ For the E-Rate program, we propose to limit eligibility to Wi-Fi hotspots receiving mobile services and seek comment on whether this is the right approach. Are there any devices that perform the same functions as a Wi-Fi hotspot that are not covered by this definition and that should be included? Conversely, is the ECF program's definition of Wi-Fi hotspot overinclusive and could it encompass devices that go beyond the intended purpose of meeting the remote learning needs of students, school staff, and library patrons with unmet need? We encourage commenters to provide specific examples of any equivalent or similar equipment and/or services, or equipment and/or services that should be considered ineligible. Should Wi-Fi hotspots be treated as internal connections, as the State of Colorado has argued?⁷¹ We note that in defining the scope of E-Rate program eligibility for internal connections, the Commission has previously declined to support "computers and other peripheral equipment" because it found that only equipment that is an essential element in the transmission of information is eligible (e.g., internal connections).⁷² We seek comment on whether Wi-Fi hotspot devices are "peripheral equipment" or if they serve the necessary transmission function contemplated by the Commission to be considered internal connections, like wireless access points.

20. Consistent with the ECF program, we also propose to limit Wi-Fi hotspot device eligibility to Wi-Fi hotspots for individual users. We propose to treat as ineligible multi-user hotspot devices or smartphones. We seek comment on this proposal. Additionally, the ECF rules limited support to the purchase of one Wi-Fi hotspot device per student, school staff member, or library patron.⁷³ Should we similarly adopt a per-user limitation in the E-Rate program or consider a per-household limit? What should that limit be? Is an individual Wi-Fi hotspot capable of connecting more than one user at a time without degrading the quality of the connectivity or compromising connectivity altogether? In considering whether to impose some limit, we seek to balance the goals of administrative ease, such as implementing a simple one-per-household limit, with the needs of all households, including multi-student households. Some sources state that Wi-Fi hotspot devices have a useful life of three to five years.⁷⁴ In commenters' experience, is this the typical length of the useful life of Wi-Fi hotspots? If we fund Wi-Fi hotspots, should we limit their eligibility to purchases made once every three years or adopt some other eligibility timeframe? We seek comment on these questions and request that commenters provide any available supporting data.

21. With respect to wireless Internet access services, we propose to limit the use of services to those that can be supported by and delivered with Wi-Fi hotspots provided to an individual user (as opposed to multi-user hotspots). Pursuant to this proposal, schools and libraries would be able to seek E-Rate support for commercially available Internet access services (e.g., a data plan) that will be used on any individual user Wi-Fi hotspot, including E-Rate- or ECF-funded hotspots, previously purchased

⁷⁰ See 47 CFR § 54.1700(m).

⁷¹ Colorado Petition at 6 ("Wi-Fi hotspots are internal connections, functionally akin to the Wi-Fi routers that distribute wireless connectivity from a school's network to students and teachers in physical classrooms.").

⁷² See *Federal State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9021-22, paras. 459-60 (1997) (*First Universal Service Order*).

⁷³ *Emergency Connectivity Fund Report and Order*, 36 FCC Rcd at 8725, para. 54. The Commission did not adopt a per-location limitation on Wi-Fi hotspot devices and services, like it did for fixed broadband connections, finding that such a limitation would be impracticable because Wi-Fi hotspots can be easily moved and multi-student households may require more than one Wi-Fi hotspot. *Id.* at para. 55.

⁷⁴ Larry Baltazar, *How Long Do Wireless Access Points Last* (Sept. 6, 2021), <https://www.nextgenmultimedia.com/how-long-do-wireless-access-points-last>; Worldlink Integration Group, *Network Infrastructure – A Guide to Maintenance, Repairs, Upgrades, and Replacements at 2* (2015), <http://worldlinkintegration.com/wp-content/uploads/2015/02/Network-Infrastructure-Maintenance-Final.pdf>.

hotspots, and/or student-, staff member-, or patron-owned hotspots. We seek comment on this proposal. We also seek comment on the quality of Internet access services that should be eligible for support through the E-Rate program. For example, should we adopt minimum service standards? We invite input on the level of service that is needed to support remote learning, based on the direct experiences of providing Wi-Fi hotspots to students, school staff, and library patrons during the pandemic. Should we limit support to just the off-premises use of the recurring Internet access services needed for remote learning (and not the Wi-Fi hotspot equipment)? We expect this limitation could allow schools and libraries with existing Wi-Fi hotspot lending programs to continue to lend or check-out a portable Wi-Fi hotspot device with a mobile broadband connection to students, school staff, or library patrons for off-premises access to the Internet. If we decide not to make Wi-Fi hotspot devices eligible, how should we address Wi-Fi hotspot devices that are bundled with services? Are there benefits or disadvantages if the Commission limits E-Rate support to only services, and does not include Wi-Fi hotspot devices as eligible for support? Should we limit eligibility to the services associated with the Wi-Fi hotspots purchased using ECF program funds? Would this limitation help to ensure E-Rate support is directed to students, school staff, and library patrons who are expected to lose their connectivity when the ECF program sunsets? Are there other issues or concerns the Commission should consider when determining how to fund Wi-Fi hotspot devices and/or services? For example, how should leased or bundled equipment and service packages offered by providers be treated and should they be eligible for E-Rate support?⁷⁵ We seek comment on these questions.

2. Cost-Effective Purchases

22. Next, we seek comment on how to ensure schools and libraries purchase the most cost-effective service offering(s) when selecting Wi-Fi hotspots and services for students, school staff, and library patrons who lack access to broadband. Are the requirements to pay the non-discounted share of costs and conduct competitive bidding sufficient incentives to prevent wasteful spending? We also seek comment on the anticipated costs of the Wi-Fi hotspots and services if provided on a program-wide basis. We encourage schools, libraries, and other stakeholders to provide in their comments specific information about the devices and services purchased through the ECF program or with other funding, the costs, the device and service parameters, any steps they have taken to ensure the sufficiency of the service, and any steps they have taken to lower costs associated with Wi-Fi hotspots and service. The anticipated costs should consider and describe any secondary components, such as additional hotspot features, different bandwidth capabilities, and any reasonable fees incurred with the purchase of Wi-Fi hotspots and services.

23. We next ask about cost-control mechanisms. Should we adopt a cap on the amount of costs that will be considered cost-effective for Wi-Fi hotspots and/or monthly services, and if so, should we rely on ECF program data to establish a cap for a Wi-Fi hotspot provided to an individual user?⁷⁶ For services, the Affordable Connectivity Program (ACP) provides discounts of up to \$30 per month towards Internet service (or up to \$75 per month for eligible households on qualifying Tribal lands). Are these reasonable caps on what the Commission might consider cost-effective for monthly service? Should we use different amounts for the monthly reimbursement of these services in the E-Rate program, and if so, what amounts should be used? If the Commission adopts caps on the amounts considered cost-effective

⁷⁵ We note that many service providers, such as T-Mobile, offered Wi-Fi hotspots free of charge with mobile broadband services provided to schools and libraries with ECF support. See Universal Service Administrative Company, *Emergency Connectivity Fund FCC Form 471*, <https://opendata.usac.org/Emergency-Connectivity-Fund/Emergency-Connectivity-Fund-FCC-Form-471/i5j4-3rvr> (last visited Oct. 31, 2023) (reporting data on what Wi-Fi hotspot devices and services have been requested in the ECF program to date).

⁷⁶ Based on the ECF program data, the average cost of a Wi-Fi hotspot is \$107.80 and monthly service is \$15.44/month. See Universal Service Administrative Company, *Emergency Connectivity Fund FCC Form 471*, <https://opendata.usac.org/Emergency-Connectivity-Fund/Emergency-Connectivity-Fund-FCC-Form-471/i5j4-3rvr> (last visited Mar. 15, 2023) (reporting data on Wi-Fi hotspots and services that have been requested in the ECF program to date).

for monthly services, should those caps be regularly updated, and if so, what mechanism should the Commission use to make those updates? What requirements should we implement to ensure service providers in these underserved areas provide the most cost-effective services to eligible schools and libraries if a higher amount is allowed for support? We seek comment on these questions.

24. Relatedly, under the Commission's E-Rate rules, applicants are required to conduct fair and open competitive bidding when requesting funding for eligible services.⁷⁷ The competitive bidding requirements are a cornerstone of the E-Rate program and are critical to ensuring that applicants obtain the most cost-effective offering available.⁷⁸ However, we recognize that there may be challenges associated with conducting competitive bidding for off-premises wireless services that can be used from multiple locations. How can we ensure applicants conduct fair and open competitive bidding for off-premises wireless services while also ensuring students, school staff, and library patrons can access those services from locations other than their school or library? For instance, in geographically large districts, a single service provider may not be able to provide service throughout the school's or library's service area. Should we allow applicants to select multiple service providers for Wi-Fi hotspots and services based on the geographic area(s) of their students, school staff, and library patrons? How can we ensure that applicants select the most cost-effective service offerings? Are there competitively-bid state or other master contracts available for schools and libraries to purchase Wi-Fi hotspot devices and services for off-premises use? Are there any other issues that schools and libraries may encounter during their competitive bidding processes for Wi-Fi hotspots and services to be used off-premises that the Commission should also consider?

B. Funding and Prioritization

25. Based on our experience funding Wi-Fi hotspots and services through the ECF program, we tentatively find that taking this step toward addressing the educational needs of millions of students, school staff, and library patrons caught in the digital and educational divide is also technically feasible and economically reasonable, consistent with section 254(h)(2)(A) of the Communications Act.⁷⁹ We estimate that approximately 4.5 million students, school staff, and library patrons received mobile broadband service and/or hotspots through the ECF program for the 2021-2022 school year, with an average cost of approximately \$294 per user per year.⁸⁰ We seek comment on this estimate, and any data and numerical evidence that can be used to support or update our estimate. Given that the demand for E-Rate program funding has consistently fallen below the program's funding cap in recent years,⁸¹ we

⁷⁷ See 47 CFR § 54.503.

⁷⁸ See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9029, para. 480 (1997); see also *Request for Review of the Decision of the Universal Service Administrator by Ysleta Independent School District*, CC Docket No. 02-6, Order, 18 FCC Rcd 26407, 26417, para. 22 (2003) ("Competitive bidding for services eligible for discount is a cornerstone of the E-rate program . . .").

⁷⁹ 47 U.S.C. § 254(h)(2)(A).

⁸⁰ See Universal Service Administrative Company, *Emergency Connectivity Fund FCC Form 471*, <https://opendata.usac.org/Emergency-Connectivity-Fund/Emergency-Connectivity-Fund-FCC-Form-471/i5j4-3rvr> (last visited May 19, 2023) (reporting data on Wi-Fi hotspot devices and services that have been requested in the ECF program to date). The average cost is derived from combining the ECF data for (1) the average cost of Wi-Fi hotspots (\$107.80 per device) and (2) the average cost of mobile broadband services per user, per year (\$15.44 per user, per month, for twelve months). We note that certain added costs like taxes are not captured in these figures, nor are certain proposals considered in this NPRM, such as limiting support to nine months to account for summer break. The estimated number of mobile broadband connections and/or hotspots provided through the ECF program is derived from ECF data for funded Window 1 and Window 2 funding requests for mobile broadband and hotspot devices, excluding requests for school bus hotspots, services on school buses, and other multi-user routers and devices.

⁸¹ For example, for funding year 2023, the funding cap is \$4.768 billion and demand is an estimated \$2.944 billion. See *Wireline Competition Bureau Announces E-Rate and RHC Programs' Inflation-Based Caps for Funding Year* (continued....)

believe the cost of funding Wi-Fi hotspots and services for off-premises use could be accomplished within the E-Rate program's existing budget, and the potential increase in program disbursements would result in a substantial benefit to students, school staff, and library patrons stuck on the wrong side of the digital and educational divide, and in the Homework Gap across the country.⁸² We seek comment on our tentative conclusion.

26. Commenters are also invited to address whether the number of students, school staff, and library patrons that received mobile broadband service through Wi-Fi hotspots in the ECF program provides an accurate basis for estimating demand if we permit mobile broadband service and Wi-Fi hotspots for off-premises use to be funded with E-Rate support, particularly given that not all E-Rate participants applied for the ECF program, and other federal or state funding may have also been used for this purpose during the pandemic. We request additional information on whether there are schools and libraries that did not apply for ECF support that would apply for E-Rate support for the off-premises use of Wi-Fi hotspots and services. In addition, we seek comment on whether the ECF program's \$294 estimated average cost per user provides an accurate basis for estimating the potential cost to the E-Rate program of supporting Wi-Fi hotspots and mobile broadband service for off-premises use, provided we reduce that amount by the average discounted share that will be paid by schools and libraries. Is this estimated cost too high, given the ECF program was an emergency program and there were not program-

2023, CC Docket No. 02-6, WC Docket No. 02-60, Public Notice, DA 23-178, 2023 WL 2436840 (WCB Mar. 3, 2023); Letter from Craig Davis, Vice President, Schools and Libraries Division, USAC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC (Mar. 29, 2023), <https://www.fcc.gov/ecfs/filing/10329233636144>. The demand for E-Rate program funding has fallen below the program's funding cap every year since funding year 2016. See *Wireline Competition Bureau Announces E-Rate and RHC Programs' Inflation-Based Caps for Funding Year 2022*, CC Docket No. 02-6, WC Docket No. 02-60, Public Notice, 37 FCC 3458 (WCB 2022) (announcing an E-Rate cap of \$4.456 billion); Letter from Craig Davis, Vice President, Schools and Libraries Division, USAC, to Trent Harkrader, Chief, Wireline Competition Bureau, FCC (Mar. 23, 2022), <https://www.fcc.gov/ecfs/filing/103233066426383> (estimating a demand of \$3.15 billion); *Wireline Competition Bureau Announces E-Rate and RHC Programs' Inflation-Based Caps for Funding Year 2021*, CC Docket No. 02-6, WC Docket No. 02-60, Public Notice, 36 FCC Rcd 5670 (WCB 2021) (announcing an E-Rate cap of \$4.276 billion); Letter from Craig Davis, Vice President, Schools and Libraries Division, USAC, to Kris Monteith, Chief, Wireline Competition Bureau, FCC (Mar. 26, 2021), <https://www.fcc.gov/ecfs/document/10326316124619/1> (estimating a demand of \$3.03 billion); *Wireline Competition Bureau Announces E-Rate and RHC Programs' Inflation-Based Caps for Funding Year 2020*, CC Docket No. 02-6, WC Docket No. 02-60, Public Notice, 35 FCC Rcd 2062 (WCB 2020) (announcing an E-Rate cap of \$4.226 billion); Letter from Craig Davis, Vice President, Schools and Libraries Division, USAC, to Kris Monteith, Chief, Wireline Competition Bureau, FCC (May 1, 2020), <https://www.fcc.gov/ecfs/document/105010270124617/1> (estimating a demand of \$2.91 billion); *Wireline Competition Bureau Announces E-Rate and RHC Programs' Inflation-Based Caps for Funding Year 2019*, CC Docket No. 02-6, WC Docket No. 02-60, Public Notice, 34 FCC Rcd 1138 (WCB 2019) (announcing an E-Rate cap of \$4.151 billion); Letter from Catriona Ayer, Vice President, Schools and Libraries Division, USAC, to Kris Monteith, Chief, Wireline Competition Bureau, FCC (Apr. 1, 2019), <https://www.fcc.gov/ecfs/document/1040110172922/1> (estimating a demand of \$2.896 billion); *Wireline Competition Bureau Announces E-Rate Inflation-Based Cap for Funding Year 2018*, CC Docket No. 02-6, Public Notice, 33 FCC Rcd 1923 (WCB 2018) (announcing an E-Rate cap of \$4.062 billion); Letter from Catriona Ayer, Vice President, Schools and Libraries Division, USAC, to Kris Monteith, Chief, Wireline Competition Bureau, FCC (Apr. 17, 2018), <https://www.fcc.gov/ecfs/document/10417600427057/1> (estimating a demand of \$2.77 billion); *Wireline Competition Bureau Announces E-Rate Inflation-Based Cap for Funding Year 2017*, CC Docket No. 02-6, Public Notice, 32 FCC Rcd 1869 (WCB 2017) (announcing an E-Rate cap of \$3.990 billion); Letter from Craig Davis, Vice President, Schools and Libraries Division, USAC, to Kris Monteith, Chief, Wireline Competition Bureau, FCC (May 17, 2017), <https://www.fcc.gov/ecfs/document/1051779766937/2> (estimating a demand of \$3.20 billion); *Wireline Competition Bureau Announces E-Rate Inflation-Based Cap for Funding Year 2016*, CC Docket No. 02-6, Public Notice, 31 FCC Rcd 4446 (WCB 2016) (announcing an E-Rate cap of \$3.939 billion); Letter from Mel Blackwell, Vice President, Schools and Libraries Division, USAC, to Matthew DelNero, Chief, Wireline Competition Bureau, FCC (June 6, 2016), <https://www.fcc.gov/ecfs/document/60001988759/1> (estimating a demand of \$3.609 billion).

⁸² See *supra* note 64.

specific competitive bidding rules, unlike for the E-Rate program, which requires competitive bidding and for applicants to select the most cost-effective service offering using prices of the eligible services as the primary factor? How should we account for the average three-year lifespan of Wi-Fi hotspot devices and the fact that many users will be able to continue to use devices funded through ECF after the sunset of the program, as well as funded through the other state and federal programs? For example, how can we prevent parties from replacing ECF-funded Wi-Fi hotspots with new Wi-Fi hotspots funded through the E-Rate program before the ECF-funded equipment reaches its end-of-life (EOL)? Could the FCC manage the potential costs to the E-Rate program by establishing limits on the amount of support dedicated to the off-premises use of Wi-Fi hotspots and services? We seek comment on these questions.

27. We acknowledge that there are some circumstances where Wi-Fi hotspots and services may not meet the connectivity needs of all students, school staff, and library patrons caught in the Homework Gap. We also acknowledge that some schools and libraries used ECF funding for other remote learning solutions, such as building their own fixed wireless networks, and may also seek to use E-Rate funding to continue providing connectivity to their students, school staff, or patrons after the ECF program sunsets. While we recognize that there may be other off-premises uses that may meet the definition of an educational purpose, these solutions also have the potential to be extremely costly to fund with the very limited E-Rate support and could be duplicative of funding made available through other state and federal programs. We seek comment on these conclusions. We believe that taking this initial, incremental step to fund Wi-Fi hotspots and services for off-premises use strikes the right balance and is consistent with our universal service goals. We also believe our proposal can be accomplished without excessive cost to the E-Rate program or significant administrative delay. We therefore propose to limit the scope of this NPRM to the off-premises use of Wi-Fi hotspots and services because we are mindful of our obligation to be a prudent, responsible steward of the limited E-Rate funding and our statutory directive to establish rules only to the extent it is “economically reasonable” to do so.⁸³ We invite comment on this proposal. Recognizing that there may be circumstances where there is either no commercially available mobile service or the existing service is insufficient to allow students, school staff, or library patrons to fully engage in remote learning, we seek comment on whether the Commission should consider alternatives for off-premises services funded through the E-Rate program in such limited circumstances and what alternatives should be considered. For example, should we permit schools and libraries to use existing E-Rate-funded networks to connect students, school staff, or library patrons off-premises in the narrow instances where commercially available mobile broadband is not a viable option (e.g., due to geographic challenges or cost)? We also seek comment on how the Commission should determine there is no commercially available service, or existing service is insufficient to support remote learning and how to ensure the alternative solutions are the most cost-effective way of providing service to students, school staff, and library patrons who otherwise are not able to fully engage in remote learning.

1. Prioritization

28. If the Commission makes students’, school staff members’, and library patrons’ off-premises use of Wi-Fi hotspots devices and services eligible, what category of service should these devices and services be? Under the current Eligible Services List, wireless Internet services are category one services and are eligible under limited circumstances.⁸⁴ Should we therefore consider Wi-Fi hotspots

⁸³ See *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18779, para. 32, n.102 (limiting E-Rate support to residential schools that serve unique populations, rather than *any* school with residential facilities, in order to be mindful of the potential impact that such a reform would have on the E-Rate program funding cap).

⁸⁴ *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, DA 22-1313, 2022 WL 17886489, at *7, 11 (WCB Dec. 14, 2022) (*FY2023 Eligible Services List Order*).

to be network equipment necessary to make category one wireless Internet services functional?⁸⁵ If we determine that Wi-Fi hotspots are comparable to internal connections as the State of Colorado suggests, should these devices be considered category two services?⁸⁶

29. Based on the Commission's experience in the ECF program and other publicly available information, we anticipate that our proposal to fund the off-premises use of Wi-Fi hotspots and services will result in an increase in E-Rate funding requests. In the event that E-Rate program demand exceeds its annual funding cap, we seek comment on how requests for the off-premises use of Wi-Fi hotspots and services should be prioritized. Are there measures the Commission should consider to ensure that E-Rate funding remains available for the currently-eligible category one and category two services that are needed by schools and libraries? Should these requests be prioritized after services and equipment needed to bring connectivity *to* and *within* schools and libraries (i.e., category one and category two services) are funded? Should we prioritize requests for services associated with the Wi-Fi hotspots purchased using ECF program funds? Will funding the off-premises use of Wi-Fi hotspot devices and services have any impact on other pending E-Rate-related eligibility requests, such as expanding basic firewall services to include advanced or next-generation firewall services?⁸⁷ Are there other ways to limit the financial impact of supporting the off-premises use of Wi-Fi hotspots and services? For example, should we consider an overall budget for these new off-premises services?⁸⁸ Should there be an annual funding cap for the amount of support that is available for the off-premises use of Wi-Fi hotspots and services? If so, what should the funding cap be? Should it be indexed to inflation? Alternatively, would a per-student limit, like the one used for category two funding budgets, help to ensure the limited E-Rate program support is distributed equitably to schools and libraries across the various discount rates? Should we implement these changes on an interim basis and subsequently assess whether to implement a permanent rule change based on our interim experience? We seek comment on these proposals and questions.

2. Unmet Need

30. We also recognize that there are insufficient E-Rate funds to support Wi-Fi hotspots and services for every student, school staff member, and library patron across the nation. Therefore, how can we prioritize support for students, school staff, and library patrons who do not have Internet access at home? In the ECF program, the Commission limited support to students, school staff, and library patrons without Internet access services sufficient to engage in remote learning. Through our experience in the ECF program, we understand that schools and libraries have faced challenges in determining which parts of their population needed access to Wi-Fi hotspots and services for the upcoming funding year. We therefore seek comment on administratively feasible ways to ensure the E-Rate program prioritizes support for Wi-Fi hotspots and services for use by students, school staff, or patrons who would otherwise lack access to Internet access services.

31. The ECF program limited support for eligible equipment and services to students, school staff, or library patrons with unmet need, and, because it was an emergency COVID-19 relief program, schools and libraries were required to provide only their best estimate of unmet need during the application stage. However, because the E-Rate program is not an emergency program, there is time for

⁸⁵ See *id.* See also *Emergency Connectivity Fund Report and Order*, 36 FCC Rcd at 8748, para. 111, n.301 (explaining that hotspots qualify as eligible "Network Equipment" for Internet access, Internet service, or internal connections in the ECF and E-Rate programs).

⁸⁶ See *supra* para. 19.

⁸⁷ See generally *Wireline Competition Bureau Seeks Comment on Requests to Allow the Use of E-Rate Funds for Advanced or Next-Generation Firewalls and Other Network Security Services*, WC Docket No. 13-184, Public Notice, DA 22-1315, 2022 WL 17886490 (WCB Dec. 14, 2022).

⁸⁸ In the *First 2014 E-Rate Order*, the Commission similarly set an annual budget of \$1 billion for category two services to ensure funds were focused on Wi-Fi networks, while protecting support for critical category one services. See *First 2014 E-Rate Order*, 29 FCC Rcd at 8898-8900, paras. 76, 78.

schools and libraries to determine the actual number of students, school staff, and library patrons with unmet needs. We seek comment on whether the Commission should adopt more stringent unmet needs requirements for the E-Rate program than it adopted for the ECF program. For example, should we require schools and libraries to conduct and submit as part of their funding requests a survey or other documentation that substantiates their student and school staff, or patron population who has current unmet needs? Would such a requirement raise any privacy concerns (e.g., insofar as such surveys would be intended to elicit information from potentially lower-income children, families, and individuals)? If this requirement would create privacy risks for students, families, and patrons, how could the Commission mitigate those risks (e.g., via data minimization, anonymization, or deidentification)? For example, would it be possible for schools and libraries to conduct such surveys without collecting any personally identifiable information (PII) from students, staff, or patrons, and what burdens would such a collection place on school and library resources? If schools and libraries would need to collect PII, should we require that all such information be removed from the survey results when submitted with funding requests?

32. Are there other ways that the Commission can ensure it focuses and targets the limited E-Rate program support to only students, school staff, and library patrons who currently lack broadband access—and who cannot afford it—so that the E-Rate program does not support services for students, school staff, or library patrons who already have broadband connectivity at their homes? For example, should we restrict the support of off-premises use of Wi-Fi hotspots and services to students whose parent or guardian certifies that they lack broadband at home and who are eligible for the free or reduced-price lunch program (also known as the National School Lunch Program or NSLP)? Are there any other school nutrition programs that a student's parent or guardian should be able to use to demonstrate eligibility under this approach, such as the School Breakfast Program? What burdens could conditioning support on NSLP participation impose on school administrators and/or students? If the Commission declines to use NSLP for determining eligibility, what other measures could be taken to ensure the limited E-Rate support is directed to the students with the greatest need? For school staff and library patrons, are there similar or alternative requirements that we should consider to ensure that E-Rate support is used towards existing unmet needs and to prevent waste, fraud, and abuse of the program? We seek comment on these questions and how to best target E-Rate funding to only students, school staff, and library patrons with the greatest need.

33. We further seek comment on whether there are certain school populations, such as Head Start and pre-kindergarten students, for whom the risks may outweigh the benefits of providing E-Rate support for the off-premises use of Wi-Fi hotspots and services. For example, studies show that children under the age of 5 should limit Internet access to one hour or less per day and are harmed if exposed to longer periods of use.⁸⁹ We propose that the Head Start program, which provides early learning and development for pre-school children from the ages of 3 to 5,⁹⁰ and pre-kindergarten students should be determined to be ineligible to receive E-Rate support for off-premises use of Wi-Fi hotspots and services. We note that Head Start and/or pre-kindergarten education facilities serving this particular age group may be eligible for E-Rate funding for broadband connectivity to and within their facilities, if determined to be elementary schools under their applicable state laws. Further, parents and guardians of Head Start students may be eligible for home Internet access services through ACP because Head Start is an income-based program and, to qualify, a family must be at or below the federal poverty level, or participate in a

⁸⁹ See, e.g., World Health Organization, Guidelines on Physical Activity, Sedentary Behaviour and Sleep For Children Under 5 Years of Age (Apr. 2, 2019), <https://www.who.int/publications/i/item/9789241550536> (recommending no more than one hour of screen time for children under 5 years of age).

⁹⁰ U.S. Department of Health and Human Services, Office of Head Start, *Head Start Services*, <https://www.acf.hhs.gov/ohs/about/head-start> (last visited June 23, 2023).

federal government assistance program.⁹¹ We seek comment on this proposal and other measures the Commission should take to ensure that the E-Rate program's limited support is targeted to students, school staff, and library patrons with the greatest need, as there is insufficient funding to support the off-premises use of Wi-Fi hotspots and services for every student, school staff member, and library patron.

C. Program Safeguards

34. We are mindful of our obligation to protect the Universal Service Fund (USF) and the USF programs from waste, fraud, and abuse, and take seriously our duty to be a careful steward of E-Rate program funds. We are similarly committed to ensuring the integrity of the E-Rate program and identify below potential tools at our disposal to ensure that the E-Rate program's funds are used for its intended purposes, i.e., to enhance and enable access to broadband services for educational opportunities for schools and libraries nationwide. We seek comment on what safeguards the Commission should consider imposing to protect the constrained E-Rate funds from waste, fraud, and abuse, and to prevent the imposition of unnecessary costs on the program.

1. Educational Purpose

35. We first seek comment on how to ensure that the off-premises use of Wi-Fi hotspots and services is primarily for educational purposes, consistent with the Commission's rules and section 254(h)(1)(B) of the Communications Act.⁹² The COVID-19 pandemic demonstrated the educational benefits of providing critical broadband connections to students, school staff, and library patrons and highlighted their reliance on interactive and collaborative remote learning outside the physical school or library building. We recognize that the use of eligible services on school or library property typically occurs under the supervision of school or library staff; whereas, the off-premises use of these services presents new concerns about ensuring the proper use of the E-Rate-funded equipment and services that are not directly supervised by the recipient of the funding. In balancing these benefits and concerns, we therefore seek comment on what safeguards should be imposed to mitigate the risk of off-premises non-educational use of E-Rate-supported Wi-Fi hotspots and services.

36. Currently, E-Rate participants are required to certify on program forms that supported services will be used primarily for educational purposes.⁹³ We seek comment on whether requiring schools and libraries to certify on their forms that E-Rate support is being used primarily for educational purposes is sufficient to protect against improper use or if additional guardrails should be imposed to ensure that services are used "primarily for educational purposes." For example, libraries that used ECF funding to connect their patrons through Wi-Fi hotspot lending programs are required to provide patrons with a copy of their eligible use policy and collect signed statements from patrons confirming that they would otherwise lack access to the equipment or services necessary to meet their educational needs.⁹⁴ Should we adopt a similar requirement in the E-Rate program and require schools and libraries to provide copies of their eligible use policies and collect signed documentation of user compliance from patrons,

⁹¹ FCC, *Affordable Connectivity Program*, <https://www.fcc.gov/acp> (last visited June 23, 2023) (explaining that households with incomes 200% or less than the Federal Poverty Guidelines or that participate in qualifying government assistance programs are eligible for ACP, and households that participate in Tribal Head Start programs are eligible for the Tribal benefit). To be eligible for Head Start, families must be at or below the federal poverty level or participate in a federal government assistance program (i.e., TANF, SNAP, or SSI). See HHS, Head Start/Early Education Learning & Knowledge Center, *Applying for Head Start Services*, <https://eclkc.ohs.acf.hhs.gov/how-apply> (last visited June 23, 2023).

⁹² See 47 U.S.C. § 254(h)(1)(B).

⁹³ 47 CFR §§ 54.503(c)(2)(ii)(A), 54.504(a)(1)(v) (requiring applicants to certify that E-Rate-supported services will be used primarily for educational purposes).

⁹⁴ See *Emergency Connectivity Fund Report and Order*, 36 FCC Rcd at 8737, para. 82; 47 CFR § 54.1710(a)(1)(viii) (requiring applicants to certify that support is only being requested for equipment/services provided to patrons who have signed and returned a statement of compliance).

school staff members, or parents/guardians of students to ensure the E-Rate-funded Wi-Fi hotspots and services are used solely by the intended recipient and serve an educational purpose? How can we ensure that the off-premises Wi-Fi hotspots and services are being used as intended by the individual student, school staff member, or library patron for educational purposes, and E-Rate funding is not being used to provide broadband connectivity for the whole family, for which there are more appropriate funding sources available, like the ACP? Should we require schools and libraries, as a condition of receiving E-Rate support for off-premises use, to include certain minimum requirements in their eligible use policies, or limit the duration of time a student, school staff member, or library patron can use the hotspot at home? Should, for example, schools and libraries be required to restrict access to the off-premises use of Wi-Fi hotspots and services to students, school staff, and patrons with appropriate credentials? What would constitute appropriate credentials? Should there be an annual verification process to establish continuing need and eligible use for students and school staff before the start of each school year? Should the documentation signed by users include a notice of potential consequences if a Wi-Fi hotspot is used improperly, including the return of the device and revocation of the associated service? Are there other actions that the Commission could take to help ensure the appropriate use of the E-Rate-funded Wi-Fi hotspots and services? We seek comment on these questions.

37. If we extend support to the off-premises use of Wi-Fi hotspots and services, we expect the support would be subject to the audits and reviews currently utilized in the E-Rate program (e.g., Beneficiary and Contributor Audit Program (BCAP) audits, Payment Quality Assurance (PQA) audits, and Payment Integrity Assurance (PIA) reviews and Selective Reviews (SR) of the FCC Form 471).⁹⁵ Are the current E-Rate audit and application/invoice review mechanisms sufficient to ensure that off-premises Wi-Fi hotspots and services are actively being used by eligible users primarily for educational purposes? Should we increase the number and frequency of random or targeted audits in the first few years of support as a means of detecting and preventing improper payments for Wi-Fi hotspots and services that are not needed, are not being used, are being used to provide home broadband connectivity to an entire family, or are not being used primarily for an educational purpose?⁹⁶ Are there other issues, such as privacy concerns, or changes we should consider for audits and reviews related to funding requests and disbursements for off-premises use of Wi-Fi hotspots and services? For example, because it is presumed to serve an educational purpose when the services are used on school or library property, how should we verify that the off-premises use of E-Rate-funded Wi-Fi hotspots and services are being used for educational purposes? Are there mechanisms or tools available that would allow for verifying compliance with E-Rate rules regarding the off-premises use of supported Wi-Fi hotspots and services that would *not* require review of users' online activities, browsing history, etc.? If not, should users receive advance notice that their use of an E-Rate-supported Wi-Fi hotspot and service is subject to audit, which may include review of their online activities and browsing history to verify compliance with the Commission's rules? We seek comment on these questions.

38. We also seek comment on what other requirements should be imposed to ensure schools and libraries are not requesting funding for more Wi-Fi hotspots and services than are necessary to meet the needs of only students, school staff, and library patrons who lack access to broadband and are used for educational purposes. For instance, schools and libraries may allow the community to use E-Rate-funded services from on-premises locations during non-operating hours, subject to certain conditions to ensure students always have the first priority to use the supported services and to protect against the waste, fraud,

⁹⁵ 47 CFR § 54.516 (b), (c).

⁹⁶ Compare USAC, *PQA Program*, <https://www.usac.org/about/appeals-audits/pqa-program/> (last visited Oct. 31, 2023) (explaining that the PQA program audits specific payments), and *Beneficiary and Contributor Audit Program (BCAP)*, <https://www.usac.org/about/appeals-audits/beneficiary-and-contributor-audit-program-bcap/> (last visited Oct. 31, 2023) (explaining that the BCAP program uses randomly-selected or targeted audits to ensure compliance with Commission rules and program requirements).

and abuse of the funds.⁹⁷ Are there similar conditions that the Commission should impose on the off-premises use of Wi-Fi hotspots and services to ensure applicants are not requesting excess services for non-educational purposes like video games or non-educational streaming services, and that students, school staff, and library patrons are receiving first priority in the use of school or library resources? Are there incidental uses that should be permissible, like telehealth appointments or filling out government forms, that would not result in a greater demand on E-Rate funding? We seek comment on these questions and invite input on what steps schools and libraries have taken to ensure the off-premises use of ECF-funded Wi-Fi hotspots and services were used only by the intended individual(s) and for educational purposes.

2. Usage

39. If the Commission makes off-premises use of Wi-Fi hotspots and services eligible, how can the Commission prevent the warehousing of Wi-Fi hotspots and reimbursement for unused equipment and/or services? Are there ways to prevent the purchase of “back-up” Wi-Fi hotspots, e.g., hotspots purchased in anticipation of loss, breakage, or additional unmet need? Should we adopt numerical criteria to assess usage: e.g., should usage below a weekly, monthly, or quarterly threshold of X hours be treated as “non-usage”? Should we require participants to provide evidence of usage and/or strengthen the certification requirements surrounding non-usage? For example, should we require the submission of data usage reports (i.e., reports on the *amount* of data used, not the *substance* of the usage) with requests for reimbursement to demonstrate the Wi-Fi hotspots and services were used by students, school staff, and library patrons as intended for the time period being invoiced to the E-Rate program? Should there be different usage requirements applicable to schools and libraries? How do we avoid having the E-Rate program pay for service to Wi-Fi hotspots during the summer, when students may not be using the devices? For example, should E-Rate support for schools be limited to only nine months per school year to prevent the E-Rate program from covering the costs of unused devices and/or services during the summer? Should the certifications regarding non-usage in the ECF program be strengthened for the E-Rate program?⁹⁸ How should the certifications be strengthened, and how could a school, library, or service provider demonstrate compliance with the certification requirements? We seek comment on these questions.

40. We also seek comment on how schools, libraries, and service providers should address non-usage issues. If the monthly usage report indicates that certain hotspot devices are not being used by the student, school staff member, or library patron, should the school or library be required to terminate the service to that device? Should the service provider be responsible for notifying the school or library which devices had no usage on a monthly basis and be required to terminate the service? Should there be a cure or notification period to allow the student, school staff member, or library patron to restart use of the services or should the services be terminated after there is a month of no usage? We seek comment on what requirements should be implemented to ensure usage of the devices and services and what actions the school, library, or service provider should be required to take to address any non-usage issues related to their students, school staff, or library patrons.

41. We also seek comment on how the Administrator should handle non-usage issues related to off-premises Wi-Fi hotspots and services. If a school or library cannot demonstrate the Wi-Fi hotspots

⁹⁷ See *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18774-76, paras. 22-26 (requiring schools who choose to allow community use to comply with certain conditions, such as: (1) they may not request more funding than is necessary to serve their current student population; (2) any community use of E-Rate-funded services at a school facility must be limited to non-operating hours of the school and to community members who access Internet while on the school’s campus; and (3) they may not charge for the use of these E-Rate-funded services). See also *Community Use of E-Rate Supported Wi-Fi is Permitted During Closures*, WC Docket Nos. 02-6 and 13-184, Public Notice, 35 FCC Rcd 2879, 2879 (WCB 2020) (reminding schools and libraries that they may allow the public to access E-Rate-funded services even when they are closed due to the coronavirus pandemic).

⁹⁸ See, e.g., 47 CFR § 54.1711(a)(1)(viii), (a)(2)(vi) (requiring applicants and service providers to certify that they are not willfully or knowingly requesting reimbursement for equipment or services that are not being used).

and services were used by the intended individual, should their request for reimbursement be denied, and the Administrator be directed to reduce the committed funding amount by the same amount to prevent this funding from being disbursed in the future? Should schools and libraries be required to notify the Administrator if their service provider submits invoices for Wi-Fi hotspots or services that the school or library knows are not being used by its students, school staff, or library patrons, because, for example, the device has not been distributed yet? Should the Administrator be directed to seek recovery from a service provider that invoices the program for Wi-Fi hotspots and services that were not in use during the reimbursement period? Should we also prohibit service providers from invoicing applicants for periods of non-usage? If there is evidence of non-usage of the off-premises Wi-Fi hotspots and/or services, should schools and libraries be required to file an FCC Form 500, or other post-commitment request, to reflect the actual periods of time that the Wi-Fi hotspots and services were in use by their students, school staff, or library patrons? Should E-Rate participants that improperly received E-Rate support for unused Wi-Fi hotspots and/or services not be eligible to request E-Rate support for off-premises Wi-Fi hotspots and services in future funding years? Or should the school or library be required to reduce their funding requests by the amount of funding related to the unused Wi-Fi hotspots and services in future funding years? We seek comment on these questions and ways to ensure the off-premises Wi-Fi hotspots and services are actually being used for their intended purpose of providing broadband connectivity to students, school staff, and library patrons who lack access and are used for educational purposes.

3. Duplicative Funding

42. We seek comment on what safeguards are necessary to prevent duplicative funding for the same off-premises Wi-Fi hotspots and/or services across the federal universal service programs and other funding programs, including federal, state, Tribal, or local programs. For example, the ACP provides discounts to help low-income households pay for the home broadband service and connected devices needed for critical activities like work and school. However, a household may justifiably receive support from multiple universal service programs at the same time: for instance, a household may receive a Lifeline-supported discount on mobile broadband and voice service for a cellular phone that a parent takes with them to work, while separately receiving support for a Wi-Fi hotspot to help a child in that same household complete their homework on a school-issued laptop. How can we ensure that funding sought for Internet access services through the E-Rate program will not be duplicative of funding received through other programs, like the ACP, for home Internet access, while recognizing that a household may permissibly benefit from multiple federal universal service programs simultaneously? If schools and libraries already provide off-premises access for their students, school staff, and patrons through ECF or other sources of funding, should those schools and libraries be prohibited from using E-Rate support for that same purpose? For example, how do we ensure that schools and libraries that have purchased Wi-Fi hotspots with ECF support do not purchase new hotspots with E-Rate support prior to the end of the useful life of the ECF-funded hotspots? To help us assess this issue, we ask commenters to identify any ECF support or other sources of funding currently being used by schools or libraries to subsidize off-premises access for students, school staff, and library patrons that would eliminate or reduce the need for E-Rate-supported Wi-Fi hotspots. Would a certification by the school or library be sufficient to indicate that E-Rate support is only being sought for eligible students, school staff, or library patrons and the school or library does not already have access to Wi-Fi hotspots purchased with ECF support or other sources of funding? We seek comment on how to prevent duplicative funding between E-Rate, ECF, and other funding programs, including federal, state, Tribal, or local programs.

4. Recordkeeping

43. Our rules currently require schools and libraries to retain all documentation related to the application, receipt, and delivery of eligible services received through the E-Rate program for at least ten years after the last date of the delivery of services.⁹⁹ We propose to apply existing E-Rate recordkeeping requirements to funding provided for the off-premises use of Wi-Fi hotspots and services. We seek

⁹⁹ 47 CFR § 54.516(a).

comment on this proposal and whether additional recordkeeping requirements should be imposed for these purposes. For example, while both the E-Rate and ECF rules require applicants to maintain inventories of equipment purchased with the programs' support,¹⁰⁰ ECF rules require applicants to maintain specific information in their equipment and service inventories for each device or service purchased with ECF support and provided to an individual student, school staff member, or library patron.¹⁰¹ For each hotspot purchased with ECF support, a school or library must maintain the device make/model, the device serial number, the name of the person to whom the device was provided, and the dates the device was loaned out and returned to the school or library.¹⁰² Each ECF-funded service inventory must include the type of service provided, the broadband plan details (i.e., upload and download speeds and the monthly data cap), and the name of the person to whom the service was provided.¹⁰³ Should we adopt these inventory requirements in the E-Rate program for the off-premises use of Wi-Fi hotspots and services? For Wi-Fi hotspot lending programs, should the Commission consider library-specific inventory rules?

44. We seek comment on any other issues related to maintaining documentation to demonstrate compliance with E-Rate rules and certifications. Related to our unmet need inquiries above, should applicants be required to maintain records of students', school staff members', or library patrons' unmet needs, and if so, what types of records should be required (e.g., surveys)? If we require schools and libraries to retain new records regarding unmet needs containing PII, how can we address any privacy risks to students, families, school staff, and patrons? Related to our non-usage requirements inquiries above, we note that service providers would be required to retain and produce monthly usage reports for off-premises Wi-Fi hotspots and services funded through the E-Rate program under our current rules.¹⁰⁴ Should applicants be required to request and retain monthly usage reports from their service providers as well? Are there other recordkeeping requirements for the off-premises use of Wi-Fi hotspots and services that should be considered by the Commission?

D. Legal Authority and Other Outstanding Issues

45. Several stakeholders have argued that the Commission should, and has the authority to, clarify that the E-Rate program may support off-premises solutions like Wi-Fi hotspots for extending connectivity to students', school staff members', and patrons' homes.¹⁰⁵ For example, the Schools, Health & Libraries Broadband (SHLB) Coalition argued that section 254(h)(1)(B) of the Communications Act does not prohibit the provision of E-Rate support for off-premises services; rather, it simply requires a demonstration by E-Rate participants that the off-premises use of eligible equipment and services primarily serves an educational purpose.¹⁰⁶ Additionally, Apple posited that the Commission should

¹⁰⁰ See 47 CFR § 54.516(a) (requiring asset and inventory records of E-Rate-funded equipment to verify location of the assets); 47 CFR § 54.1715(a) (requiring equipment and service inventories of ECF-funded equipment).

¹⁰¹ See 47 CFR § 54.1715(a).

¹⁰² See 47 CFR § 54.1715(a)(1).

¹⁰³ See 47 CFR § 54.1715(a)(3).

¹⁰⁴ See 47 CFR § 54.516(a)(2).

¹⁰⁵ See *Remote Learning Public Notice*, 36 FCC Rcd at 1310-11 (seeking comment on SHLB's and Colorado's arguments that the Commission has authority under sections 254(c)(1), 254(h)(1)(B), and 254(h)(2)(A) of the Communications Act to clarify that E-Rate support may be used for off-premises use of equipment to support remote learning); see also Petition for Expedited Declaratory Ruling and Waivers filed by the Schools, Health & Libraries Broadband Coalition, et al., WC Docket No. 13-184, at 21 (filed Jan. 26, 2021), <https://www.fcc.gov/ecfs/filing/101260036427898> (SHLB Petition); Petition for Waiver on behalf of the State of Colorado, WC Docket No. 13-184 (filed Sept. 2, 2020), at 5-6, <https://www.fcc.gov/ecfs/filing/10902218280692> (Colorado Petition).

¹⁰⁶ See SHLB Petition at 8-9 (explaining that the Commission has broadly interpreted the "educational services" language of section 254(h)(1)(B) and therefore, could support remote learning during the COVID-19 pandemic (continued....))

determine that equipment and services that support remote learning, like Wi-Fi hotspots, are eligible for E-Rate support because they “enhance . . . access to advanced telecommunications and information services” for schools and libraries under section 254(h)(2)(A) of the Communications Act.¹⁰⁷ Today, we tentatively conclude, consistent with the recent *Wi-Fi on School Buses Declaratory Ruling* and the Commission's past determinations regarding the off-campus use of certain E-Rate services,¹⁰⁸ that the Commission has authority under section 254 of the Communications Act to permit eligible schools and libraries to receive E-Rate support for Wi-Fi hotspots and wireless Internet services that may be used off-premises. We seek comment on our tentative conclusion and the scope of the Commission's relevant legal authority, including the applicability of CIPA requirements.

46. First, we tentatively conclude that such Wi-Fi hotspot and wireless Internet services that may be used off-premises and are targeted for use by students and educators constitute services that are “provide[d] . . . to elementary schools, secondary schools, and libraries,” and thus may be supported pursuant to section 254(h)(1)(B) of the Communications Act when used “for educational purposes.”¹⁰⁹ We seek comment on this tentative conclusion, including that the reference to “elementary schools, secondary schools, and libraries” does not constrain us from supporting off-premises use of such services for educational purposes. We also seek comment on whether and under what circumstances the off-premises use of wireless services, and the Wi-Fi hotspots needed to deliver such services, by students, school staff, and library patrons at locations other than at a school or library constitutes an educational purpose under section 254(h)(1)(B) of the Communications Act.¹¹⁰ Taking into consideration the lack of a reliable broadband connection at some students', school staff members', and library patrons' homes, and the increasing need for connectivity in today's technology-based educational environment that extends learning beyond a school or library building (e.g., for virtual classes, electronic research projects, homework assignments, virtual library resources, and job or government assistance applications), as well as our experience connecting students, school staff, and library patrons using ECF-funded Wi-Fi hotspots and services, we specifically propose that the off-premises use of mobile wireless services and the Wi-Fi hotspots needed to deliver such connectivity is integral, immediate, and proximate to the education of students, or in the case of libraries, integral, immediate, and proximate to the provision of library services. We seek comment on this proposal and invite commenters to provide specific examples of how Wi-Fi hotspots and services used off-premises serve an educational purpose. As discussed in greater detail above, we also seek comment on the necessary safeguards to ensure that this off-premises use is primarily for educational purposes, consistent with our rules and section 254(h)(1)(B) of the Communications Act.¹¹¹

47. Next, we seek comment on whether supporting Wi-Fi hotspots and services is consistent

because “there is no question that technological solutions [including, for example, personal hotspots with mobile broadband connections,] that schools and libraries are deploying or want to deploy to expand broadband accessibility for remote learning . . . will be used for educational purposes”). *See also* United States Cellular Corporation Comments at 4-5 (U.S. Cellular Comments) (asserting that section 254(h)(1)(B) of the Communications Act provides authority to support off-premises services that are used primarily for educational purposes and does not limit such access to the physical confines of a school or library); North Carolina Department of Information Technology's Broadband Infrastructure Office Comments at 2 (NCDIT Comments) (contending that the expansion of E-Rate to support the off-premises services provided for educational purposes is consistent with section 254(h)(1)(B)).

¹⁰⁷ Apple Inc. Comments at 3.

¹⁰⁸ *See Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Declaratory Ruling, FCC 23-84, at *6, para. 9 & n.32 (Oct. 25, 2023) (*Wi-Fi on School Buses Declaratory Ruling*); *see also supra* para. 10.

¹⁰⁹ 47 U.S.C. § 254(h)(1)(B).

¹¹⁰ 47 U.S.C. § 254(h)(1)(B); *see also* 47 CFR § 54.500 (defining “educational purposes”).

¹¹¹ *Supra* Part III.C.1.

with the Commission's precedent permitting certain off-premises uses of other E-Rate-funded services.¹¹² Although prior off-premises uses permitted by the Commission were limited to telecommunications services,¹¹³ the Commission has expressly rejected the assertion that the support provided under section 254(h) of the Communications Act is limited to telecommunications services.¹¹⁴ Specifically, in the *First Universal Service Order*, the Commission concluded that section 254(h)(1)(B) through section 254(c)(3) of the Communications Act authorizes universal service support for telecommunications services *and* additional services such as information services.¹¹⁵ Furthermore, in the *Wi-Fi on School Buses Declaratory Ruling*, the Commission concluded that the provision of support for Wi-Fi on school buses fit squarely within its authority under section 254(h)(1)(B) to designate "'services that are within the definition of universal service under subsection (c)(3),' which itself authorizes the Commission to designate non-telecommunications services for support under E-Rate."¹¹⁶ To the extent section 254(h)(1)(B) of the Communications Act encompasses additional services, such as information services, does the Commission have a basis to authorize support under that subsection for wireless Internet access services needed for the off-premises use of Wi-Fi hotspots?

48. We also seek comment on how the Commission should reconcile the authority provided under section 254(h)(1)(B) of the Communications Act to support certain "services" with the fact that Wi-Fi hotspots are physical devices needed to provide those services. In the *First Universal Service Order*, for example, the Commission specifically concluded that "we can include 'the information services' e.g., protocol conversion and information storage, that are needed to access the Internet, as well as *internal connections*, as 'additional services' that section 254(h)(1)(B), through section 254(c)(3), authorizes us to support."¹¹⁷ Consistent with that precedent, we tentatively conclude that the Commission has authority under section 254(h)(1)(B) through section 254(c)(3) of the Communications Act to support the Wi-Fi hotspot devices that are needed for the off-premises use of the broadband services.¹¹⁸ We invite comment on our tentative conclusion.

49. Further, we tentatively conclude that providing E-Rate support for the off-premises use of Wi-Fi hotspots and services "enhance[s], to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms . . . and libraries" consistent with section 254(h)(2)(A) of the Communications Act.¹¹⁹ Funding the off-premises use of Wi-Fi hotspots and services will help provide the broadband connectivity necessary to support the ability of schools and libraries to facilitate remote

¹¹² See *supra* para. 10.

¹¹³ See *Schools and Libraries Second Report and Order*, 18 FCC Rcd at 9208-09, para. 19 n.28.

¹¹⁴ See *Federal State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9010-11, para. 439 (1997) (*First Universal Service Order*). Note that this was upheld in *Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393, 443-44 (5th Cir. 1999).

¹¹⁵ In the *First Universal Service Order*, the Commission explained: "[T]he term used in section 254(h)(1)(B), 'any of its *services* that are within the definition of universal service under subsection (c)(3),' cannot be read as a generic reference to the heading of that section. Rather, the varying use of the terms 'telecommunications services' and 'services' in sections 254(h)(1)(A) and 254(h)(1)(B) suggests that the terms were used consciously to signify different *meanings*. In addition, the mandate in section 254(h)(2)(A) to enhance access to 'advanced telecommunications and information services,' particularly when read in conjunction with the legislative history as discussed below, suggests that Congress did not intend to limit the support provided under section 254(h) to telecommunications services.'" *Id.*

¹¹⁶ See *Wi-Fi on School Buses Declaratory Ruling* at *6, para. 9 & n.32.

¹¹⁷ *Id.* (emphasis added).

¹¹⁸ *Id.* See also *First Universal Service Order*, 12 FCC Rcd at 9010-11, para. 439 (holding that equipment such as a router is eligible for support if "necessary to transport information all the way to individual classrooms").

¹¹⁹ See 47 U.S.C. § 254(h)(2)(A).

learning for students, school staff, and library patrons who lack access when they are away from school or library premises and will allow schools and libraries to provide digital educational resources at anytime from anywhere. Therefore, we believe the action proposed today will enhance schools' and libraries' access to advanced telecommunications and information services under section 254(h)(2)(A) of the Communications Act. We seek comment on this interpretation.

50. We also tentatively conclude that this proposal is consistent with the Commission's exercise of its authority under section 254(h)(2)(A) of the Communications Act to establish the Connected Care Pilot Program and in its recent Declaratory Ruling clarifying that use of Wi-Fi services on school buses is an educational purpose and, therefore, can be eligible for E-Rate support. In establishing the Connected Care Pilot Program, the Commission found that providing support for patients' home broadband connections expanded health care providers' digital footprints for purposes of providing connected care services and allowed health care providers to serve more patients through the pilot program, thus enhancing eligible health care providers' access to advanced telecommunications and information services.¹²⁰ Similarly, in the recent *Wi-Fi on School Buses Declaratory Ruling*, the Commission found that "the use of Wi-Fi on school buses to aid the many students who lack robust internet access at home similarly enhances eligible schools' and libraries' access to advanced telecommunications and information services."¹²¹ Would funding Wi-Fi hotspots and services to provide off-premises connectivity to students, school staff, and library patrons who lack access similarly enhance eligible schools' and libraries' access to advanced telecommunications and information services? We seek comment on our tentative conclusion.

51. *Off-Premises Limitations.* In tentatively concluding that providing E-Rate support for off-premises use of Wi-Fi hotspots and services is consistent with section 254(h)(2)(A) of the Communications Act, we also seek comment on how today's modern educational environment has evolved for the purposes of enhancing affordable access to 21st Century broadband services capable of supporting today's digital learning.¹²² The Commission has long recognized the evolving nature of educational technology, noting in the 2010 National Broadband Plan that "[o]nline educational systems are rapidly taking learning outside the classroom, creating a potential situation where students with access to broadband at home will have an even greater advantage over those students who can only access these resources at their public schools and libraries."¹²³ Over a decade later, and in the wake of nationwide school and library shutdowns, the need for connectivity for remote learning has become only more pronounced. There is little doubt that advances in technology have enabled students to continue to learn well after the school bell rings, including from their homes or other locations like, for example, youth centers.¹²⁴ Today's learning settings have evolved, and learning now occurs outside of the school or library building, increasing the need to have broadband connections for educational success.¹²⁵ As such, we seek comment on our tentative conclusion that the reference in section 254(h)(2)(A) of the Communications Act to "elementary and secondary school classrooms . . . and libraries" extends to student, school staff, and library patron homes, given that today's educational environment clearly

¹²⁰ *Promoting Telehealth for Low-Income Consumers; COVID-19 Telehealth Program*, WC Docket No. 18-213, Report and Order, 35 FCC Rcd 3366, 3417-18, paras. 87-88 (2020) (*Connected Care Report and Order*).

¹²¹ See *Wi-Fi on School Buses Declaratory Ruling* at *6, para. 9, n.32.

¹²² See, e.g., Amazon.com, Inc. Comments at 5 (Amazon Comments) ("Because remote learning enables a 'classroom' to be virtual, providing support for virtual classrooms would be consistent with the Section 254(h)(6) principle and also the provisions in Section 254(h)(2)(A).").

¹²³ National Broadband Plan at 254.

¹²⁴ See *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18779, para. 42.

¹²⁵ See Common Sense 2022 Report at 4-5 (stating that Internet access enables schools to accommodate students during emergencies, gives students access to online learning resources, permits teachers to use modern educational technology tools, allows parents to better engage with their child's schools, and provides access to beneficial government and employment resources).

extends outside of the physical school or library building. Does the modern student, school staff member, or library patron require Internet access outside of school or library premises to achieve their educational goals? Is there data showing the extent to which certain educational activities take place in both the physical on-premises classroom and other off-premises locations? What about the extent to which students are required to do homework or engage in remote learning beyond school or library premises? We invite commenters to share their experiences with the increasingly virtual nature of the modern educational environment and how evolving technologies have changed education.

52. As noted above, Congress did not define “classrooms” for the purposes of section 254(h)(2)(A) of the Communications Act.¹²⁶ In the *First Universal Service Order*, the Commission concluded that the statutory reference to “classrooms” demonstrated that Congress intended to fund service to each individual classroom but did not define the term.¹²⁷ More recently, the Commission determined that “in today’s world, teaching and learning often occur outside of brick and mortar school buildings and thus ‘classroom’ may be interpreted more broadly,” which may include, for example, school buses.¹²⁸ We seek comment on whether the Commission should adopt a definition of “classrooms” for the purposes of the E-Rate program and what would be an appropriate definition to adequately cover the modern learning environment. Do homes and other off-premises locations (i.e., community centers, after-school centers, etc.) function as “virtual classrooms” within the meaning of “classrooms” as used in section 254(h)(2)(A) of the Communications Act, particularly after the COVID-19 pandemic? Furthermore, in establishing universal service support for schools and libraries, Congress explained that the intent of the support authorized under subsection (h)(2) is to “enhance the availability of advanced telecommunications and information services to public institutional telecommunications users” and to ensure “Americans everywhere” have access “via schools and libraries.”¹²⁹ We seek comment on whether interpreting “classroom” to mean an in-person, on-premises setting would bar any intended Americans from benefiting from supported advanced telecommunications and information services. Alternatively, would a broader interpretation of “classrooms” to include locations other than the school or library and that focuses on the intended beneficiaries’ (i.e., “Americans everywhere”) ability to access educational services, rather than the exact location of the services, be consistent with Congress’s intent? Relatedly, if we adopt a broader interpretation of “classrooms”, is there a definition that strikes a balance between ensuring access to educational services in this evolving learning environment while also establishing boundaries to ensure that the off-premises use of E-Rate-supported services remains the exception to the general presumption that activities that occur on library or school property serve an educational purpose? We emphasize that any determination of support for off-premises use of E-Rate-supported services will still be subject to the relevant statutory requirements discussed herein, including that the Commission first finds that the off-premises provision of such services serves an educational purpose pursuant to section 254(h)(1)(B), and enhances, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services under section 254(h)(2)(A) of the Communications Act. We seek comment on whether these limitations are sufficient to ensure that E-Rate funding is being used for its intended purposes.

53. *The Children’s Internet Protection Act (CIPA)*. We seek comment on the applicability of the Children’s Internet Protection Act (CIPA) when connecting to Internet made available by E-Rate-funded Wi-Fi hotspots and services. Congress enacted CIPA to protect children from exposure to harmful

¹²⁶ See 47 U.S.C. § 254(h)(2)(A).

¹²⁷ See *First Universal Service Order*, 12 FCC Rcd at 9018, para. 455 (“[W]e conclude that Congress contemplated extending discounted service all the way to the individual classrooms of a school, not merely to a single computer lab in each school or merely to the schoolhouse door.”).

¹²⁸ See *Wi-Fi on School Buses Declaratory Ruling* at *6, para. 9, n.32 (finding that the use of Wi-Fi on school buses “satisfies the ‘classroom’ test in section 254(h)(2)(A)”).

¹²⁹ S. Rep. No. 104-230, at 132-33 (1996) (Joint Explanatory Statement), <https://www.congress.gov/104/crpt/srpt230/CRPT-104srpt230.pdf>.

material while accessing the Internet from a school or library.¹³⁰ In enacting CIPA, Congress was particularly concerned with protecting children from exposure to material that was obscene, child pornography, or otherwise inappropriate for minors (i.e., harmful content).¹³¹ CIPA prohibits certain schools and libraries from receiving funding under section 254(h)(1)(B) of the Communications Act for Internet access, Internet service, or internal connections, unless they comply with specific Internet safety requirements.¹³² Specifically, CIPA applies to schools and libraries “having computers with Internet access,”¹³³ and requires each such school or library to certify that it is enforcing a policy of Internet safety that includes the operation of a technology protection measure “with respect to any of its computers with Internet access.”¹³⁴ Schools, but not libraries, must also monitor the online activities of minors and provide education about appropriate online behavior, including warnings against cyberbullying.¹³⁵ Today, we tentatively conclude that the requirements of CIPA would apply to school- or library-owned computers being used off-premises if the school or library receives Internet service, Internet access, or network connection services or related equipment (including Wi-Fi hotspots) funded through the E-Rate program, and seek comment on this conclusion.

54. In the ECF program, the Commission found that the purchase of hotspots would qualify as the purchase of network equipment for Internet access, Internet service, or internal connections, and would trigger CIPA compliance for the purchasing school or library only if used with any school- or library-owned computers.¹³⁶ Similarly, other ECF-funded recurring Internet access or Internet services (if

¹³⁰ See S. Rep. No. 106-141, at 1 (1999), <https://www.congress.gov/106/crpt/srpt141/CRPT-106srpt141.pdf> (“The purpose of the bill is to protect America’s children from exposure to obscene material, child pornography, or other material deemed inappropriate for minors while accessing the Internet from a school or library receiving Federal Universal Service assistance for provisions of Internet access, Internet service, or internal connection.”).

¹³¹ *Id.*

¹³² Congress passed CIPA as part of a major spending bill in December 2000, and the President signed the bill into law on December 21, 2000. Children’s Internet Protection Act, H.R. 4577, Pub. L. No. 106-554, 106th Cong., tit. XVII, § 1701-1703, 1711-1712, 1721 (2000) (enacted), available at <https://www.congress.gov/106/plaws/publ554/PLAW-106publ554.pdf>. CIPA is codified at section 254(h)(5)-(6), and section 254(l) of the Communications Act of 1934, as amended. 47 U.S.C. § 254(h)(5)-(6), (l). CIPA requires each covered school and library to certify that the school or library is: (1) “enforcing a policy of Internet safety that includes the operation of a technology protection measure with respect to any of its computers with Internet access that protects against access [by both adults and minors] through such computers” to visual depictions that are (i) obscene; (ii) child pornography; or, (iii) with respect to use of the computers by minors, harmful to minors; and (2) “enforcing the operation of such technology protection measure during any use of such computers” by minors and adults. 47 U.S.C. § 254(h)(5)(B)(i),(ii) and (C)(i),(ii), (h)(6)(B)(i)(ii) and (C)(i)(ii), and (l); 47 CFR § 54.520(c)(1)(i), (c)(2)(i); see also *Federal-State Joint Board on Universal Service; Children’s Internet Protection Act*, CC Docket No. 96-45, Report and Order, 16 FCC Rcd 8182, 8184, n.5 (2001); *Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Report and Order, 26 FCC Rcd 11819, 11829, para. 23 (2011) (*2011 CIPA Order*).

¹³³ 47 U.S.C. § 254(h)(5)(A)(i), (h)(6)(A)(i).

¹³⁴ 47 U.S.C. § 254(h)(5)(B)(i) and (C)(i), (h)(6)(B)(i) and (C)(i).

¹³⁵ *2011 CIPA Order*, 26 FCC Rcd at 11821, para. 5.

¹³⁶ See *Establishing the Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Report and Order, 36 FCC Rcd 8696, 8746-49, paras. 108-14 (2021) (*Emergency Connectivity Fund Report and Order*) (discussing the applicability of CIPA and rejecting the suggestion that CIPA applicability is limited to applicant-owned computers within a school or library building); see also FCC, *Emergency Connectivity Fund FAQs: FAQ 10.1*, <https://www.fcc.gov/emergency-connectivity-fund-faqs> (last visited Oct. 31, 2023) (“CIPA requirements apply only to school- or library-owned computers (e.g., tablet computers and laptop computers) when the school or library receives (1) ECF or E-Rate support for internet access, internet services or network equipment for internet access or internet service that will be used by any school- or library-owned computers; or (2) E-Rate support for internal connections or network equipment for internal connections that will be used by any school- or library-owned

(continued....)

any) used off-premises triggers CIPA compliance if used with any school- or library-owned computer. On the other hand, the Commission determined for the ECF program that CIPA does not apply to the use of any third-party-owned device, even if that device is connecting to a school's or library's ECF-funded hotspot or other ECF-funded Internet access or Internet service.¹³⁷ We seek comment on whether this is the appropriate interpretation of CIPA with regard to E-Rate-funded Wi-Fi hotspots and services used off-premises as discussed further below.

55. At the time of CIPA's enactment, schools and libraries primarily owned one or two stationary computer terminals that were used solely on-premises.¹³⁸ Today, it is commonplace for students, school staff, and library patrons to carry Internet-enabled devices onto school or library premises and for schools and libraries to allow third-party-owned devices access to their Internet and broadband networks.¹³⁹ In view of the changes in technology and the wider range of Internet-enabled devices in circulation today, we seek comment on whether our current interpretation of CIPA's applicability to computers owned by schools or libraries that receive E-Rate-funded Internet service, Internet access, or internal connections achieves CIPA's intended purpose of protecting minors from exposure to harmful content while accessing Internet services provided by a school or library. Are students or library patrons able to access content that is obscene, child pornography, or harmful to minors through E-Rate-funded Internet or internal connections when they use their own (i.e., third-party) computers or devices? What steps can the Commission take to ensure that E-Rate funding is not being used to facilitate minors' access to harmful content, including when using third-party-owned devices to connect to E-Rate-funded Internet access, Internet service, or internal connections? We also understand that many mobile broadband service providers include network-level filtering in their service offerings and that many schools and libraries already deploy network-level technology protection measures.¹⁴⁰ We seek comment on whether we can and should require or encourage filtering and other technology protection measures to be implemented at the network-level to ensure that minors are not accessing harmful content through E-Rate-funded Internet access, Internet service, or internal connections. We invite input from commenters on their experiences implementing and using network-level protections to protect minors from accessing harmful content.

56. We also invite comment on the scope of the Commission's authority to impose requirements on third-party-owned devices pursuant to CIPA. For example, we seek comment on whether the requirement in section 254(h)(5)(B)(i) of the Communications Act that requires schools to

computers . . . [W]hile CIPA does not impose any requirements on a Wi-Fi hotspot device itself, the purchase of a Wi-Fi hotspot through ECF would qualify as the purchase of network equipment for internet access, internet service, or internal connections, and would trigger CIPA compliance for the purchasing school or library only if it is used by any school- or library-owned computers.”).

¹³⁷ *Id.*

¹³⁸ See AGiRepair, *The Evolution of Technology in the Classroom* (Mar. 15, 2021), <https://agirepair.com/evolution-of-technology-in-the-classroom/> (explaining that by 1994, most schools had at least one PC in the classroom).

¹³⁹ Gary Ackerman, *A Brief History of Computers in Schools* (Nov. 11, 2019), <https://hackscience.education/2019/11/11/a-brief-history-of-computers-in-schools/> (“As we approach the third decade of the 21st century, students in the United States, and other industrialized nations, attend schools in which computers abound. The machines may be desktop, laptop, tablet, or handheld models that are owned by and maintained by the school, or the devices may be owned by students and brought to school for educational (or distracting) purposes.”). See also ALA Policy Perspectives, *Keeping Communities Connected—Library Broadband Services During the COVID-19 Pandemic* at 2 (2022), https://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/telecom/broadband/Keeping_Communities_Connected_030722.pdf (observing that “[t]he country’s nearly 17,000 public libraries offer no-fee internet access, Wi-Fi, and devices, such as computers and tablets”).

¹⁴⁰ See, e.g., State of South Carolina Comments, WC Docket No. 21-93, at 9, 11 (rec. Apr. 5, 2021) (reporting that many school districts filter at the network-level); Cradlepoint Reply, WC Docket No. 21-93, at 6 (rec. Apr. 23, 2021) (explaining that filtering mechanisms generally take place at the network-level). See also Kajeet Comments at 3-4 (stating that Kajeet, Verizon, and AT&T offer filtering at the network-level).

certify that their Internet safety policy “includes monitoring the online activities of minors” could be construed to extend to third-party-owned devices, notwithstanding other language in CIPA that suggests that its applicability is limited to school- or library-owned computers.¹⁴¹ Should monitoring the online activities of minors requirement apply to third-party-owned devices that use or access E-Rate-funded Internet access, Internet service, or internal connections? Is that interpretation consistent with Congress’s intent “to protect America’s children from exposure to obscene material, child pornography, or other material deemed inappropriate for minors while accessing the Internet from a school or library receiving Federal Universal Service assistance for provisions of Internet access, Internet service, or internal connection”?¹⁴² We seek information about current practices that would assist the Commission in formulating policies that reflect the importance of CIPA protections in the context of more modern uses of the Internet services supported by E-Rate.

57. We also seek comment on how CIPA’s requirements are being met remotely and whether the Commission’s existing CIPA-related rules adequately cover off-premises use. What measures are ECF recipients taking to comply with CIPA when providing ECF-funded hotspots for use on school- or library-owned computers? How are libraries balancing CIPA requirements and the needs of library patrons who rely on E-Rate-funded Internet access or internal connections for remote learning and other E-Rate approved uses (e.g., job searching)? We seek comment on these questions and whether there may be other circumstances we have not considered related to the application of CIPA to the proposals in this notice.

58. Finally, we acknowledge there are privacy concerns related to certain CIPA requirements, particularly as it relates to library patrons’ data that is often subject to various federal and/or state privacy laws. We seek comment on these privacy-related issues and encourage commenters to be specific about how CIPA can be applied to ensure minors who are using E-Rate-funded Wi-Fi hotspots and services are protected from harmful online content, as intended by Congress. We also seek comment on any privacy-related implications if network-level filtering or other technology protection measures are required for third-party-owned devices that access E-Rate funded Internet or internal connections.

E. Promoting Digital Equity and Inclusion

59. The Commission, as part of its continuing effort to advance digital equity for all,¹⁴³ 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 considerations¹⁴⁴ and benefits (if any) that may be

¹⁴¹ See 47 U.S.C. § 254(h)(5)(A)(i) (providing that “an elementary or secondary school *having* computers with Internet access may not receive services . . . unless the school . . . submits to the Commission [a] certification[]” (emphasis added)); *id.* § 254(h)(6)(A)(i) (similar); *see also* § 254(h)(5)(B)(i) (providing that a school must enforce “a policy of Internet safety that includes monitoring the online activities of minors and the operation of a technology protection measure with respect to any of *its* computers with Internet access” (emphasis added)).

¹⁴² S. Rep. No. 106-141, at 1, at <https://www.congress.gov/106/crpt/srpt141/CRPT-106srpt141.pdf>.

¹⁴³ 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.

¹⁴⁴ 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, (continued....)

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 MATTERS

60. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),¹⁴⁵ 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.”¹⁴⁶ Accordingly, we have prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the possible impact of potential rule and/or policy changes contained in this Notice of Proposed Rulemaking on small entities. The IRFA is set forth in Appendix B. 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 the IRFA.

61. *Paperwork Reduction Act.* This document contains possible modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the 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 might further reduce the information collection burden for small business concerns with fewer than 25 employees.

62. *Providing Accountability Through Transparency Act.* Consistent with the Providing Accountability Through Transparency Act, Public Law 118-9, a summary of this document will be available on <https://www.fcc.gov/proposed-rulemakings>.

63. *Ex Parte Rules – Permit but Disclose.* Pursuant to section 1.1200(a) of the Commission's rules,¹⁴⁷ this Notice of Proposed Rulemaking shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.¹⁴⁸ 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

Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Jan. 20, 2021).

¹⁴⁵ *See* 5 U.S.C. § 603.

¹⁴⁶ 5 U.S.C. § 605(b).

¹⁴⁷ 47 CFR § 1.1200(a).

¹⁴⁸ 47 CFR §§ 1.1200 *et seq.*

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.

64. *Comment Period and Filing Procedures.* 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. All filings must refer to WC Docket No. 21-31.

- Electronic filers: Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS): <https://www.fcc.gov/ecfs>.¹⁴⁹
- 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, N.E., 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-19.¹⁵⁰

65. *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.

66. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be publicly available online via ECFS.¹⁵¹

67. *Further Information.* For further information, contact Molly O'Connor of the Telecommunications Access Policy Division, Wireline Competition Bureau at 202-418-0578 or Molly.OConor@fcc.gov.

V. ORDERING CLAUSES

68. Accordingly, IT IS ORDERED that, pursuant to the authority found in sections 1 through 4, 201-202, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151 through 154, 201 through 202, 254, 303(r), and 403, this Notice of Proposed Rulemaking IS ADOPTED.

69. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Notice of Proposed

¹⁴⁹ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

¹⁵⁰ See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (Mar. 19, 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

¹⁵¹ Documents will generally be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

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

For the reasons discussed in the document above, the Federal Communications Commission proposes to amend 47 CFR part 54 as follows:

PART 54 – UNIVERSAL SERVICE

1. The authority for part 54 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 229, 254, 303(r), 403, 1004, 1302, 1601-1609, and 1752, unless otherwise noted.

2. Amend § 54.504 by adding paragraphs (a)(1)(x) through (xiii), and (f)(6) to read as follows:

§ 54.504 Requests for services.

(a) * * *

(1) * * *

(x) If requesting support for Wi-Fi hotspots and service for use off-premises, the school or school consortium listed on the FCC Form 471 application is only seeking support for eligible equipment and/or services provided to students and school staff who would otherwise lack Internet access service sufficient to engage in remote learning.

(xi) If requesting support for Wi-Fi hotspots and service for use off-premises, the library or library consortium listed on the FCC Form 471 application is only seeking support for eligible equipment and/or services provided to library patrons who have signed and returned a statement (physically or electronically) that the library patron would otherwise lack access but for the use of equipment and/or service provided by the library.

(xii) If requesting support for Wi-Fi hotspots and service for use off-premises, the school, library, or consortium is not seeking support and reimbursement for eligible equipment and/or services that have been purchased and reimbursed in full with other federal, state, Tribal, or local funding, or providing duplicative equipment and/or services to a student, school staff member, or library patron.

(xiii) The school, library, or consortium will create and maintain an equipment and service inventory as required by § 54.516(a)(3).

* * * * *

(f) * * *

(6) If requesting reimbursement for Wi-Fi hotspots and service for use off-premises, the service provider will provide the school, library, or consortium with notice if a student, school staff member, or library patron has not used the equipment and/or service within the past [30] days and will not willfully or knowingly request reimbursement or invoice the school, library, or consortium for eligible equipment and/or services that were not used. The service provider shall provide the school, library, or consortium with monthly usage data upon request.

3. Amend § 54.516 by revising paragraph (a)(1), adding paragraph (a)(3), and revising paragraph (b) to read as follows:

§ 54.516 Auditing and inspections.

(a) *Recordkeeping requirements.*

(1) Schools, libraries, and consortia. Schools, libraries, and any consortium that includes schools or libraries shall retain all documents related to the application for, receipt, and delivery of

supported services for at least 10 years after the latter of the last day of the applicable funding year or the service delivery deadline for the funding request. Any other document that demonstrates compliance with the statutory or regulatory requirements for the schools and libraries mechanism shall be retained as well. Subject to paragraph (a)(3) of this section, schools, libraries, and consortia shall maintain asset and service inventory records for a period of 10 years from the last date of service or delivery of equipment.

* * * * *

(3) Asset and service inventory requirements. Schools, libraries, and consortia shall keep asset and service inventories as follows:

(i) For equipment purchased as components of supported category two services, the asset inventory must be sufficient to verify the actual location of such equipment.

(ii) For each Wi-Fi hotspot provided to an individual student, school staff member, or library patron, the asset inventory must identify:

(A) The device or equipment make/model;

(B) The device or equipment serial number;

(C) The full name of the person to whom the device or other piece of equipment was provided; and

(D) The dates the device or other piece of equipment was loaned out and returned to the school or library, or the date the school or library was notified that the device or other piece of equipment was missing, lost, or damaged.

(iii) For mobile wireless services provided through Wi-Fi hotspots to individual students, school staff, or library patrons, the service inventory must contain:

(A) The type of service provided (i.e., mobile wireless);

(B) The service plan details, including upload and download speeds and any monthly data cap; and

(C) The full name of the person(s) to whom the service was provided.

(b) Production of Records. Schools, libraries, consortia, and service providers shall produce such records at the request of any representative (including any auditor) appointed by a state education department, the Administrator, the FCC, or any local, state, or federal agency with jurisdiction over the entity. Where necessary for compliance with Federal or state privacy laws, E-Rate participants may produce records regarding students, school staff, and library patrons in an anonymized or deidentified format. When requested by the Administrator or the Commission, as part of an audit or investigation, schools, libraries, and consortia must seek consent to provide personally identifiable information from a student who has reached age of majority, the relevant parent/guardian of a minor student, or the school staff member or library patron prior to disclosure.

* * * * *

APPENDIX B**Initial Regulatory Flexibility Analysis**

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the 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 Addressing the Homework Gap through the E-Rate Program, 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 in 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 Objectives of, the Proposed Rules

2. The Commission's E-Rate program, formally known as the schools and libraries universal service support mechanism, provides support to schools and libraries allowing them to obtain affordable, high-speed broadband services and internal connections, which enables them to connect students and library patrons to critical next-generation learning opportunities and services. The primary objectives of the *Notice* are to address the remote learning needs of today's students, school staff, and library patrons and to help close the country's digital and educational divide (sometimes referred to as the Homework Gap), particularly once the Emergency Connectivity Fund (ECF) program funding for off-premises broadband connectivity ends. To achieve these objectives, the *Notice* proposes to make the off-premises use of Wi-Fi hotspots and services by students, school staff, and library patrons who would otherwise be unable to engage in remote learning eligible for E-Rate support.

3. The Commission seeks comments on our proposal to address the Homework Gap through the E-Rate program. Based on our experience gained through the ECF program, our prior record, and other data sources, we believe that there are significant benefits and need for the proposed rules in continuing to fund the off-premises use of Wi-Fi hotspots and services for students, school staff, and library patrons who would otherwise be unable to fully engage in remote learning. The *Notice* requests comments on multiple ways to implement funding for the off-premises use of Wi-Fi hotspots and services within the existing E-Rate program processes, including eligibility limits and how to prioritize requests for off-premises Wi-Fi hotspots and services to help balance service needs with limited E-Rate funding. It also seeks comments on how to ensure cost-effective purchases and the potential challenges associated with conducting competitive bidding for off-premises Wi-Fi hotspots and services. Additionally, the *Notice* seeks comments on what actions are necessary to safeguard these critical funds from potential waste, fraud, or abuse, for example, how to ensure the off-premises Wi-Fi hotspots and services are being used by the intended recipient and serve an educational purpose. We also seek comment on modifying the recordkeeping requirements to require applicants to maintain equipment and service inventories for off-premises Wi-Fi hotspots and services purchased with E-Rate support. Furthermore, the *Notice* seeks comments on how to protect minor online users from harmful content.

B. Legal Basis

4. The proposed action is authorized pursuant to sections 1 through 4, 201-202, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151 through 154, 201-202, 254, 303(r), and 403.

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 5 U.S.C. § 603(a).

³ *Id.*

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.⁴ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁵ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁶ 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 SBA.⁷

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.⁸ 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.⁹ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹⁰

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.”¹¹ 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.¹² Nationwide, for tax year 2020, there were approximately 447,689 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.¹³

⁴ See *id* § 603(b)(3).

⁵ See *id* § 601(6).

⁶ See *id* § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632(a)). Pursuant to the RFA, 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).

⁷ Small Business Act, 15 U.S.C. § 632.

⁸ See 5 U.S.C. § 601(3)-(6).

⁹ 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)

¹⁰ *Id.*

¹¹ See 5 U.S.C. § 601(4).

¹² 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.

¹³ 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-

(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.”¹⁴ U.S. Census Bureau data from the 2017 Census of Governments¹⁵ indicate there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁶ Of this number, there were 36,931 general purpose governments (county,¹⁷ municipal, and town or township¹⁸) with populations of less than 50,000 and 12,040 special purpose governments—-independent school districts¹⁹ with enrollment populations of less than 50,000.²⁰ Accordingly, based on the 2017 U.S. Census of Governments data, we estimate that at least 48,971 entities fall into the category of “small governmental jurisdictions.”²¹

1. Schools and Libraries

9. *Schools.* The closest applicable industry with a SBA small business size standard is Elementary and Secondary Schools.²² This industry comprises establishments primarily engaged in

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 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁴ See 5 U.S.C. § 601(5).

¹⁵ See 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/cog/about.html>.

¹⁶ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-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. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

¹⁷ See *id.* at tbl.5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

¹⁸ See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

¹⁹ See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

²⁰ While the special purpose governments category also includes local special district governments, the 2017 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.

²¹ 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 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls.5, 6 & 10.

²² See U.S. Census Bureau, 2017 NAICS Definition, “611110 Elementary and Secondary Schools,” <https://www.census.gov/naics/?input=611110&year=2017&details=611110>.

furnishing academic courses and associated course work that comprise a basic preparatory education.²³ A basic preparatory education ordinarily constitutes kindergarten through 12th grade.²⁴ The SBA small business size standard for Elementary and Secondary Schools classifies firms with annual receipts of \$17.5 million or less as small.²⁵ The Commission does not have a size standard for small entities specifically applicable to schools. The Commission's definition of schools pertains to entities that participate in the E-Rate program which provides support to eligible schools and libraries to enable access to high-speed Internet access and telecommunications services at affordable rates, consistent with the objectives of universal service.

10. Under the E-Rate program, an elementary school is generally defined as "a non-profit institutional day or residential school that provides elementary education, as determined under state law."²⁶ A secondary school is generally defined as "a non-profit institutional day or residential school that provides secondary education, as determined under state law," and not offering education beyond grade 12.²⁷ For-profit schools, and schools with endowments in excess of \$50,000,000, are not eligible to receive discounts under the E-Rate program.²⁸ In calendar year 2017, the E-Rate program provided funding to approximately 104,722 schools throughout the U.S. and its territories.²⁹ While we do not have financial information that would allow us to estimate the number of schools that would qualify as small entities under SBA's small business size standard, because of the nature of these entities we estimate that the majority of schools in the E-Rate program are small entities under the SBA size standard.

11. *Libraries.* The closest applicable industry with a SBA small business size standard is Libraries and Archives.³⁰ This industry comprises establishments primarily engaged in providing library or archive services.³¹ These establishments are engaged in maintaining collections of documents (e.g., books, journals, newspapers, and music) and facilitating the use of such documents (recorded information regardless of its physical form and characteristics) as required to meet the informational, research, educational, or recreational needs of their users.³² These establishments may also acquire, research, store, preserve, and generally make accessible to the public historical documents, photographs, maps, audio material, audiovisual material, and other archival material of historical interest.³³ All or portions of these collections may be accessible electronically.³⁴ The SBA small business size standard for Libraries and Archives classifies firms with annual receipts of \$18.5 million or less as small.³⁵ For this industry, U.S.

²³ *Id.*

²⁴ *Id.*

²⁵ See 13 CFR § 121.201, NAICS Code 611110.

²⁶ 47 CFR § 54.500.

²⁷ *Id.*

²⁸ 47 CFR § 54.501.

²⁹ See Universal Service Administrative Company, Annual Report, at 7, <https://www.usac.org/wp-content/uploads/about/documents/annual-reports/2017/USAC-2017-Annual-Report.pdf>.

³⁰ See U.S. Census Bureau, 2017 NAICS Definition, "519120 Libraries and Archives," <https://www.census.gov/naics/?input=519120&year=2017&details=519120>.

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.*

³⁵ See 13 CFR § 121.201, NAICS Code 519120 (as of 10/1/22 NAICS Code 519210).

Census Bureau data for 2017 show that there were 1,864 firms that operated for the entire year.³⁶ Of this number, 1,228 firms had revenues of less than \$10 million.³⁷ Based on this data, the majority of firms in this industry can be considered small.

12. The Commission does not have a size standard for small entities specifically applicable to libraries. The Commission's definition of libraries pertains to entities that participate in the E-Rate program which provides support to eligible schools and libraries to enable access to high-speed Internet access and telecommunications services at affordable rates, consistent with the objectives of universal service. Under the E-Rate program, a library includes "(1) a public library, (2) a public elementary school or secondary school library, (3) a Tribal library, (4) an academic library, (5) a research library [] and (6) a private library, but only if the state in which such private library is located determines that the library should be considered a library for the purposes of this definition."³⁸ For-profit libraries are not eligible to receive discounts under the program, nor are libraries whose budgets are not completely separate from any schools.³⁹ In calendar year 2017, the E-Rate program provided funding to approximately 11,475 libraries throughout the U.S. and its territories.⁴⁰ While we do not have financial information which would allow us to estimate the number of libraries that would qualify as small entities under SBA's small business size standard, because of the nature of these entities we estimate that the majority of libraries in the E-Rate program are small entities under the SBA size standard.

2. Telecommunications Service Providers

13. *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.⁴¹ 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.⁴² By exception, establishments providing satellite television distribution services using facilities

³⁶ 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 519120, <https://data.census.gov/cedsci/table?y=2017&n=519120&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

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. 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 category for less than \$100,000, to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in this category). Therefore, the number of firms with revenue that meet the SBA size standard would be higher than noted herein. We also note that the U.S. Census Bureau economic data includes sales, value of shipments or revenue information reported by firms. 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.

³⁸ 47 CFR § 54.500.

³⁹ 47 CFR § 54.501.

⁴⁰ See Universal Service Administrative Company, Annual Report, at 7, <https://www.usac.org/wp-content/uploads/about/documents/annual-reports/2017/USAC-2017-Annual-Report.pdf>.

⁴¹ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁴² *Id.*

and infrastructure that they operate are included in this industry.⁴³ Wired Telecommunications Carriers are also referred to as wireline carriers or fixed local service providers.⁴⁴

14. The SBA small business size standard for Wired Telecommunications Carriers classifies firms having 1,500 or fewer employees as small.⁴⁵ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.⁴⁶ Of this number, 2,964 firms operated with fewer than 250 employees.⁴⁷ 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.⁴⁸ Of these providers, the Commission estimates that 4,146 providers have 1,500 or fewer employees.⁴⁹ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

15. *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.⁵⁰ 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.⁵¹ Providers of Internet services (e.g. dial-up ISPs) or VoIP services, via client-supplied telecommunications connections are also included in this industry.⁵² The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.⁵³ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire

⁴³ *Id.*

⁴⁴ 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.

⁴⁵ See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁴⁶ 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, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIIRM&hidePreview=false>.

⁴⁷ *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.

⁴⁸ 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>

⁴⁹ *Id.*

⁵⁰ See U.S. Census Bureau, *2017 NAICS Definition*, “517919 All Other Telecommunications,” <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁵¹ *Id.*

⁵² *Id.*

⁵³ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

year.⁵⁴ Of those firms, 1,039 had revenue of less than \$25 million.⁵⁵ Based on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

16. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.⁵⁶ 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.⁵⁷ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁵⁸ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁵⁹ Of that number, 2,837 firms employed fewer than 250 employees.⁶⁰ 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.⁶¹ Of these providers, the Commission estimates that 511 providers have 1,500 or fewer employees.⁶² Consequently, using the SBA’s small business size standard, most of these providers can be considered small entities.

17. *Wireless Telephony*. Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The closest applicable industry with an SBA small business size standard is Wireless Telecommunications Carriers (except Satellite).⁶³ The size standard for this industry under SBA rules is that a business is small if it has 1,500 or fewer employees.⁶⁴ For this industry, U.S. Census Bureau data for 2017 show that there were 2,893 firms that operated for the

⁵⁴ 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>.

⁵⁵ *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.

⁵⁶ 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>.

⁵⁷ *Id.*

⁵⁸ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁵⁹ 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 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePreview=false>.

⁶⁰ *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.

⁶¹ 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>.

⁶² *Id.*

⁶³ 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>.

⁶⁴ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

entire year.⁶⁵ Of this number, 2,837 firms employed fewer than 250 employees.⁶⁶ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 331 providers that reported they were engaged in the provision of cellular, personal communications services, and specialized mobile radio services.⁶⁷ Of these providers, the Commission estimates that 255 providers have 1,500 or fewer employees.⁶⁸ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

3. Internet Service Providers (ISPs)

18. *Wired Broadband Internet Access Service Providers (Wired ISPs).*⁶⁹ 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.⁷⁰ Wired broadband Internet services fall in the Wired Telecommunications Carriers industry.⁷¹ The SBA small business size standard for this industry 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 that operated in this industry for the entire year.⁷³ Of this number, 2,964 firms operated with fewer than 250 employees.⁷⁴

19. Additionally, according to Commission data on Internet access services as of December 31, 2018, nationwide there were approximately 2,700 providers of connections over 200 kbps in at least one direction using various wireline technologies.⁷⁵ 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

⁶⁵ 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>.

⁶⁶ *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.

⁶⁷ 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>.

⁶⁸ *Id.*

⁶⁹ Formerly included in the scope of the Internet Service Providers (Broadband), Wired Telecommunications Carriers and All Other Telecommunications small entity industry descriptions.

⁷⁰ See 47 CFR § 1.7001(a)(1).

⁷¹ See U.S. Census Bureau, *2017 NAICS Definition, "517311 Wired Telecommunications Carriers,"* <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁷² See 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

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&hidePreview=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 See *IAS Status 2018*, Fig. 30 (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.

of the general data on fixed technology service providers in the Commission's 2022 *Communications Marketplace Report*,⁷⁶ we believe that the majority of wireline Internet access service providers can be considered small entities.

20. *Wireless Broadband Internet Access Service Providers (Wireless ISPs or WISPs)*.⁷⁷ Providers of wireless broadband Internet access service include fixed and mobile wireless providers. The Commission defines a WISP as "[a] company that provides end-users with wireless access to the Internet[.]"⁷⁸ Wireless 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.⁷⁹ Neither the SBA nor the Commission have developed a size standard specifically applicable to Wireless Broadband Internet Access Service Providers. The closest applicable industry with an SBA small business size standard is Wireless Telecommunications Carriers (except Satellite).⁸⁰ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁸¹ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁸² Of that number, 2,837 firms employed fewer than 250 employees.⁸³

21. Additionally, according to Commission data on Internet access services as of December 31, 2018, nationwide there were approximately 1,209 fixed wireless and 71 mobile wireless providers of connections over 200 kbps in at least one direction.⁸⁴ 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, based on data in the Commission's 2022 *Communications Marketplace Report* on the small number of large mobile wireless nationwide and regional facilities-based providers, the dozens of small regional facilities-based providers and the number of wireless mobile virtual network providers in general,⁸⁵ as well as on terrestrial fixed wireless broadband providers in general,⁸⁶ we believe that the majority of wireless Internet access service providers can be considered small entities.

⁷⁶ 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*).

⁷⁷ Formerly included in the scope of the Internet Service Providers (Broadband), Wireless Telecommunications Carriers (except Satellite) and All Other Telecommunications small entity industry descriptions.

⁷⁸ Federal Communications Commission, Internet Access Services: Status as of December 31, 2018 (*IAS Status 2018*), Industry Analysis Division, Office of Economics & Analytics (September 2020). The report can be accessed at <https://www.fcc.gov/economics-analytics/industry-analysis-division/iad-data-statistical-reports>.

⁷⁹ See 47 CFR § 1.7001(a)(1).

⁸⁰ 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>.

⁸¹ See 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁸² 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>.

⁸³ *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.

⁸⁴ See *IAS Status 2018*, Fig. 30.

⁸⁵ See *Communications Marketplace Report*, GN Docket No. 22-203, 2022 WL 18110553 at 27, paras. 64-68. (2022) (2022 *Communications Marketplace Report*).

⁸⁶ *Id.* at 8, para. 22.

22. 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.⁸⁷ The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.⁸⁸ 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.⁸⁹ Of those firms, 1,039 had revenue of less than \$25 million.⁹⁰ Consequently, under the SBA size standard a majority of firms in this industry can be considered small.

4. Vendors of Internal Connections

23. *Vendors of Infrastructure Development or Network Buildout.* Neither the Commission nor the SBA have developed a small business size standard specifically directed toward manufacturers of network facilities. There are two applicable industries in which manufacturers of network facilities could fall and each have different SBA business size standards. The applicable industries are “Radio and Television Broadcasting and Wireless Communications Equipment”⁹¹ with a SBA small business size standard of 1,250 employees or less,⁹² and “Other Communications Equipment Manufacturing”⁹³ with a SBA small business size standard of 750 employees or less.⁹⁴ U.S. Census Bureau data for 2017 show that for Radio and Television Broadcasting and Wireless Communications Equipment there were 656 firms in this industry that operated for the entire year.⁹⁵ Of this number, 624 firms had fewer than 250 employees.⁹⁶ For Other Communications Equipment Manufacturing, U.S. Census Bureau data for 2017 show that there were 321 firms in this industry that operated for the entire year.⁹⁷ Of that number, 310

⁸⁷ See U.S. Census Bureau, *2017 NAICS Definition*, “517919 All Other Telecommunications,” <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁸⁸ See 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

⁸⁹ 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: EC1700SIZEEVFIRM, NAICS Code 517919, <https://data.census.gov/cedsci/table?y=2017&n=517919&tid=ECNSIZE2017.EC1700SIZEEVFIRM&hidePreview=false>.

⁹⁰ *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.

⁹¹ 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>.

⁹² See 13 CFR § 121.201, NAICS Code 334220.

⁹³ See U.S. Census Bureau, *2017 NAICS Definition*, “334290 Other Communications Equipment Manufacturing,” <https://www.census.gov/naics/?input=334290&year=2017&details=334290>.

⁹⁴ See 13 CFR § 121.201, NAICS Code 334290.

⁹⁵ See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPfirm, NAICS Code 334220, <https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/31SG2//naics~334220.

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. 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.

⁹⁷ 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 334290, <https://data.census.gov/cedsci/table?y=2017&n=334290&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>.

firms operated with fewer than 250 employees.⁹⁸ Based on this data, we conclude that the majority of firms in this industry are small.

24. *Telephone Apparatus Manufacturing.* This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment.⁹⁹ These products may be stand-alone or board-level components of a larger system.¹⁰⁰ Examples of products made by these establishments are central office switching equipment, cordless and wire telephones (except cellular), PBX equipment, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.¹⁰¹ The SBA small business size standard for Telephone Apparatus Manufacturing classifies businesses having 1,250 or fewer employees as small.¹⁰² U.S. Census Bureau data for 2017 show that there were 189 firms in this industry that operated for the entire year.¹⁰³ Of this number, 177 firms operated with fewer than 250 employees.¹⁰⁴ Thus, under the SBA size standard, the majority of firms in this industry can be considered small.

25. *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.¹⁰⁵ 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.¹⁰⁶ The SBA small business size standard for this industry classifies businesses having 1,250 employees or less as small.¹⁰⁷ U.S. Census Bureau data for 2017 show that there were 656 firms in this industry that operated for the entire year.¹⁰⁸ Of this number, 624 firms had fewer than 250 employees.¹⁰⁹ Thus, under the SBA size standard, the majority of firms in this industry can be considered

⁹⁸ *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.

⁹⁹ See U.S. Census Bureau, 2017 NAICS Definition, “334210 Telephone Apparatus Manufacturing,” <https://www.census.gov/naics/?input=334210&year=2017&details=334210>.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² See 13 CFR § 121.201, NAICS Code 334210.

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 334210, <https://data.census.gov/cedsci/table?y=2017&n=334210&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 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>.

¹⁰⁶ *Id.*

¹⁰⁷ See 13 CFR § 121.201, NAICS Code 334220.

¹⁰⁸ 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 334220, <https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/31SG2/naics~334220.

¹⁰⁹ *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.

small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

26. The potential rule changes discussed in the *Notice* if adopted, could impose some new or modified reporting, recordkeeping, or other compliance requirements on small entities. The *Notice* proposes to apply existing E-Rate recordkeeping requirements to funding provided for the off-premises use of Wi-Fi hotspots and services and seeks comment on whether additional recordkeeping requirements should be imposed, such as the requirement in the ECF program to maintain detailed equipment and service inventories for each device or service purchased with ECF support and provided to an individual student, school staff member, or library patron. The proposed actions would require schools and libraries to maintain inventory records of the Wi-Fi hotspot device make/model, the device serial number, the name of the person to whom the device was provided, and the dates the device was loaned out and returned to the school or library; and for services, the type of service provided, the broadband plan details (i.e., upload and download speeds and the monthly data cap), and the name of the person to whom the service was provided. To ensure the equipment and services are being used, the *Notice* also seeks comment on whether applicants and/or service providers should be required to retain and produce monthly usage reports for Wi-Fi hotspots and services funded through the E-Rate program.

27. Additionally, regarding our proposal to prioritize for students, school staff, and library patrons that lack Internet access outside of school or library premises, the *Notice* asks whether applicants should be required to determine and maintain records of students', school staff members', or library patrons' unmet need by, for example, conducting surveys. Although, new recordkeeping requirements may be implemented if the proposals in the *Notice* are adopted, most of the recordkeeping would be similar to what most applicants, including small entities, are already familiar with and currently undertaking for the E-Rate and ECF programs.

28. In assessing the cost of compliance for small entities, at this time the Commission cannot quantify the cost of compliance with any of the potential rule changes that may be adopted. Further, the Commission is not in a position to determine whether, if adopted, the proposals and matters upon which the *Notice* seeks comment will require small entities to hire professionals to comply. The information we receive in comments, including, where requested, cost information, will help the Commission identify and evaluate relevant compliance matters for small entities, including compliance costs and other burdens that may result from potential changes discussed in the *Notice*.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

29. 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 rule 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.”¹¹⁰

30. In the *Notice*, the Commission takes steps to minimize the economic impact on small entities of the proposed changes to the E-Rate program on which it seeks comment. Absent the proposed action, schools and libraries receiving ECF program support may no longer be able to provide the broadband connectivity needed to engage in remote learning to their students, school staff, and library patrons once the program ends. The *Notice* therefore proposes to make the off-premises use of Wi-Fi hotspots and services eligible for E-Rate funding to support remote learning for students, school staff, and library patrons with unmet needs, which, if adopted, will reduce the burden on applicants, including small

¹¹⁰ 5 U.S.C. § 603(c)(1) – (c)(4).

entities, who seek to provide students, school staff, and library patrons the off-premise broadband connectivity needed for educational success. This proposal will also lessen the administrative requirements of cost-allocating certain portions of services used off-premises from applicants' funding requests. The *Notice* also seeks comment relevant to small entities, including entities in remote areas, by asking how to conduct competitive bidding for off-premises wireless services delivered to multiple locations.

31. Additionally, the *Notice* invites commenters to suggest other measures or alternatives the Commission should consider to best implement E-Rate funding for Wi-Fi hotspots and Internet services for off-premises use. This may result in proposals from small entities that lessen the economic impact of the proposed changes to the E-Rate program, and increase their participation. The Commission expects the information received in the comments to allow it to more fully consider ways to minimize the economic impact on small entities and explore additional alternatives to improve and simplify opportunities for small entities to participate in the E-Rate program.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

32. None.

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Addressing the Homework Gap through the E-Rate Program*, WC Docket No. 21-31, Notice of Proposed Rulemaking (November 1, 2023).

Last week, I spent time at the Brooklyn Public Library. It was bustling. This is a library with more than 850,000 active cardholders. It is a center for physical books, digital materials, access to information and access to culture. In fact, right now the library has a one-of-a-kind exhibit celebrating Brooklyn native Jay-Z and the 50th anniversary of hip hop. It was a treat to see a library so modern and thoughtful about serving its community.

Across the board, I think keeping our institutions modern is important. That is why we are taking a fresh look at the program we have to support libraries, known as E-Rate.

For more than two decades, E-Rate has been a quiet powerhouse. It has provided schools and libraries across the country—including the Brooklyn Public Library—with support for communications. As a result over the years it has helped millions of students and library patrons get online with access to high-speed internet service.

During the pandemic we saw the power of this kind of community-driven effort to help close the digital divide. Many schools and libraries found ways to build on their efforts to support internet access by loaning out Wi-Fi hotspots. Some used this agency’s Emergency Connectivity Fund to do so. But this fund was a one-time effort that expires next year. However, it demonstrated what a modern library and modern school library can do to help a community learn without limits and keep connected.

Here we seek to build on that learning from the pandemic and modernize the E-Rate program. Specifically, we start a rulemaking to consider how both libraries and school libraries can loan out Wi-Fi hotspots across the country and support high-speed internet access for patrons and students in rural America, urban America, and everything in between. I believe we can make it a baseline that every library and school library has these hotspots for loan—and we can use E-Rate to do it.

**DISSENTING STATEMENT OF
COMMISSIONER BRENDAN CARR**

Re: *Addressing the Homework Gap through the E-Rate Program*, WC Docket No. 21-31, Notice of Proposed Rulemaking (November 1, 2023).

The FCC's USF program faces a broader set of challenges today than at nearly any other point in its history. The contribution factor has skyrocketed above 30%. The USAC process is overdue for reform. And parties are challenging the lawfulness of the entire USF program in appellate courts across the country. The FCC does not make any of those issues easier to resolve with today's E-Rate decision.

Last month, the FCC took a first step toward expanding the Commission's E-Rate authority beyond the bounds set by Congress in Section 254 of the Communications Act. In my dissent, I warned that we would soon see additional efforts towards even further expansion. And here we are, just weeks later, with yet another item that seeks to rewrite Section 254 and overrule the choices Congress made when it codified the statute.

But do not misunderstand—that is a feature of this plan, not a bug. Those who are pushing for evermore expansion of E-Rate firmly believe that statutory terms such as school, library, and classroom no longer have any relevance in the current era of schooling. E-Rate funds should be spent wherever learning takes place, the argument goes. Indeed, today's NPRM seems to have replaced the schoolhouse with an “anytime/anywhere” approach in the “modern educational environment.” But the problem with this approach is that it reads the express language Congress included in the statute right out of the Act. And whatever one thinks about the modern educational environment, the FCC is not free to ignore the express limitations on our authority imposed by Congress—no matter how laudable the agency's intentions may be.

Additionally, I continue to be concerned that we're on track to expand the USF program into an entirely new funding area without addressing some of the fundamental contributions, disbursement, and oversight concerns that I and others have been raising for years now. We cannot continue to spend other peoples' money in this way without a real conversation at this agency about reform. I have put ideas out there. I would welcome a discussion about paths forward. Furthermore, at a time when entire USF program is being challenged in court cases in multiple federal circuits, the FCC's continued steps to push beyond the bounds set by Congress in Section 254 will only make the FCC lawyers' tasks in those cases that much harder.

Ultimately, it is clear to me that the majority and I have a fundamental difference in the reading of the Commission's E-Rate authority in Section 254. Moreover, after the FCC moved forward with a declaratory ruling in the Wi-Fi on school busses proceeding last month—despite my request that the item be changed to a notice of proposed rulemaking to allow for public comment on significant factual and legal deficiencies in the item—the agency has already made the legal and policy cuts that it purports to tee up in this NPRM, relegating it to little more than a procedural nicety on the road to a decision that has already been made.

Accordingly, I am unable to support this item. I dissent.

**STATEMENT OF
COMMISSIONER GEOFFREY STARKS**

Re: *Addressing the Homework Gap through the E-Rate Program*, WC Docket No. 21-31, Notice of Proposed Rulemaking (November 1, 2023).

During the COVID pandemic we saw firsthand the positive impact that resulted from providing Wi-Fi connectivity for students and library patrons through hotspots. With schools temporarily closed, students who had long struggled with the homework gap and digital inequality were now able to continue their education and even complete their homework at night.

So I'm glad that we have learned from our experiences in the Emergency Connectivity Fund and propose to permit eligible schools and libraries to receive E-Rate support for Wi-Fi hotspots and wireless Internet services to be used off-campus for remote learning and educational purposes. These devices, with the same restrictions for E-Rate funded hotspots as any other E-Rate funded connections in a school, would update and modernize the E-Rate program consistent with how education occurs today. We also have significant experience in creating safeguards to protect against waste, fraud, and abuse in the distribution of Wi-Fi hotspots in order to protect the Universal Service Fund. I support doing everything we can to help our children succeed in their education, and I look forward to record that develops from this *Notice* and thank FCC staff for their work on the item.

**DISSENTING STATEMENT OF
COMMISSIONER NATHAN SIMINGTON**

Re: *Addressing the Homework Gap through the E-Rate Program*, WC Docket No. 21-31, Notice of Proposed Rulemaking (November 1, 2023).

This proposed E-Rate expansion is even more lawless and wasteful than the last. Just a few weeks ago, we were told that school buses are actually classrooms. Today, we are asked to believe that when Congress says schools, classrooms, and libraries, it actually means private homes, offices, amusement parks, and, really, anywhere and everywhere a mobile hotspot could be used. I am disappointed by this rapidly metastasizing disregard for the law. It is not clear at this point that there is any location where the Commission would decline to fund connectivity on the premise that someone, sometime, might decide to study there.

In addition to being obviously illegal, E-Rate funding of mobile hotspots would be a waste of money. The federal government already subsidizes home and mobile internet service through affordability programs, like ACP and Lifeline, and high-cost programs, like BEAD, RDOF, and ACAM. In fact, 95% of teenagers already have access to a smartphone.²⁶² And almost every new smartphone already supports mobile hotspot capability. This is a solution—a very expensive solution—in search of a problem.

²⁶² <https://www.pewresearch.org/internet/2022/08/10/teens-social-media-and-technology-2022>

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

In the Matter of)
)
Schools and Libraries Cybersecurity Pilot Program) WC Docket No. 23-234
)

NOTICE OF PROPOSED RULEMAKING

Adopted: November 8, 2023

Released: November 13, 2023

Comment Date: (30 days after publication in the Federal Register)

Reply Comment Date: (60 days after publication in the Federal Register)

By the Commission: Chairwoman Rosenworcel issuing a statement.

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I. INTRODUCTION

1. Broadband connectivity and Internet access are increasingly important for K-12 students and adults alike. Whether for online learning, job searching, or connecting with peers and the community, high-speed broadband is critical to educational and personal success in the modern world. However, although broadband connectivity and Internet access can simplify and enhance the daily lives of K-12 students, school staff, and library patrons, they can also be used by malicious actors to steal personal information, compromise online accounts, and cause online personal harm or embarrassment. Similarly, while advances in online technology benefit K-12 schools and libraries by expanding teaching and education beyond the physical confines of a school or library building, and permitting students and library patrons to complete online homework assignments, conduct online research, and learn the computer skills necessary to secure a job in the future, K-12 schools and libraries increasingly find themselves targets for attackers who would disrupt their ability to educate, illegally obtain sensitive student, school staff, and library patron data, and hold their broadband networks hostage to extract ransom payments. Given the growing importance of broadband connectivity and Internet access for K-12 schools and libraries, the Federal Communications Commission (Commission) proposes a three-year pilot

program within the Universal Service Fund (USF or Fund) to provide up to \$200 million available to support cybersecurity and advanced firewall¹ services for eligible schools and libraries.

2. Specifically, in this Notice of Proposed Rulemaking (Notice), we propose the creation of a Schools and Libraries Cybersecurity Pilot Program (Pilot or Pilot program) that would allow us to obtain valuable data concerning the cybersecurity and advanced firewall services that would best help K-12 schools and libraries address the growing cyber threats and attacks against their broadband networks and data, while also helping us to better understand the most effective way USF support could be used to help schools and libraries address these significant concerns while promoting the E-Rate program's longstanding goal of promoting basic connectivity. It is clear that the E-Rate program² alone cannot fully address the K-12 schools' and libraries' cyber concerns and protect their broadband networks and data from cyber threats and attacks.³ As proposed, the Pilot seeks to learn more about which cybersecurity and advanced firewall services will have the greatest impact in helping K-12 schools and libraries protect their broadband networks and data, while also ensuring that limited USF funds are being utilized in an effective manner. For example, we expect that this Pilot will necessarily need to ensure that participating K-12 schools and libraries fully leverage the free and low-cost K-12 cybersecurity resources provided by our federal partners, the Department of Homeland Security's (DHS) Cybersecurity and Infrastructure Security Agency (CISA),⁴ and the U.S. Department of Education (DOE),⁵ to complement the Pilot's work and make the most effective use of Pilot program funding.⁶

¹ The term "advanced firewall services" refers to services that are not currently eligible for E-Rate support and is used throughout this Notice as distinct from the "basic firewall services" that are currently eligible for support in the program. See *infra* para. 12; see also *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9008-15, paras. 436-49 (1997) (*Universal Service First Report and Order*); 47 U.S.C. § 254(h)(2)(A).

² The E-Rate program is formally known as the schools and libraries universal service support mechanism.

³ See CISA, Protecting Our Future: Partnering to Safeguard K-12 Organizations from Cybersecurity Threats at 12-18 (2023), https://www.cisa.gov/sites/default/files/2023-01/K-12report_FINAL_V2_508c_0.pdf (discussing the importance of recognizing and actively addressing things like insufficient IT resources and cybersecurity capacity restraints, and focusing on collaboration and resource sharing) (CISA K-12 Cybersecurity Report); GAO, Critical Infrastructure Protection Additional Federal Coordination is Needed to Enhance K-12 Cybersecurity at 25-27 (2022), <https://www.gao.gov/assets/gao-23-105480.pdf> (discussing the various non-monetary cybersecurity challenges faced by K-12 schools and school districts, including inadequate staffing, difficulty maintaining hardware and software upgrades, lack of end-user education on cyber threats, low prioritization by school district leaders, and inadequate cyber policies and procedures) (GAO K-12 Cybersecurity Report).

⁴ See CISA K-12 Cybersecurity Report at 22, Appendix 1: K-12 Resource Repository (providing free and low-cost resources for each recommendation in the Report); CISA, Free Cybersecurity Services and Tools, <https://www.cisa.gov/resources-tools/resources/free-cybersecurity-services-and-tools> (last visited Nov. 9, 2023); CISA, Partnering to Safeguard K-12 Organizations from Cybersecurity Threats Online Toolkit (2023), <https://www.cisa.gov/online-toolkit-partnering-safeguard-k-12-organizations-cybersecurity-threats> (aligning the three recommendations from the Report with key actions, and related trainings and resources, to help K-12 schools and school districts create and implement robust cybersecurity programs) (CISA Online Toolkit).

⁵ See *infra* for a discussion of three recently released DOE K-12 Digital Infrastructure Briefs that provide information about free and low-cost cybersecurity resources.

⁶ See, e.g., U.S. Department of Education, Office of Educational Technology, *Cybersecurity Resources for K-12 Districts and Higher Education Institutions* <https://tech.ed.gov/cyberhelp/> (last visited Nov. 9, 2023) (providing cybersecurity resources aimed at parents, students, and K-12 educational organizations); see also National Institute of Standards and Technology, National Initiative for Cybersecurity Education (NICE), *Free and Low Cost Cybersecurity Learning Content*, <https://www.nist.gov/itl/applied-cybersecurity/nice/resources/online-learning-content> (last visited Nov. 9, 2023) (providing list of free cybersecurity learning materials and products); National Institute of Standards and Technology (NIST), Framework for Improving Critical Infrastructure Cybersecurity (2018), <https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.04162018.pdf> (outlining a cybersecurity risk

(continued....)

3. As discussed further below, we propose that the program operate as a new Pilot within the USF, which would provide funding to eligible K-12 schools and libraries to defray the qualifying costs of receiving the cybersecurity and advanced firewall services needed to protect their E-Rate-funded broadband networks and data from the growing number of K-12 school- and library-focused cyber events.⁷ Additionally, we seek comment on the applicability of the Children’s Internet Protection Act (CIPA) to the Pilot program and USF-funded cybersecurity and advanced firewall services for schools and libraries.

4. We expect this Pilot program will benefit K-12 schools and libraries that are responding to a wide breadth of cyber threats and attacks that impact their ability to protect their broadband networks and data. Data gathered from the Pilot program will help us understand whether and how USF funds could be used to help address the K-12 school and library cybersecurity challenges, and the data and information collected through this Pilot program may also aid in the consideration of broader reforms across the government—including potential statutory changes—to help schools and libraries address the significant K-12 school and library cybersecurity concerns. In proposing this Pilot, the Commission is mindful of the E-Rate program’s longstanding goal of promoting basic connectivity, the Commission’s obligation to be a careful and prudent steward of the limited universal service funding, and the need to balance its actions in this proceeding against competing priorities, bearing in mind that this funding is obtained through assessments collected from telecommunications carriers that are typically passed on to and paid for by U.S. consumers.

II. BACKGROUND

5. The ongoing proliferation of innovative digital learning technologies, and the need to connect students, teachers, and library patrons to information, jobs, and life-long learning have led to a steady rise in the demand for bandwidth in schools and libraries.⁸ Thus, in recent years, the Commission has refocused the E-Rate program from supporting legacy telecommunications services to supporting broadband services, with a goal to significantly expand Wi-Fi and broadband access to millions of students and library patrons across the nation.⁹ But the shift to modern connectivity is not without its challenges. Computers, laptops, tablets, and other devices that connect to the Internet or are capable of storing and sharing sensitive data are often targets of hackers that use spyware, malware, and other programs to gain unauthorized access to data, track web usage and financial transactions, and steal passwords and other personally identifiable information (PII) through the devices.¹⁰

6. K-12 schools and libraries are not immune to these broadband challenges or from becoming targets of cyberattacks. In fact, the targeting of K-12 schools and libraries by malicious actors came to the fore in 2020, when the COVID-19 pandemic “escalated cybersecurity issues within the

(Continued from previous page) _____
framework for use by owners and operators of critical infrastructure); GSMA, Mobile Learning Policy Handbook at 28-31 (2014), https://www.gsma.com/iot/wp-content/uploads/2014/07/mLearning_handbook_26_06_14.pdf (discussing safety, security, and privacy for student mobile devices).

⁷ See, e.g., GAO K-12 Cybersecurity Report at 9, 12 (explaining that by October 2022, schools in most states had reported cyberattacks on their systems and the reported number of ransomware incidents involving K-12 schools increased significantly in August and September of 2020).

⁸ FCC, *E-Rate: Universal Service Program for Schools and Libraries* (Sept. 15, 2021), <https://www.fcc.gov/consumers/guides/universal-service-program-schools-and-libraries-e-rate>.

⁹ See FCC, *Universal Service Program for Schools and Libraries (E-Rate)* (Jan. 13, 2015), <https://www.fcc.gov/general/universal-service-program-schools-and-libraries-e-rate> (discussing the modernization of the E-Rate program to transition to focus on broadband connectivity and providing links to the FCC’s modernization orders).

¹⁰ FCC, *Tips for Secure Web Navigation and Transactions* (Mar. 11, 2020), <https://www.fcc.gov/consumers/guides/secure-web-navigation-and-transactions>.

education industry.”¹¹ Recent information shows that schools and libraries are vulnerable to increased cyber threats and attacks, often leading to the disruption of school and library operations, loss of learning, reductions in available bandwidth, significant monetary losses, and the leaking and theft of students’, school staff members’, and library patrons’ personal information and confidential data.¹² According to CISA, malicious actors have even “disrupted live-conferenced classroom settings by verbally harassing students, displaying pornography and violent images, and doxing meeting attendees.”¹³ Predictions are that K-12 schools and libraries will continue to be prime targets for malicious actors, primarily because they are data-rich environments that tend to lag behind in terms of their available resources and

¹¹ Rachael Altman, *Cybersecurity Concerns Escalate in the Education Industry* (Nov. 2, 2021), <https://www.g2.com/articles/cybersecurity-concerns-in-the-education-industry> (reporting an 18% increase in cyberattacks from 2019 to 2020). See also CISA, *Cyber Threats to K-12 Remote Learning Education* (December 2020), https://www.cisa.gov/sites/default/files/publications/Cyber_Threats_to_K-12_Remote_Learning_Fact_Sheet_15_Dec_508_0.pdf (“Malicious cyber actors are targeting school computer systems, slowing access, and rendering the systems inaccessible to basic functions, including remote learning. In some instances, ransomware actors stole and threatened to leak confidential student data unless institutions paid a ransom.”); CISA, *Cyber Actors Target K-12 Distance Learning Education to Cause Disruptions and Steal Data* (Dec. 10, 2020), <https://www.cisa.gov/news-events/cybersecurity-advisories/aa20-345a> (“The FBI, CISA, and MS-ISAC assess malicious cyber actors are targeting kindergarten through twelfth grade (K-12) educational institutions, leading to ransomware attacks, the theft of data, and the disruption of distance learning services. Cyber actors likely view schools as targets of opportunity, and these types of attacks are expected to continue through the 2020/2021 academic year. These issues will be particularly challenging for K-12 schools that face resource limitations; therefore, educational leadership, information technology personnel, and security personnel will need to balance this risk when determining their cybersecurity investments.”).

¹² See CISA, *Cyber Threats to K-12 Remote Learning Education*, <https://www.cisa.gov/stopransomware/cyber-threats-k-12-remote-learning-education> (last visited Nov. 9, 2023) (discussing the rise in cyber threats and cyberattacks against K-12 educational entities and describing some of the more onerous actions employed by malicious actors); GAO, *As Cyberattacks Increase on K-12 Schools, Here Is What’s Being Done* (Dec. 1, 2022), <https://www.gao.gov/blog/cyberattacks-increase-k-12-schools-here-whats-being-done> (noting that the scale and number of cyberattacks against K-12 educational entities increased during COVID-19 and providing examples of how schools are being attacked); K12 SIX, *The K-12 Cyber Incident Map*, <https://www.k12six.org/map> (last visited Nov. 9, 2023) (categorizing the 1,619 cyberattacks that occurred between 2016 and 2022 by type of attack using an interactive map); Career Charge, *Top 5 K-12 Cybersecurity Threats Schools are Facing* (Jan. 17, 2023), <https://corporatetraining.usf.edu/blog/top-5-k-12-cybersecurity-threats-schools-are-facing> (explaining that according to the 2019 State of Malware report, education is consistently among the top 10 industries targeted by attackers because schools are data-rich environments, lack IT funding for their infrastructure, provide few cybersecurity professional development opportunities for school staff, and are comprised of students who are tech savvy but lack good cyber hygiene practices); Center for Internet Service, *New MS-ISAC Report Details Cybersecurity Challenges of K-12 Schools* (Nov. 14, 2022), <https://www.prnewswire.com/news-releases/new-ms-isac-report-details-cybersecurity-challenges-of-k-12-schools-301675262.html> (stating that 29% of K-12 MS-ISAC member organizations reported being victims of a cyber incident in the 2021-2022 school year); Will Caverly, *Ransomware Attacks at Libraries: How They Happen, What to Do* (May 10, 2021), <https://publiclibrariesonline.org/2021/05/ransomware-attacks-at-libraries-how-they-happen-what-to-do/> (describing a ransomware attack at the Northampton Public Library that resulted in a two-week closure while the library’s IT firm sorted out the malware problems); Kevin Regan, *Cyber Risks No Longer Science-Fiction for Libraries* (July 19, 2021), <https://www.insurancejournal.com/magazines/mag-features/2021/07/19/623028.htm> (explaining that the names and addresses stored by libraries may be all attackers need to invade patrons’ privacy, and pose a threat to their finances and identity); Pierluigi Paganini, *Boston Public Library Discloses Cyberattack* (Aug. 30, 2021), <https://securityaffairs.com/121632/cyber-crime/boston-public-library-cyberattack.html> (disclosing a cyberattack that crippled the computer network of the Boston Public Library).

¹³ See CISA, *Cyber Threats to K-12 Remote Learning Education* (Dec. 2020), https://www.cisa.gov/sites/default/files/publications/Cyber_Threats_to_K-12_Remote_Learning_Fact_Sheet_15_Dec_508_0.pdf (listing “doxing” as a common cybersecurity concern and explaining that it is “[t]he act of compiling or publishing personal information about an individual on the internet, typically with malicious intent”).

cybersecurity program maturity.¹⁴

7. *Cybersecurity Act of 2021, and Actions by Federal Partners to Address K-12 Cybersecurity Concerns.* Recognizing that K-12 schools across the nation faced increased cyber threats and attacks that threaten their networks and have the potential to provide unauthorized access to sensitive student and school staff information—e.g., grades, medical records, and PII—in October 2021, the President signed into law the K-12 Cybersecurity Act of 2021.¹⁵ The Act instructed the Director of CISA to: (1) conduct a study to analyze how certain cybersecurity risks specifically impacted K-12 educational institutions; (2) evaluate the cybersecurity challenges K-12 educational institutions faced when implementing cybersecurity protocols and securing information systems and data; (3) identify cybersecurity challenges related to remote learning; and (4) evaluate the most accessible ways to communicate cybersecurity recommendations and tools.¹⁶

8. In January 2023, CISA published its report detailing the results of its study and providing three recommendations to help K-12 entities address the cybersecurity risks targeting the K-12 school community.¹⁷ Specifically, CISA recommended that K-12 school entities: (1) invest in the most impactful security measures, like multi-factor authentication (MFA), patch management, minimizing exposure to common attacks, and building toward a mature cybersecurity plan;¹⁸ (2) recognize and actively address resource constraints¹⁹ by, for example, leveraging federal, state, and local grant programs,²⁰ utilizing free

¹⁴ Center for Internet Security, *New MS-ISAC Report Details the Cybersecurity Challenges of K-12 Schools* (Nov. 14, 2022), <https://www.prnewswire.com/news-releases/new-ms-isac-report-details-cybersecurity-challenges-of-k-12-schools-301675262.html> (predicting that “cyber threat actors are highly likely to target K-12 school districts in the remainder of the 2022-2023 school year”); Will Caverly, *Ransomware Attacks at Libraries: How They Happen, What to Do* (May 10, 2021), <https://publiclibrariesonline.org/2021/05/ransomware-attacks-at-libraries-how-they-happen-what-to-do/> (noting that “malicious hacking attacks of institutions are on the rise, particularly after the onset of the COVID-19 pandemic” and “[c]orporations, including nonprofits like public libraries, face greater dangers from these attacks”).

¹⁵ K-12 Cybersecurity Act, 2021, H.R. 17-122, Pub. L. No. 117-47, 117th Cong., (2021) (enacted), available at <https://www.govinfo.gov/content/pkg/BILLS-117s1917enr/pdf/BILLS-117s1917enr.pdf>.

¹⁶ *Id.* at § 3(b)(A)-(D).

¹⁷ See generally Press Release, CISA, CISA Releases Protecting Our Future: Partnering to Safeguard K-12 Organizations from Cybersecurity Threats (Jan. 24, 2023), <https://www.cisa.gov/news-events/alerts/2023/01/24/cisa-releases-protecting-our-future-partnering-safeguard-k-12>; CISA K-12 Cybersecurity Report.

¹⁸ CISA K-12 Cybersecurity Report at 1, 3, 12-14. More specifically, the Report recommended that “[i]n an environment of limited resources, [K-12] leaders should leverage security investments to focus on the most impactful steps. K-12 entities should begin with a small number of prioritized investments: deploying multi-factor authentication (MFA), mitigating known exploited vulnerabilities, implementing and testing backups, regularly exercising an incident response plan, and implementing a strong cybersecurity training program. K-12 entities should then progress to fully adopting CISA’s Cybersecurity Performance Goals (CPGs) and mature to building an enterprise cybersecurity plan aligned around the NIST Cybersecurity Framework (CSF).” CISA K-12 Cybersecurity Report at 3.

¹⁹ *Id.* at 3, 12, 16-17. More specifically, the Report recommended that “[c]ybersecurity risk management . . . be elevated as a top priority for administrators, superintendents, and other leaders at every K-12 institution. [K-12] [l]eaders must take creative approaches to securing necessary resources, including leveraging available grant programs, working with technology providers to benefit from low-cost services and products that are secure by design and default, and urgently reducing the security burden by migrating to secure cloud environments and trusted managed services.” CISA K-12 Cybersecurity Report at 3.

²⁰ See *id.* at 16 (discussing the State and Local Cybersecurity Grant Program (SLCGP) managed by CISA and the Federal Emergency Management Agency (FEMA), which will provide grants totaling one billion dollars over four years, and the Homeland Security Grant Program (HSGP), which dedicates 7.5% of funds to support critical infrastructure cybersecurity).

or low-cost services,²¹ and requiring technology providers to enable strong security controls at no additional charge;²² and (3) focus on collaboration and information-sharing by joining groups like the Multi-State Information Sharing and Analysis Center (MS-ISAC)²³ and K-12 Security Information Exchange (K12 SIX),²⁴ and building long-term relationships with CISA and the Federal Bureau of Investigation (FBI) regional security personnel.²⁵ In its report, CISA also committed to working with technology providers to encourage the provision of free or low-cost security tools,²⁶ and collaborating with federal partners—including the DOE—to identify areas for cybersecurity progress and provide meaningful support to measurably reduce K-12 cybersecurity risks.²⁷ Contemporaneously with the report, CISA also released an online toolkit that delved further into the three recommendations, linking each recommendation with key actions and related free or low-cost tools and resources to help K-12 school entities take actions to immediately reduce their cybersecurity risks.²⁸

9. While CISA’s work was underway, the U.S. Government Accountability Office (GAO) was asked “to (1) determine what is known about the cost impact of cyber incidents on school districts and (2) determine the extent to which key federal agencies coordinate with other federal and nonfederal entities to help K-12 schools combat cyber threats.”²⁹ In October 2022, GAO published its report finding that additional federal coordination was needed to enhance K-12 school cybersecurity posture.³⁰ Specifically, the GAO recommended that the Secretary of Education: (1) establish a collaborative mechanism, such as a government coordinating council, to coordinate cybersecurity efforts between federal agencies and with the K-12 school community; (2) develop metrics to obtain feedback to measure

²¹ To this end, CISA has published a free Cybersecurity Services and Tools catalog that K-12 organizations can use to identify free public and private resources to help them reduce their cybersecurity risk. K-12 organizations can access the catalog, which is regularly updated, at <https://www.cisa.gov/resources-tools/resources/free-cybersecurity-services-and-tools>; see also CISA K-12 Cybersecurity Report at 17.

²² See *id.* at 17 (stating that “k-12 organizations should expect the technology used for core educational functions, like learning management and student administrative systems, to have strong security controls enabled by default for no additional charge”). For example, CISA encourages K-12 organizations to require that phishing-resistant MFA be enabled for all administrator accounts, at a minimum, for no additional charge. *Id.*

²³ Per the U.S. Government Accountability Office, “MS-ISAC is an independent, nonprofit organization that DHS designated in 2010 as the cybersecurity ISAC for state, local, tribal, and territorial governments. It provides services and information sharing to enhance state, local, tribal, and territorial governments’ ability to prevent, protect against, respond to, and recover from cyberattacks and compromises.” GAO K-12 Cybersecurity Report at 8, n.19.

²⁴ Per the U.S. Government Accountability Office, “K12 SIX is a national nonprofit information-sharing organization that assists its members from the K-12 community in protecting from cybersecurity threats.” GAO K-12 Cybersecurity Report at 2, n.7.

²⁵ *Id.* at 3, 12, 18. More specifically, the GAO report recommended “[i]nformation sharing and collaboration with peers and partners . . . to build awareness and sustain resilience. K-12 entities should participate in an information sharing forum such as the Multi-State Information Sharing and Analysis Center (MS-ISAC) and/or K12 Security Information eXchange (K12 SIX) and establish a relationship with CISA and FBI field personnel.” GAO K-12 Cybersecurity Report at 3.

²⁶ CISA K-12 Cybersecurity Report at 5.

²⁷ CISA K-12 Cybersecurity Report at 2, 19.

²⁸ See generally CISA, *Online Toolkit: Partnering to Safeguard K-12 Organizations from Cybersecurity Threats*, <https://www.cisa.gov/online-toolkit-partnering-safeguard-k-12-organizations-cybersecurity-threats> (last visited Nov. 9, 2023) (organizing the toolkit by recommendation, with each recommendation containing a description, applicable actions, and additional resources). CISA derived the toolkit from its broader list of cybersecurity performance goals. *Id.*

²⁹ See GAO K-12 Cybersecurity Report at 36.

³⁰ See generally GAO K-12 Cybersecurity Report.

the effectiveness of its cybersecurity products and services for school districts; and (3) coordinate with CISA to determine how best to help school districts overcome the identified challenges and consider the identified opportunities for addressing cyber threats, as appropriate.³¹ The GAO further recommended that the Secretary of Homeland Security ensure that the Director of CISA develop metrics to measure the effectiveness of CISA's K-12 cybersecurity-related products and services available to school districts and determine the extent to which CISA meets the needs of state and local-level school districts to combat cybersecurity threats.³² Although GAO staff interviewed Commission staff during this engagement, the GAO did not include any specific recommendations directed to the Commission.³³

10. Most recently, the DOE released three K-12 Digital Infrastructure Briefs,³⁴ one of which it co-authored with CISA,³⁵ to provide K-12 school districts across the country with a starting place to understand the importance of securing their digital infrastructure and the immediate steps they can take to keep their networks and systems safe from cyber threats. Each Brief contains key cybersecurity considerations to help schools and educational leaders build upon and sustain core digital infrastructure for learning. For example, the DOE's and CISA's joint *K-12 Digital Infrastructure Brief: Defensible and Resilient* provides a range of key cybersecurity considerations,³⁶ and builds off of the National Institute of Standards and Technology's (NIST) Cyber Security Framework (CSF),³⁷ as well as CISA's Cross-Sector Cybersecurity Performance Goals (CPGs) "to help [school] districts strategically approach cybersecurity risks and build a more defensible and resilient digital infrastructure."³⁸ The DOE's *K-12 Digital Infrastructure Brief: Adequate and Future Proof* focuses on ensuring that schools' key digital infrastructure can evolve to meet constantly shifting technology demands,³⁹ including a brief discussion of the role artificial intelligence (AI) may play in the future of teaching and learning.⁴⁰ The DOE's *K-12 Digital Infrastructure Brief: Privacy Enhancing, Interoperable, and Useful* provides tips for ensuring data privacy, complying with federal and state privacy laws, promoting data equity, and making data systems interoperable and useful to improve school decision-making and student outcomes.⁴¹ It also contains

³¹ GAO K-12 Cybersecurity Report at 32.

³² *Id.*

³³ See GAO K-12 Cybersecurity Report (directing no recommendations to the FCC).

³⁴ See U.S. Department of Education, Office of Educational Technology, K-12 Digital Infrastructure Brief: Adequate and Future Proof (2023), https://tech.ed.gov/files/2023/08/FINAL_Adequate_FutureProof.pdf (DOE Adequate and Future Proof Brief); U.S. Department of Education, Office of Educational Technology, K-12 Digital Infrastructure Brief: Privacy Enhancing, Interoperable, and Useful (2023), https://tech.ed.gov/files/2023/08/FINAL_Privacy_Interop_Useful.pdf (DOE Privacy Enhancing Brief). See also Press Release, U.S. Department of Education, U.S. Department of Education Announces Key K-12 Cybersecurity Resilience Efforts (Aug. 7, 2023), <https://www.ed.gov/news/press-releases/department-of-education-announces-k-12-cybersecurity-resilience-efforts>.

³⁵ See U.S. Department of Education, Office of Educational Technology & CISA, K-12 Digital Infrastructure Brief: Defensible and Resilient (2023), https://tech.ed.gov/files/2023/08/DOEd-Report_20230804_-508c.pdf (DOE & CISA Defensible and Resilient Brief).

³⁶ *Id.* at 7-9 (discussing the key considerations of continuous risk management, employing analogies for understanding and addressing cybersecurity challenges, prioritizing and mitigating the greatest cybersecurity threats, preparing to respond to and recover from a cyber incident, and recognizing that vendors have a key role to play in cybersecurity).

³⁷ See National Institute of Standards and Technology, Framework for Improving Critical Infrastructure Cybersecurity, version 1.1 (Apr. 16, 2018), <https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.04162018.pdf>.

³⁸ *Id.* at 10-21 (discussing the interplay between the CISA CPGs and the five core functions of NIST 1.1 (identify, protect, detect, respond, and recover)).

³⁹ See generally DOE Adequate and Future Proof Brief.

⁴⁰ *Id.* at 11-12.

links for technical assistance and student privacy resources,⁴² including a link to a Data Breach Scenario that provides a simulated response to a district-level data breach and focuses on the tools and skills necessary to respond to the breach.⁴³ All three briefs were released in advance of the White House's *Back to School Safely: Cybersecurity Summit for K-12 Schools*, which was held on August 7, 2023.⁴⁴

11. *The E-Rate Program.* The E-Rate program was authorized by Congress as part of the Telecommunications Act of 1996 (the Telecommunications Act), and created by the Commission in 1997 to bring connectivity to and within schools and libraries.⁴⁵ Through the E-Rate program, eligible schools, libraries, and consortia (comprised of eligible schools and libraries) may request universal service discounts for eligible services and/or equipment (collectively, eligible services), including telecommunications services, Internet access, and internal connections.⁴⁶ The Commission has authority to designate services eligible for E-Rate support as part of its authority to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary classrooms and libraries.⁴⁷ This authority reflects recognition by Congress that technology needs are constantly evolving in light of “advances in telecommunications and information technologies and services.”⁴⁸ Specifically, with respect to schools and libraries, sections 254(c)(1), (c)(3), (h)(1)(B), and (h)(2) of the Communications Act of 1934, as amended (Communications Act) grant the Commission authority to specify the services that will be supported using universal service funds and to design the specific mechanisms for support.⁴⁹

12. Currently, the E-Rate program funds basic firewall service⁵⁰ provided as part of the vendor's Internet service as a category one service.⁵¹ In addition, the E-Rate program funds separately-priced basic firewalls and services as a category two service subject to the applicants' five-year category two budget.⁵² Based on funding year (FY) 2022 data, the E-Rate program funded over \$230 million

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⁴¹ See generally DOE Privacy Enhancing Brief.

⁴² *Id.* at 14.

⁴³ *Id.*

⁴⁴ See Press Release, the White House, Biden-Harris Administration Launches New Efforts to Strengthen America's K-12 Schools' Cybersecurity (Aug. 7, 2023), <https://www.whitehouse.gov/briefing-room/statements-releases/2023/08/07/biden-harris-administration-launches-new-efforts-to-strengthen-americas-k-12-schools-cybersecurity/>.

⁴⁵ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. § 151 et seq.).

⁴⁶ 47 U.S.C. §§ 254(c)(1), (c)(3), (h)(1)(B), (h)(2)(A). Congress charged the Commission with establishing competitively neutral rules to enhance access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms and libraries, and also provided the Commission with the authority to designate “special” or “additional” services eligible for universal service support for schools and libraries. 47 U.S.C. §§ 254(c)(3), (h)(2)(A).

⁴⁷ *Universal Service First Report and Order*, 12 FCC Rcd at 9008-15, paras. 436-49; see also 47 U.S.C. § 254(h)(2)(A).

⁴⁸ 47 U.S.C. § 254(c)(1).

⁴⁹ 47 U.S.C. §§ 254(c)(1), (c)(3), (h)(1)(B), (h)(2).

⁵⁰ In the E-Rate program, “firewall” is currently defined as “a hardware and software combination that sits at the boundary between an organization's network and the outside world, and protects the network against unauthorized access or intrusions.” USAC, *Schools and Libraries (E-Rate) Program Eligible Services List (ESL) Glossary*, <https://www.usac.org/wp-content/uploads/e-rate/documents/ESL-Glossary.pdf> (last visited Nov. 9, 2023).

⁵¹ See, e.g., *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, DA 21-1602, 2021 WL 6063032, at *7, *9 (WCB Dec. 17, 2021) (*FY 2022 ESL Order and ESL*). Category one services include services and equipment needed to support broadband connectivity to schools and libraries.

category one requests for data transmission and Internet access services that included basic firewall services and over \$16 million for category two requests that were for basic firewall services and components.⁵³ The Commission has previously declined to fund advanced firewall services or to extend basic firewall services to include anti-virus and anti-spam software, intrusion protection and prevention devices that monitor, detect, and deter threats to a network from external and internal attacks, and other services to protect networks, and removed virtual private networks (VPN) and other data protection services from the E-Rate eligible services list.⁵⁴ In doing so, the Commission explained that it “must balance the benefits of such protections with the costs of augmenting [the] list of supported services Although [the Commission] agree[s] that protection from unauthorized access is a legitimate concern, the funds available to support the E-Rate program are constrained. Therefore we find that, on balance, the limited E-Rate funds should not be used to support these services.”⁵⁵

13. *COVID-19 and Cybersecurity Petitions, Eligible Services List Filings, and Public Notice.* During the COVID-19 pandemic, several E-Rate stakeholders submitted petitions asking the Commission to reconsider the eligibility of advanced firewall and network security services given the increased use of schools’ broadband networks to provide remote learning to their students. On August 20, 2020, Cisco submitted a petition for waiver asking that the Commission raise applicants’ category two budgets by 10% and allow category two funding to be used for advanced network security services during the COVID-19 pandemic (i.e., for funding years 2020 and 2021).⁵⁶ On February 8, 2021, the FCC received a petition for declaratory ruling and petition for rulemaking from a group of E-Rate program stakeholders⁵⁷

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⁵² See, e.g., *id.* at *7, *9. Category two services include services and equipment needed to support broadband connectivity within schools and libraries.

⁵³ See Letter from Tom Nesbitt, Director of Program Management, E-Rate/ECF, USAC, to Trent B. Harkrader, Chief, Wireline Competition Bureau, FCC, WC Docket No. 13-184 (filed July 11, 2023), <https://www.fcc.gov/ecfs/document/10711526918691/1>.

⁵⁴ See, e.g., *Schools and Libraries Universal Support Mechanism, A National Broadband Plan for Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Sixth Report and Order, 25 FCC Rcd 18762, 18808-09, para. 105 (2010) (*Schools and Libraries Sixth Report and Order*); *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8917-18, para. 120 (2014) (*First 2014 E-Rate Order*) (removing VPNs and all other services under “Data Protection” other than basic firewalls and uninterruptible power supply/battery backup from the upcoming FY 2015 Eligible Services List to re-focus E-Rate support on internal connections necessary for deploying LANs/WANs). The Commission uses several criteria to determine whether to add services to the eligible services list (ESL). First, under the statute, a service must serve an educational purpose. See 47 U.S.C. § 254(h)(1)(B); see also *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18805, para. 99. Second, the service should be primarily or significantly used to facilitate connectivity. 47 U.S.C. § 254(h)(2)(A). Third, due to the program’s limited funds, the Commission must balance the benefits of particular services with the costs of adding them to the list of supported services. *Id.*; see also *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18805, para. 99. Section 254(h)(2)(A) of the Communications Act authorizes the Commission to designate services eligible for E-Rate support as part of its authority to enhance, to the extent technologically feasible and economically reasonable, access to advanced telecommunications and information services. 47 U.S.C. § 254(h)(2)(A). Thus, the E-Rate program is not able to fund every service that potentially serves an educational purpose, and for that reason the Commission evaluates the potential impact of funding a particular service on the E-Rate program and the USF, when considering whether to add new services to the eligible services list.

⁵⁵ *Schools and Libraries Sixth Report and Order*, 25 FCC Rcd at 18808-09, para. 105; see also *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order, 34 FCC Rcd. 11219, 11237, para. 46 (2019) (declining to fund network security features consistent with the Commission’s reasoning in the 2014 *First E-Rate Order*).

⁵⁶ Petition of Cisco Systems, Inc. for Waiver, WC Docket No. 13-184, at 1-2, 6 (filed Aug. 20, 2020), <https://www.fcc.gov/ecfs/search/search-filings/filing/10820400607480>. The Commission did not grant Cisco’s Petition for Waiver. Rather, it sought comment on the underlying issues raised in the petition. See *infra* para. 16.

requesting that the definition of “firewall” be modified to include all firewall and related features (e.g., next-generation firewall protection, endpoint protection, and advanced security), and to update the definition of broadband to include cybersecurity.⁵⁸ The Consortium for School Networking (CoSN), along with Funds for Learning (FFL), provided a study and the costs associated with adding advanced firewall and other network security services to the E-Rate program and estimated that it would cost the program about \$2.389 billion annually to fund these advanced firewall and other network security services for all K-12 schools.⁵⁹ They also asked the Commission to increase the current category two budgets to include additional funding for advanced firewall and other network security services.⁶⁰

14. As part of last year’s Eligible Services List (ESL) proceeding, a group of E-Rate stakeholders submitted comments, reply comments, and *ex parte* submissions requesting that the Commission reconsider its earlier eligibility decisions and clarify that advanced or next-generation firewalls and services, as well as other network security services, are eligible for E-Rate support.⁶¹ During that proceeding, AASA, along with 19 other national educational organizations, requested that the Commission take a measured approach in deciding whether to expand the eligibility of advanced firewalls and services, as well as other cybersecurity services.⁶² These stakeholders urged the Commission to work collaboratively with other federal agencies to “determine the products and services that are available and effective in responding to and preventing cyberattacks[;] . . . schools should not be driving the response to cyberattacks, nor should E-Rate, the only federal funding stream supporting connectivity in schools, be repurposed/redirected for this important effort.”⁶³

15. On November 15, 2022, the Commission also received a proposal from FFL for the Commission to establish a three-year pilot program to fund advanced firewalls and services as a category two service.⁶⁴ FFL also proposed that a funding cap of at least \$60 million to \$120 million be used for each of the three years.⁶⁵ FFL further proposed that in the event demand exceeds available funds, that the

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⁵⁷ The E-Rate stakeholders included the Consortium for School Networking (CoSN), Alliance for Excellence in Education, State Educational Technology Directors Association (SETDA), Council of the Great City Schools, State E-Rate Coordinators’ Alliance (SECA), and Schools, Health & Libraries Broadband (SHLB) Coalition).

⁵⁸ Petition of CoSN et al. for Declaratory Relief and Rulemaking Allowing Additional Use of E-Rate Funds for K-12 Cybersecurity, WC Docket No. 13-184, at 2 (filed Feb. 8, 2021), <https://www.fcc.gov/ecfs/search/search-filings/filing/1020811446893>.

⁵⁹ *Id.* at 14, Attach. at 4.

⁶⁰ *Id.* at 13.

⁶¹ *Wireline Competition Bureau Seeks Comment on Requests to Allow the Use of E-Rate Funds for Advanced or Next-Generation Firewalls and Other Network Security Services*, WC Docket No. 13-184, Public Notice, DA 22-1315, 2022 WL 17886490, at *7, Appendix A (WCB Dec. 14, 2022) (*December 2022 Public Notice*).

⁶² See Letter from AASA, The School Superintendents Association, et al., to Jessica Rosenworcel, Chairwoman, Brendan Carr, Geoffrey Starks, and Nathan Simington, Commissioners, FCC, CC Docket No. 02-6, at 1 (filed Sept. 23, 2022), <https://www.fcc.gov/ecfs/document/10923187101919/1> (“E-Rate alone cannot defray the costs of technology and training necessary to secure school and library networks and data.”).

⁶³ *Id.*

⁶⁴ See, e.g., Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, to Jessica Rosenworcel, Chairwoman, Brendan Carr, Geoffrey Starks, Nathan Simington, Commissioners, FCC, CC Docket No. 02-6, WC Docket No. 13-184 (filed Nov. 15, 2022), <https://www.fcc.gov/ecfs/document/111630719929/1> (FFL Nov. 15 *Ex Parte* Letter); Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-6, WC Docket No. 13-184 (filed Nov. 21, 2022), <https://www.fcc.gov/ecfs/document/1122304899639/1> (FFL Nov. 21 *Ex Parte* Letter); Letter from John D. Harrington, Chief Executive Officer, Funds for Learning, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-6, WC Docket No. 13-184 (filed Nov. 23, 2022), <https://www.fcc.gov/ecfs/document/112325067454/1> (FFL Nov. 23 *Ex Parte* Letter) (collectively, FFL *Ex Parte* Letters).

pilot funding be prioritized to the applicants with the highest discount rates, and that the Commission deny funding for the remaining applicants with lower discount rates when the capped pilot funds are exhausted.⁶⁶

16. In response to the cybersecurity petitions, FY 2023 ESL filings, and the proposed FFL pilot cybersecurity program, and in light of the increasing number of cybersecurity threats targeting K-12 schools, the Wireline Competition Bureau (Bureau) issued a Public Notice on December 14, 2022, seeking comment on a variety of topics, including the definition of advanced or next-generation firewalls and services, the specific cybersecurity equipment and services the E-Rate program should fund as advanced or next-generation firewalls and services, the appropriate categorization of the firewalls and services, the Commission's legal authority to extend E-Rate eligibility to the firewalls and services, and the impact that funding the firewalls and services could have on the E-Rate program's longstanding goal of basic connectivity.⁶⁷ Comments were due on February 13, 2023, and replies were due on March 30, 2023.

17. As Congress and the GAO recognize, agencies like CISA and the DOE have greater expertise in identifying and combatting K-12 school cyber threats and attacks;⁶⁸ thus, the Commission has been working with CISA and the DOE to leverage their strengths in addressing K-12 school cybersecurity issues.⁶⁹ However, based on the record developed in response to the December 2022 Cybersecurity Public Notice, we now consider whether expanding universal service support to protect schools and libraries from cyber threats and attacks could advance the key universal service principles of providing quality Internet and broadband services to eligible schools and libraries at just, reasonable, and affordable rates; and ensuring schools' and libraries' access to advanced telecommunications services.⁷⁰ Data from the GAO K-12 Cybersecurity Report indicates that lack of access to advanced or next-generation firewalls and services may frustrate the ability of schools' and libraries' to maintain critical and uninterrupted educational services,⁷¹ resulting in lengthy operational downtimes⁷² and significant monetary losses⁷³ that could thwart the provision of quality Internet and broadband services at just, reasonable, and affordable rates. The same data shows that "[l]ow-income [school] districts are in many cases most at-risk and vulnerable to cyberattacks and need focused support given lack of financial resources[.]"⁷⁴ indicating that a lack of access to these cybersecurity services may potentially frustrate the universal service principle that access to advanced telecommunications and information services should be available in all regions of

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⁶⁵ FFL Nov. 23 *Ex Parte* Letter at 1.

⁶⁶ *Id.* at 2-3.

⁶⁷ See generally December 2022 Public Notice.

⁶⁸ See generally GAO K-12 Cybersecurity Report.

⁶⁹ See, e.g., GAO K-12 Cybersecurity Report at 20.

⁷⁰ 47 U.S.C. § 254(b)(1), (b)(6).

⁷¹ GAO K-12 Cybersecurity Report at 12-13 (discussing DDoS attacks at Winthrop Public Schools and Miami-Dade County Public Schools that disrupted learning on the schools' networks and web-based systems, and school district closures in Connecticut due to cyber incidents).

⁷² See GAO K-12 Cybersecurity Report at 3, n.8, 14-16 (discussing detailed downtime research conducted by Comparitech Limited, a research organization that provides information, tools, reviews, and comparisons to readers to help improve their online cybersecurity and privacy).

⁷³ GAO K-12 Cybersecurity Report at 12, 16 (discussing a ransomware attack on a vendor for Chicago Public Schools that resulted in the release of sensitive personal data for more than 500,000 students and staff members and another in Texas for which a school district made a \$500,000 ransomware payment).

⁷⁴ CISA K-12 Cybersecurity Report at 4 (highlighting that lack of financial resources can be a contributor for a school being targeted for a cyberattack).

the nation, as well as frustrate the E-Rate program's longstanding goal of providing connectivity to and within schools and libraries.

III. DISCUSSION

18. Mindful of the need to protect universal service funding and aware that basic firewall services may be insufficient alone to protect E-Rate-funded broadband networks, we propose a three-year Pilot program to ascertain whether supporting cybersecurity and advanced firewall services with universal service support could advance the key universal service principles of providing quality Internet and broadband services to K-12 schools and libraries at just, reasonable, and affordable rates; and ensuring schools' and libraries' access to advanced telecommunications provided by Congress in the Telecommunications Act of 1996. To accomplish this, we propose a pilot structure similar to the one the Commission used in the Connected Care Pilot Program. Specifically, interested K-12 schools and libraries would apply to be Pilot program participants by submitting an application containing information about how they would use the Pilot funds and providing information about their proposed cybersecurity and advanced firewall projects. If selected, the applicants would apply for funding for Pilot-eligible services and equipment. Pilot participants receiving a funding commitment would be eligible to begin receiving cybersecurity and advanced firewall services and equipment, and would submit invoices for reimbursement.

A. Goals and Data Reporting

19. It is important that we define the goals of the proposed Pilot program, as well as establish criteria to measure progress towards those goals. This will help the Commission and other federal, state, and local stakeholders to determine whether, and how, to provide funding for cybersecurity and advanced firewall services after the Pilot ends. To that end, we propose three goals: (1) improving the security and protection of E-Rate-funded broadband networks and data; (2) measuring the costs associated with cybersecurity and advanced firewall services, and the amount of funding needed to adequately meet the demand for these services if extended to all E-Rate participants; and (3) evaluating how to leverage other federal K-12 cybersecurity tools and resources to help schools and libraries effectively address their cybersecurity needs.

20. *Improving the security and protection of E-Rate-funded broadband networks and data.* We first propose a goal for the proposed Pilot program of improving the security and protection of E-Rate-funded broadband networks and data. As the Council of the Great City Schools stated, "schools and libraries desperately need assistance to acquire advanced . . . firewalls to protect the integrity of their broadband connections, networks and data."⁷⁵ Funding made available by the proposed Pilot may be able to help participants acquire the cybersecurity and advanced firewall services and equipment needed to improve the security and protection of their broadband networks and data. We seek comment on how we can measure whether the Pilot is effective in protecting and securing E-Rate-funded broadband networks and data. We also seek comment on this proposed goal and related questions.

21. *Measuring the costs and effectiveness of Pilot-funded cybersecurity and advanced firewall services and equipment.* Next, we propose a goal of measuring the costs and effectiveness of cybersecurity and advanced firewall services and equipment. The Pilot can help the Commission and other federal, state, and local government agencies gather additional data on the types of new services and equipment that applicants will purchase to address network and data security concerns, and the associated cost and effectiveness of Pilot-funded services and equipment. Data provided in FCC Forms 470 and 471 (or their Pilot program equivalent) can aid the Commission in measuring the costs of cybersecurity and advanced firewall services and equipment. What data should be collected on the effectiveness of the funded equipment and services? For example, should Pilot participants be required to submit data on the number of intrusion attempts, number of successful attacks, mean time to detection and response,

⁷⁵ Council of the Great City Schools Reply at 3.

estimated cost of each attack, etc.? What other accepted metrics should we require Pilot participants to monitor and record? For example, should we collect data on the number and percent of students and school and library staff using multi-factor identification, the frequency of school and library staff and, separately, student cyber training sessions, and participation rates? Should Pilot participants be required to assess awareness and readiness of school and library staff based on available guidance from CISA or other expert organizations? Should all or some of these potential requirements be standardized across Pilot participants to allow for comparative analysis of outcomes? The proposed intent of this Pilot is to also determine the most cost-effective use of universal service funding to help schools and libraries proactively address K-12 cybersecurity issues. We seek comment on this proposed goal and related questions.

22. *Evaluating how to leverage other federal resources to address schools' and libraries' cybersecurity threats.* Third, we propose a goal of evaluating how to best leverage other federal resources to help schools and libraries proactively address K-12 cybersecurity issues. CISA, DOE, and NIST have made a wide array of free and low-cost K-12 cybersecurity tools and resources available to schools and libraries.⁷⁶ Also, as discussed above, more resources beyond funding are needed for schools and libraries to effectively protect their broadband networks and data from cyberattacks and other cyber threats. As part of this Pilot, the Commission intends to coordinate with its federal partners in identifying the most impactful tools and resources to help schools and libraries effectively protect themselves and address these cybersecurity issues. For example, DOE plans to establish a Government Coordinating Council (Council) to coordinate the activities of federal leaders in taking actions to help protect school networks.⁷⁷ What role can the Pilot play to complement the efforts of other agencies that will participate in the Council? In addition, the CISA K-12 Cybersecurity Report contains three key recommendations for schools and libraries that would immediately improve their cybersecurity postures, the first of which recommends implementing a “small number of the highest priority steps”, including implementing multi-factor authentication, fixing known cybersecurity flaws, performing and testing back-ups, minimizing exposure to common attacks, developing and exercising a cyber incident response plan, and creating a training and awareness campaign.⁷⁸ Should the Pilot target funding to allow schools and libraries to implement some or all of the items contained in the list of highest priority steps from CISA’s first recommendation to help them address K-12 cybersecurity issues (e.g., multi-factor authentication, correcting known security flaws, performing and testing system backups, etc.)?⁷⁹ Should schools and libraries be required to implement a certain number of these free and low-cost tools to be eligible to receive Pilot funding for cybersecurity and advanced firewall services, and if so how should this requirement be enforced?⁸⁰ Furthermore, DOE has made a number of recommendations in its K-12 Digital Infrastructure Briefs aimed at making K-12 networks safe, accessible, resilient, sustainable, and future-proof.⁸¹ How should the Pilot account for these recommendations? How can the Pilot funding incentivize schools and libraries to take full advantage of other available free and low-cost K-12

⁷⁶ See, e.g., *supra* notes 4-6.

⁷⁷ Press Release, U.S. Department of Education, U.S. Department of Education Announces Key K-12 Cybersecurity Resilience Efforts (Aug. 7, 2023), <https://www.ed.gov/news/press-releases/department-of-education-announces-k-12-cybersecurity-resilience-efforts>.

⁷⁸ See CISA K-12 Cybersecurity Report at 12-15 (providing three key recommendations for K-12 schools to undertake to improve their cybersecurity posture immediately).

⁷⁹ See CISA K-12 Cybersecurity Report at 12-14 (describing the six highest-priority steps from the first key recommendation for schools to take to address K-12 cybersecurity concerns).

⁸⁰ See CISA K-12 Cybersecurity Report at 17 and n.30 (providing information on CISA’s free cybersecurity resources and tools).

⁸¹ See generally DOE & CISA Defensible and Resilient Brief, DOE Adequate and Future Proof Brief, and DOE Privacy Enhancing Brief.

cybersecurity tools and resources? How can the Pilot leverage USAC's established relationships with and processes for distribution of training to the schools and libraries to facilitate the efforts of CISA, DOE, and NIST in order to provide technical assistance or capacity building for Pilot participants? We seek comment on this proposed goal and how best to implement and measure success.

23. How can the Commission best measure progress towards these proposed performance goals, to ensure that the limited Pilot funds are used most impactfully and effectively to help schools and libraries protect their broadband networks and data? For example, by what objective criteria can we determine whether the funding provided through the Pilot actually improved the protection and security of schools' and libraries' broadband networks and data? What information would we need to collect to compare Pilot results against those criteria? Are there best practices and recommendations that we can rely on from expert agencies or organizations that have undertaken similar or related cybersecurity pilots? What outcomes should we measure? For example, in this Pilot should we measure the reductions in the number of cyberattacks; average cost of an attack; time to detect and respond to a cyber threat; staff and user awareness/readiness; or some other measure(s)?

24. How should the Commission evaluate the Pilot? We propose that Pilot participants submit certain information to apply for the Pilot, a progress report for each year of the pilot, and a final report at the conclusion of the Pilot program.⁸² We further propose that these reports contain information on how the Pilot funding was used, any changes or advancements that were made to the school's or library's cybersecurity efforts outside of the Pilot-funded services and equipment, and the number of cyber incidents⁸³ that occurred each year of the Pilot program and whether the school or library was successful in defending its broadband network and data for each incident. We seek comment on these proposals. Are there any other cybersecurity assessments or evaluations that participants should conduct to determine whether the Pilot-funded cybersecurity and advanced firewall services and equipment bolstered the school's or library's cybersecurity posture, even absent a breach or other cyber incident? What is the data or information that the Commission should be collecting in the proposed progress and final reports? What could the Commission do to allow comparability across pilots? Are there any public sources of information that the Commission can also use to determine the impact of the Pilot program in addressing K-12 cybersecurity issues, and if so, does this data impact what we require participants to submit in their reports to the Commission?

B. Structure of the Pilot Program

25. Next, we discuss the overall structure for the proposed Pilot program. Building on our experience administering the Connected Care Pilot Program,⁸⁴ we propose a similar structure for the proposed Pilot program, and discuss in more detail below.

26. *Overall Structure.* We propose to structure the proposed Pilot program in a manner similar to the Connected Care Pilot Program. Under this proposal, interested schools and libraries would apply to be a Pilot participant. Those schools and libraries that are selected to participate will be provided an opportunity to apply for Pilot funding for eligible services and equipment. Participants will then receive a funding commitment, and can begin to receive equipment/services and submit invoices for reimbursement. Further, we propose that the Universal Service Administrative Company (USAC), the

⁸² Our intent is to collect information and data that would not involve the collection of PII in evaluating our proposed goals.

⁸³ CISA defines a cyber incident (or incident) as "[a]n occurrence that actually or potentially results in adverse consequences to (adverse effects on) (poses a threat to) an information system or the information that the system processes, stores, or transmits and that may require a response action to mitigate the consequences." See CISA National Initiative for Cybersecurity Careers and Studies (NICCS), *Vocabulary*, <https://niccs.cisa.gov/cybersecurity-career-resources/vocabulary#C> (last visited Nov. 9, 2023).

⁸⁴ See generally *Promoting Telehealth for Low-Income Consumers; COVID-19 Telehealth Program*, WC Docket Nos. 18-213 and 20-89, Report and Order, 35 FCC Rcd 3366 (2020) (*Connected Care Pilot Order*).

FCC's administrator for universal service programs, be appointed as the permanent administrator of the Pilot program. We seek comment on this general structure for the proposed Pilot program.

27. We further propose that interested participants will be required to submit an application describing their proposed use of Pilot funds, and provide information that will facilitate the selection of high-quality projects that will best further the goals of the proposed Pilot program. At a minimum, we propose that Pilot applications require the following information:

- i. Name, address, and contact information for the interested school or library. For school district or library system applicants, the name and address of all schools/libraries within the district/system, and contact information for the district or library system.
- ii. Description of the Pilot participant's current cybersecurity posture, including how the school or library is currently managing and addressing its current cybersecurity risks through prevention and mitigation tactics, and a description of its proposed advanced cybersecurity action plan should it be selected to participate in the Pilot program and receive funding.
- iii. Description of any incident of unauthorized operational access to the Pilot participant's systems or equipment within a year of the date of its application; the date range of the incident; a description of the unauthorized access; the impact to the K-12 school or library; a description of the vulnerabilities exploited and the techniques used to access the system; and identifying information for each actor responsible for the incident, if known.
- iv. Description of the Pilot participant's proposed use of the funding to protect its broadband network and data and improve its ability to address K-12 cyber concerns. This description should include the types of services and equipment the participant plans to purchase and the plan for implementing and using the Pilot-funded equipment and services to protect its broadband network and data, and improve its ability to manage and address its cybersecurity risks.
- v. Description of how the Pilot participant plans to collect and track its progress in implementing the Pilot-funded equipment and services into its cybersecurity action plan, and for providing the required Pilot data, including the impact the funding had on its initial cybersecurity action plan that pre-dated implementation of Pilot efforts.

We seek comment on these proposed requirements, and whether additional information should also be required. We propose that Pilot participants will submit these applications via an online platform, designed and operated by USAC, and seek comment on this proposal. Are there any confidentiality or security concerns with providing the above information, and if so, what protections should be implemented to protect potentially sensitive data regarding a prospective applicant's current cybersecurity posture? How can the Commission best leverage its experience receiving applications in USF programs, for example, E-Rate, Rural Health Care, and the Connected Care Pilot Program, as well as in the appropriated programs, like COVID-19 Telehealth, Emergency Connectivity Fund (ECF), and the Affordable Connectivity Program (ACP) Outreach grants? Are there any lessons learned from the Connected Care Pilot Program and other FCC pilot programs that we can benefit from when establishing the proposed Pilot program? We further propose that the Bureau review applications and select participants, in consultation with the Office of Economics and Analytics (OEA), the Public Safety and Homeland Security Bureau (PSHSB), and the Office of the Managing Director (OMD), as needed, and seek comment on this proposal. Lastly, to assist with program administration and ensure that the proposed Pilot program runs efficiently, we propose to delegate to the Bureau the authority to implement the proposed Pilot program and to direct USAC's administration of the Pilot program, consistent with the Commission's rules and orders, and seek comment on this proposal.⁸⁵

⁸⁵ We further propose that this delegation includes the authority for the Bureau and/or USAC to request additional information from Pilot applicants, as needed.

28. *Pilot Program Duration.* We propose that the Pilot program will make funding available to participants for a three-year term, and seek comment on this proposal. Does a three-year term provide sufficient data to the Commission to evaluate how effective the Pilot funding is in protecting K-12 schools and libraries, and their broadband networks and data, from cyberattacks and other cyber threats? We acknowledge that there may be a tradeoff between learning more from the Pilot program and moving quickly to potentially expand support to protect all K-12 schools' and libraries' broadband networks and data from cyber threats. Are there ways to shorten the length of the Pilot, for example, by using a single application window that remains open until funds are exhausted, without compromising the amount or quality of the data the Pilot will generate?⁸⁶ Should the Pilot program period include additional ramp-up time, to allow participants an opportunity to prepare for the Pilot? Should the Pilot program include additional time at the end of the three-year term for the Commission to evaluate results? We seek comment on the three-year term proposal and these related questions.

29. *Pilot Budget.* We propose a budget of \$200 million over the three-year duration of the proposed Pilot program, and seek comment on this proposal.⁸⁷ Will a budget of \$200 million be sufficient to obtain and receive meaningful data on how this funding helped to protect schools' and libraries' broadband networks and data and improved their ability to address K-12 cyber issues? Conversely, would a lower budget be sufficient for these purposes (e.g., \$100 million) while also putting less pressure on the contribution factor? How should the total Pilot program budget be distributed over the three-year funding period? Should each selected project's funding commitment be divided evenly across the Pilot program duration? For example, if a selected project requests and receives a \$9 million funding commitment and the funding period is three years, should the project receive \$3 million for each year? Alternatively, are there reasons why a Pilot participant may need access to a greater amount of funding up front? If we allow Pilot participants to access a greater amount earlier in the term, how can we forecast a predictable budget over the three-year term? We seek comment on these questions.

30. As this proposed Pilot should not divert resources from the existing universal service support programs, we propose requiring USAC to separately collect on a quarterly basis the funds needed for the duration of the Pilot program.⁸⁸ We expect that funding the Pilot program in this manner would not significantly increase the contributions burden on consumers.⁸⁹ This approach also would not impact the budgets or disbursements for the other universal service programs. We seek comment on this approach. Should the collection be based on the quarterly demand for the Pilot program? We also propose to have excess collected contributions for a particular quarter carried forward to the following quarter to reduce collections.⁹⁰ Under this approach, we also propose to return to the Fund any funds that

⁸⁶ See, e.g., Letter from CoSN, SHLB, ALA, et al., to Jessica Rosenworcel, Chairwoman, Federal Communications Commission, CC Docket No. 02-6, WC Docket No. 13-184 (filed Aug. 7, 2023).

⁸⁷ See, e.g., FFL Nov. 23 *Ex Parte* Letter at 1 (requesting \$60 million to \$120 million per year in funding for a proposed cybersecurity pilot program); SHLB Coalition Reply at 2 ("The Commission should increase the Category Two budget cap by \$100 million per year for the next two years to give schools and libraries the opportunity to address their cybersecurity needs.").

⁸⁸ Pursuant to section 54.709(a)(3) of the Commission's rules, as part of the process by which the Commission establishes the quarterly contribution factor, the Administrator (Universal Service Administrative Company or USAC) must provide the Commission each quarter with its projection of total demand and administrative expenses for the universal service support mechanism. See 47 CFR § 54.709(a)(3).

⁸⁹ For example, if the Pilot program funds were evenly distributed over the proposed three-year funding period (e.g., approximately \$66 million per year), using the 3rd Quarter 2023 projected collected revenues of \$8,534 billion, we estimate that the proposed Pilot budget would result in an approximately 0.4% increase in the contribution factor. See Proposed Third Quarter 2023 Universal Service Contribution Factor, Public Notice, CC Docket No. 96-45 (OMD June 14, 2023), <https://docs.fcc.gov/public/attachments/DA-23-507A1.pdf>.

⁹⁰ 47 CFR § 54.709(b) (describing the default practice of carrying forward excess contributions to the following quarter to decrease contributions).

remain at the end of the Pilot program. Are there other approaches we should consider for funding the Pilot program? Are there any tradeoffs between allocating funding to the proposed Pilot program as it relates to the size of the E-Rate program and the USF more generally? We also seek comment on whether the costs associated with the proposed Pilot program will impact other stakeholders' requests related to the use of universal service and E-Rate funding, such as allowing ECF-funded services to continue to be funded through the E-Rate program after the ECF program sunsets.⁹¹ Will the proposed \$200 million budget help alleviate any concerns about the impact that this Pilot may have on the USF? How can we best balance the need to provide funding for cybersecurity and advanced firewall services with our responsibility as a careful and prudent steward of limited federal resources?

31. Should we establish a maximum funding cap per Pilot participant? Should we establish a per-student cap (and a corresponding cap on libraries based on their square footage), based on commercially available costs? Are there data sources for cost information that would be appropriate to use in setting such a cap? Or should we allow selected Pilot participants to receive a different amount of funding that aligns with their application? Should we adjust awards based on the Pilot participant's category two discount rate level?⁹² Should Pilot participants be required to contribute and be responsible for a portion of the costs in order to receive Pilot program funding?⁹³ For example, we propose that Pilot participants will be subject to their current category two discount rate as the non-discounted share of costs for the Pilot program; should we instead require participants to contribute a fixed percentage of the costs of the services and equipment purchased? How can the Commission ensure Pilot participants are making cost-effective purchases through this Pilot program?

32. Should the Commission disburse a smaller amount of funding to a larger number of Pilot participants to increase the total volume of cybersecurity data available? Or should we disburse a larger amount of funding to fewer Pilot participants to obtain a more holistic look at how the support could best be used to protect E-Rate-funded broadband networks and data, as well as help K-12 schools and libraries address cybersecurity issues? Which approach would generate the best data to determine whether and how universal service support could most effectively be leveraged to help K-12 schools and libraries protect their E-Rate-funded broadband networks and data from targeted cyberattacks and other cyber threats?

33. Under our proposals, once selected, Pilot participants will be required to submit funding applications for the requested services and equipment. To ease administration of the Pilot, we propose that participants be permitted to seek funding for services and equipment to be provided over the proposed three-year term in a single application and be supported by multi-year contract/agreement(s) for this term. We seek comment on these proposals and questions.

C. Eligibility and Selection of Pilot Participants

34. We next discuss what types of entities should be eligible to participate in the proposed Pilot program. In doing so, we note that the number and type of schools and libraries that participate in the E-Rate program vary significantly. Who should be eligible to participate in the Pilot program and how should we select Pilot participants? How can we ensure that the Commission identifies a wide cross-section of Pilot participants to allow it to evaluate the effectiveness of providing universal service support

⁹¹ See, e.g., SHLB Coalition, et. al, Petition for Expedited Declaratory Ruling and Waivers Allowing the Use of E-rate Funds for Remote Learning During the Covid-19 Pandemic, Modernizing the E-rate Program for Schools and Libraries, WC Docket No. 13-184 (Jan. 26, 2021), <https://www.fcc.gov/ecfs/search/search-filings/filing/101260036427898>; Letter from Kristen Corra, Policy Counsel, SHLB Coalition, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 13-184 and 21-93 (June 6, 2023), <https://www.fcc.gov/ecfs/search/search-filings/filing/106061384907152> (SHLB *Ex Parte*).

⁹² See, e.g., 47 CFR § 54.505(b) (providing the calculation for an applicant's discount rate for eligible E-Rate equipment and services).

⁹³ See, e.g., 47 CFR § 54.523 (requiring payment for the non-discounted portion of costs).

for K-12 schools' and libraries' cybersecurity needs, and do so in a fair and transparent manner? Should we limit eligibility to schools and libraries currently participating in the E-Rate program or should we expand eligibility to include schools and libraries that do not currently participate in the E-Rate program? Should we select Pilot participants based on specific objective factors like: E-Rate category two discount rate levels; location (e.g., urban vs. rural); and/or participant size (i.e., small schools, school districts, and libraries vs. large schools, school districts, and libraries)? How should we define, or what sources should we use to define, these factors to ensure they are applied objectively?⁹⁴ Are any of these factors (i.e., discount rate level, urban vs. rural, large vs. small) more or less important than others from an eligibility perspective? If yes, why are particular factors more or less important than others? Are there other factors we should consider when determining who should be eligible to participate in the Pilot and how participants should be selected? For example, would the Pilot benefit from including schools and libraries that have advanced expertise in cybersecurity as participants because they presumably would know how to best spend the Pilot funding? Or, should cybersecurity expertise not be a factor at all in the selection of Pilot participants? How can we ensure that schools and libraries that lack funding, expertise, or are otherwise under-resourced can meaningfully participate in the Pilot? Is there a way to compare the cybersecurity performance of Pilot participants against non-participants (e.g., through the use of a survey or other data collection process) in a way that contrasts the current cybersecurity posture of Pilot participants with that of non-participants? To be eligible for the Pilot program, should Pilot participants be required to demonstrate that they have started taking actions to improve their cybersecurity posture by, for example, starting to implement some of the DOE and CISA K-12 cybersecurity recommendations or potential forthcoming Council guidance or other similar actions? Or conversely, should a school or library be required to provide a certification or other confirmation that, absent participation in the Pilot, it does not have the resources to start implementing CISA's K-12 cybersecurity recommendations? We seek comment on these preliminary participant eligibility questions.

35. In today's broadband-reliant environment, there are a plethora of evolving cyber threats and attacks.⁹⁵ Should we limit schools' and libraries' eligibility to participate in the Pilot program to those schools and libraries that have faced or are facing certain types of cyber threats or attacks? If so, which cyber threats or attacks should qualify a school or library for participation in the Pilot program? Are there certain types of cyber threats or attacks that schools and libraries most commonly face and are there any emerging cyber threats or attacks that have only recently arisen? What types of cyber threats or attacks are the most harmful or costly for schools or libraries to combat and/or recover from? What difficulties have schools and libraries faced when attempting to address cyber threats and attacks on their own? We seek comment on the types of cyber threats and attacks encountered by schools and libraries and how they should be evaluated, if at all, when selecting Pilot participants.

⁹⁴ For example, the E-Rate program requires USAC to designate a school or library as "urban" "if the school or library is located in an urbanized area or urban cluster with a population equal to or greater than 25,000, as determined by the most recent urban-rural classification by the Bureau of the Census. [USAC] shall designate all other schools and libraries as rural." 47 CFR § 54.505(b)(3). The National Center for Education Statistics provides "Large, Mid-size, and Small" public elementary and secondary school enrollment statistics by "City, Suburban, Town, and Rural" locales. See National Center for Education Statistics, *Digest of Education Statistics*, https://nces.ed.gov/programs/digest/d22/tables/dt22_214.40.asp (last visited Nov. 9, 2023).

⁹⁵ See, e.g., Shruti M, *Types of Cyber Attacks You Should Be Aware of In 2023* (May 5, 2023), <https://www.simplilearn.com/tutorials/cyber-security-tutorial/types-of-cyber-attacks> (discussing 54 cyberattacks to be aware of in 2023); Fortinet, *Types of Cyber Attacks*, <https://www.fortinet.com/resources/cyberglossary/types-of-cyber-attacks> (last visited Nov. 9, 2023) (discussing the 20 most common types of cyberattacks); J.R. Tietsort, *What is a Cyber Attack? How Do They Happen?* (Apr. 6, 2023), <https://www.aura.com/learn/types-of-cyber-attacks> (discussing the 17 types of cyberattacks commonly used by hackers); Kurt Baker, *10 Most Common Types of Cyber Attacks* (Feb. 13, 2023), <https://www.crowdstrike.com/cybersecurity-101/cyberattacks/most-common-types-of-cyberattacks/> (discussing the 10 most common types of cyberattacks).

36. Past experience also indicates that there may be common cyber threats⁹⁶ and attacks⁹⁷ faced by K-12 schools, school districts, and libraries regardless of their particular characteristics (e.g., urban vs. rural, and large vs. small).⁹⁸ However, the history of attacks also indicates that certain K-12 schools and libraries may be more likely than others to be targeted by malicious actors due to lack of information technology (IT) funding or constrained staff resources.⁹⁹ When selecting Pilot participants, should we consider an applicant's previous history regarding cyber threats or attacks? If yes, should we select as Pilot participants schools and libraries with greater or fewer cyber incidents? How should we define, or what sources should we use to define, a "greater" versus "fewer" number of cyber incidents? Should we assess "greater" or "fewer" in absolute terms or relative terms? For instance, should a school district with 100,000 students and school staff that faces 1,000 cyber incidents per year be viewed as having more incidents than a school district with 10,000 students and school staff that faces 900 incidents per year? Or, should the latter school district be seen as having more cyber incidents on a per-student and school staff member basis? Would the Pilot benefit from including both schools and libraries that have never experienced a cyber threat or attack, as well as those that have experienced at least one cyber threat or attack? In commenters' experience, are there certain types of schools or libraries that are more likely to face cyber threats or attacks? Are schools or libraries in certain geographic or socioeconomic settings more vulnerable than others to cyber threats or attacks? What role does lack of IT funding or constrained staffing resources play in the likelihood or frequency of cyber threats or attacks? When selecting Pilot participants, should cybersecurity risk, geographic or socioeconomic factors, staffing constraints or financial need, or technical challenges play a role in participant selection? We seek comment on the characteristics and circumstances that may result in a school or library being more or less likely to be targeted for a cyber threat or attack, and the role those characteristics should play in Pilot participant selection. Are there ways to ensure that under-resourced schools and libraries can meaningfully participate in the Pilot? For example, should the Commission direct USAC to provide assistance to schools and libraries that are under-resourced and may lack experience to assist them throughout the Pilot? We also encourage commenters to share any first-hand knowledge they may have regarding factors that may increase or decrease the likelihood of a school or library being targeted for a cyber threat or attack, and discuss if or how that information should be considered in the Pilot participant selection process.

37. *Prerequisites.* There are a number of free and low-cost cybersecurity tools and resources available to K-12 schools and libraries.¹⁰⁰ Should the Commission adopt any prerequisites for Pilot

⁹⁶ CISA defines a cyber threat as "[a] circumstance or event that has or indicates the potential to exploit vulnerabilities and to adversely impact (create adverse consequences for) organizational operations, organizational assets (including information and information systems), individuals, other organizations, or society." See CISA National Initiative for Cybersecurity Careers and Studies (NICCS), *Vocabulary*, <https://niccs.cisa.gov/cybersecurity-career-resources/vocabulary#T> (last visited Nov. 9, 2023).

⁹⁷ CISA defines a cyberattack as "[a]n attempt to gain unauthorized access to system services, resources, or information, or an attempt to compromise system integrity." See CISA National Initiative for Cybersecurity Careers and Studies (NICCS), *Vocabulary*, <https://niccs.cisa.gov/cybersecurity-career-resources/vocabulary#T> (last visited Nov. 9, 2023).

⁹⁸ See *supra* note 95.

⁹⁹ See *supra* note 74.

¹⁰⁰ See, e.g., CISA K-12 Cybersecurity Report at 22, Appendix 1: K-12 Resource Repository; CISA, Free Cybersecurity Services and Tools, <https://www.cisa.gov/resources-tools/resources/free-cybersecurity-services-and-tools>; CISA Online Toolkit, <https://www.cisa.gov/online-toolkit-partnering-safeguard-k-12-organizations-cybersecurity-threats>; see also CrowdStrike, *Cybersecurity Against All Threats*, https://go.crowdstrike.com/try-falcon-pro-cybersecurity-overview.html?utm_campaign=falcontrial&utm_content=ecom-treq-en-fpro-tct-us-psp-smb-trl-cybr-x-x-x-x&utm_medium=sem&utm_source=goog&utm_term=cybersecurity%20software&gad=1&gclid=EAIaIQobChMI9s2O5-mOwIVqvfbX0f5Q23EAAAYASAAEgLJrD_BwE (last visited Nov. 9, 2023); Fortinet, *K-12 Cybersecurity* (continued....)

program participation? For example, should Pilot participants be required to take a more active role in improving/enhancing their cybersecurity posture? If so, how should this be monitored and enforced? For example, should Pilot participants be required to correct known security flaws and conduct routine backups as part of this Pilot program?¹⁰¹ Should Pilot participants be required to participate in other federal efforts to share cybersecurity information and resources, such as the MS-ISAC¹⁰² or the K12 SIX?¹⁰³ Should Pilot participants be required to implement, or demonstrate how they plan to implement, recommended best practices from organizations like the DOE, CISA, and NIST, as they are able?¹⁰⁴ Should Pilot participants be required to take steps on their own to improve their cybersecurity posture by, for example, designating an officer or other senior-level staff member responsible for cybersecurity implementation, updates, and oversight, or implementing a cybersecurity training program for their staff and network users? We seek comment on these questions.

38. Should we only include as Pilot participants those schools and libraries that have already implemented or are in the process of implementing CISA's K-12 cybersecurity recommendations, or have otherwise begun the process of implementing a cybersecurity framework or program? Are there any schools or libraries that have implemented or are in the process of implementing the DOE's or CISA's K-12 cybersecurity recommendations or another cybersecurity framework or program, to protect their E-Rate-funded networks and data? If so, what actions have been the most successful in establishing and implementing cybersecurity recommendations, or a cybersecurity framework or program? We also ask schools and libraries that are already implementing or experimenting with CISA's K-12 cybersecurity recommendations, or another cybersecurity framework or program, to provide us with information about their cybersecurity projects and discuss how these actions should influence, if at all, the Pilot participant selection process. For schools and libraries that have not taken any preventative or mitigating actions, what are the key impediments to implementing a more robust cybersecurity posture? If cost is the reason that schools or libraries have been unable to implement and strengthen their cybersecurity posture, is there other federal, state, or local funding available that could be used in place of or in addition to universal service funding to help address cyber threats and attacks? If other sources of funding are available, should schools and libraries be required to seek or already have obtained cybersecurity funding commitments from other federal, state, or local sources to be eligible to participate in this proposed Pilot program? We seek comment on what prerequisites, if any, should be adopted to be a Pilot participant.

D. Eligible Services and Equipment/Security Measures

39. In the *December 2022 Public Notice*, we sought comment on “the specific equipment and services that E-Rate should . . . fund as advanced or next-generation firewalls and services.”¹⁰⁵ Nearly all

(Continued from previous page)

— *Top Internet Security Software*, <https://www.fortinet.com/solutions/industries/education/k12> (last visited Nov. 9, 2023); Verizon, *Keep Your K-12 Schools Security Connected*, <https://www.verizon.com/business/resources/solutionsbriefs/cybersecurity-resources-for-k-12-schools.pdf> (last visited May 25, 2023); Sophos, *Adaptive Cybersecurity for Educational Institutions*, <https://www.sophos.com/en-us/solutions/industries/education> (last visited Nov. 9, 2023); WatchGuard, *Security In Education*, <https://www.watchguard.com/wgrd-solutions/industries/education> (last visited Nov. 9, 2023); Scholarly Networks Security Initiative, *For Librarians*, <https://www.snsi.info/librarian-resources/> (last visited Nov. 9, 2023) (discussing cybersecurity options for academic and higher education libraries).

¹⁰¹ See, e.g., CISA K-12 Cybersecurity Report at 14 (discussing correcting known security flaws and performing and testing system back-up as two high priority first steps).

¹⁰² See *supra* note 23 for a description of MS-ISAC.

¹⁰³ See CISA K-12 Cybersecurity Report at 18 (recommending K-12 schools engage in collaboration and information sharing with other entities like MS-ISAC and K12 SIX). See also *supra* note 24 for a description of K12 SIX.

¹⁰⁴ See, e.g., CISA K-12 Cybersecurity Report at 15 (recommending the implementation of CPGs and the development of a cybersecurity plan that implements NIST's Cyber Security Framework (CSF)).

commenters who opined on this topic advocated for the eligibility of at least next-generation firewalls.¹⁰⁶ Many of these commenters further advocated for the eligibility of a range of additional security measures, including some or all of: MFA, domain name system (DNS) security, distributed denial-of-service (DDoS) protection, and/or VPN.¹⁰⁷ On the other hand, a small number of commenters urged the Commission to adopt general criteria for eligibility, rather than enumerate specific technologies (e.g., firewalls) as eligible, believing that this approach would provide E-Rate participants with appropriate flexibility in addressing their individualized security needs and ultimately better ensure the security of E-Rate-supported networks.¹⁰⁸

40. Commenters, however, were opining on security measures that would be appropriate for inclusion in the E-Rate program rather than on security measures that would be appropriate for inclusion in today's proposed Pilot.¹⁰⁹ Therefore, to resolve any ambiguity and further develop the record specifically as to the proposed Pilot, we seek further comment on the security measures, including equipment and services, that should be made eligible to participants in the Pilot. We also seek comment on whether we should place restrictions on the manner or timing of a Pilot participant's purchase of security measures. For example, should Pilot funding be limited to a participant's one-time purchase of security measures or should the support cover the on-going, recurring costs that a Pilot participant may incur, for example, in the form of continual service contracts or recurring updates to the procured security measures? We note that an appropriate set of eligible measures and the timing for the security measures would balance the Commission's goal of using the Pilot to meaningfully assess the effectiveness of a wide range of different security approaches with the need to conserve and efficiently use the limited funding available for the Pilot to gain sufficient insight into each of those approaches. As a preliminary point, we seek comment on whether the Commission should specify eligibility in terms of general criteria

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¹⁰⁵ December 2022 Public Notice at *4.

¹⁰⁶ See, e.g., American Library Association Comments, WC Docket No. 13-184, at 5 (rec. Feb. 13, 2023) (ALA Comments); ADS Advanced Data Services Reply, WC Docket No. 13-184, at 1 (rec. Mar. 31, 2023) (ADS Reply); Cisco Systems, Inc. Comments, WC Docket No. 13-184, at 22-23 (rec. Feb. 13, 2023) (Cisco Comments); Consortium for School Networking et al. Comments, WC Docket No. 13-184, at 4 (rec. Feb. 13, 2023) (CoSN et al. Comments); Crown Castle Fiber LLC Comments, WC Docket No. 13-184, at 1 (rec. Feb. 13, 2023) (Crown Castle Comments); E-Rate Central Comments, WC Docket No. 13-184, at 2 (rec. Feb. 6, 2023) (filed on behalf of New York State Applicants) (NYS Applicants Comments); Fortinet, Inc. Comments, CC Docket No. 02-6, WC Docket No. 13-184, at 8 (rec. Feb. 13, 2023) (Fortinet Comments); Los Angeles Unified School District Coalition Reply, WC Docket Nos. 13-184 and 21-476, at 1 (rec. Mar. 20, 2023) (Los Angeles Coalition Reply); NCTA – The Internet & Television Association Comments, WC Docket No. 13-184, at n.2 (rec. Feb. 13, 2023) (NCTA Comments); Palo Alto Networks, Inc. Comments, WC Docket No. 13-184, at 2 (rec. Feb. 13, 2023) (Palo Alto Comments); Zscaler, Inc. Comments, WC Docket No. 13-184, at 2 (rec. Feb. 14, 2023) (Zscaler Comments) (each advocating for the eligibility of at least next-generation firewalls).

¹⁰⁷ See, e.g., Hans Kirchner Comments, WC Docket No. 13-184, at 1 (rec. Feb. 9, 2023) (filed on behalf of Lincoln Intermediate Unit 12) (Lincoln Comments) (advocating for MFA and VPN protections); Cisco Comments at 22; E-Rate Provider Services, LLC Comments, WC Docket No. 13-184, CC Docket No. 02-6, at 4 (rec. Feb. 1, 2023) (E-Rate Provider Services Comments) (advocating for DNS security); NCTA Comments at 1 (advocating for DDoS protection) and n.2 (advocating for VPN protections); Kelton Independent School District Comments, WC Docket No. 13-184, at 1 (rec. Jan. 30, 2023) (Kelton Comments) (advocating for VPN protections).

¹⁰⁸ See, e.g., Schools, Health & Libraries Broadband Coalition Reply, WC Docket No. 13-184, at 4-5 (rec. Mar. 30, 2023) (SHLB Coalition Reply) (“The Commission should structure the eligibility of cybersecurity solutions by functionality rather than by specific technology. . . . [T]he Commission should clarify that cybersecurity solutions that keep the network from being shut down and that protect the privacy of user data deserve to be protected, regardless of the specific technology used to achieve those goals.”); see also, e.g., ALA Comments at 3 (“[W]e ask the Commission to develop a broad, flexible definition of eligible security tools with the primary qualification being that the services requested improve network security.”).

¹⁰⁹ December 2022 Public Notice at *4.

rather than as a list of specific technologies. If so, what should the eligibility criteria be? For example, should the Commission adopt the Schools, Health & Libraries Broadband Coalition's (SHLB Coalition) proposed general criteria that would deem any security measure eligible as long as it "keep[s] the network from being shut down and . . . protect[s] the privacy of user data"¹¹⁰ or would some other general criteria be more appropriate?¹¹¹ SHLB Coalition's views notwithstanding, we believe that specifying an enumerated list of eligible security technologies/measures would provide more specific, and thus clearer, eligibility guidance to Pilot participants than would general eligibility criteria, ultimately leading to a more efficient use of the Pilot program's funds. A finite list of allowable cybersecurity options would also make comparisons of outcomes more tractable across Pilot participants. On the other hand, are there concerns that potential evolutions in security measures/technologies during the duration of the Pilot would render an enumerated Commission list of eligible technologies/measures outdated before the end of the Pilot? Are there concerns that limited Pilot funds could be used inefficiently, or misused, if the Commission adopts an approach based on generalized criteria? Should eligibility be limited to cybersecurity measures that are primarily or significantly used to facilitate connectivity?¹¹² How does section 254 limit the kinds of cybersecurity solutions that can be purchased, and how they may be deployed, using pilot funds? We seek comment on these issues and more generally on the relative advantages and disadvantages of specifying eligibility in terms of an enumerated list of security measures/technologies as compared to general criteria.

41. If the Commission adopts a list of eligible measures/technologies, at what granularity should that list be specified? For example, should the Commission publish a specific list of security measures (similar to the Eligible Services List for the E-Rate program), to help participants understand which services and equipment are eligible for support through the proposed Pilot program? Should a list of resources from MS-ISAC be included in the application, so that applicants can easily select desired services from the list, thereby simplifying the application process? Moreover, what are the specific measures that should be included on that list? We note that a number of commenters opined that new security measures should be limited to advanced and next-generation firewalls, in the context of discussing the E-Rate program.¹¹³ Are these the most important tools schools and libraries could adopt and how does the import of these cybersecurity tools compare to other tools identified in the record? For example, CISA and the DOE have identified things like MFA, regular software and hardware updates, and regular backups as important tools for combatting network threats. Do commenters continue to believe that focusing funding efforts primarily or exclusively on advanced and next-generation firewalls is appropriate in the context of today's proposed Pilot, which would utilize separate USF funding and aims to evaluate the effectiveness of a wide range of security approaches? If the list of eligible security measures should be more expansive than advanced firewalls in the context of today's Pilot, which other measures should be included? For example, should the Commission determine eligible measures based on the recommendations from the CISA K-12 Cybersecurity Report, the DOE K-12 Digital Infrastructure Briefs, and/or other federal partner resources and guides. If so, how?

42. Moreover, we note that while nearly all commenters advocated for the eligibility of at least advanced or next-generation firewalls and services, commenters generally disagree on which features an "advanced firewall" service includes. For example, commenters variously opined that advanced firewalls should include some or all of: intrusion detection and prevention, application-level inspection, anti-malware and anti-virus protection, VPN, DNS security, DDoS protection, and content filtering.¹¹⁴ If the Commission were to make advanced firewall services eligible, how should "advanced

¹¹⁰ SHLB Coalition Reply at 4-5.

¹¹¹ *Id.*

¹¹² 47 U.S.C. § 254(h)(2)(A).

¹¹³ *See, e.g.*, E-Rate Provider Services Comments at 3.

¹¹⁴ *See supra* notes 107 and 108.

firewall” be defined for the purposes of the proposed Pilot program? Alternatively, given the lack of consensus around the scope of these terms, and the import of this technology, should the Commission simply make “firewalls” eligible for the Pilot without regard to whether they are “basic” or “advanced/next-generation” as has been suggested to the Commission?¹¹⁵ If the Commission were to adopt a single, updated “firewalls” definition for purposes of the Pilot that includes advanced or next-generation firewalls, should the definition encompass intrusion detection and prevention, application-level inspection, anti-malware and anti-virus protection, VPN, DNS security, DDoS protection, and content filtering and/or other measures/technologies? Given the limited amount of funding available, which of these measures/technologies should the Commission prioritize for inclusion within a broader definition of “firewall” and for what reasons?

43. We further propose to limit Pilot eligibility to equipment that is network-based (i.e., that excludes end-user devices, including, for example, tablets, smartphones, and laptops) and services that are network-based and/or locally installed on end-user devices, where the devices are owned or leased by the school or library. To be eligible for the Pilot, we further propose that the equipment or services be designed to identify and/or remediate threats that could otherwise directly impair or disrupt a school’s or library’s network, including to threats from users accessing the network remotely. We note that this proposed eligibility criteria would apply regardless of whether the equipment or services are located within a school’s or library’s classroom or other physical premises. We believe that this eligibility criteria, which is not restricted to physical premises, would provide schools and libraries with the flexibility to cost-effectively procure remotely-located equipment and services obviating a potentially costly need to install, maintain, and troubleshoot solutions on-site. We also believe that this approach is consistent with the way that many modern security services are increasingly offered, i.e., as a remotely-located or cloud-based, centralized resource accessible via the Internet. We further believe that limiting eligible services to end-user devices owned or leased by a school or library strikes a reasonable balance between protecting those entities’ networks with the need to limit the scope of protections given the limited Pilot funding available. We believe that our approach also reflects the reality that schools and libraries often already restrict the permissions available to third-party-owned devices that connect to their networks. We seek comment on this proposed scope of eligibility or any further restrictions, or relaxation of this proposal, that would best protect school and library broadband networks at a reasonable cost.

44. As noted above, the DOE and CISA K-12 cybersecurity recommendations describe a broad range of steps that K-12 entities may utilize to address cybersecurity risks, and many of these steps go beyond the types of specific firewall and technical technologies/measures that the Commission has traditionally deemed eligible for reimbursement within the context of the E-Rate program.¹¹⁶ For example, the DOE and CISA recommend that entities develop a mature cybersecurity plan, leverage existing free or low-cost cybersecurity services, negotiate for the inclusion of certain services with their technology providers, and engage in strategic collaboration, information-sharing, and relationship-building with other entities.¹¹⁷ CISA’s CPGs¹¹⁸ similarly recommend a broad range of cybersecurity practices, including practices related to asset management, organizational cybersecurity leadership structure, and reporting processes, that entities may use to reduce their cyber risk and help them develop

¹¹⁵ See, e.g., American Library Association Reply, WC Docket No. 13-184, at 2-3 (rec. Mar. 29, 2023) (ALA Reply); Cisco Comments at 22-23, 25 n.92; CoSN et al. Comments at 8; Illinois Office of Broadband Comments, WC Docket No. 13-184, at 3 (rec. Feb. 10, 2023) (IOB Comments) (all advocating that there should not be a distinction between basic and advanced firewalls, but also limiting the services as category 2 services subject to the applicants’ five-year budgets).

¹¹⁶ *Supra* paras. 8 and 10.

¹¹⁷ *Supra* paras. 8 and 10; see also DOE & CISA Defensible and Resilient Brief at 7, 11-12, 14-16, 19 (describing the joint DOE and CISA K-12 cybersecurity recommendations); CISA K-12 Cybersecurity Report at 11-12 (describing the CISA K-12 cybersecurity recommendations).

¹¹⁸ See CISA K-12 Cybersecurity Report at 3 (describing the CISA CPGs).

the cybersecurity plan needed to implement the NIST Cybersecurity Framework (CSF).¹¹⁹ These recommendations again involve actions that go beyond the traditional measures that the Commission has found to be eligible for reimbursement in the E-Rate program.

45. We thus seek comment on whether the Commission should allow participants to use Pilot funds to meet any of the DOE or CISA K-12 cybersecurity recommendations or CISA CPGs, or otherwise improve/enhance their cybersecurity posture and, if so, what the appropriate restrictions or limitations on the eligibility of such measures should be. Does the Commission have legal authority to allow spending on these broader DOE and CISA recommendations and CISA CPGs? If so, based on which statutory provisions and other sources of authority? Alternatively, should Pilot funding be limited to equipment and services that can directly protect the E-Rate-funded broadband networks and data, as has traditionally been the case within the E-Rate program?

46. Similarly, does the Commission have legal authority to fund broader steps that entities may take to address cybersecurity risks, such as through staff or user cybersecurity training, that are necessary parts of a K-12 school's or library's cybersecurity plan/framework as part of this proposed Pilot program? Or should staff and user cybersecurity training be treated similarly as the necessary resources needed to be able to participate in the Pilot program, similar to the necessary resources rule for the E-Rate program?¹²⁰ As discussed earlier, CISA has provided a number of free and low-cost K-12 cybersecurity tools and resources, including staff and user cybersecurity training in Appendix 1 to its K-12 Cybersecurity Report.¹²¹ We seek comment on these questions and what services and equipment should be eligible for support in the Pilot program.

E. Applicability and Adoption of E-Rate Rules, Forms, and Processes

47. We propose that Pilot participants comply with new rules, proposed and provided in Appendix A, that largely reflect and mirror the Commission's existing E-Rate rules,¹²² including by requiring competitive bidding, prohibiting gifts, and requiring that a participant pay its non-discounted portion of the costs of the supported services.¹²³ We believe that this approach is appropriate given the structural similarities of E-Rate and the Pilot, which is designed to study the expansion of equipment and services supported by E-Rate program. We believe that the Pilot rules are likely to be effective for the same reason that the E-Rate rules, which have been developed and refined by the Commission over many years, have proven to be effective. We further believe that by modeling today's proposed rules on the existing E-Rate rules, we would ease compliance burdens for Pilot participants who are likely already familiar with, and have appropriate compliance measures in place to address, existing E-Rate program requirements. We seek comment on today's proposed rules and these preliminary conclusions.

48. While today's proposed rules would mirror in most respects the Commission's E-Rate rules, we propose some deviations from those rules. For example, we propose to adopt several rules from the ECF program that are not included in the E-Rate rules. First, we propose to use the shorter timeframe for appealing a decision by USAC or requesting a waiver of the Commission's rules. Second, we propose

¹¹⁹ See CISA K-12 Cybersecurity Report at 15 (describing the eventual goal of working to implement a cybersecurity plan to implement NIST's CSF); DOE & CISA Defensible and Resilient Brief at 10-21 (discussing the interplay between the CISA CPGs and the NIST 1.1. five core functions).

¹²⁰ See 47 CFR § 54.504(a)(1)(iii).

¹²¹ See, e.g., CISA K-12 Cybersecurity Report, Appendix 1, at 22; see also NIST, National Initiative for Cybersecurity Education (NICE), *Free and Low Cost Online Cybersecurity Learning Content*, <https://www.nist.gov/itl/applied-cybersecurity/nice/resources/online-learning-content> (last visited Nov. 9, 2023); *supra* notes 4-6.

¹²² 47 CFR Part 54, Subpart F.

¹²³ See 47 CFR §§ 54.503 (E-Rate competitive bidding requirements); 54.503(d) (E-Rate gift restrictions); 54.523 (E-Rate requirement for payment of the non-discount portion of supported services).

that invoices must also be submitted along with the request for reimbursement, as required in the ECF program. We believe that these two deviations from the E-Rate rules will work better for the Pilot program as it is a short-term program, similar to the ECF program. We seek comment on these proposals. We also seek comment on whether any of today's proposed rules should not be adopted, or adopted in a different form than proposed for logical, policy, administrative, or other reasons. For example, should we allow Pilot participants to select the invoicing mode, as is required in the E-Rate rules? Or should the service provider be required to affirmatively agree to invoice on behalf of the Pilot participant as required in the ECF rules? We tentatively conclude that we should allow Pilot participants to determine which invoicing mode will be used and we seek comment on these questions and tentative conclusion. In providing comments, we request that commenters provide specific cites to relevant provisions of the proposed rules and, if instructive, the E-Rate rules. We also request that commenters describe any proposed rule modifications in detail. We also seek comment on whether we should promulgate any additional new rules, specific to the Pilot program. For example, what rules might we adopt to ensure the collection of data that will aid the Commission in evaluating the effectiveness of various cybersecurity approaches via the Pilot and an application filing window for the selection of Pilot participants?

49. We also propose to create a standardized set of forms for the Pilot as we believe this will both increase administrative efficiency and reduce burdens for the Pilot participants. Our proposal is informed by the Commission's significant experience creating and employing standardized forms in a number of USF programs, including E-Rate, ECF, and the Connected Care Pilot Program.¹²⁴ We seek comment on whether our objectives of administrative efficiency and minimizing Pilot participant burdens would best be met if we leverage the forms used in the Commission's other USF programs as a starting point for creating forms for the Pilot. Based on our experience with E-Rate and ECF, in particular, we propose to create new forms for the Pilot participants that mirror the E-Rate FCC Form 470: Description of Services Requested and Certification Form; E-Rate/ECF FCC Form 471: Description of Services Ordered and Certification Form; E-Rate/ECF FCC Form 472: Billed Entity Applicant Reimbursement (BEAR) Form; and the E-Rate/ECF FCC Form 474: Service Provider Invoice (SPI) Form.¹²⁵ The new Pilot forms would thus allow participants to: (i) request Pilot-eligible services and equipment and open the competitive bidding process among vendors of these services and equipment; (ii) describe services and equipment the participant ordered after competitive bidding and request applicable discounts on the services and equipment; (iii) request reimbursement from USAC for the discounted costs of eligible services and equipment that have been approved by USAC and for which the applicant has received and paid for in full (i.e., BEAR invoicing); and (iv) request reimbursement from USAC for the discounted costs of eligible services and equipment that have been approved by USAC for which the applicant has received and paid the non-discounted portion to the service provider (i.e., SPI invoicing), respectively. We seek comment on our proposal to use these forms for the Pilot. We further propose to create a new Pilot participant application form (Form 484) that will collect the data proposed in paragraph 27 of this Notice. We will still leverage the data available in the E-Rate Productivity Center (EPC) and the ECF Portal to streamline the application process by auto-populating with Pilot applicant data that is already available through the E-Rate and ECF online systems. We seek comment on this proposal.

50. We also seek comment on whether any other new forms, processes, and software systems are needed or would be beneficial for the Pilot and on how these should be structured. For example, can we leverage existing E-Rate or ECF forms, processes, and software systems for the disbursement of funding in the Pilot program? Additionally, can the Pilot incorporate the existing E-Rate or ECF processes and software systems for seeking bids, requesting funding, and requesting disbursements/invoicing?¹²⁶ What challenges or obstacles to using existing E-Rate or ECF forms,

¹²⁴ See, e.g., FCC, *Emergency Connectivity Fund*, <https://www.fcc.gov/emergency-connectivity-fund> (last visited Nov. 9, 2023); FCC, *Connected Care Pilot Program*, <https://www.fcc.gov/wireline-competition/telecommunications-access-policy-division/connected-care-pilot-program> (last visited Nov. 9, 2023).

¹²⁵ See USAC, *Forms*, <https://www.usac.org/e-rate/resources/forms/> (last visited Nov. 9, 2023).

processes, and software systems exist, if any, and how can we address them in the Pilot? Can the Pilot leverage existing E-Rate or ECF invoicing procedures, including the program's associated deadlines for submitting invoices,¹²⁷ and what modifications, if any, should be made to these deadlines to better reflect the structure of today's Pilot program as compared to the E-Rate or ECF programs? For example, how should we define and implement a service delivery date for the Pilot program given its limited three-year duration? We seek detailed comment on these questions.

51. We also seek comment on steps we can take to protect the program integrity of the Pilot and its limited USF funds. Should we apply the E-Rate and/or ECF program integrity rules to the Pilot and, if so, what modifications, if any, should we make to those rules? We propose similar program integrity protections, for example, document retention requirements, audits, site visits, and other methods of review in the Pilot program. We seek comment on these proposals and questions. To further protect program integrity, we also propose that we apply our existing USF suspension and debarment rules to the Pilot.¹²⁸ We additionally note that the Commission is considering whether to update its suspension and debarment rules to provide the Commission with broader and more flexible authority to promptly remove bad actors from participating in USF and other programs in a separate, pending proceeding.¹²⁹ To the extent that this proceeding is resolved and results in final rules prior to or during the duration of the Pilot program, we propose to apply the updated rules to the Pilot program. We believe that the steps outlined here would strike an appropriate balance between encouraging active participation in the Pilot by various schools and libraries and protecting the program integrity of the Pilot and its limited funds. We seek comment on our proposals, including the sufficiency of our legal authority to take our proposed actions, and any additional or alternative steps the Commission should take to safeguard the integrity of the proposed Pilot.

F. Legal Authority

52. These proposals would create a Pilot that allows participants to receive universal service support for cybersecurity and advanced firewall services, an expansion of the basic firewall services currently allowed in the E-Rate program.¹³⁰ In the *December 2022 Public Notice*, we sought comment on whether the Commission had sufficient legal authority for funding advanced firewall services, including pursuant to sections 254(c)(1), (c)(3), (h)(1)(B), and (h)(2) of the Communications Act, and any other legal issues or concerns the Commission should consider based on the proposals.¹³¹ All commenters who opined agreed that the Commission had sufficient legal authority to fund advanced firewall equipment and services.¹³² The record thus indicates that the Commission has sufficient legal authority for today's proposed Pilot. We seek comment on this view and on the other aspects of legal authority raised below.

53. As a preliminary matter, the record to date supports commenters' views that today's Pilot, which would use USF funding to support the provision of cybersecurity and advanced firewall

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¹²⁶ See, e.g., USAC, *E-Rate*, <https://www.usac.org/e-rate/> (last visited June 9, 2023).

¹²⁷ See USAC, *Step 5: Invoicing*, <https://www.usac.org/e-rate/service-providers/step-5-invoicing/> (last visited Nov. 9, 2023) (describing invoicing procedures and associated deadlines).

¹²⁸ 47 CFR § 54.8.

¹²⁹ See, e.g., *Modernizing Suspension and Debarment Rules*, GN Docket No. 19-309, Notice of Proposed Rulemaking, 34 FCC Rcd. 11348 (2019).

¹³⁰ See *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Order, at Appendix B (WCB 2022) (describing E-Rate eligible services for funding year 2023); *supra* section III.D (proposing additional eligible services for the Pilot program).

¹³¹ *December 2022 Public Notice* at *6 (seeking comment on legal authority to initiate a pilot program and make advanced or next-generation firewalls and services eligible).

¹³² See ALA Comments at 5-6; ALA Reply at 3-4; Cisco Comments at 23-25; CoSN Comments at 16-17; SHLB Coalition Reply at 6.

services to participating schools and libraries, is consistent with Congress’s view that the USF represents an evolving level of service.¹³³ We find it likely that the results of the Pilot would inform potential future actions that the Commission take to further its obligation to “establish periodically” universal service rules that “tak[e] into account advances in telecommunications and information technologies and services.”¹³⁴ The utility and necessity of the proposed new services, including cybersecurity and advanced firewall services, reflects ongoing advances in networks and the associated threats that schools’ and libraries’ broadband networks face today compared to in years past. We seek comments on these views.

54. The record supports commenters’ view that the Commission has legal basis for today’s proposed Pilot pursuant to section 254(h)(2)(A) of the Communications Act “to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms . . . and libraries . . .” based on two distinct views.¹³⁵ First, the proposed Pilot could make a number of new services, including, for example, advanced and next-generation firewalls, VPNs, intrusion detection and prevention protection, DNS security, and/or DDoS protection, directly available to participants. Each of these services is itself an “advanced telecommunications” and/or “information service” as each filters the information permitted to influence and affect participants’ telecommunications networks.¹³⁶ Second, the proposed new services would remediate many common types of cyber threats that would otherwise diminish the ability of schools and libraries to use their existing “advanced telecommunications and information services” (e.g., the Internet), thereby meaningfully “enhanc[ing]” their access to the existing services.¹³⁷ We seek comment on these two views. For example, according to the first view, to what extent are the services included in today’s pilot proposal themselves “advanced telecommunications and information services” within the meaning of section 254(h)(2) of the Communications Act?

55. In addition, we believe that by taking steps to deter harm to a school or library network when it is accessed remotely on end-user devices that are owned or leased by the school or library, we are necessarily also ensuring that the same network would remain functional when accessed from within a traditional school classroom or a library’s physical premises. This reflects the fact that students can access school networks before or after school hours to complete homework and other assignments, which often occurs from the home or another location outside of the school premises.¹³⁸ We seek comment on these views, generally on our legal authority for today’s proposals and on the physical spaces that qualify for eligible equipment and services, whether based on legal authority considerations or other practical concerns.

56. We further believe that today’s Pilot is “technically feasible and economically reasonable” as required by section 254(h)(2)(A) of the Communications Act. While the Commission has previously expressed a view, as recently as 2019, that any expansion of cybersecurity services beyond

¹³³ 47 U.S.C. § 254(c)(1); CoSN Comments at 16-17; SHLB Coalition Reply at 2 (all stating that expanding E-Rate eligibility as proposed is consistent with Congressional direction pursuant to section 254 of the Communications Act).

¹³⁴ 47 U.S.C. § 254(c)(1); CoSN Comments at 16-17 (citing 47 U.S.C. § 254(c)(1)).

¹³⁵ 47 U.S.C. § 254(h)(2)(A); ALA Comments at 5; Cisco Comments, at 24; CoSN Comments at 16-17.

¹³⁶ ALA Comments at 5; CoSN Comments at 16-17 (all supporting the eligibility of next-generation firewalls and related services).

¹³⁷ Cisco Comments at 24 (noting that “cybersecurity protection both enhances and ensures ongoing, usable access to broadband”).

¹³⁸ *Modernizing the E-Rate Program for Schools and Libraries*, WC Docket No. 13-184, Declaratory Ruling, FCC 23-84, para. 9 & n.30 (Oct. 25, 2023) (discussing the “need for connectivity to complete homework and other assignments before and after school hours,” and the fact that “teachers are more likely to assign homework that requires access to broadband and/or digital devices outside of schools as grade levels increase”).

basic firewall services may be cost-prohibitive to the E-Rate program,¹³⁹ we seek comment on whether changed circumstances in the years since that determination (and earlier Commission determinations) warrant today's proposed Pilot. As discussed above, the COVID-19 pandemic changed the extent to which K-12 schools and libraries utilize their networks to deliver quality education and learning materials off-premises to students and patrons.¹⁴⁰ Moreover, since 2021, Congress, CISA, GAO, and other federal agencies have effectuated legislation or taken other actions to study how the number and variety of cyberthreats facing K-12 schools and libraries continues to evolve.¹⁴¹ We believe that today's Pilot reflects these actions by seeking to better understand the nature of current cyber threats faced by K-12 schools and libraries participating in the E-Rate program. Moreover, we have designed the Pilot to limit USF expenditures until the nature of any significant threats are understood based on the Pilot's results in several ways. One, the costs of today's proposals would fall entirely within a time-limited, three-year USF-supported Pilot program, and not would not draw from the budget for the E-Rate program. Two, the costs would be mitigated because we propose that the participants be required to leverage other free and low-cost K-12 cybersecurity tools and services as part of their cybersecurity action plans.¹⁴² We expect to obtain results from the Pilot that will enable us to make informed long-term decisions on whether any of the equipment and services studied in the program would be cost-effective to include in E-Rate, should we address that matter through subsequent Commission action. We expect these steps will lead to lower USF costs as the burden for K-12 cybersecurity protection will not be borne solely by the E-Rate program or other universal service program funding. We seek comment on these views.

57. The record also supports commenters' view that the Commission has an additional legal basis for structuring the Pilot program as proposed today pursuant to section 254(c)(3) of the Communications Act. This section grants the Commission authority to "designate additional services for [USF] support . . . for schools [and] libraries."¹⁴³ Our proposed Pilot is consistent with this authority, the record indicates, as the Pilot would allow for the designation of additional services that may be used by participating schools and libraries based on USF funding.¹⁴⁴ Moreover, the results of the proposed Pilot program could be used by the Commission to inform potential further actions to facilitate the availability of these services to schools and libraries based on the USF. We seek comment on these preliminary conclusions.

58. *Other Legal Bases and Considerations.* We seek comment on the extent to which the cybersecurity and advanced firewall services made available through our proposed Pilot fulfill the Commission's mandate to make "[q]uality services" available at just, reasonable, and affordable rates.¹⁴⁵ Does ensuring that E-Rate-funded networks are able to implement strong and up-to-date cybersecurity measures, through the services funded through this Pilot program, further this statutory goal and, if so, how does ensuring the protection and privacy of school and library networks contribute to the provision of "[q]uality services"?

¹³⁹ *Supra* para. 12 (summarizing the Commission's prior determinations to limit the scope of equipment/services eligible for E-Rate).

¹⁴⁰ *Supra* para. 6.

¹⁴¹ *Supra* paras. 7-9.

¹⁴² *Supra* paras. 37-38.

¹⁴³ 47 U.S.C. § 254(c)(3) (permitting the Commission to designate additional services for USF support for schools and libraries pursuant to 47 U.S.C. § 254(h)); ALA Comments at 5; Cisco Comments at 24, n.89; CoSN Comments at 16-17.

¹⁴⁴ ALA Comments at 5 (supporting the eligibility of new services pursuant to 47 U.S.C. § 254(c)(3)); *see also* Cisco Comments at 24, n.89; CoSN Comments at 16-17.

¹⁴⁵ 47 U.S.C. § 254(b)(1).

59. The record to date indicates that the statutory bases identified above, taken collectively or individually, provide sufficient authority for our proposals. We seek comment on this view. We also seek comment on any other sources of legal authority, or constraints on such authority, that could bear on or otherwise impact today's proposals. For example, does the Commission have bases for our proposals based on its authority to set discounted rates for certain services provided to schools and libraries pursuant to section 254(h)(1)(B) of the Communications Act?¹⁴⁶ Relatedly, do the services made eligible in today's Pilot fall within the scope of services that telecommunications carriers can be required to provide pursuant to this statute?

60. *Limits and Restrictions.* We further seek comment on any other limits and restrictions that we should place on recipients of Pilot funds to remain within the statutory authority identified above and on any other legal requirements that apply to the Commission's implementation of the proposed Pilot program. For example, should recipients of Pilot funds be barred from selling, reselling, or otherwise transferring the services that they receive using funds provided for by the Pilot program?¹⁴⁷ We propose to apply the Secure and Trusted Communications Networks Act of 2021¹⁴⁸ to Pilot participants by prohibiting these participants from using any funding obtained through the program to purchase, rent, lease, or otherwise obtain any of the equipment or services on the Commission's Covered List or to maintain any of the equipment or services on the Covered List that was previously purchased, rented, leased, or otherwise obtained. We seek comment on this proposal and on whether there are any other restrictions or requirements that we should place on recipients of Pilot funds based on the Secure Networks Act and/or other related concerns related to supply chain security. Should Pilot participants be required to refund the USF any unused money, including if they withdraw from the Pilot program?

61. *The Children's Internet Protection Act.* We also seek comment on the applicability of the Children's Internet Protection Act (CIPA) to the Pilot program and USF-funded cybersecurity and advanced firewall services for schools and libraries. Congress enacted CIPA to protect children from exposure to harmful material while accessing the Internet from a school or library.¹⁴⁹ In enacting CIPA, Congress was particularly concerned with protecting children from exposure to material that was obscene, child pornography, or otherwise inappropriate for minors (i.e., harmful content).¹⁵⁰ CIPA prohibits certain schools and libraries from receiving funding under section 254(h)(1)(B) of the Communications Act for Internet access, Internet service, or internal connections, unless they comply with specific Internet safety requirements.¹⁵¹ Specifically, CIPA applies to schools and libraries "having computers with

¹⁴⁶ See Cisco Comments at 24; CoSN Comments 16-17 (all noting legal authority for today's proposal based on section 254(h)(1)(B) of the Communications Act).

¹⁴⁷ See 47 U.S.C. § 254(h)(3).

¹⁴⁸ Secure and Trusted Communications Networks Act of 2019, Pub. L. No. 116-124, 134 Stat. 158 (2020) (codified as amended at 47 U.S.C. §§ 1601-1609) (Secure Networks Act).

¹⁴⁹ See S. Rep. No. 106-141, at 1 (1999), <https://www.congress.gov/106/crpt/srpt141/CRPT-106srpt141.pdf> ("The purpose of the bill is to protect America's children from exposure to obscene material, child pornography, or other material deemed inappropriate for minors while accessing the Internet from a school or library receiving Federal Universal Service assistance for provisions of Internet access, Internet service, or internal connection.").

¹⁵⁰ *Id.*

¹⁵¹ Congress passed CIPA as part of a major spending bill in December 2000, and the President signed the bill into law on December 21, 2000. Children's Internet Protection Act, H.R. 4577, Pub. L. No. 106-554, 106th Cong., tit. XVII, § 1701-1703, 1711-1712, 1721 (2000) (enacted), available at <https://www.congress.gov/106/plaws/publ554/PLAW-106publ554.pdf>. CIPA is codified at section 254(h)(5)-(6), and section 254(l) of the Communications Act of 1934, as amended. 47 U.S.C. § 254(h)(5)-(6), (l). CIPA requires each covered school and library to certify that the school or library is: (1) "enforcing a policy of Internet safety that includes the operation of a technology protection measure with respect to any of its computers with Internet access that protects against access [by both adults and minors] through such computers" to visual depictions that are (i) obscene; (ii) child pornography; or, (iii) with respect to use of the computers by minors, harmful to minors; and (2) (continued....)

Internet access,”¹⁵² and requires each such school or library to certify that it is enforcing a policy of Internet safety that includes the operation of a technology protection measure “with respect to any of its computers with Internet access.”¹⁵³ Schools, but not libraries, must also monitor the online activities of minors and provide education about appropriate online behavior, including warnings against cyberbullying.¹⁵⁴

62. In the *Emergency Connectivity Fund Report and Order*, the Commission found that receipt of ECF- or E-Rate-funds for recurring Internet access, Internet services, or internal connections (if any) triggers CIPA compliance when used with any school- or library-owned computer, even if used off-premises.¹⁵⁵ On the other hand, the Commission determined that CIPA does not apply to the use of any third-party-owned device, even if that device is connecting to a school’s or library’s E-Rate- or ECF-funded Internet access or Internet service.¹⁵⁶ We seek comment on what impact the Commission’s interpretation of CIPA in the *Emergency Connectivity Fund Report and Order* has on the Pilot or USF-funded cybersecurity and advanced firewall services.

63. At the time of CIPA’s enactment, schools and libraries primarily owned one or two stationary computer terminals that were used solely on-premises.¹⁵⁷ Today, it is commonplace for students, school staff, and library patrons to carry Internet-enabled devices onto school or library premises and for schools and libraries to allow third-party-owned devices access to their Internet and broadband networks.¹⁵⁸ We invite comment on the scope of the Commission’s authority to impose CIPA

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“enforcing the operation of such technology protection measure during any use of such computers” by minors and adults. 47 U.S.C. § 254(h)(5)(B)(i),(ii) and (C)(i),(ii), (h)(6)(B)(i)(ii) and (C)(i)(ii), and (I); 47 CFR § 54.520(c)(1)(i), (c)(2)(i); *see also Federal-State Joint Board on Universal Service; Children’s Internet Protection Act*, CC Docket No. 96-45, Report and Order, 16 FCC Rcd 8182, 8184, n.5 (2001); *Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan for Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Report and Order, 26 FCC Rcd 11819, 11829, para. 23 (2011) (*2011 CIPA Order*).

¹⁵² 47 U.S.C. § 254(h)(5)(A)(i), (h)(6)(A)(i).

¹⁵³ 47 U.S.C. § 254(h)(5)(B)(i) and (C)(i), (h)(6)(B)(i) and (C)(i).

¹⁵⁴ *2011 CIPA Order*, 26 FCC Rcd at 11821, para. 5.

¹⁵⁵ *See Establishing the Emergency Connectivity Fund to Close the Homework Gap*, WC Docket No. 21-93, Report and Order, 36 FCC Rcd 8696, 8746-49, paras. 108-14 (2021) (*Emergency Connectivity Fund Report and Order*) (discussing the applicability of CIPA and rejecting the suggestion that CIPA applicability is limited to applicant-owned computers within a school or library building); *see also* FCC, *Emergency Connectivity Fund FAQs: FAQ 10.1*, <https://www.fcc.gov/emergency-connectivity-fund-faqs> (last visited Nov. 9, 2023) (“CIPA requirements apply only to school- or library-owned computers (e.g., tablet computers and laptop computers) when the school or library receives (1) ECF or E-Rate support for internet access, internet services or network equipment for internet access or internet service that will be used by any school- or library-owned computers; or (2) E-Rate support for internal connections or network equipment for internal connections that will be used by any school- or library-owned computers.”).

¹⁵⁶ *Id.*

¹⁵⁷ *See* AGiRepair, *The Evolution of Technology in the Classroom* (Mar. 15, 2021), <https://agirepair.com/evolution-of-technology-in-the-classroom/> (explaining that by 1994, most schools had at least one PC in the classroom).

¹⁵⁸ Gary Ackerman, *A Brief History of Computers in Schools* (Nov. 11, 2019), <https://hackscience.education/2019/11/11/a-brief-history-of-computers-in-schools/> (“As we approach the third decade of the 21st century, students in the United States, and other industrialized nations, attend schools in which computers abound. The machines may be desktop, laptop, tablet, or handheld models that are owned by and maintained by the school, or the devices may be owned by students and brought to school for educational (or distracting) purposes.”). *See also* ALA Policy Perspectives, *Keeping Communities Connected—Library Broadband Services During the COVID-19 Pandemic* at 2 (2022), https://www.ala.org/advocacy/sites/ala.org.advocacy/files/content/telecom/broadband/Keeping_Communities_Conn

(continued....)

requirements on third-party devices that may connect with school- or library-owned broadband networks as part of this Pilot program or school- and library-owned broadband networks funded with USF support, and whether the imposition of such requirements would be appropriate. Similarly, we invite comment on whether the requirements of CIPA should apply to USF-funded cybersecurity and advanced firewall services (e.g., cybersecurity software) if placed on third-party owned devices that connect to a school- or library-owned broadband network.

64. Finally, we acknowledge there are privacy concerns related to certain CIPA requirements, particularly as it relates to students' and library patrons' data that is often subject to various federal and/or state privacy laws. We seek comment on these privacy issues and any privacy concerns commenters may have about the application of CIPA to this Pilot program or USF-funded cybersecurity and advanced firewall services for schools and libraries.

G. Promoting Digital Equity and Inclusion

65. The Commission, as part of its continuing effort to advance digital equity for all,¹⁵⁹ 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 considerations¹⁶⁰ and benefits (if any) that 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 MATTERS

66. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),¹⁶¹ 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."¹⁶² Accordingly, we have prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the possible impact of potential rule and/or policy changes contained in this Notice of Proposed Rulemaking on small entities. The IRFA is set forth in the Appendix B. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the *NPRM* indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA.

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[ected_030722.pdf](#) (observing that "[t]he country's nearly 17,000 public libraries offer no-fee internet access, Wi-Fi, and devices, such as computers and tablets").

¹⁵⁹ 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.

¹⁶⁰ 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 (Jan. 20, 2021).

¹⁶¹ 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).

¹⁶² 5 U.S.C. § 605(b).

67. *Paperwork Reduction Act.* This document contains 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 Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995 (PRA), 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 might further reduce the information collection burden for small business concerns with fewer than 25 employees.

68. *Ex Parte Rules – Permit but Disclose.* Pursuant to section 1.1200(a) of the Commission's rules,¹⁶³ this Notice of Proposed Rulemaking shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.¹⁶⁴ 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.

69. *Providing Accountability Through Transparency Act.* Consistent with the Providing Accountability Through Transparency Act, Public Law 118-9, a summary of this document will be available on <https://www.fcc.gov/proposed-rulemakings>.

70. *Comment Period and Filing Procedures.* 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. All filings must refer to WC Docket No. 23-234.

- Electronic filers: Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS): <https://www.fcc.gov/ecfs>.¹⁶⁵
- 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.

¹⁶³ 47 CFR § 1.1200(a).

¹⁶⁴ 47 CFR § 1.1200 *et seq.*

¹⁶⁵ *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- 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, N.E., 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-19.¹⁶⁶ In the event that the Commission announces the lifting of COVID-19 restrictions, a filing window will be opened at the Commission's office located at 9050 Junction Drive, Annapolis Junction, Maryland 20701.¹⁶⁷

71. 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.

72. Availability of Documents: Comments, reply comments, and *ex parte* submissions will be publicly available online via ECFS.¹⁶⁸

73. *Further Information.* For further information, contact Joseph Schlingbaum of the Telecommunications Access Policy Division, Wireline Competition Bureau at Joseph.Schlingbaum@fcc.gov or (202) 418-1500. For information regarding the PRA information collection requirements contained in this Notice of Proposed Rulemaking, contact Nicole Ongele, Office of Managing Director, at Nicole.Ongele@fcc.gov or (202) 418-2991.

V. ORDERING CLAUSES

74. Accordingly, IT IS ORDERED that, pursuant to the authority found in sections 1 through 4, 201 through 202, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151 through 154, 201 through 202, 254, 303(r), and 403, this Notice of Proposed Rulemaking IS ADOPTED.

75. IT IS FURTHER ORDERED that the Commission's Office of the Secretary, Reference Information Center, 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

¹⁶⁶ See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, DA 20-304 (Mar. 19, 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

¹⁶⁷ FCC, *How to File Paper Documents with the FCC*, <https://www.fcc.gov/reports-research/guides/how-file-paper-documents-fcc> (last visited Nov. 9, 2023).

¹⁶⁸ Documents will generally be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

APPENDIX A**Proposed Rules**

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend part 54 of Title 47 of the Code of Federal Regulations as follows:

PART 54 – UNIVERSAL SERVICE

The authority for part 54 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 229, 254, 303, 403, 1004, 1302, 1601-1609, and 1752.

1. Add subpart T to read as follows:

Subpart T -- Schools and Libraries Cybersecurity Pilot Program**§ 54.2000 Terms and Definitions.**

Administrator. The term “Administrator” means the Universal Service Administrative Company.

Billed Entity. A “billed entity” is the entity that remits payment to service providers for services rendered to eligible schools, libraries, or consortia of eligible schools and libraries.

Commission. The term “Commission” means the Federal Communications Commission.

Connected device. The term “connected device” means a laptop or desktop computer, or a tablet.

Consortium. A “consortium” is any local, Tribal, statewide, regional, or interstate cooperative association of schools and/or libraries eligible for Schools and Libraries Cybersecurity Pilot Program support that seeks competitive bids for eligible services or funding for eligible services on behalf of some or all of its members. A consortium may also include health care providers eligible under subpart G of this part, and public sector (governmental) entities, including, but not limited to, state colleges and state universities, state educational broadcasters, counties, and municipalities, although such entities are not eligible for support.

Cyber incident. An occurrence that actually or potentially results in adverse consequences to (adverse effects on) (poses a threat to) an information system or the information that the system processes, stores, or transmits and that may require a response action to mitigate the consequences.

Cyber threat. A circumstance or event that has or indicates the potential to exploit vulnerabilities and to adversely impact (create adverse consequences for) organizational operations, organizational assets (including information and information systems), individuals, other organizations, or society.

Cyberattack. An attempt to gain unauthorized access to system services, resources, or information, or an attempt to compromise system integrity.

Doxing. The act of compiling or publishing personal information about an individual on the Internet, typically with malicious intent.

Educational Purposes. For purposes of this subpart, activities that are integral, immediate, and proximate to the education of students, or in the case of libraries, integral, immediate and proximate to the provision of library services to library patrons, qualify as “educational purposes.”

Elementary School. An “elementary school” means an elementary school as defined in 20 U.S.C. 7801(18), a non-profit institutional day or residential school, including a public elementary charter school, that provides elementary education, as determined under state law.

Library. A “library includes:

- (1) A public library;
- (2) A public elementary school or secondary school library;
- (3) A Tribal library;
- (4) An academic library;
- (5) A research library, which for the purpose of this section means a library that:
 - (i) Makes publicly available library services and materials suitable for scholarly research and not otherwise available to the public; and
 - (ii) Is not an integral part of an institution of higher education; and
- (6) A private library, but only if the state in which such private library is located determines that the library should be considered a library for the purposes of this definition.

Library consortium. A “library consortium” is any local, statewide, Tribal, regional, or interstate cooperative association of libraries that provides for the systematic and effective coordination of the resources of schools, and public, academic, and special libraries and information centers, for improving services to the clientele of such libraries. For the purposes of these rules, references to library will also refer to library consortium.

National School Lunch Program. The “National School Lunch Program” is a program administered by the U.S. Department of Agriculture and state agencies that provides free or reduced price lunches to economically disadvantaged children. A child whose family income is between 130 percent and 185 percent of applicable family size income levels contained in the nonfarm poverty guidelines prescribed by the Office of Management and Budget is eligible for a reduced price lunch. A child whose family income is 130 percent or less of applicable family size income levels contained in the nonfarm income poverty guidelines prescribed by the Office of Management and Budget is eligible for a free lunch.

Pre-discount price. The “pre-discount price” means, in this subpart, the price the service provider agrees to accept as total payment for its eligible services and equipment. This amount is the sum of the amount the service provider expects to receive from the eligible school, library, or consortium, and the amount it expects to receive as reimbursement from the Schools and Libraries Cybersecurity Pilot Program for the discounts provided under this subpart.

Secondary school. A “secondary school” means a secondary school as defined in 20 U.S.C. 7801(38), a non-profit institutional day or residential school, including a public secondary charter

school, that provides secondary education, as determined under state law except that the term does not include any education beyond grade 12.

Tribal. An entity is “Tribal” if it is a school operated by or receiving funding from the Bureau of Indian Education (BIE), or if it is a school or library operated by any Tribe, Band, Nation, or other organized group or community, including any Alaska native village, regional corporation, or village corporation (as defined in, or established pursuant to, the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.) that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

§ 54.2001 Budget and Duration.

- (a) *Budget.* The Schools and Libraries Cybersecurity Pilot Program shall have a cap of \$200 million.
- (b) *Duration.* The Schools and Libraries Cybersecurity Pilot Program shall make funding available to applicants selected to participate (in accordance with § 54.2004 of this subpart) for three years, to begin when selected applicants are first eligible to receive eligible services and equipment.

§ 54.2002 Eligible Recipients.

- (a) *Schools.*
 - (1) Only schools meeting the statutory definition of “elementary school” or “secondary school” as defined in § 54.2000, and not excluded under paragraphs (a)(2) or (3) of this section shall be eligible for discounts on supported services under this subpart.
 - (2) Schools operating as for-profit businesses shall not be eligible for discounts under this subpart.
 - (3) Schools with endowments exceeding \$50,000,000 shall not be eligible for discounts under this subpart.
- (b) *Libraries.*
 - (1) Only libraries eligible for assistance from a State library administrative agency under the Library Services and Technology Act (20 U.S.C. 9122) and not excluded under paragraph (b)(2) or (3) of this section shall be eligible for discounts under this subpart.
 - (2) Except as provided in paragraph (b)(4) of this section, a library's eligibility for universal service funding shall depend on its funding as an independent entity. Only libraries whose budgets are completely separate from any schools (including, but not limited to, elementary and secondary schools, colleges, and universities) shall be eligible for discounts as libraries under this subpart.
 - (3) Libraries operating as for-profit businesses shall not be eligible for discounts under this subpart.

- (4) A Tribal college or university library that serves as a public library by having dedicated library staff, regular hours, and a collection available for public use in its community shall be eligible for discounts under this subpart.
- (c) *Consortia.*
 - (1) For consortia, discounts under this subpart shall apply only to the portion of eligible services and equipment used by eligible schools and libraries.
 - (2) Service providers shall keep and retain records of rates charged to and discounts allowed for eligible schools and libraries on their own or as part of a consortium. Such records shall be available for public inspection.

§ 54.2003 Eligible Services and Equipment.

- (a) *Supported services and equipment.* All supported services and equipment are listed in the Schools and Libraries Cybersecurity Pilot Program Eligible Services List, as updated in accordance with paragraph (b) of this section. The services and equipment in this subpart will be supported in addition to all reasonable charges that are incurred by taking such services, such as state and federal taxes. Charges for termination liability, penalty surcharges, and other charges not included in the cost of taking such service shall not be covered by the universal service support mechanisms.
- (b) *Schools and Libraries Cybersecurity Pilot Program Eligible Services List Process.* The Wireline Competition Bureau will release a list of services and equipment eligible for support prior to the opening of the Pilot Participant Selection Application Window, in accordance with § 54.2004. The Wireline Competition Bureau may, as needed, amend the list of services and equipment eligible for support prior to the termination of the Schools and Libraries Cybersecurity Pilot Program, in accordance with § 54.2001.
- (c) *Prohibition on resale.* Eligible supported services and equipment shall not be sold, resold, or transferred in consideration of money or any other thing of value, until the conclusion of the Schools and Libraries Cybersecurity Pilot Program, as provided in § 54.2001.

§ 54.2004 Application for Selection in the Pilot Program.

- (a) The Wireline Competition Bureau will announce the opening of the Pilot Participant Selection Application Window. Eligible recipients shall have no less than sixty (60) days to submit a Pilot Participant Selection Application, following the opening of the window.
- (b) The Wireline Competition Bureau shall announce those eligible applicants that have been selected to participate in the Schools and Libraries Cybersecurity Pilot Program no more than ninety (90) days following the close of the Pilot Participant Selection Application Window.
- (c) *Filing the FCC Form 484.*
 - (1) Schools, libraries, or consortia of eligible schools and libraries to participate in the Schools and Libraries Cybersecurity Pilot Program shall submit a completed FCC Form 484 to the Administrator. The FCC Form 484 shall include, at a minimum, the following information:

-
- (i) Name, address, and contact information for the interested school or library. For school district or library system applicants, the name and address of all schools/libraries within the district/system, and contact information for the district or library system.
 - (ii) Description of the Pilot participant's current cybersecurity posture, including how the school or library is currently managing and addressing its current cybersecurity risks through prevention and mitigation tactics, and a description of its proposed advanced cybersecurity action plan should it be selected to participate in the Pilot program and receive funding.
 - (iii) Description of any incident of unauthorized operational access to the Pilot participant's systems or equipment within a year of the date of its application; the date range of the incident; a description of the unauthorized access; the impact to the K-12 school or library; a description of the vulnerabilities exploited and the techniques used to access the system; and identifying information for each actor responsible for the incident, if known.
 - (iv) Description of the Pilot participant's proposed use of the funding to protect its broadband network and data and improve its ability to address K-12 cyber concerns. This description should include the types of services and equipment the participant plans to purchase and the plan for implementing and using the Pilot-funded equipment and services to protect its broadband network and data, and improve its ability to manage and address its cybersecurity risks.
 - (v) Description of how the Pilot participant plans to collect and track its progress in implementing the Pilot-funded equipment and services into its cybersecurity action plan, and for providing the required Pilot data, including the impact the funding had on its initial cybersecurity action plan that pre-dated implementation of Pilot efforts.
- (2) The FCC Form 484 shall be signed by a person authorized to submit the application to participate in the Pilot Program on behalf of the eligible school, library, or consortium, including such entities.
- (i) A person authorized to submit the application on behalf of the entities listed on an FCC Form 484 shall certify under oath that:
 - (A) "I am authorized to submit this application on behalf of the above-named applicant and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this form has been examined and is true, accurate, and complete. I acknowledge that any false statement on this application or on other documents submitted by this applicant can be punished by fine or forfeiture under the Communications Act (47 U.S.C. 502, 503(b)), or fine or imprisonment under Title 18 of the United States Code (18 U.S.C. 1001), or can lead to liability under the False Claims Act (31 U.S.C. 3729–3733)."
 - (B) "In addition to the foregoing, this applicant is in compliance with the rules and orders governing the Schools and Libraries

Cybersecurity Pilot Program, and I acknowledge that failure to be in compliance and remain in compliance with those rules and orders may result in the denial of funding, cancellation of funding commitments, and/or recoupment of past disbursements. I acknowledge that failure to comply with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program could result in civil or criminal prosecution by law enforcement authorities.”

- (C) “By signing this application, I certify that the information contained in this form is true, complete, and accurate, and the projected expenditures, disbursements, and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, sections 1001, 286–287 and 1341 and Title 31, sections 3729–3730 and 3801–3812).”
- (D) The applicant recognizes that it may be audited pursuant to its application, that it will retain for ten years any and all records related to its application, and that, if audited, it shall produce such records at the request of any representative (including any auditor) appointed by a state education department, the Administrator, the Commission and its Office of Inspector General, or any local, state, or federal agency with jurisdiction over the entity.
- (E) I certify and acknowledge, under penalty of perjury, that if selected, the schools, libraries, and consortia in the application will comply with all applicable Schools and Libraries Cybersecurity Pilot Program rules, requirements, and procedures, including the competitive bidding rules and the requirement to pay the required share of the costs for the supported items from eligible sources.
- (F) I certify under penalty of perjury, to the best of my knowledge, that the schools, libraries, and consortia listed in the application are not already receiving or expecting to receive other funding (from any source, federal, state, Tribal, local, private, or other) that will pay for the same equipment and/or services for which I am seeking funding under the Schools and Libraries Cybersecurity Pilot Program.
- (G) I certify under penalty of perjury, to the best of my knowledge, that all requested equipment and services funded by the Schools and Libraries Cybersecurity Pilot Program will be used for their intended purposes.

§ 54.2005 Competitive Bidding Requirements.

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- (a) All applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program must conduct a fair and open competitive bidding process, consistent with all requirements set forth in this subpart.
- (b) *Competitive bid requirements.* All applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall seek competitive bids, pursuant to the requirements established in this subpart, for all services and equipment eligible for support under § 54.2003. These competitive bid requirements apply in addition to any applicable state, Tribal, and local competitive bid requirements and are not intended to preempt such state, Tribal, or local requirements.
- (c) *Posting of FCC Form 470.*
- (1) An applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall submit a completed FCC Form 470 to the Administrator to initiate the competitive bidding process. The FCC Form 470 shall include, at a minimum, the following information:
- (i) A list of specified services and/or equipment for which the school, library, or consortium requests bids;
- (ii) Sufficient information to enable bidders to reasonably determine the needs of the applicant;
- (2) The FCC Form 470 shall be signed by a person authorized to request bids for eligible services and equipment for the eligible school, library, or consortium, including such entities, and shall include that person's certification under penalty of perjury that:
- (i) "I am authorized to submit this application on behalf of the above-named applicant and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this form has been examined and is true, accurate, and complete. I acknowledge that any false statement on this application or on other documents submitted by this applicant can be punished by fine or forfeiture under the Communications Act (47 U.S.C. 502, 503(b)), or fine or imprisonment under Title 18 of the United States Code (18 U.S.C. 1001), or can lead to liability under the False Claims Act (31 U.S.C. 3729–3733)."
- (ii) "In addition to the foregoing, this applicant is in compliance with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program, and I acknowledge that failure to be in compliance and remain in compliance with those rules and orders may result in the denial of funding, cancellation of funding commitments, and/or recoupment of past disbursements. I acknowledge that failure to comply with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program could result in civil or criminal prosecution by law enforcement authorities."
- (iii) "By signing this application, I certify that the information contained in this form is true, complete, and accurate. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact,

may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, sections 1001, 286–287 and 1341 and Title 31, sections 3729–3730 and 3801–3812).”

- (iv) The schools meet the statutory definition of “elementary school” or “secondary school” as defined in § 54.2000, do not operate as for-profit businesses, and do not have endowments exceeding \$50 million.
- (v) Libraries or library consortia eligible for assistance from a State library administrative agency under the Library Services and Technology Act of 1996 do not operate as for-profit businesses and, except for the limited case of Tribal college or university libraries, have budgets that are completely separate from any school (including, but not limited to, elementary and secondary schools, colleges, and universities).
- (vi) The services and/or equipment that the school, library, or consortium purchases at discounts will not be sold, resold, or transferred in consideration for money or any other thing of value, except as allowed by § 54.2003(c).
- (vii) The school(s) and/or library(ies) listed on this FCC Form 470 will not accept anything of value, other than services and equipment sought by means of this form, from the service provider, or any representatives or agent thereof or any consultant in connection with this request for services.
- (viii) All bids submitted for eligible equipment and services will be carefully considered, with price being the primary factor, and the bid selected will be for the most cost-effective service offering consistent with paragraph (e) of this section.
- (ix) The school, library, or consortium acknowledges that support under this Pilot Program is conditional upon the school(s) and/or library(ies) securing access, separately or through this program, to all of the resources necessary to effectively use the requested equipment and services. The school, library, or consortium recognizes that some of the aforementioned resources are not eligible for support and certifies that it has considered what financial resources should be available to cover these costs.
- (x) I will retain required documents for a period of at least 10 years (or whatever retention period is required by the rules in effect at the time of this certification) after the later of the last day of the applicable funding year or the service delivery deadline for the associated funding request. I also certify that I will retain all documents necessary to demonstrate compliance with the statute and Commission rules regarding the form for, receipt of, and delivery of equipment and services receiving Schools and Libraries Cybersecurity Pilot Program discounts. I acknowledge that I may be audited pursuant to participation in the Pilot program.
- (xi) I certify that the equipment and services that the applicant purchases at discounts will be used primarily for educational purposes and will not be

sold, resold or transferred in consideration for money or any other thing of value, except as permitted by the Commission's rules at 47 C.F.R. § 54.2003(c). Additionally, I certify that the entity or entities listed on this form will not accept anything of value or a promise of anything of value, other than services and equipment sought by means of this form, from the service provider, or any representative or agent thereof or any consultant in connection with this request for services.

- (xii) I acknowledge that support under this Pilot program is conditional upon the school(s) and/or library(ies) I represent securing access, separately or through this program, to all of the resources necessary to effectively use the requested equipment and services. I recognize that some of the aforementioned resources are not eligible for support. I certify that I have considered what financial resources should be available to cover these costs.
 - (xiii) I certify that I have reviewed all applicable Commission, state, Tribal, and local procurement/competitive bidding requirements and that the applicant will comply with all applicable requirements.
 - (3) The Administrator shall post each FCC Form 470 that it receives from an applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program on its Web site designated for this purpose.
 - (4) After posting on the Administrator's Web site an FCC Form 470, the Administrator shall send confirmation of the posting to the applicant requesting services and/or equipment. The applicant shall then wait at least four weeks from the date on which its description of services and/or equipment is posted on the Administrator's Web site before making commitments with the selected providers of services and/or equipment. The confirmation from the Administrator shall include the date after which the applicant may sign a contract with its chosen provider(s).
- (d) *Gift Restrictions.*
- (1) Subject to paragraphs (d)(3) and (4) of this section, an applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program may not directly or indirectly solicit or accept any gift, gratuity, favor, entertainment, loan, or any other thing of value from a service provider participating in or seeking to participate in the Schools and Libraries Cybersecurity Pilot Program. No such service provider shall offer or provide any such gift, gratuity, favor, entertainment, loan, or other thing of value except as otherwise provided herein. Modest refreshments not offered as part of a meal, items with little intrinsic value intended solely for presentation, and items worth \$20 or less, including meals, may be offered or provided, and accepted by any individuals or entities subject to this rule, if the value of these items received by any individual does not exceed \$50 from any one service provider per year. The \$50 amount for any service provider shall be calculated as the aggregate value of all gifts provided during a year by the individuals specified in paragraph (d)(2)(ii) of this section.
 - (2) For purposes of this paragraph:

- (i) The term “applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program” includes all individuals who are on the governing boards of such entities (such as members of a school committee), and all employees, officers, representatives, agents, consultants, or independent contractors of such entities involved on behalf of such school, library, or consortium with the Schools and Libraries Cybersecurity Pilot Program, including individuals who prepare, approve, sign, or submit applications, or other forms related to the Schools and Libraries Cybersecurity Pilot Program, or who prepare bids, communicate, or work with Schools and Libraries Cybersecurity Pilot Program service providers, Schools and Libraries Cybersecurity Pilot Program consultants, or with the Administrator, as well as any staff of such entities responsible for monitoring compliance with the Schools and Libraries Cybersecurity Pilot Program; and
 - (ii) The term “service provider” includes all individuals who are on the governing boards of such an entity (such as members of the board of directors), and all employees, officers, representatives, agents, consultants, or independent contractors of such entities.
- (3) The restrictions set forth in this paragraph shall not be applicable to the provision of any gift, gratuity, favor, entertainment, loan, or any other thing of value, to the extent given to a family member or a friend working for an eligible school, library, or consortium that includes an eligible school or library, provided that such transactions:
 - (i) Are motivated solely by a personal relationship,
 - (ii) Are not rooted in any service provider business activities or any other business relationship with any such applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program, and
 - (iii) Are provided using only the donor's personal funds that will not be reimbursed through any employment or business relationship.
- (4) Any service provider may make charitable donations to an applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program in the support of its programs as long as such contributions are not directly or indirectly related to Schools and Libraries Cybersecurity Pilot Program procurement activities or decisions and are not given by service providers to circumvent competitive bidding and other Schools and Libraries Cybersecurity Pilot Program rules.
- (e) *Selecting a provider of eligible services.* In selecting a provider of eligible services and equipment, applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall carefully consider all bids submitted and must select the most cost-effective service offering. In determining which service offering is the most cost-effective, entities may consider relevant factors other than the pre-discount prices submitted by providers, but price should be the primary factor considered.

§ 54.2006 Requests for Funding.

- (a) *Filing of the FCC Form 471.*

- (1) An applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall, upon entering into a signed contract or other legally binding agreement for eligible services and equipment, submit a completed FCC Form 471 to the Administrator.
- (2) The FCC Form 471 shall be signed by the person authorized to order eligible services or equipment for the applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program and shall include that person's certification under penalty of perjury that:
 - (i) "I am authorized to submit this application on behalf of the above-named applicant and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this application has been examined and is true, accurate, and complete. I acknowledge that any false statement on this application or on other documents submitted by this applicant can be punished by fine or forfeiture under the Communications Act (47 U.S.C. 502, 503(b)), or fine or imprisonment under Title 18 of the United States Code (18 U.S.C. 1001), or can lead to liability under the False Claims Act (31 U.S.C. 3729–3733)."
 - (ii) "In addition to the foregoing, this applicant is in compliance with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program, and I acknowledge that failure to be in compliance and remain in compliance with those rules and orders may result in the denial of funding, cancellation of funding commitments, and/or recoupment of past disbursements. I acknowledge that failure to comply with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program could result in civil or criminal prosecution by law enforcement authorities."
 - (iii) "By signing this application, I certify that the information contained in this application is true, complete, and accurate, and the projected expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, sections 1001, 286–287 and 1341 and Title 31, sections 3729–3730 and 3801–3812)."
 - (iv) The school meets the statutory definition of "elementary school" or "secondary school" as defined in § 54.2000, does not operate as for-profit businesses, and does not have endowments exceeding \$50 million.
 - (v) The library or library consortia is eligible for assistance from a State library administrative agency under the Library Services and Technology Act, does not operate as for-profit businesses and, except for the limited case of Tribal college and university libraries, have budgets that are completely separate from any school (including, but not limited to, elementary and secondary schools, colleges, and universities).

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- (vi) The school, library, or consortium listed on the FCC Form 471 application will pay the non-discount portion of the costs of the eligible services and/or equipment to the Service Provider(s).
 - (vii) The school, library, or consortium listed on the FCC Form 471 application has conducted a fair and open competitive bidding process and has complied with all applicable state, Tribal, or local laws regarding procurement of the equipment and services for which support is being sought.
 - (viii) An FCC Form 470 was posted and that any related request for proposals (RFP) was made available for at least 28 days before considering all bids received and selecting a service provider. The school, library, or consortium listed on the FCC Form 471 application carefully considered all bids submitted and selected the most-cost-effective bid in accordance with § 54.2005(e), with price being the primary factor considered.
 - (ix) The school, library, or consortium listed on the FCC Form 471 application is only seeking support for eligible services and/or equipment.
 - (x) The school, library, or consortia is not seeking Schools and Libraries Cybersecurity Pilot Program support or reimbursement for eligible services and/or equipment that have been purchased and reimbursed in full with other federal funding, targeted state funding, other external sources of targeted funding or targeted gifts, or are eligible for discounts from the schools and libraries universal service support mechanism or another universal service support mechanism.
 - (xi) The services and equipment the school, library, or consortium purchases using Schools and Libraries Cybersecurity Pilot Program support will be used primarily for educational purposes and will not be sold, resold, or transferred in consideration for money or any other thing of value, except as allowed by § 54.2003(c).
 - (xii) The school, library, or consortium will create and maintain an equipment and service inventory as required by § 54.2010(a).
 - (xiii) The school, library, or consortium has complied with all program rules and acknowledges that failure to do so may result in denial of funding and/or recovery of funding.
 - (xiv) The school, library, or consortium acknowledges that it may be audited pursuant to its application, that it will retain for ten years any and all records related to its application, and that, if audited, it shall produce such records at the request of any representative (including any auditor) appointed by a state education department, the Administrator, the Commission and its Office of Inspector General, or any local, state, or federal agency with jurisdiction over the entity.
 - (xv) No kickbacks, as defined in 41 U.S.C. 8701, were paid to or received by the applicant from anyone in connection with the Schools and Libraries

Cybersecurity Pilot Program or the schools and libraries universal service support mechanism.

- (xvi) The school, library, or consortium acknowledges that Commission rules provide that persons who have been convicted of criminal violations or held civilly liable for certain acts arising from their participation in the universal service support mechanisms are subject to suspension and debarment from the program. The school, library, or consortium will institute reasonable measures to be informed, and will notify the Administrator should it be informed or become aware that any of the entities listed on this application, or any person associated in any way with this entity and/or the entities listed on this application, is convicted of a criminal violation or held civilly liable for acts arising from their participation in the universal service support mechanisms.

(b) *Service or Equipment Substitution.*

- (1) A request by a Schools and Libraries Cybersecurity Pilot Program applicant to substitute service or equipment for one identified in its FCC Form 471 must be in writing and certified under perjury by an authorized person.
- (2) The Administrator shall approve such written request where:
 - (i) The service or equipment has the same functionality;
 - (ii) The substitution does not violate any contract provisions or state, Tribal, or local procurement laws; and
 - (iii) The Schools and Libraries Cybersecurity Pilot Program participant certifies that the requested change is within the scope of the controlling FCC Form 470.
- (3) In the event that a service or equipment substitution results in a change in the pre-discount price for the supported service or equipment, support shall be based on the lower of either the pre-discount price of the service or equipment for which support was originally requested or the pre-discount price of the new, substituted service or equipment after the Administrator has approved a written request for the substitution.

- (c) *Mixed eligibility services and equipment.* If the service or equipment includes both ineligible and eligible components, the applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program must remove the cost of the ineligible components of the service or equipment from the request for funding submitted to the Administrator.

§ 54.2007 Discounts.

- (a) *Discount mechanism.* Discounts for applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall be set as a percentage discount from the pre-discount price.
- (b) *Discount percentages.* The discounts available to applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall range from 20 percent to 90

percent of the pre-discount price for all eligible services provided by eligible providers. The discounts available shall be determined by indicators of poverty and urban/rurality designation.

- (1) For schools and school districts, the level of poverty shall be based on the percentage of the student enrollment that is eligible for a free or reduced price lunch under the National School Lunch Program or a federally-approved alternative mechanism. School districts shall divide the total number of students eligible for the National School Lunch Program within the school district by the total number of students within the school district to arrive at a percentage of students eligible. This percentage rate shall then be applied to the discount matrix to set a discount rate for the supported services purchased by all schools within the school district. Independent charter schools, private schools, and other eligible educational facilities should calculate a single discount percentage rate based on the total number of students under the control of the central administrative agency.
- (2) For libraries and library consortia, the level of poverty shall be based on the percentage of the student enrollment that is eligible for a free or reduced price lunch under the National School Lunch Program or a federally-approved alternative mechanism in the public school district in which they are located and should use that school district's level of poverty to determine their discount rate when applying as a library system or as an individual library outlet within that system. When a library system has branches or outlets in more than one public school district, that library system and all library outlets within that system should use the address of the central outlet or main administrative office to determine which school district the library system is in, and should use that school district's level of poverty to determine its discount rate when applying as a library system or as one or more library outlets. If the library is not in a school district, then its level of poverty shall be based on an average of the percentage of students eligible for the National School Lunch Program in each of the school districts that children living in the library's location attend.
- (3) The Administrator shall classify schools and libraries as "urban" or "rural" according to the following designations. The Administrator shall designate a school or library as "urban" if the school or library is located in an urbanized area or urban cluster area with a population equal to or greater than 25,000, as determined by the most recent rural-urban classification by the Bureau of the Census. The Administrator shall designate all other schools and libraries as "rural."
- (4) Applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program shall calculate discounts on supported services described in § 54.2003 that are shared by two or more of their schools, libraries, or consortia members by calculating an average discount based on the applicable district-wide discounts of all member schools and libraries. School districts, library systems, or other billed entities shall ensure that, for each year in which an eligible school or library is included for purposes of calculating the aggregate discount rate, that eligible school or library shall receive a proportionate share of the shared services for which support is sought. For schools, the discount shall be a simple average of the applicable district-wide percentage for all schools sharing a portion of the shared services. For libraries, the average discount shall be a simple average of

the applicable discounts to which the libraries sharing a portion of the shared services are entitled.

- (c) *Discount matrix.* Except as provided in paragraph (d), the Administrator shall use the following matrix to set the discount rate to be applied to eligible services purchased by applicants selected to participate in the Schools and Libraries Cybersecurity Pilot Program based on the applicant's level of poverty and location in an "urban" or "rural" area.

% of students eligible for National School Lunch Program	Discount Level	
	Urban Discount	Rural Discount
< 1	20	25
1-19	40	50
20-34	50	60
35-49	60	70
50-74	80	80
75-100	85	85

- (d) *Tribal Library Discount Level.* For the costs of eligible cybersecurity equipment and services, Tribal libraries at the highest discount level shall receive a 90 percent discount.
- (e) *Payment for the non-discount portion of supported services and equipment.* An applicant selected to participate in the Schools and Libraries Cybersecurity Pilot Program must pay the non-discount portion of costs for the services or equipment purchased with universal service discounts, and may not receive rebates for services or equipment purchased with universal service discounts. For the purpose of this rule, the provision, by the provider of a supported service or equipment, of free services or equipment unrelated to the supported service or equipment constitutes a rebate of the non-discount portion of the costs for the supported services and equipment.

§ 54.2008 Requests for Reimbursement.

- (a) *Submission of request for reimbursement (FCC Form 472 or FCC Form 474).* Reimbursement for the costs associated with eligible services and equipment shall be provided directly to an applicant selected to participate, or service provider, seeking reimbursement from the Schools and Libraries Cybersecurity Pilot Program upon submission and approval of a completed FCC Form 472 (Billed Entity Applicant Reimbursement Form) or a completed FCC Form 474 (Service Provider Invoice) to the Administrator.
- (1) The FCC Form 472 shall be signed by the person authorized to submit requests for reimbursement for the eligible school, library, or consortium and shall include that person's certification under penalty of perjury that:
- (i) "I am authorized to submit this request for reimbursement on behalf of the above-named school, library or consortium and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this request for reimbursement has been examined and is true, accurate, and complete. I acknowledge that any false statement on this request for reimbursement or on other documents submitted by this school, library,

or consortium can be punished by fine or forfeiture under the Communications Act (47 U.S.C. 502, 503(b)), or fine or imprisonment under Title 18 of the United States Code (18 U.S.C. 1001), or can lead to liability under the False Claims Act (31 U.S.C. 3729–3733).”

- (ii) “In addition to the foregoing, the school, library or consortium is in compliance with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program, and I acknowledge that failure to be in compliance and remain in compliance with those rules and orders may result in the denial of funding, cancellation of funding commitments, and/or recoupment of past disbursements. I acknowledge that failure to comply with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program could result in civil or criminal prosecution by law enforcement authorities.”
- (iii) “By signing this request for reimbursement, I certify that the information contained in this request for reimbursement is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, sections 1001, 286–287 and 1341 and Title 31, sections 3729–3730 and 3801–3812).”
- (iv) The funds sought in the request for reimbursement are for eligible services and/or equipment that were purchased in accordance with the Schools and Libraries Cybersecurity Pilot Program rules and requirements in this subpart and received by the school, library, or consortium. The equipment and/or services being requested for reimbursement were determined to be eligible and approved by the Administrator.
- (v) The non-discounted share of costs amount(s) were billed by the Service Provider and paid for by the Billed Entity Applicant on behalf of the eligible schools, libraries, and consortia of those entities.
- (vi) The school, library, or consortium is not seeking Schools and Libraries Cybersecurity Pilot Program reimbursement for eligible services and/or equipment that have been purchased and reimbursed in full with other federal, targeted state funding, other external sources of targeted funding, or targeted gifts or are eligible for discounts from the schools and libraries universal service support mechanism or other universal service support mechanisms.
- (vii) The school, library, or consortium acknowledges that it must submit invoices detailing the items purchased along with the submission of its request for reimbursement as required by § 54.2008(b).
- (viii) The equipment and/or services the school, library, or consortium purchased will not be sold, resold, or transferred in consideration for money or any other thing of value, except as allowed by § 54.2003(c).

- (ix) The school, library, or consortium acknowledges that it may be subject to an audit, inspection or investigation pursuant to its request for reimbursement, that it will retain for ten years any and all records related to its request for reimbursement, and will make such records and equipment purchased with Schools and Libraries Cybersecurity Pilot Program reimbursement available at the request of any representative (including any auditor) appointed by a state education department, the Administrator, the Commission and its Office of Inspector General, or any local, state, or federal agency with jurisdiction over the entity.
 - (x) No kickbacks, as defined in 41 U.S.C. 8701, were paid to or received by the applicant from anyone in connection with the Schools and Libraries Cybersecurity Pilot Program or the schools and libraries universal service support mechanism.
 - (xi) The school, library, or consortium acknowledges that Commission rules provide that persons who have been convicted of criminal violations or held civilly liable for certain acts arising from their participation in the universal service support mechanisms are subject to suspension and debarment from the program. The school, library, or consortium will institute reasonable measures to be informed, and will notify the Administrator should it be informed or become aware that any of the entities listed on this application, or any person associated in any way with this entity and/or the entities listed on this application, is convicted of a criminal violation or held civilly liable for acts arising from their participation in the universal service support mechanisms.
 - (xii) No universal service support has been or will be used to purchase, obtain, maintain, improve, modify, or otherwise support any equipment or services produced or provided by any company designated by the Federal Communications Commission as posing a national security threat to the integrity of communications networks or the communications supply chain since the effective date of the designations.
 - (xiii) No federal subsidy made available through a program administered by the Commission that provides funds to be used for the capital expenditures necessary for the provision of advanced communications services has been or will be used to purchase, rent, lease, or otherwise obtain, any covered communications equipment or service, or maintain, any covered communications equipment or service, or maintain any covered communications equipment or service previously purchased, rented, leased, or otherwise obtained, as required by § 54.10.
- (2) The FCC Form 474 shall be signed by the person authorized to submit requests for reimbursement for the service provider and shall include that person's certification under penalty of perjury that:
- (i) "I am authorized to submit this request for reimbursement on behalf of the above-named Service Provider and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this request for reimbursement has been examined and is true, accurate and complete. I acknowledge that any false statement on this request for reimbursement

or on other documents submitted by this Service Provider can be punished by fine or forfeiture under the Communications Act (47 U.S.C. 502, 503(b)), or fine or imprisonment under Title 18 of the United States Code (18 U.S.C. 1001), or can lead to liability under the False Claims Act (31 U.S.C. 3729–3733).”

- (ii) “In addition to the foregoing, the Service Provider is in compliance with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program, and I acknowledge that failure to be in compliance and remain in compliance with those rules and orders may result in the denial of funding, cancellation of funding commitments, and/or recoupment of past disbursements. I acknowledge that failure to comply with the rules and orders governing the Schools and Libraries Cybersecurity Pilot Program could result in civil or criminal prosecution by law enforcement authorities.”
- (iii) “By signing this request for reimbursement, I certify that the information contained in this request for reimbursement is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, sections 1001, 286–287 and 1341 and Title 31, sections 3729–3730 and 3801–3812).”
- (iv) The funds sought in the request for reimbursement are for eligible services and/or equipment that were purchased or ordered in accordance with the Schools and Libraries Cybersecurity Pilot Program rules and requirements in this subpart and received by the school, library, or consortium.
- (v) The Service Provider is not seeking Schools and Libraries Cybersecurity Pilot Program reimbursement for eligible equipment and/or services for which it has already been paid.
- (vi) The Service Provider certifies that the school’s, library’s, or consortium’s non-discount portion of costs for the eligible equipment and services has not been waived, paid, or promised to be paid by this Service Provider. The Service Provider acknowledges that the provision of a supported service or free services or equipment unrelated to the supported equipment or services constitutes a rebate of the non-discount portion of the costs as stated in § 54.2007(e).
- (vii) The Service Provider acknowledges that it must submit invoices detailing the items purchased along with the submission of its request for reimbursement as required by § 54.2008(b).
- (viii) The Service Provider certifies that it is compliant with the Commission’s rules and orders regarding gifts and this Service Provider has not directly or indirectly offered or provided any gifts, gratuities, favors, entertainment, loans, or any other thing of value to any eligible school, library, or consortium, except as provided for at § 54.2005(d).

- (ix) The service provider acknowledges that it may be subject to an audit, inspection, or investigation pursuant to its request for reimbursement, that it will retain for ten years any and all records related to its request for reimbursement, and will make such records and equipment purchased with Schools and Libraries Cybersecurity Pilot Program reimbursement available at the request of any representative (including any auditor) appointed by a state education department, the Administrator, the Commission and its Office of Inspector General, or any local, state, or federal agency with jurisdiction over the entity.
 - (x) No kickbacks, as defined in 41 U.S.C. 8701, were paid by the Service Provider to anyone in connection with the Schools and Libraries Cybersecurity Pilot Program or the schools and libraries universal service support mechanism.
 - (xi) The Service Provider is not debarred or suspended from any Federal programs, including the universal service support mechanisms.
 - (xii) No universal service support has been or will be used to purchase, obtain, maintain, improve, modify, or otherwise support any equipment or services produced or provided by any company designated by the Federal Communications Commission as posing a national security threat to the integrity of communications networks or the communications supply chain since the effective date of the designations.
 - (xiii) No federal subsidy made available through a program administered by the Commission that provides funds to be used for the capital expenditures necessary for the provision of advanced communications services has been or will be used to purchase, rent, lease, or otherwise obtain, any covered communications equipment or service, or maintain any covered communications equipment or service, or maintain any covered communications equipment or service previously purchased, rented, leased, or otherwise obtained, as required by § 54.10.
- (b) *Required documentation.* Along with the submission of a completed FCC Form 472 or a completed FCC Form 474, an applicant selected to participate, or service provider, seeking reimbursement from the Schools and Libraries Cybersecurity Pilot Program must submit invoices detailing the items purchased to the Administrator at the time the FCC Form 472 or FCC Form 474 is submitted.
- (c) *Reimbursement and invoice processing.* The Administrator shall accept and review requests for reimbursement and invoices subject to the invoice filing deadlines provided in paragraph (d) of this section.
- (d) *Invoice filing deadline.* Invoices must be submitted to the Administrator within ninety (90) days after the last date to receive service, in accordance with § 54.2001.
- (e) *Invoice deadline extensions.* In advance of the deadline calculated pursuant to paragraph (c) of this section, billed entities or service providers may request a one-time extension of the invoice filing deadline. The Administrator shall grant a ninety (90) day extension of the invoice filing deadline, if the request is timely filed.

§ 54.2009 Audits, Inspections, and Investigations.

- (a) *Audits.* Schools and Libraries Cybersecurity Pilot Program participants shall be subject to audits and other investigations to evaluate their compliance with the statutory and regulatory requirements for the Schools and Libraries Cybersecurity Pilot Program, including those requirements pertaining to what services and equipment are purchased, what services and equipment are delivered, and how services and equipment are being used.
- (b) *Inspections and investigations.* Schools and Libraries Cybersecurity Pilot Program participants shall permit any representative (including any auditor) appointed by a state education department, the Administrator, the Commission, its Office of Inspector General, or any local, state or federal agency with jurisdiction over the entity to enter their premises to conduct inspections for compliance with the statutory and regulatory requirements in this subpart of the Schools and Libraries Cybersecurity Pilot Program.

§ 54.2010 Records Retention and Production.

- (a) *Recordkeeping requirements.* All Schools and Libraries Cybersecurity Pilot Program participants shall retain all documents related to their participation in the program sufficient to demonstrate compliance with all program rules for at least 10 years from the last date of service or delivery of equipment. All Schools and Libraries Cybersecurity Pilot Program applicants shall maintain asset and inventory records of services and equipment purchased sufficient to verify the actual location of such services and equipment for a period of 10 years after purchase.
- (b) *Production of records.* All Schools and Libraries Cybersecurity Pilot Program participants shall present such records upon request of any representative (including any auditor) appointed by a state education department, the Administrator, the Commission, its Office of the Inspector General, or any local, state or federal agency with jurisdiction over the entity.

§ 54.2011 Administrator of the Schools and Libraries Cybersecurity Pilot Program.

- (a) The Universal Service Administrative Company is appointed the permanent Administrator of the Schools and Libraries Cybersecurity Pilot Program and shall be responsible for administering the Schools and Libraries Cybersecurity Pilot Program.
- (b) The Administrator shall be responsible for reviewing applications for funding, recommending funding commitments, issuing funding commitment decision letters, reviewing invoices and recommending payment of funds, as well as other administration related duties.
- (c) The Administrator may not make policy, interpret unclear provisions of statutes or rules, or interpret the intent of Congress. Where statutes or the Commission's rules in this subpart are unclear, or do not address a particular situation, the Administrator shall seek guidance from the Commission.
- (d) The Administrator may advocate positions before the Commission and its staff only on administrative matters relating to the Schools and Libraries Cybersecurity Pilot Program.
- (e) The Administrator shall create and maintain a website, as defined in § 54.5, on which applications for services will be posted on behalf of schools and libraries.

- (f) The Administrator shall provide the Commission full access to the data collected pursuant to the administration of the Schools and Libraries Cybersecurity Pilot Program.
- (g) The administrator shall provide performance measurements pertaining to the Schools and Libraries Cybersecurity Pilot Program as requested by the Commission by order or otherwise.
- (h) The Administrator shall have the authority to audit all entities reporting data to the Administrator regarding the Schools and Libraries Cybersecurity Pilot Program. When the Commission, the Administrator, or any independent auditor hired by the Commission or the Administrator, conducts audits of the participants of the Schools and Libraries Cybersecurity Pilot Program, such audits shall be conducted in accordance with generally accepted government auditing standards.
- (i) The Administrator shall establish procedures to verify support amounts provided by the Schools and Libraries Cybersecurity Pilot Program and may suspend or delay support amounts if a party fails to provide adequate verification of the support amounts provided upon reasonable request from the Administrator or the Commission.
- (j) The Administrator shall make available to whomever the Commission directs, free of charge, any and all intellectual property, including, but not limited to, all records and information generated by or resulting from its role in administering the support mechanisms, if its participation in administering the Schools and Libraries Cybersecurity Pilot Program ends. If its participation in administering the Schools and Libraries Cybersecurity Pilot Program ends, the Administrator shall be subject to close-out audits at the end of its term.

§ 55.2012 Appeal and waiver requests.

- (a) *Parties permitted to seek review of Administrator decision.*
 - (1) Any party aggrieved by an action taken by the Administrator must first seek review from the Administrator.
 - (2) Any party aggrieved by an action taken by the Administrator under paragraph (a)(1) of this section may seek review from the Federal Communications Commission as set forth in paragraph (b) of this section.
 - (3) Parties seeking waivers of the Commission's rules in this subpart shall seek relief directly from the Commission and need not first file an action for review from the Administrator under paragraph (a)(1) of this section.
- (b) *Filing deadlines.*
 - (1) An affected party requesting review of a decision by the Administrator pursuant to paragraph (a)(1) of this section shall file such a request within thirty (30) days from the date the Administrator issues a decision.
 - (2) An affected party requesting review by the Commission pursuant to paragraph (a)(2) of this section of a decision by the Administrator under paragraph (a)(1) of this section shall file such a request with the Commission within thirty (30) days from the date of the Administrator's decision. Further, any party seeking a waiver

of the Commission's rules under paragraph (a)(3) of this section shall file a request for such waiver within thirty (30) days from the date of the Administrator's initial decision, or, if an appeal is filed under paragraph (a)(1) of this section, within thirty days from the date of the Administrator's decision resolving such an appeal.

- (3) Parties shall adhere to the time periods for filing oppositions and replies set forth in § 1.45 of this chapter.

(c) *General filing requirements.*

- (1) Except as otherwise provided in this section, a request for review of an Administrator decision by the Commission shall be filed with the Commission's Office of the Secretary in accordance with the general requirements set forth in part 1 of this chapter. The request for review shall be captioned "In the Matter of Request for Review by (name of party seeking review) of Decision of Universal Service Administrator" and shall reference the applicable docket numbers.
- (2) A request for review pursuant to paragraphs (a)(1) through (3) of this section shall contain:
 - (i) A statement setting forth the party's interest in the matter presented for review;
 - (ii) A full statement of relevant, material facts with supporting affidavits and documentation;
 - (iii) The question presented for review, with reference, where appropriate, to the relevant Commission rule, Commission order, or statutory provision; and;
 - (iv) A statement of the relief sought and the relevant statutory or regulatory provision pursuant to which such relief is sought.
- (3) A copy of a request for review that is submitted to the Commission shall be served on the Administrator consistent with the requirement for service of documents set forth in § 1.47 of this chapter.
- (4) If a request for review filed pursuant to paragraphs (a)(1) through (3) of this section alleges prohibitive conduct on the part of a third party, such request for review shall be served on the third party consistent with the requirement for service of documents set forth in § 1.47 of this chapter. The third party may file a response to the request for review. Any response filed by the third party shall adhere to the time period for filing replies set forth in § 1.45 of this chapter and the requirement for service of documents set forth in § 1.47 of this chapter.

(d) *Review by the Wireline Competition Bureau or the Commission.*

- (1) Requests for review of Administrator decisions that are submitted to the Federal Communications Commission shall be considered and acted upon by the Wireline Competition Bureau; provided, however, that requests for review that raise novel questions of fact, law, or policy shall be considered by the full Commission.

- (2) An affected party may seek review of a decision issued under delegated authority by the Wireline Competition Bureau pursuant to the rules set forth in part 1 of this chapter.

(e) *Standard of review.*

- (1) The Wireline Competition Bureau shall conduct de novo review of requests for review of decisions issued by the Administrator.
- (2) The Commission shall conduct de novo review of requests for review of decisions by the Administrator that involve novel questions of fact, law, or policy; provided, however, that the Commission shall not conduct de novo review of decisions issued by the Wireline Competition Bureau under delegated authority.

(f) Schools and Libraries Cybersecurity Pilot Program disbursements during pendency of a request for review and Administrator decision. When a party has sought review of an Administrator decision under paragraphs (a)(1) through (3) of this section, the Commission shall not process a request for the reimbursement of eligible equipment and/or services until a final decision has been issued either by the Administrator or by the Commission; provided, however, that the Commission may authorize disbursement of funds for any amount of support that is not the subject of an appeal.

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the 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 *Schools and Libraries Cybersecurity Pilot Program, Notice of Proposed Rulemaking (NPRM)*. 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 in the *NPRM*. The Commission will send a copy of the *NPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the *Federal Register*.³

A. Need for, and Objectives of, the Proposed Rules

2. In the *NPRM*, we propose a Schools and Libraries Cybersecurity Pilot Program (Pilot) that will assist us in obtaining valuable data to satisfy the requirements to support cybersecurity and advanced firewall services for eligible schools and libraries. We seek comment on what role the federal Universal Service Fund (USF) could play in helping K-12 schools and libraries protect their E-Rate-funded broadband networks and data, and improve their ability to defend against the cyber threats and attacks that have increasingly been targeting K-12 schools and libraries, and their students' and patrons' data. We expect that the data gathered from the Pilot will help us understand whether and how USF funds could best be leveraged to help address the K-12 cybersecurity challenges, and the data and information collected through this Pilot may also aid in the consideration of broader reforms—whether statutory changes or updates to rules—that could support helping schools and libraries address the significant K-12 cybersecurity concerns that impact them.

3. First, we propose three goals for the proposed Pilot and that the Pilot be for a three-year term with a budget of \$200 million. These include: (1) improving the security and protection of E-Rate-funded broadband networks and user data; (2) measuring the costs associated with cybersecurity and advanced firewall services, and the amount of funding needed to adequately meet the demand for these services if extended to all E-Rate participants; and (3) evaluating how to leverage other federal K-12 cybersecurity tools and resources to help schools and libraries effectively address their cybersecurity-related needs. Second, we propose that interested K-12 schools and libraries apply to be Pilot participants by submitting an application containing information about how they would use the Pilot funds and providing information about their proposed cybersecurity and advanced firewall projects. We also seek comment on the application process and the objective criteria for selecting participants among the applications we receive for the Pilot. In addition, we propose that Pilot participants be permitted to seek funding for services and equipment to be provided over the proposed three-year term. We further propose that Pilot participants submit a single application with their funding requests that will be relied on for the proposed three-year term of the Pilot and be supported by multi-year contract(s)/agreement(s) for this term. We also seek comment on the extent to which E-Rate or ECF program processes, rules, and forms could be leveraged and adopted to apply to the proposed Pilot, including, for example, competitive bidding, funding disbursement, invoicing, document retention, and auditing processes, rules, and forms. Finally, we seek comment on the Commission's legal authority to establish the proposed Pilot and the applicability of the Children's Internet Protection Act (CIPA) to the proposed Pilot. We believe that,

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 5 U.S.C. § 603(a).

³ *Id.*

through the Pilot, we will be able to fund a range of diverse cybersecurity projects for K-12 schools and libraries throughout the country.

B. Legal Basis

4. The proposed actions are authorized pursuant to sections 1 through 4, 201 through 202, 254, 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151 through 154, 201 through 202, 254, 303(r), and 403.

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.⁴ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁵ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁶ 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).⁷

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.⁸ 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.⁹ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.¹⁰

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.”¹¹ 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.¹² Nationwide, for tax year 2020, there

⁴ See *id.* § 603(b)(3).

⁵ *Id.* § 601(6).

⁶ *Id.* § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632(a)). Pursuant to the RFA, 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).

⁷ Small Business Act, 15 U.S.C. § 632.

⁸ See 5 U.S.C. § 601(3)-(6).

⁹ 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).

¹⁰ *Id.*

¹¹ 5 U.S.C. § 601(4).

¹² 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

(continued....)

were approximately 447,689 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.¹³

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.”¹⁴ U.S. Census Bureau data from the 2017 Census of Governments¹⁵ indicate there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁶ Of this number, there were 36,931 general purpose governments (county,¹⁷ municipal, and town or township¹⁸) with populations of less than 50,000 and 12,040 special purpose governments—-independent school districts¹⁹ with enrollment populations of less than 50,000.²⁰ Accordingly, based on the 2017 U.S. Census of Governments data, we estimate that at least 48,971 entities fall into the category of “small governmental jurisdictions.”²¹

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does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

¹³ 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 2020 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (58,577), Region 2-Mid-Atlantic and Great Lakes Areas (175,272), and Region 3-Gulf Coast and Pacific Coast Areas (213,840) that includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁴ 5 U.S.C. § 601(5).

¹⁵ 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/cog/about.html>.

¹⁶ U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-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. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

¹⁷ *Id.* at tbl.5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

¹⁸ *Id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

¹⁹ *Id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

²⁰ While the special purpose governments category also includes local special district governments, the 2017 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.

²¹ 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 (36,931) and the number of special purpose governments -
(continued....)

1. Schools and Libraries

9. *Schools.* The closest applicable industry with a SBA small business size standard is Elementary and Secondary Schools.²² This industry comprises establishments primarily engaged in furnishing academic courses and associated course work that comprise a basic preparatory education.²³ A basic preparatory education ordinarily constitutes kindergarten through 12th grade.²⁴ The SBA small business size standard for Elementary and Secondary Schools classifies firms with annual receipts of \$17.5 million or less as small.²⁵ The Commission does not have a size standard for small entities specifically applicable to schools. The Commission's definition of schools pertains to entities that participate in the E-Rate program which provides support to eligible schools and libraries to enable access to high-speed Internet access and telecommunications services at affordable rates, consistent with the objectives of universal service.

10. Under the E-Rate program, an elementary school is generally defined as "a non-profit institutional day or residential school that provides elementary education, as determined under state law."²⁶ A secondary school is generally defined as "a non-profit institutional day or residential school that provides secondary education, as determined under state law," and not offering education beyond grade 12.²⁷ For-profit schools, and schools with endowments in excess of \$50,000,000, are not eligible to receive discounts under the E-Rate program.²⁸ In calendar year 2017, the E-Rate program provided funding to approximately 104,722 schools throughout the U.S. and its territories.²⁹ While we do not have financial information that would allow us to estimate the number of schools that would qualify as small entities under SBA's small business size standard, because of the nature of these entities we estimate that the majority of schools in the E-Rate program are small entities under the SBA size standard.

11. *Libraries.* The closest applicable industry with a SBA small business size standard is Libraries and Archives.³⁰ This industry comprises establishments primarily engaged in providing library or archive services.³¹ These establishments are engaged in maintaining collections of documents (e.g., books, journals, newspapers, and music) and facilitating the use of such documents (recorded information regardless of its physical form and characteristics) as required to meet the informational, research, educational, or recreational needs of their users.³² These establishments may also acquire, research, store, preserve, and generally make accessible to the public historical documents, photographs, maps, audio

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independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations tbls.5, 6 & 10.

²² See U.S. Census Bureau, *2017 NAICS Definition*, "611110 Elementary and Secondary Schools," <https://www.census.gov/naics/?input=611110&year=2017&details=611110>.

²³ *Id.*

²⁴ *Id.*

²⁵ 13 CFR § 121.201, NAICS Code 611110.

²⁶ 47 CFR § 54.500.

²⁷ *Id.*

²⁸ 47 CFR § 54.501.

²⁹ See Universal Service Administrative Company, Annual Report, at 7, <https://www.usac.org/wp-content/uploads/about/documents/annual-reports/2017/USAC-2017-Annual-Report.pdf>.

³⁰ See U.S. Census Bureau, *2017 NAICS Definition*, "519120 Libraries and Archives," <https://www.census.gov/naics/?input=519120&year=2017&details=519120>.

³¹ *Id.*

³² *Id.*

material, audiovisual material, and other archival material of historical interest.³³ All or portions of these collections may be accessible electronically.³⁴ The SBA small business size standard for Libraries and Archives classifies firms with annual receipts of \$18.5 million or less as small.³⁵ For this industry, U.S. Census Bureau data for 2017 show that there were 1,864 firms that operated for the entire year.³⁶ Of this number, 1,228 firms had revenues of less than \$10 million.³⁷ Based on this data, the majority of firms in this industry can be considered small.

12. The Commission does not have a size standard for small entities specifically applicable to libraries. The Commission's definition of libraries pertains to entities that participate in the E-Rate program which provides support to eligible schools and libraries to enable access to high-speed Internet access and telecommunications services at affordable rates, consistent with the objectives of universal service. Under the E-Rate program, a library includes "(1) a public library, (2) a public elementary school or secondary school library, (3) a Tribal library, (4) an academic library, (5) a research library . . . and (6) a private library, but only if the state in which such private library is located determines that the library should be considered a library for the purposes of this definition."³⁸ For-profit libraries are not eligible to receive discounts under the program, nor are libraries whose budgets are not completely separate from any schools.³⁹ In calendar year 2017, the E-Rate program provided funding to approximately 11,475 libraries throughout the U.S. and its territories.⁴⁰ While we do not have financial information which would allow us to estimate the number of libraries that would qualify as small entities under SBA's small business size standard, because of the nature of these entities we estimate that the majority of libraries in the E-Rate program are small entities under the SBA size standard.

2. Telecommunications Service Providers

13. *Telecommunications Resellers.* 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.⁴¹ Establishments in this industry resell telecommunications; they

³³ *Id.*

³⁴ *Id.*

³⁵ 13 CFR § 121.201, NAICS Code 519120 (as of 10/1/22, NAICS Code 519210).

³⁶ 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: EC1700SIZEREFIRM, NAICS Code 519120, <https://data.census.gov/cedsci/table?y=2017&n=519120&tid=ECNSIZE2017.EC1700SIZEREFIRM&hidePreview=false>.

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. 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 category for less than \$100,000, to avoid disclosing data for individual companies (see Cell Notes for the sales/value of shipments/revenue in this category). Therefore, the number of firms with revenue that meet the SBA size standard would be higher than noted herein. We also note that the U.S. Census Bureau economic data includes sales, value of shipments or revenue information reported by firms. 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.

³⁸ 47 CFR § 54.500.

³⁹ 47 CFR § 54.501.

⁴⁰ See Universal Service Administrative Company, Annual Report, at 7, <https://www.usac.org/wp-content/uploads/about/documents/annual-reports/2017/USAC-2017-Annual-Report.pdf>.

⁴¹ See U.S. Census Bureau, *2017 NAICS Definition*, "517911 Telecommunications Resellers," <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

do not operate transmission facilities and infrastructure.⁴² Mobile virtual network operators (MVNOs) are included in this industry.⁴³ The SBA small business size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁴⁴ U.S. Census Bureau data for 2017 show that 1,386 firms operated in this industry for the entire year.⁴⁵ Of that number, 1,375 firms operated with fewer than 250 employees.⁴⁶ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 666 providers that reported they were engaged in the provision of local or toll resale services.⁴⁷ Of these providers, the Commission estimates that 640 providers have 1,500 or fewer employees.⁴⁸ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

14. *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.⁴⁹ 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.⁵⁰ Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure.⁵¹ Mobile virtual network operators (MVNOs) are included in this industry.⁵² The SBA small business size standard for Telecommunications Resellers classifies a business as small if it has 1,500 or fewer employees.⁵³ U.S. Census Bureau data for 2017 show that 1,386 firms in this industry provided resale services for the entire year.⁵⁴ Of that number, 1,375 firms operated with fewer than 250 employees.⁵⁵ Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 207 providers that reported

⁴² *Id.*

⁴³ *Id.*

⁴⁴ 13 CFR § 121.201, NAICS Code 517911 (as of 10/1/22, NAICS Code 517121).

⁴⁵ 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>.

⁴⁶ *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.

⁴⁷ 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>.

⁴⁸ *Id.*

⁴⁹ See U.S. Census Bureau, *2017 NAICS Definition*, “517911 Telecommunications Resellers,” <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ 13 CFR § 121.201, NAICS Code 517911 (as of 10/1/22, NAICS Code 517121).

⁵⁴ 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>.

⁵⁵ *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.

they were engaged in the provision of local resale services.⁵⁶ Of these providers, the Commission estimates that 202 providers have 1,500 or fewer employees.⁵⁷ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

15. *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.⁵⁸ 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.⁵⁹ By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.⁶⁰ Wired Telecommunications Carriers are also referred to as wireline carriers or fixed local service providers.⁶¹

16. The SBA small business size 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 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.⁶⁵ Of these providers, the Commission estimates that 4,146 providers have 1,500 or fewer employees.⁶⁶ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

17. *All Other Telecommunications.* This industry is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications

⁵⁶ 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>.

⁵⁷ *Id.*

⁵⁸ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ 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.

⁶² 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁶³ 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, <https://data.census.gov/cedsci/table?y=2017&n=517311&tid=ECNSIZE2017.EC1700SIZEEMPFIIRM&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 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

⁶⁶ *Id.*

telemetry, and radar station operation.⁶⁷ 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.⁶⁸ Providers of Internet services (e.g. dial-up ISPs) or VoIP services, via client-supplied telecommunications connections are also included in this industry.⁶⁹ The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.⁷⁰ U.S. Census Bureau data for 2017 show that there were 1,079 firms in this industry that operated for the entire year.⁷¹ Of those firms, 1,039 had revenue of less than \$25 million.⁷² Based on this data, the Commission estimates that the majority of “All Other Telecommunications” firms can be considered small.

18. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves.⁷³ 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.⁷⁴ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁷⁵ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁷⁶ Of that number, 2,837 firms employed fewer than 250 employees.⁷⁷ 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.⁷⁸ Of these providers, the Commission estimates that 511 providers have 1,500 or fewer employees.⁷⁹ Consequently, using the SBA’s small business size standard, most of these providers can be considered small entities.

⁶⁷ See U.S. Census Bureau, *2017 NAICS Definition*, “517919 All Other Telecommunications,” <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

⁷¹ 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>.

⁷² *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.

⁷³ 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>.

⁷⁴ *Id.*

⁷⁵ 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁷⁶ U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPfirm, NAICS Code 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>.

⁷⁷ *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.

⁷⁸ 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>.

⁷⁹ *Id.*

19. *Wireless Carriers and Service Providers.* Wireless Telecommunications Carriers (*except Satellite*) is the closest industry with a SBA small business size standard applicable to these service providers.⁸⁰ The SBA small business size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁸¹ U.S. Census Bureau data for 2017 show that there were 2,893 firms that operated in this industry for the entire year.⁸² Of this number, 2,837 firms employed fewer than 250 employees.⁸³ 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.⁸⁴ Of these providers, the Commission estimates that 715 providers have 1,500 or fewer employees.⁸⁵ Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

3. Internet Service Providers (ISPs)

20. *Wired Broadband Internet Access Service Providers (Wired ISPs).*⁸⁶ 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.⁸⁷ Wired broadband Internet services fall in the Wired Telecommunications Carriers industry.⁸⁸ The SBA small business size standard for this industry classifies firms having 1,500 or fewer employees as small.⁸⁹ U.S. Census Bureau data for 2017 show that there were 3,054 firms that operated in this industry for the entire year.⁹⁰ Of this number, 2,964 firms operated with fewer than 250 employees.⁹¹

⁸⁰ 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>.

⁸¹ 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁸² 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>.

⁸³ *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.

⁸⁴ 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>.

⁸⁵ *Id.*

⁸⁶ Formerly included in the scope of the Internet Service Providers (Broadband), Wired Telecommunications Carriers, and All Other Telecommunications small entity industry descriptions.

⁸⁷ See 47 CFR § 1.7001(a)(1).

⁸⁸ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁸⁹ 13 CFR § 121.201, NAICS Code 517311 (as of 10/1/22, NAICS Code 517111).

⁹⁰ 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>.

⁹¹ *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.

21. Additionally, according to Commission data on Internet access services as of December 31, 2018, nationwide there were approximately 2,700 providers of connections over 200 kbps in at least one direction using various wireline technologies.⁹² 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*,⁹³ we believe that the majority of wireline Internet access service providers can be considered small entities.

22. *Wireless Broadband Internet Access Service Providers (Wireless ISPs or WISPs).*⁹⁴ Providers of wireless broadband Internet access service include fixed and mobile wireless providers. The Commission defines a WISP as "[a] company that provides end-users with wireless access to the Internet[.]"⁹⁵ Wireless 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.⁹⁶ Neither the SBA nor the Commission have developed a size standard specifically applicable to Wireless Broadband Internet Access Service Providers. The closest applicable industry with an SBA small business size standard is Wireless Telecommunications Carriers (except Satellite).⁹⁷ The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.⁹⁸ U.S. Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.⁹⁹ Of that number, 2,837 firms employed fewer than 250 employees.¹⁰⁰

23. Additionally, according to Commission data on Internet access services as of December 31, 2018, nationwide there were approximately 1,209 fixed wireless and 71 mobile wireless providers of connections over 200 kbps in at least one direction.¹⁰¹ 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,

⁹² See *IAS Status 2018*, Fig. 30 (The technologies used by providers include DSL, sDSL, Other Wireline, Cable Modem and FTTP). Other wireline includes: all copper-wire based technologies other than DSL (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.

⁹³ *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*).

⁹⁴ Formerly included in the scope of the Internet Service Providers (Broadband), Wireless Telecommunications Carriers (except Satellite) and All Other Telecommunications small entity industry descriptions.

⁹⁵ Federal Communications Commission, Internet Access Services: Status as of December 31, 2018 (*IAS Status 2018*), Industry Analysis Division, Office of Economics & Analytics (September 2020). The report can be accessed at <https://www.fcc.gov/economics-analytics/industry-analysis-division/iad-data-statistical-reports>.

⁹⁶ 47 CFR § 1.7001(a)(1).

⁹⁷ 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>.

⁹⁸ 13 CFR § 121.201, NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

⁹⁹ 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>.

¹⁰⁰ *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.

¹⁰¹ *IAS Status 2018*, Fig. 30.

based on data in the Commission's 2022 *Communications Marketplace Report* on the small number of large mobile wireless nationwide and regional facilities-based providers, the dozens of small regional facilities-based providers and the number of wireless mobile virtual network providers in general,¹⁰² as well as on terrestrial fixed wireless broadband providers in general,¹⁰³ we believe that the majority of wireless Internet access service providers can be considered small entities.

24. *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.¹⁰⁴ The SBA small business size standard for this industry classifies firms with annual receipts of \$35 million or less as small.¹⁰⁵ 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.¹⁰⁶ Of those firms, 1,039 had revenue of less than \$25 million.¹⁰⁷ Consequently, under the SBA size standard a majority of firms in this industry can be considered small.

4. Vendors of Internal Connections

25. *Vendors of Infrastructure Development or Network Buildout*. Neither the Commission nor the SBA have developed a small business size standard specifically directed toward manufacturers of network facilities. There are two applicable industries in which manufacturers of network facilities could fall and each have different SBA business size standards. The applicable industries are "Radio and Television Broadcasting and Wireless Communications Equipment"¹⁰⁸ with a SBA small business size standard of 1,250 employees or less,¹⁰⁹ and "Other Communications Equipment Manufacturing"¹¹⁰ with a SBA small business size standard of 750 employees or less.¹¹¹ U.S. Census Bureau data for 2017 show that for Radio and Television Broadcasting and Wireless Communications Equipment there were 656 firms in this industry that operated for the entire year.¹¹² Of this number, 624 firms had fewer than 250

¹⁰² 2022 *Communications Marketplace Report*, 2022 WL 18110553 at 27, paras. 64-68.

¹⁰³ *Id.* at 8, para. 22.

¹⁰⁴ See U.S. Census Bureau, 2017 NAICS Definition, "517919 All Other Telecommunications," <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

¹⁰⁵ 13 CFR § 121.201, NAICS Code 517919 (as of 10/1/22, NAICS Code 517810).

¹⁰⁶ 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>.

¹⁰⁷ *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.

¹⁰⁸ 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>.

¹⁰⁹ 13 CFR § 121.201, NAICS Code 334220.

¹¹⁰ See U.S. Census Bureau, 2017 NAICS Definition, "334290 Other Communications Equipment Manufacturing," <https://www.census.gov/naics/?input=334290&year=2017&details=334290>.

¹¹¹ 13 CFR § 121.201, NAICS Code 334290.

¹¹² 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&hidePrevious=false>.

employees.¹¹³ For Other Communications Equipment Manufacturing, U.S. Census Bureau data for 2017 show that there were 321 firms in this industry that operated for the entire year.¹¹⁴ Of that number, 310 firms operated with fewer than 250 employees.¹¹⁵ Based on this data, we conclude that the majority of firms in this industry are small.

26. *Telephone Apparatus Manufacturing.* This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment.¹¹⁶ These products may be stand-alone or board-level components of a larger system.¹¹⁷ Examples of products made by these establishments are central office switching equipment, cordless and wire telephones (except cellular), PBX equipment, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.¹¹⁸ The SBA small business size standard for Telephone Apparatus Manufacturing classifies businesses having 1,250 or fewer employees as small.¹¹⁹ U.S. Census Bureau data for 2017 show that there were 189 firms in this industry that operated for the entire year.¹²⁰ Of this number, 177 firms operated with fewer than 250 employees.¹²¹ Thus, under the SBA size standard, the majority of firms in this industry can be considered small.

5. Other Service Providers

27. *Custom Computer Programming Services.* This industry is comprised of establishments primarily engaged in writing, modifying, testing, and supporting software to meet the needs of a particular customer.¹²² The industry includes firms engaged in applications software programming, computer program or software development, computer programming services, computer software analysis and design services, computer software programming services, computer software support services, and Web (i.e., Internet) page design services.¹²³ The SBA small business size standard for this industry classifies

¹¹³ *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.

¹¹⁴ 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 334290, <https://data.census.gov/cedsci/table?y=2017&n=334290&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

¹¹⁵ *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.

¹¹⁶ See U.S. Census Bureau, *2017 NAICS Definition*, “334210 Telephone Apparatus Manufacturing,” <https://www.census.gov/naics/?input=334210&year=2017&details=334210>.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ 13 CFR § 121.201, NAICS Code 334210.

¹²⁰ 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 334210, <https://data.census.gov/cedsci/table?y=2017&n=334210&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

¹²¹ *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.

¹²² See U.S. Census Bureau, *2017 NAICS Definition*, “541511 Custom Computer Programming Services,” <https://www.census.gov/naics/?input=541511&year=2017&details=541511>.

¹²³ *Id.*

firms having annual receipts of \$30 million or less as small.¹²⁴ According to 2017 U.S. Census Bureau data there were 46,636 firms that operated in this industry for the entire year.¹²⁵ Of this number, 45,394 firms had revenue of less than \$25 million.¹²⁶ Based on this data, the Commission concludes that the majority of the businesses engaged in this industry are small.

28. *Other Computer Related Services (Except Information Technology Value Added Resellers)*. This industry comprises establishments primarily engaged in providing computer related services (except custom programming, systems integration design, and facilities management services).¹²⁷ Establishments providing computer disaster recovery services or software installation services are included in this industry.¹²⁸ The SBA small business size standard for this industry classifies firms with annual receipts of \$30 million or less as small.¹²⁹ The 2017 Economic Census indicates that 6,228 firms in this industry operated for the entire year.¹³⁰ Of that number, 6,104 firms had revenue of less than \$25 million.¹³¹ Based on this data, we conclude that a majority of firms in this industry are small.

29. *Information Technology Value Added Resellers*. Information Technology Value Added Resellers (ITVARs) fall with the Other Computer Related Services industry.¹³² ITVARs are a subgroup of this industry which the SBA describes as providing a total solution to information technology acquisitions by providing multi-vendor hardware and software along with significant value added services.¹³³ Significant value added services consist of, but are not limited to, configuration consulting and design, systems integration, installation of multi-vendor computer equipment, customization of hardware or software, training, product technical support, maintenance, and end user support.¹³⁴ The SBA small business size standard for ITVARs classifies a business as small if it has 150 or fewer employees.¹³⁵ According to U.S. Census Bureau data for 2017, 6,228 firms in this industry operated for the entire

¹²⁴ 13 CFR § 121.201, NAICS Code 541511.

¹²⁵ 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 541511, <https://data.census.gov/cedsci/table?y=2017&n=541511&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

¹²⁶ *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.

¹²⁷ See U.S. Census Bureau, *2017 NAICS Definition, "541519 Other Computer Related Services,"* <https://www.census.gov/naics/?input=541519&year=2017&details=541519>.

¹²⁸ *Id.*

¹²⁹ 13 CFR § 121.201, NAICS Code 541519.

¹³⁰ 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 541519, <https://data.census.gov/cedsci/table?y=2017&n=541519&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

¹³¹ *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.

¹³² See U.S. Census Bureau, *2017 NAICS Definition, "541519 Other Computer Related Services,"* <https://www.census.gov/naics/?input=541519&year=2017&details=541519>.

¹³³ See 13 CFR § 121.201, NAICS Code 541519_Except note 18.

¹³⁴ *Id.*

¹³⁵ *Id.*

year.¹³⁶ Of this number, 6,086 firms operated with fewer than 100 employees.¹³⁷ Based on this data, the Commission estimates that the majority of information technology value added resellers can be considered small.

30. *Software Publishers.* This industry comprises establishments primarily engaged in computer software publishing or publishing and reproduction.¹³⁸ Establishments in this industry carry out operations necessary for producing and distributing computer software, such as designing, providing documentation, assisting in installation, and providing support services to software purchasers.¹³⁹ These establishments may design, develop, and publish, or publish only.¹⁴⁰ The SBA small business size standard for this industry classifies businesses having annual receipts of \$41.5 million or less as small.¹⁴¹ U.S. Census Bureau data for 2017 indicate that 7,842 firms in this industry operated for the entire year.¹⁴² Of this number 7,226 firms had revenue of less than \$25 million.¹⁴³ Based on this data, we conclude that a majority of firms in this industry are small.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

31. In the *NPRM*, the Commission seeks comment on a proposed Pilot with a \$200 million budget and three-year duration, that would provide support for cybersecurity and advanced firewall services for eligible K-12 schools and libraries.

32. To participate in the Pilot, the *NPRM* proposes that interested K-12 schools and libraries apply by submitting an application containing information about how they would use the Pilot funds and providing information about their proposed cybersecurity and advanced firewall projects. All eligible schools and libraries that choose to participate may be required to collect and submit data as part of the application process, at regular intervals during the Pilot program and at the end of the Pilot, to the Universal Service Administrative Company (USAC) and the Commission. The collection of this information, which may go beyond that provided in FCC Forms 470 and 471, is necessary to evaluate the impact of the Pilot, including whether the Pilot achieves its goals. This includes the proposed evaluation process, with annual and final progress reports detailing use of funds and effectiveness of the program. It is expected that the benefits of collecting this information will outweigh any potential costs.

¹³⁶ 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 541519, <https://data.census.gov/cedsci/table?y=2017&n=541519&tid=ECNSIZE2017.EC1700SIZEEMPFI&hidePreview=false>.

¹³⁷ *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.

¹³⁸ See U.S. Census Bureau, *2017 NAICS Definition, "511210 Software Publishers,"* <https://www.census.gov/naics/?input=511210&year=2017&details=511210>.

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ 13 CFR § 121.201, NAICS Code 511210 (as of 10/1/22, NAICS Code 513210).

¹⁴² 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 511210, <https://data.census.gov/cedsci/table?y=2017&n=511210&tid=ECNSIZE2017.EC1700SIZEREVFIRM&hidePreview=false>.

¹⁴³ *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.

33. Application requirements will necessitate that small entities make an assessment of their cybersecurity posture and services needed to address risks, which may require additional staff and/or staff with related expertise. The proposal to incorporate the existing E-Rate forms, processes, and software systems for seeking bids, requesting funding, and requesting disbursement/invoicing into the proposed Pilot may decrease the burden on small entities that are already familiar with these requirements. This may result in proposals from small entities that lessen the economic impact of the Pilot and increase their participation. In contrast, additional protections proposed in the *NPRM*, such as, document retention requirements, audits, site visits, and other methods of review in the Pilot, may require small entities to incur additional operational costs.

34. The *NPRM* also proposes that participants be permitted to seek funding for services and equipment to be provided over the proposed three-year term and be supported by multi-year contract(s)/agreement(s) for this term. The *NPRM* also considers whether to adopt prerequisites for Pilot participants, some of which may require small entities to acquire additional software, equipment, or staffing. For example, the *NPRM* seeks comment on whether Pilot participants should be limited to those schools and libraries that have already implemented or are in the process of implementing CISA's K-12 cybersecurity or other cybersecurity recommendations.

35. In assessing the cost of compliance for small entities, at this time the Commission cannot quantify the cost of compliance with any of the proposals that may be adopted. Further, the Commission is not in a position to determine whether, if adopted, the proposals and matters upon which the *NPRM* seeks comment will require small entities to hire professionals to comply. However, consistent with our objectives to leverage and adopt existing E-Rate processes and procedures, we do not anticipate that small entities will be required to hire professionals to comply with any proposals we adopt. We expect the information we receive in comments, including, where requested, cost information, will help the Commission identify and evaluate relevant compliance matters for small entities, including compliance costs and other burdens that may result from potential changes discussed in the *NPRM*.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

36. 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 rule 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.”¹⁴⁴

37. The *NPRM* considers a number of alternatives which we expect may have a beneficial impact on small entities. For example, allowing additional ramp-up time so that participants may prepare for the Pilot could benefit small entities that would need more time to implement cybersecurity measures. The funding proposals, including whether to distribute evenly over the three-year period and establishing funding caps, may impact the resources of small entities that would require flexibility to implement the Pilot program. Small entities may benefit from the *NPRM*'s proposal to certify they do not have the resources to implement CISA's K-12 cybersecurity recommendations, as opposed to demonstrating that they have implemented those or similar actions. The *NPRM* proposes an application process that would encourage a wide variety of eligible schools and libraries to participate, including small entities.¹⁴⁵ We seek to strike a balance between requiring applicants to submit enough information that would allow us to select high-quality, cost-effective projects that would best further the goals of the Pilot program, but also minimize the administrative burdens on small entities that seek to apply and participate in the Pilot.

¹⁴⁴ 5 U.S.C. § 603(c)(1) – (c)(4).

¹⁴⁵ See, e.g., *NPRM*, at para. 33.

38. We do not expect the requirements for the proposed Pilot to have a significant economic impact on eligible K-12 schools and libraries for several reasons. We expect to leverage and adopt existing E-Rate processes and procedures and also note that schools and libraries have the choice of whether to participate in the Pilot. The Bureau will also consider whether the proposed projects will promote entrepreneurs and other small businesses in the provision and ownership of telecommunications and information services, consistent with section 257 of the Communications Act, including those that may be socially and economically disadvantaged businesses.

39. The Commission expects the information received in the comments to allow it to more fully consider ways to minimize the economic impact on small entities and explore additional alternatives to improve and simplify opportunities for small entities to participate in the Pilot.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

40. None.

**STATEMENT OF
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Schools and Libraries Cybersecurity Pilot Program*, WC Docket No. 23-234, Notice of Proposed Rulemaking (November 8, 2023).

Connected technologies power our schools and libraries. They support education, research, and training. They assist with administration. They are essential for resource and data management. But for all the strengths of these technologies, they can also introduce new security vulnerabilities. If you need evidence, consider the cyberattacks on urban and rural school networks during the last several years. These intrusions have affected districts across the country, including in California, Iowa, New York, and Wisconsin. Schools in these states have been targeted with ransomware attacks, resulting in everything from network malfunctions to student privacy vulnerabilities to unexpected expenses to get their systems back online.

The Federal Communications Commission has a role to play here. That's because these cyberattacks can undermine the connectivity that schools and libraries count on day-in and day-out. Plus, for many of these institutions, this connectivity is delivered by E-Rate, the program that for more than a quarter of a century has supported communications for schools and libraries across the country. E-Rate also has provided limited support for basic firewall services. But the scale of recent cyberattacks on these institutions suggests that this is a problem that is too big and complex for one agency to handle alone. It requires thoughtful action and careful consideration. So in order to find the right way to tackle this problem, we are proposing to establish a pilot program to support cybersecurity services for schools and libraries. With this pilot program, we aim to better understand these issues and how the FCC can leverage its resources to help address evolving cyber threats.

A central theme that we will explore is how to balance this in light of the complementary work of federal agency partners, like the Cybersecurity and Infrastructure Security Agency and the Department of Education, that have greater experience and other programs in this area. And we are proposing to establish the pilot program within the Universal Service Fund but separate from the E-Rate program. We think this is the best approach to make sure gains in enhanced cybersecurity do not come at the cost of undermining E-Rate's success in promoting digital equity and basic connectivity. This is critical. Moreover, we have experience doing it this way because we are modeling this initiative on another FCC program from a few years ago known as the Connected Care Pilot Program. Ultimately, we want to learn from this effort, identify how to get the balance right, and provide our federal, state, and local government partners with actionable data about the most effective and coordinated way to address this growing problem.

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

In the Matter of	)	
	)	
Amendment of Part 97 of the Commission's	)	WT Docket No. 16-239
Amateur Radio Service Rules to Permit Greater	)	
Flexibility in Data Communications	)	
	)	RM-11708 (terminated)
	)	

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: November 13, 2023

Released: November 13, 2023

By the Commission:

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I. INTRODUCTION

1. In this *Report and Order (Report and Order) and Further Notice of Proposed Rulemaking (FNPRM)*, we amend part 97 of the Commission's rules regarding technical standards applicable to data communications that may be transmitted in the Amateur Radio Service. Specifically, we remove limitations on the symbol rate (also known as baud rate)—the rate at which the carrier waveform amplitude, frequency, and/or phase is varied to transmit information¹—applicable to data emissions in certain amateur bands.² The amateur radio community can play a vital role in emergency response communications, but is often unnecessarily hindered by the baud rate limitations in the rules.

¹ “The symbol rate of a digitally-modulated carrier wave is the rate at which the carrier waveform amplitude, frequency, and/or phase is varied to transmit information.” *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, IB Docket No. 12-267, Notice of Proposed Rulemaking, 27 FCC Rcd 11619, 11661, n.177 (2012); see also 47 CFR § 101.3 (defining symbol rate as “[m]odulation rate in bauds,” and noting, “[t]his rate may be higher than the transmitted bit rate as in the case of coded pulses or lower as in the case of multilevel transmission”).

² See 47 CFR § 97.305(c). Bands with a 300 baud rate limitation that we eliminate in this *Report and Order* are: 160 meter band; 80 meter band; 40 meter band segments 7.000–7.100 MHz and 7.100–7.125 MHz; 30 meter band; 20 meter band segment 14.00–14.15 MHz; 17 meter band segment 18.068–18.110 MHz; 15 meter band segment 21.0– (continued....)

2. Today, we remove this outdated restriction to allow the amateur radio community to operate more efficiently, including in support of emergency situations when appropriate. In place of the baud rate, we set a bandwidth limitation of 2.8 kilohertz in these amateur bands, consistent with our treatment of other wireless radio services, which also have service-specific bandwidth limitations. This bandwidth limitation will promote continued sharing in these amateur bands. We believe that these rule changes will provide amateur service licensees the flexibility to use modern digital emissions, thereby better fulfilling the purposes of the amateur service to promote innovation and experimentation. We take no further action on other issues pending in the docket at this time.³ In the *FNPRM*, we propose to remove the baud rate limitation in the 2200 meter band and 630 meter band, which the Commission allocated for amateur radio use after it released the *NPRM* in 2016,⁴ and in the very high frequency (VHF) bands and the ultra-high frequency (UHF) bands. Additionally, we seek comment on the appropriate bandwidth limitation for the 2200 meter band, the 630 meter band, and the VHF/UHF bands.

II. BACKGROUND

3. Most amateur bands below 450 MHz are divided between radioteletype (RTTY)/data subbands and phone/image subbands.⁵ The purpose of separating emission types into groups is to relegate the transmission of certain inharmonious emission types to different segments of amateur service frequency bands,⁶ while still allowing great flexibility in the types of emissions that may be transmitted by amateur stations.⁷ Additional standards and limitations applicable to each band or subband are set forth in section 97.307(f) of the Commission's rules.⁸

4. The limitations on RTTY and data transmissions below 450 MHz vary depending on the frequency band, and on whether the digital code used to encode the transmitted signal is one of the codes specified in section 97.309(a) of the Commission's rules—Baudot,⁹ AMTOR,¹⁰ and ASCII¹¹ (the “specified digital codes”). Sections 97.307 and 97.305 of the Commission's rules limit the symbol rate

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21.2 MHz; 12 meter band segment 24.89–24.93 MHz. The 10 meter band segment 28.0–28.3 MHz has a 1200 baud rate limitation that we eliminate in this *Report and Order*.

³ See, e.g., *Wireless Telecommunications Bureau Seeks Comment on New York University Petition for Declaratory Ruling Regarding Amateur Radio Communications*, WT Docket No. 16-239, 34 FCC Rcd 9916 (WTB 2019).

⁴ In 2017, the Commission amended its part 97 rules to provide for amateur service use of the 135.7–137.8 kHz (2200 meter) and 472–479 kHz (630 meter) bands. See *Amendment of Parts 2, 15, 80, 90, 97, and 101 of the Commission's Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2012)(WRC-12), Other Allocation Issues, and Related Rule Updates*, ET Docket No. 15-99, Report and Order, 32 FCC Rcd 2703, 2708, para. 13 (2017) (*WRC-12 R&O*) (adopting service rules for the amateur radio service in the 135.7–137.8 kHz (2200 meter) and 472–479 kHz (630 meter) bands).

⁵ RTTY emissions are narrow-band direct printing. See 47 CFR § 97.3(c)(7). Data emissions are telemetry, telecommand, and computer communications. See 47 CFR § 97.3(c)(2). Phone emissions are speech and other sounds. See 47 CFR § 97.3(c)(5). Image emissions are facsimile and television. See 47 CFR §§ 97.3(c)(3), 97.305. Additional emission types are permitted in higher frequency bands. See 47 CFR §§ 97.3(c), 97.305.

⁶ See *Reorganization and Deregulation of Part 97 of the Rules Governing the Amateur Radio Services*, PR Docket No. 88-139, Notice of Proposed Rule Making, 3 FCC Rcd 2076, 2078, para. 19 (1988).

⁷ See *Reorganization and Deregulation of Part 97 of the Rules Governing the Amateur Radio Services*, PR Docket No. 88-139, Report and Order, 4 FCC Rcd 4719, 4720, para. 9 (1989).

⁸ See 47 CFR § 97.307(f).

⁹ See 47 CFR § 97.309(a)(1).

¹⁰ See 47 CFR § 97.309(a)(2).

¹¹ See 47 CFR § 97.309(a)(3).

for the specified digital codes, and the bandwidth for unspecified digital codes, as follows: the specified digital codes may be used with a symbol rate not exceeding 300 bauds for frequencies below 28 MHz (except 60 meter (5.3305–5.4064 MHz band¹²)), and 1200 bauds in the 10 meter (28.0–28.3 MHz) band;¹³ in the 6 meter (50–54 MHz) and 2 meter (144–148 MHz) bands, the specified digital codes may be used with a symbol rate not exceeding 19.6 kilobauds, and unspecified digital codes may be used with a bandwidth not exceeding 20 kilohertz;¹⁴ in the 1.25 meter (219–225 MHz) and 70 centimeter (420–450 MHz) bands, the specified digital codes may be used with a bandwidth not exceeding 100 kilohertz and a baud rate limitation not exceeding 56 kilobauds.¹⁵ The baud rate limits were adopted in 1980, when the Commission amended the rules to specify ASCII as a permissible digital code.¹⁶ The Commission adopted the limits so that ASCII signals would occupy no more spectrum than traditional radioteletype signals associated with the use of Baudot code.¹⁷

5. In 2013, the National Association for Amateur Radio (ARRL) filed a petition for rulemaking to modify sections 97.305 and 97.307 of the Commission rules.¹⁸ Specifically, ARRL asked the Commission to “delete all references to symbol rate from section 97.307(f) of the Commission’s rules; to create a conforming amendment to section 97.305(c) of the rules; and to establish a bandwidth limitation of 2.8 kilohertz for amateur data emissions below 29.7 MHz.”¹⁹ The petition argued that the baud rate is an outdated restriction that hampers or precludes amateur radio experimentation with modern high frequency (HF) and other data transmission protocols.²⁰

6. In 2016, the Commission released a *Notice of Proposed Rulemaking* that sought comment on eliminating the baud rate limit and amending part 97 of the Commission’s rules accordingly.²¹ The *NPRM* also tentatively concluded that a 2.8 kilohertz bandwidth limitation for RTTY and data emissions in the MF/HF bands was not necessary, and sought comment on this conclusion.²² The Commission has received over 1200 comments in WT Docket No. 16-239.²³

III. REPORT AND ORDER

7. In this *Report and Order* we find that it is in the public interest to adopt the Commission’s tentative conclusion in the *NPRM* to remove the limitation on the baud rate applicable to certain data emissions in the amateur bands below 29.7 MHz.²⁴ In addition, consistent with comments in

¹² See 47 CFR § 97.307(f)(14).

¹³ See 47 CFR § 97.307(f)(3),(4).

¹⁴ See 47 CFR § 97.307(f)(5).

¹⁵ See 47 CFR § 97.307(f)(6), (13).

¹⁶ See *Deregulation of Part 97 of the Rules Regarding Emissions Authorized in the Amateur Service*, Docket No. 20777, Third Report and Order, 45 Fed. Reg. 8990, 8991, para. 4 (1980) (*ASCII Report and Order*).

¹⁷ *Id.*

¹⁸ Petition of the National Association for Amateur Radio for Rulemaking, WT Docket No. 16-239, at 1 (filed Nov. 15, 2013), <https://www.fcc.gov/ecfs/document/6017477458/1> (ARRL Petition).

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Amendment of Part 97 of the Commission's Amateur Radio Service Rules to Permit Greater Flexibility in Data Communications*, WT Docket No. 16-239, Notice of Proposed Rulemaking, 31 FCC Rcd 8485 (2016) (*NPRM*).

²² *Id.* at 8489, para 10.

²³ The docket includes comments to the *NPRM* and other, unrelated petitions.

²⁴ We do not remove the baud rate limitation in the 2200 meter band, the 630 meter band or in the VHF and UHF bands. In the *FNPRM*, we propose to remove the baud rate limitation in the 2200 meter band and 630 meter band, (continued....)

the record, we impose a bandwidth limitation. Specifically, we find a 2.8 kilohertz bandwidth limitation, as proposed in the ARRL petition, best achieves the goals in this proceeding of promoting innovation, more efficient use of the radio spectrum currently allocated to the amateur service, and the ability of the amateur service to support public safety efforts in the event of an emergency.²⁵

8. *Baud Rate Limitations.* Consistent with the Commission’s tentative conclusion in the *NPRM*, we find that it is in the public interest to remove the baud rate limitation in section 97.307(f) of the Commission’s rules.²⁶ As the Commission observed in 1993, “as technology progresses, the rules may become unnecessarily restrictive, particularly with regard to the permissible baud rate.”²⁷ Such is the case here. Based on the record in this proceeding, we find that the baud rate limitation has become outdated and hampers, rather than promotes, innovation and robust use of the amateur bands.²⁸ For example, ARRL argues, the current baud rate limits permit, if not actually encourage, inefficient spectrum utilization.²⁹ Similarly, as the Texas Department of Public Safety maintains, eliminating the baud rate limitation will allow messages to “be transmitted at almost twice the speed in the same occupied bandwidth.”³⁰ We find that elimination of the baud rate limitation will promote more efficient use of the radio spectrum currently allocated for amateur services and thus amend section 97.307(f) by eliminating the baud rate as proposed in the *NPRM*.³¹

9. Eliminating the baud rate limitation has wide support in the record.³² Many commenters emphasize the public safety benefits that will result from removing the baud rate limitation. For example, several state public safety organizations emphasize that they rely “on effective amateur radio communications to provide critical initial information in areas severed from traditional modes of communication.”³³ Commenters explain that amateur radio operators volunteer during natural disasters and removing the baud rate will allow for faster emergency communications.³⁴ As ARRL states, “[i]ncreasing speed is especially important when amateurs voluntarily assist during and after hurricanes,

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which the Commission allocated for amateur radio use after it released the *NPRM* in 2016, and in the very high frequency (VHF) bands and the ultra-high frequency (UHF) bands.

²⁵ *NPRM*, 31 FCC Rcd at 8488, para. 8.

²⁶ *Id.*

²⁷ *Allocation of the 219–220 MHz Band for Use by the Amateur Radio Service*, ET Docket No. 93-40, Notice of Proposed Rulemaking, 8 FCC Rcd 2352, 2356, para. 30 (1993).

²⁸ See Janis Carson Comments at 1 (Sept. 1, 2016) (stating that the baud rate limit is obsolete).

²⁹ ARRL Petition at 3.

³⁰ Letter to Jessica Rosenworcel, Chairwoman, Federal Communications Commission, from Karla Jurren, Statewide Interoperability Coordinator, Texas Department of Public Safety, WT Docket No. 16-239, (filed July 10, 2023) (Texas Department of Public Safety *Ex Parte*).

³¹ *NPRM*, 31 FCC Rcd at 8488, para. 8.

³² “There is no technical reason for the symbol rate limit in 2019.” Letter from Paul C. Steinhardt, Amateur Radio Safety Foundation Inc., to Marlene H. Dortch, Secretary, FCC, Docket No. 16-239, (filed Nov. 06, 2019) (ARSLI Nov. 6, 2019 *Ex Parte*). “We are the only country in the world that limits the symbol rate of amateur digital signals in this manner.” Letter from David R. Siddall, Counsel to ARRL, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 16-239, attached Letter from Roger Lord, Florida Statewide Interoperability Coordinator, Florida Division of Emergency Management, to Jessica Rosenworcel, Chairwoman, FCC, at 2 (filed on July 18, 2023) (ARRL July 18, 2023 *Ex Parte*).

³³ ARRL July 18, 2023 *Ex Parte* at 2.

³⁴ See, e.g., Mark Williams Comments (Dec. 16, 2019); Howard Evans Comments (Dec. 14, 2019); Texas Department of Public Safety *Ex Parte*.

forest fires, and other disasters.”³⁵ Commenters also espouse the benefits of removing the baud rate limitation to promote continued innovation in the amateur bands.³⁶ ARRL, for example, contends that eliminating the baud rate limitation will “incentivize innovation by allowing more data to be transmitted within each signal without increasing bandwidth from that currently used.”³⁷ For these reasons, we agree with commenters that the baud rate limitation should be eliminated and adopt the proposal in the *NPRM*.

10. A few commenters oppose any rule change, arguing that the existing rules should be retained in order to protect access to amateur bands by Morse code and other narrowband transmissions.³⁸ While we recognize that there are varying uses for the amateur bands, our decision today does not restrict or promote any particular use. Amateur licensees engaging in Morse code transmissions will continue to be able to use the amateur bands for such transmissions. However, amateur frequencies are not assigned for the exclusive use of any station.³⁹ Rather, each station licensee and each control operator must cooperate in selecting transmitting channels and in making the most effective use of the amateur service frequencies.⁴⁰ Thus, our existing rules will continue to promote sharing in the bands and ensure that wideband emissions do not exclude narrowband emission modes such as Morse code.⁴¹ Consistent with the support of most commenters in the record, our decision to eliminate the baud rate limitation provides amateur licensees with increased flexibility to engage in the innovation and experimentation that are the hallmarks of the amateur radio service.

11. We also note that the Wireless Telecommunications Bureau’s Mobility Division has issued waivers of section 97.307 allowing amateur operators directly involved with disaster relief efforts to exceed the baud rate limitation in the interest of public safety.⁴² ARRL argues that a waiver approach

³⁵ Letter from David R. Siddall, Counsel to ARRL, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 16-239, at 2 (filed on July 2, 2023) (ARRL July 2, 2023 *Ex Parte*).

³⁶ “Given advancement in radio technology, [baud rates] no longer make sense, and they stifle innovation and experimentation by amateurs.” Michael Adams Comments at 1 (Aug. 31, 2016).

³⁷ Letter from David R. Siddall, Counsel to ARRL, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 16-239, at 2 (filed on July 24, 2023) (ARRL July 24, 2023 *Ex Parte*).

³⁸ See, e.g., Nickolaus E. Leggett Comments at 2 (Aug. 1, 2026) (arguing that before changing the rules, the Commission should allow the amateur community to conduct on-air testing to demonstrate that broader bandwidth digital communications will not displace narrowband emissions); Dan White Comments at 7 (Aug. 8, 2016) (arguing that wideband unlimited data emissions “will overwhelm and eliminate the ability of current narrow band operators to enjoy the Amateur Radio Service”). Many comments filed during the *NPRM* comment/reply period were submitted under the rulemaking number for one or both of the ARRL rulemaking petitions instead of or in addition to the docket number for the *NPRM*. Our citations to comments identify the proceeding(s) in which they were filed.

³⁹ 47 CFR § 97.101(b) (“Each station licensee and each control operator must cooperate in selecting transmitting channels and in making the most effective use of the amateur service frequencies. No frequency will be assigned for the exclusive use of any station.”); 47 CFR § 97.101(d) (“No amateur operator shall willfully or maliciously interfere with or cause interference to any radio communication or signal.”).

⁴⁰ 47 CFR §§ 97.101(b), 97.101(d).

⁴¹ See, e.g., 47 CFR § 97.101(b); 47 CFR § 97.307 (“No amateur station transmission shall occupy more bandwidth than necessary for the information rate and emission type being transmitted, in accordance with good amateur practice.”); 47 CFR § 97.113 (amateur licensees must not transmit communications, on a regular basis, which could reasonably be furnished alternatively through other radio services).

⁴² ARRL July 2, 2023 *Ex Parte* at 2; *American Radio Relay League, Inc. Emergency Request for a Temporary Waiver of Section 97.307(f) of the Commission’s Rules*, Order, 35 FCC Rcd 10393, 10393 para. 1 (WTB 2020) (granting a temporary waiver “to permit amateur data transmissions at a higher symbol rate than currently is permitted by section 97.307(f) of the Commission’s rules, in order to facilitate hurricane and wildfire relief communications within the United States and its territories”); see also *American Radio Relay League, Inc. Emergency Request for a Temporary Waiver of Section 97.307(f) of the Commission’s Rules*, Order, 33 FCC Rcd 8758 (WTB 2018); *American Radio Relay League, Inc. Emergency Request for a Temporary Waiver of Section* (continued....)

is inadequate because it does not allow amateurs who voluntarily assist during and after hurricanes, forest fires, and other disasters to use and train with the faster modes outside of any waiver period.⁴³ Absent a rule change, ARRL maintains that “the effectiveness of responses are impaired during the first hours and days when most critical as many volunteers must download or update the software that enables the faster speeds and solve any system problems that result.”⁴⁴ We agree that an ad hoc waiver approach is not a substitute for amending our rules to eliminate the baud rate limitation in amateur radio bands and we amend part 97 of the Commission’s rules accordingly.⁴⁵

12. **2.8 Kilohertz Bandwidth Limitation.** ARRL’s petition requested that the Commission amend its rules by replacing the baud rate limitation with a 2.8 kilohertz bandwidth limitation.⁴⁶ The *NPRM* tentatively concluded that a specific bandwidth limitation for RTTY and data emissions in the amateur radio service bands was not necessary. However, the *NPRM* observed that a 2.8 kilohertz bandwidth would accommodate HF data emissions that were in common use at that time⁴⁷ and which, we note, remain in use today. The *NPRM* sought comment on its tentative conclusions.⁴⁸ Based on our review of the record, we now agree with ARRL and other commenters that a 2.8 kHz bandwidth limit strikes the right balance between operational flexibility and spectrum reuse. Accordingly, we adopt a 2.8 kilohertz bandwidth limitation in place of the baud rate limitation applicable to the following amateur radio bands: 160 meter band; 80 meter band; 40 meter band, segments 7.000–7.100 MHz and 7.100–7.125 MHz; 30 meter band; 20 meter band, segment 14.00–14.15 MHz; 17 meter band, segment 18.068–18.110 MHz; 15 meter band segment 21.0–21.2 MHz; 12 meter band segment 24.89–24.93 MHz; and 10 meter band, segment 28.0–28.3 MHz.⁴⁹

13. Although the Commission tentatively concluded not to adopt a bandwidth limitation in the *NPRM*, commenters generally disagree with that tentative conclusion. Most commenters argue that if there is no baud rate limit and no bandwidth limit, a few wideband emissions could consume the bands and make sharing of the band more difficult during times of heavy use.⁵⁰ We agree. We are persuaded by the weight of the record in this proceeding that, without a baud rate or bandwidth limit, data stations using a large amount of spectrum for a single emission could do so to the detriment of simultaneous use by other stations using narrowband emission modes. For example, ARRL states that “ARRL and most stakeholders favor both deleting the symbol rate and replacing it with a 2.8 kHz individual signal bandwidth limit.”⁵¹ Based on the record, we conclude that it is in the public interest to set a specific

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97.307(f) of the Commission’s Rules, Order, DA 22-1011 (WTB 2022); *American Radio Relay League, Inc. Emergency Request for a Temporary Waiver of Section 97.307(f) of the Commission’s Rules*, Order, 32 FCC Rcd 7428 (WTB 2017); *American Radio Relay League, Inc. Emergency Request for a Temporary Waiver of Section 97.307(f) of the Commission’s Rules*, Order, 35 FCC Rcd 9924 (WTB 2020); *American Radio Relay League, Inc. Emergency Request for a Temporary Waiver of Section 97.307(f) of the Commission’s Rules*, Order, 34 FCC Rcd 7956 (WTB 2019).

⁴³ ARRL July 2, 2023 *Ex Parte* at 2.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ ARRL Petition at 1.

⁴⁷ *NPRM*, 31 FCC Rcd at 8489, para. 10.

⁴⁸ *Id.*

⁴⁹ 47 CFR § 97.305.

⁵⁰ See, e.g. Dan Zeitlin Comments, at 1 (Nov. 10, 2016) (Zeitlin Comments); Chuck Crisler Comments at 3 (Oct. 18, 2016); Dan White Comments, 1 (Aug. 8, 2016); David Jaksa Comments (Oct. 12, 2016); Jory McIntosh Comments at 2 (Aug. 8, 2016); Richard Cochran Comments at 1 (Aug. 31, 2016); ARRL July 24, 2023 *Ex Parte* at 2.

⁵¹ ARRL July 2, 2023 *Ex Parte* at 2.

bandwidth limitation in certain amateur radio bands to better promote sharing among amateur licensees in these bands.

14. The few commenters that support the removal of the baud rate limit with no bandwidth limitation argue that doing so will facilitate experimentation in the amateur service.⁵² As discussed above, however, the benefit of such wideband experimentation could come at the cost of significantly limiting the wide variety of uses in the amateur bands, which is a hallmark of these bands. We thus find that a bandwidth limitation is in the public interest and should be adopted here.

15. We further conclude that 2.8 kilohertz is the appropriate bandwidth limitation that effectively accomplishes our goals in this proceeding of innovation, efficient spectrum use, and aid to public safety, and strikes a balance among differing uses in the amateur bands. In its comments to the *NPRM*, ARRL stated “[a]n occupied bandwidth limit of 2.8 kilohertz is wide enough that it will permit to continue those data emissions currently permitted by the existing rules, and it will permit additional data emissions that are now prohibited because the symbol rate limit of 300 baud applicable to the HF bands below 28 MHz precludes them.”⁵³ In addition to being wide enough to allow adequate emissions for amateur radio use, a 2.8 kilohertz bandwidth limitation will also prevent users from usurping large portions of a subband. As ARRL notes, “a 2.8 kilohertz bandwidth limit is sufficiently narrow that it limits the ability of any given Amateur station using data emissions of that bandwidth or less to usurp overly large portions of the limited, crowded and shared RTTY/data subbands.”⁵⁴ We agree with ARRL that a 2.8 kilohertz bandwidth limitation will allow for additional emissions currently prohibited under the baud rate limitations while providing sufficient protections in the shared RTTY/data subbands.

16. We find that a 2.8 kilohertz bandwidth limitation is in the public interest because it is already used by a range of technologies common in the amateur bands.⁵⁵ As ARRL states, “[a]mateurs worldwide have informally adopted the 2.8 kHz bandwidth for popular types of digital data transmission on HF frequencies at least in part because all amateur HF transceivers with voice capabilities already are equipped with the filters and/or software for this bandwidth.”⁵⁶ A 2.8 kilohertz bandwidth limitation is also commonly used bandwidth for both data and voice transmissions.⁵⁷ Moreover, a 2.8 kilohertz bandwidth is consistent with the existing 60 meter band’s 2.8 kilohertz bandwidth limitation and applying

⁵² See, e.g., Michael Peak Comments at 1.

⁵³ ARRL Comments at 6 (Oct. 11, 2016).

⁵⁴ *Id.*

⁵⁵ ARRL July 24, 2023 *Ex Parte* at 1.

⁵⁶ “Employing this bandwidth for digital signals eliminated any need to purchase costly new transceivers and facilitated the rapid deployment of the newer digital technologies on HF.” *Id.* “The ARRL digital guide ‘Get on the Air with HF Digital’ advises that the ‘most popular HF digital modes use wide receive-audio bandwidths for reception . . . of about 2.8 kHz. All SSB transceivers meet this requirement.’” *Id.*

⁵⁷ See, e.g., 47 CFR § 80.205 (bandwidth limitations in the maritime bands); 47 CFR § 97.303(h) (“Amateur operators shall ensure that their emission do not occupy more than 2.8 kHz centered on each of these center frequencies” in the 60 meter band); ARRL July 24, 2023 *Ex Parte* at 1 (“Amateurs worldwide have informally adopted the 2.8 kHz bandwidth for popular types of digital data transmission on HF frequencies at least in part because all amateur HF transceivers with voice capabilities already are equipped with the filters and/or software for this bandwidth. Employing this bandwidth for digital signals eliminated any need to purchase costly new transceivers and facilitated the rapid deployment of the newer digital technologies on HF.”); ARRL July 24, 2023 *Ex Parte* at 1 (“The ARRL digital guide ‘Get on the Air with HF Digital’ advises that the ‘most popular HF digital modes use wide receive-audio bandwidths for reception . . . of about 2.8 kHz. All SSB transceivers meet this requirement.’”).

a common bandwidth limitation across adjacent bands is consistent with Commission precedent.⁵⁸ We also note that a 2.8 kilohertz bandwidth limitation is in line with the international community.⁵⁹

17. We note that some commenters argue for a rigid band plan that would allot portions of the bands for narrowband techniques with bandwidths such as 200 hertz or 500 hertz to protect and promote the use of narrowband operating modes.⁶⁰ While there is little consensus among these commenters on what the optimal bandwidth limit should be, a number of commenters express concern that without bandwidth limits specifically catered to narrowband applications, wider bandwidth digital modes will interfere with spectrally efficient narrowband modes.⁶¹ These commenters argue that bandwidths in the RTTY/data subbands should be considerably narrower than the 2.8 kilohertz suggested by ARRL to avoid interference to narrowband signals.⁶² We decline to adopt a rigid band plan. We set a bandwidth limitation of 2.8 kilohertz as a cap on emissions, which accommodates a wide variety of uses while not precluding narrowband uses. Our approach encourages experimentation and innovation, and permits the use of existing technologies available in other services.⁶³ Moreover, we note that ARRL maintains a voluntary band plan that outlines suggested portions of the bands for certain applications as well as specifies limitations contained in our rules.⁶⁴ We find that a community-driven, voluntary band plan that can rapidly be adjusted as technology changes and is consistent with our rules requiring

⁵⁸ See *Amendment of Parts 1, 2, 15, 90 and 95 of the Commission's Rules to Permit Radar Services in the 76–81 GHz Band*, Report and Order, 32 FCC Rcd 8822, 8832, n.70 (2017) (adopting a single emissions limit for amateur stations in the 4 mm band rather than a sliding scale based on distance to the nearest road); see also, e.g., *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, 4642, para. 82 (2014) (“The Commission typically adopts the same rules for similar adjacent band services, and we see no compelling reason to do otherwise here.”).

⁵⁹ See International Telecommunication Union Recommendation ITU-R M.1732-2, “Characteristics of systems operating in the amateur and amateur-satellite services for use in sharing studies,” at Table 3A (01/2017) (using 2.7 kilohertz as the necessary bandwidth for representative amateur data, digital voice, and multimedia systems in the MF and HF bands).

⁶⁰ See, e.g., Samuel Leslie Comments, at 7 (Sept. 13, 2016) (suggesting splitting amateur bands in to three segments); David Jaksa Comments (Oct. 12, 2016) (suggesting an HF data bandwidth in 97.307(f)(3) of 500 Hz with no limit on symbol rate); Chuck Crisler Comments at 1 (Sept. 21, 2016) (“Amateurs should be encouraged to innovate with narrowband technology, 1.0 Khz. Or less, not the 2.8 Khz. That was suggested by ARRL.”).

⁶¹ See, e.g., Michael Adams Comments, RM-11708, at 2 (Aug. 8, 2016); Arthur C. Peters, RM-11708, Comments at 1–2 (Aug. 16, 2016); Samuel Leslie Comments at 5 (Sept. 14, 2016); Salvatore Irato Comments at 4 (Aug. 22, 2016) (noting commercial wider bandwidth modems do not have the ability to recognize any other signal than the one transmitted by a similar or complementary signal, i.e., a data signal); Letter from Janis Carson, Ron Kolarik, Lee McVey, and Dan White to Nellie Foosaner, Senior Attorney Advisor, Mobility Division, Federal Communications Commission, WTB Docket No. 16-239 at 2 (filed July 28, 2023) (Carson July 28, 2023 *Ex Parte*) (arguing that digital mode FT8 with a bandwidth of 50 Hz has become more popular than all other digital modes combined).

⁶² See, e.g., Theodore Rappaport Comments at 3 (proposing that the lowest 100 kHz of every HF band for emissions less than 500 Hz); Dan White Comments at 2 ((Aug. 8, 2016); David Rogers Comments at 2 (Sept. 16, 2016) (proposing a 200 Hz bandwidth limit on the bottom 50 KHz and a 500 Hz bandwidth limit on the bottom 100 KHz portion of every HF and MF band); Samuel Leslie Comments at 7; J. Douglas Reid Comments, WT Docket No. 16-239, RM-11708, at 1 (filed Oct. 5, 2016); Letter from W. Lee McVey, to Jessica Rosenworcel, Chairwoman, FCC, WT Docket No. 16-239, at 5–6, (filed Oct. 29, 2023). See generally Petition of Janis Carson for Rulemaking/Comments and Informal Request in the Nature of Rulemaking (filed Aug. 20, 2016, amended Sept. 6 and Nov. 10, 2016). Because this petition raises issues that are substantially the same as those addressed in the *NPRM* and was filed during the comment period, we treat it as a comment in WT Docket No. 16-239.

⁶³ *NPRM*, 31 FCC Rcd at 8488, para 3.

⁶⁴ ARRL, *Band Plan*, <http://www.arrl.org/band-plan> (last visited Oct. 17, 2023).

cooperation and efficiency⁶⁵ is preferable to a FCC rule-based mandatory band plan that requires regulatory action to adjust. Thus, we decline to adopt a mandatory band plan here.

18. Many commenters express concern that allowing wider data transmissions will encourage the transmission of prohibited communications. We remind licensees that section 97.113 of our rules prohibits amateur stations from transmitting, *inter alia*, communications in which the station licensee or control operator has a pecuniary interest, communications intended to facilitate a criminal act, or regular transmission of communications that could reasonably be furnished through other radio services.⁶⁶ Moreover, section 97.101 requires amateur licensees to operate in accordance with good amateur practice and to cooperate in selecting transmitting channels and making the most effective use of amateur spectrum.⁶⁷ The changes we make herein to the technical rules do not modify any of these operating rules. As the Commission concluded when it amended its rules to permit PACTOR 3 in the 60 meter band, careful operating practices, sound judgment, and dissemination of information to the amateur community can minimize any potential disruption that the new emission types could cause.⁶⁸

19. We also take this opportunity to make non-substantive edits to the two rule sections we are otherwise revising, sections 97.305 and 97.307, to conform to the current stylistic requirements of the Federal Register Document Drafting Handbook.⁶⁹

IV. FURTHER NOTICE OF PROPOSED RULEMAKING

20. There are multiple bands in the amateur radio service that have baud rate limitations and were not discussed in the *NPRM*. Two bands—135.7–137.8 kHz (2200 meter) and 472–479 kHz (630 meter)—were allocated for use in the amateur radio service after the Commission released the *NPRM* in 2016. There are also multiple very high frequency (VHF) bands⁷⁰ and one ultra-high frequency (UHF) band⁷¹ that have baud rate limitations. In this *Further Notice of Proposed Rulemaking (FNPRM)* we propose to remove the baud rate limitation in the two bands allocated for amateur radio use after the Commission released the *NPRM* in 2016 and in the VHF/UHF bands. Additionally, we seek comment on the appropriate bandwidth limitation for the 2200 meter and 630 meter bands, and propose to maintain the existing bandwidth limitations in the Commission’s rules for VHF/UHF bands.⁷²

21. In 2016, the Commission released the *NPRM* seeking comment on eliminating the baud rate limit in certain amateur bands and amending part 97 of the Commission’s rules accordingly.⁷³ The

⁶⁵ Amateur licensees must cooperate in the selection of frequencies and make the most efficient use of the amateur frequencies. See 47 CFR § 97.101(b). Amateur transmissions may not occupy more bandwidth than necessary for the information rate and emission type being transmitted. See 47 CFR § 97.307(a).

⁶⁶ See 47 CFR § 97.113(a)(3)–(5).

⁶⁷ See 47 CFR § 97.101(a), (b).

⁶⁸ See *Amendment of Parts 2 and 97 of the Commission’s Rules to Facilitate Use by the Amateur Radio Service of the Allocation at 5 MHz*, Report and Order, 26 FCC Rcd 16551, 16659, paras. 26–27 (2011).

⁶⁹ Office of the Federal Register, National Archives and Records Administration, *Document Drafting Handbook* (Aug. 2023 Edition, rev. 2, dated Aug. 2023), available at <https://www.archives.gov/files/federal-register/write/handbook/ddh.pdf> (last visited Oct. 4, 2023); Office of the Federal Register, National Archives and Records Administration, *Incorporation by Reference Handbook* (June 2023 Edition, ed. Rev. Aug. 28, 2023), available at <https://www.archives.gov/files/federal-register/write/handbook/ibr.pdf> (last visited Oct. 4, 2023).

⁷⁰ 6 meter band (50.1–51.0 MHz), (51.0–54.0 MHz); 2 meter band (144.1–148.0 MHz); 1.25 meter band (222–225 MHz). 47 CFR § 97.305(c).

⁷¹ 70 centimeter band (420–450 MHz). 47 CFR § 97.305(c).

⁷² 47 CFR § 97.307(f)(5)–(6).

⁷³ *NPRM*, 31 FCC Rcd 8485.

NPRM also tentatively concluded that a 2.8 kilohertz bandwidth limitation for RTTY and data emissions in the MF/HF bands was not necessary, but sought comment on this conclusion.⁷⁴ The *NPRM* did not seek comment on eliminating the baud rate limit in the VHF or UHF bands allocated for amateur radio service. In 2017, the Commission adopted rules permitting fixed amateur radio operations in 135.7–137.8 kHz (2200 meter) and 472–479 kHz (630 meter) bands.⁷⁵ These bands are allocated to the amateur radio service on a secondary basis.⁷⁶ Consistent with the part 97 rules in effect for other amateur bands at that time, the Commission adopted a 300 baud rate limitation for both the 2200 meter band and the 630 meter band.⁷⁷

22. For the reasons outlined in the *Report and Order* adopted today, we tentatively conclude that we should eliminate the baud rate limitation in the 2200 meter and 630 meter bands as well as the VHF and UHF amateur radio bands. These bands present the same technological opportunities for experimentation and innovation as the amateur radio service bands that are the subject of the *Report and Order* and likewise will be limited if a baud rate limitation is allowed to remain for these bands. Concomitantly, we seek comment on the appropriate bandwidth limitation for the 2200 meter band and the 630 meter band as well as on maintaining the bandwidth limitations already in the VHF and UHF bands. We specifically seek comment on these proposals. Alternatively, should we consider changing any of the existing bandwidth limitations in the VHF and UHF bands allocated to the amateur radio service?⁷⁸ Commenters seeking to modify existing bandwidth limitations must provide support for the modification, including any associated costs and benefits. Commenters should focus their comments on the VHF and UHF bands and the 2200 meter band and the 630 meter band that were allocated for amateur radio service after the release of the *NPRM*. We do not seek comment on other, unrelated issues in the docket at this time.

23. *Digital Equity and Inclusion.* Finally, the Commission, as part of its continuing effort to advance digital equity for all,⁷⁹ 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 considerations⁸⁰ and benefits (if any) that may be associated with the proposals and issues discussed herein. Specifically, we

⁷⁴ *Id.* at 8489, para 10.

⁷⁵ See *WRC-12 R&O*, 32 FCC Rcd at 2708, para. 13.

⁷⁶ *Id.*

⁷⁷ 47 CFR § 97.305; 47 CFR § 97.303(f)(3).

⁷⁸ See, e.g., Letter from David R. Siddall, Counsel to ARRL, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 16-239, at 1 (filed on Nov. 8, 2023) (requesting that the Commission seek comment on changing the 100 kHz bandwidth limitation in the 219–220 MHz segment of the 1.25 meter VHF band, which does not have a baud rate limitation).

⁷⁹ 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.

⁸⁰ 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).

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.

V. PROCEDURAL MATTERS

24. *Regulatory Flexibility Certification.* The Regulatory Flexibility Act of 1980, as amended (RFA)⁸¹ 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.”⁸² The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁸³ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁸⁴ 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).⁸⁵

25. As required by the RFA, an Initial Regulatory Flexibility Certification (IRFC) was incorporated in the *Notice of Proposed Rulemaking (NPRM)* in this proceeding.⁸⁶ In the *NPRM*, we certified that because the proposed amendments to amateur service rules changing a technical rule applicable to data emissions that an amateur radio operator may use in his or her communications with other amateur radio operators applied exclusively to individuals holding certain Commission authorizations, rather than “small entities,” as defined in the RFA, the *NPRM* would not have a significant economic impact on a substantial number of small entities. We sought written public comment on the proposals in the *NPRM* including comment on the IRFC. No comments were filed addressing the IRFC. The two statutorily-mandated criteria to be applied in determining the need for an RFA analysis are: (1) whether the proposed rules, if adopted, would have a *significant economic effect*; and (2) if so, whether the economic effect would directly affect *a substantial number of small entities*.⁸⁷ In the *Report and Order*, we amend the amateur service rules to change the technical rules applicable to data emissions an amateur radio operator may use in his or her communications with other amateur radio operators. The RFA's definition of “small entities,” does not include a “person” or an individual, as the terms are used in this proceeding. As a result, the rules do not apply to “small entities,” but instead apply exclusively to individuals who hold certain Commission authorizations. Accordingly, based on our application of the statutorily-mandated criteria we conclude, and therefore certify that the rules in this Final Regulatory Flexibility Certification, that the rules adopted in this *Report and Order* will not have a significant economic impact on a substantial number of small entities.

26. In the *FNPRM*, we propose to amend the amateur service rules to change technical rules applicable to data emissions that an amateur radio operator may use in his or her communications with

⁸¹ See 5 U.S.C. § 604. 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. 857 (1996) (FRFA).

⁸² 5 U.S.C. § 605(b).

⁸³ See 5 U.S.C. § 601(6).

⁸⁴ 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.”

⁸⁵ See 15 U.S.C. § 632.

⁸⁶ *Amendment of Part 97 of the Commission's Amateur Radio Service Rules to Permit Greater Flexibility in Data Communications*, WT Docket No. 16-239, Notice of Proposed Rulemaking, 31 FCC Rcd 8485 (2016) (*NPRM*).

⁸⁷ 5 U.S.C. § 603, *et seq.* See also *Mid-Tex Electric Cooperative, Inc., v. FERC*, 773 F.2d 327, 342–343 (D.C. Cir. 1985) (*Mid-Tex Electric*).

other amateur radio operators in the 135.7–137.8 kHz (2200 meter), 472–479 kHz (630 meter) bands, very high frequency (VHF) bands, and ultra-high frequency (UHF) bands. As discussed above, the RFA’s definition of “small entities” does not include a “person” as the term is used in this proceeding or an individual, as the terms are used in this proceeding. As a result, the proposed rules do not apply to “small entities,” but instead, apply exclusively to individuals who hold certain Commission authorizations. Accordingly, applying the statutorily-mandated criteria we conclude, and, therefore, we certify in this Initial Regulatory Flexibility Certification, that the rules adopted in the *FNPRM* will not have a significant economic impact on a substantial number of small entities.

27. The Commission will send copies of the *Report and Order* and the *FNPRM*, including copies of the Final Regulatory Flexibility Certification and the Initial Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the SBA.⁸⁸ The Final Regulatory Flexibility Certification and the Initial Regulatory Flexibility Certification will also be published in the Federal Register.⁸⁹

28. *Paperwork Reduction Act.* This document does not contain proposed information collection(s) 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).

29. *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).

30. *Providing Accountability Through Transparency Act:* The Providing Accountability Through Transparency Act requires each agency, in providing notice of a rulemaking, to post online a brief plain-language summary of the proposed rule.⁹⁰ Accordingly, the Commission will publish the required summary of this Further Notice of Proposed Rulemaking on <https://www.fcc.gov/proposed-rulemakings>.

VI. ORDERING CLAUSES

31. Accordingly, IT IS ORDERED that, pursuant to Sections 4(i), 5, 303(r), and 403 of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 155, 303(r), and 403 of the Commission’s rules, that this Report and Order and Further Notice of Proposed Rulemaking IS HEREBY ADOPTED. Proceeding RM-11708 is TERMINATED.

32. IT IS FURTHER ORDERED that part 97 of the Commission’s Rules IS AMENDED as set forth in the Appendix, effective 30 days after publication in the Federal Register.

33. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Report & 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).

34. IT IS FURTHER ORDERED that the Office of the Secretary, Reference Information Center, SHALL SEND a copy of the Report and Order and Further Notice of Proposed Rulemaking

⁸⁸ See 5 U.S.C. § 605(b).

⁸⁹ *Id.*

⁹⁰ 5 U.S.C. § 553(b)(4). The Providing Accountability Through Transparency Act, Pub. L. No. 118-9 (2023), amended section 553(b) of the Administrative Procedure Act.

including the Final Regulatory Flexibility Certification and the Initial Regulatory Flexibility Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 97 as follows:

PART 97 – Amateur Radio Service

1. The authority citation for part 97 continues to read as follows:

AUTHORITY: 47 U.S.C. 151–155, 301–609, unless otherwise noted.

2. Amend § 97.305 by revising paragraph (c) to read as follows:

§ 97.305 Authorized emission types.

* * * * *

(c) A station may transmit the following emission types on the frequencies indicated, as authorized to the control operator, subject to the standards specified in § 97.307(f):

Wavelength band	Frequencies	Emission types authorized	Standards see § 97.307, paragraph(s):
(1) LF:			
(i) 2200 m	Entire band	RTTY, data	(f) (3).
(ii) 2200 m	Entire band	Phone, image	(f) (1), (2).
(2) MF:			
(i) 630 m	Entire band	RTTY, data	(f) (3).
(ii) 630 m	Entire band	Phone, image	(f) (1), (2).
(iii) 160 m	Entire band	RTTY, data	(f) (3).
(iv) 160 m	Entire band	Phone, image	(f) (1), (2).
(3) HF:			
(i) 80 m	Entire band	RTTY, data	(f) (3), (9).
(ii) 75 m	Entire band	Phone, image	(f) (1), (2).
(iii) 60 m	5.332, 5.348, 5.3585, 5.373 and 5.405 MHz	Phone, RTTY, data	(f) (14).
(iv) 40 m	7.000–7.100 MHz	RTTY, data	(f) (3), (9)
(v) 40 m	7.075–7.100 MHz	Phone, image	(f) (1), (2), (9), (11)
(vi) 40 m	7.100–7.125 MHz	RTTY, data	(f) (3), (9)
(vii) 40 m	7.125–7.300 MHz	Phone, image	(f) (1), (2)
(viii) 30 m	Entire band	RTTY, data	(f) (3).
(ix) 20 m	14.00–14.15 MHz	RTTY, data	(f) (3).
(x) 20 m	14.15–14.35 MHz	Phone, image	(f) (1), (2).
(xi) 17 m	18.068–18.110 MHz	RTTY, data	(f) (3).

Wavelength band	Frequencies	Emission types authorized	Standards see § 97.307, paragraph(s):
(xii) 17 m	18.110–18.168 MHz	Phone, image	(f) (1), (2).
(xiii) 15 m	21.0–21.2 MHz	RTTY, data	(f) (3), (9).
(xiv) 15 m	21.20–21.45 MHz	Phone, image	(f) (1), (2).
(xv) 12 m	24.89–24.93 MHz	RTTY, data	(f) (3).
(xvi) 12 m	24.93–24.99 MHz	Phone, image	(f) (1), (2).
(xvii) 10 m	28.0–28.3 MHz	RTTY, data	(f) (3).
(xviii) 10 m	28.3–28.5 MHz	Phone, image	(f) (1), (2), (10).
(xix) 10 m	28.5–29.0 MHz	Phone, image	(f) (1), (2).
(xx) 10 m	29.0–29.7 MHz	Phone, image	(f) (2).
(4) VHF:			
(i) 6 m	50.1–51.0 MHz	MCW, phone, image, RTTY, data	(f) (2), (5).
(ii) 6 m	51.0–54.0 MHz	MCW, phone, image, RTTY, data, test	(f) (2), (5), (8).
(iii) 2 m	144.1–148.0 MHz	MCW, phone, image, RTTY, data, test	(f) (2), (5), (8).
(iv) 1.25 m	219–220 MHz	Data	(f) (13)
(v) 1.25m	222–225 MHz	RTTY, data, test MCW, phone, SS, image	(f) (2), (6), (8)
(5) UHF:			
(i) 70 cm	Entire band	MCW, phone, image, RTTY, data, SS, test	(f) (6), (8).
(ii) 33 cm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(iii) 23 cm	Entire band	MCW, phone, image, RTTY, data, SS, test	(f) (7), (8), and (12).
(iv) 13 cm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(6) SHF:			
(i) 5 cm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(ii) 3 cm	Entire band	MCW, phone, image, RTTY, data, SS, test	(f) (7), (8), and (12).
(iii) 1.2 cm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(7) EHF:			
(i) 6 mm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).

Wavelength band	Frequencies	Emission types authorized	Standards see § 97.307, paragraph(s):
(ii) 4 mm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(iii) 2.5 mm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(iv) 2 mm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(v) 1 mm	Entire band	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).
(vi) 1 mm	Above 275 GHz	MCW, phone, image, RTTY, data, SS, test, pulse	(f) (7), (8), and (12).

3. Section 97.307 is amended by:

- a. Revising paragraph (f)(3);
- b. Removing and reserving paragraph (f)(4);
- c. Designating the table in paragraph (f)(14)(i) as table 1 to paragraph (f)(14)(i); and
- d. Removing the text “of this part” wherever it appears.

The revision reads as follows:

§ 97.307 Emission standards.

* * * * *

(f) * * *

(3) Only a RTTY or data emission using a specified digital code listed in § 97.309(a) may be transmitted. The authorized bandwidth is 2.8 kHz except in the 2200 m band and 630 m band. In the 2200 m band and the 630 m band the symbol rate must not exceed 300 bauds, or for frequency-shift keying, the frequency shift between mark and space must not exceed 1 kHz.

* * * * *

**APPENDIX B
Proposed Rules**

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 97 as follows:

PART 97 – Amateur Radio Service

1. The authority citation for part 97 continues to read as follows:

AUTHORITY: 47 U.S.C. 151–155, 301–609, unless otherwise noted.

2. Section 97.307 is amended by revising paragraphs (f)(3), (5), and (6) to read as follows:

§ 97.307 Emission standards.

* * * * *

(f) * * *

(3) Only a RTTY or data emission using a specified digital code listed in § 97.309(a) may be transmitted.

* * * * *

(5) A RTTY, data or multiplexed emission using a specified digital code listed in § 97.309(a), or using an unspecified digital code under the limitations listed in § 97.309(b), may be transmitted. The authorized bandwidth is 20 kHz.

(6) A RTTY, data or multiplexed emission using a specified digital code listed in § 97.309(a), or using an unspecified digital code under the limitations listed in § 97.309(b), may be transmitted. The authorized bandwidth is 100 kHz.

* * * * *

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

In the Matter of	)	
	)	
Minnesota Independent Equal Access	)	WC Docket No. 22-407
Corporation's Petition for Forbearance	)	
From Dominant Carrier Regulation	)	
	)	

DECLARATORY RULING AND MEMORANDUM OPINION AND ORDER

Adopted: November 13, 2023

Released: November 14, 2023

By the Commission:

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I. INTRODUCTION

1. As the communications marketplace evolves and both consumer and communications provider preferences change over time, the Commission must update regulatory obligations to keep pace.¹ In this item, we reduce regulatory requirements by granting Minnesota Independent Equal Access Corporation (MIEAC) relief from dominant carrier regulation with respect to its provision of centralized

¹ 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, 8285, para. 2 (2016) (*2016 Technology Transitions DR and Order*).

equal access (CEA) service.² While CEA service was once instrumental “to achieve competition in long distance services in small rural communities,” the marketplace for these services has changed significantly in the decades since the Commission first authorized the provision of CEA service.³ In light of declining demand, intervening exchange access service regulatory reforms, and technological changes in the voice services marketplace generally, dominant carrier regulation of MIEAC’s CEA service is no longer necessary to serve the public interest.

2. We first adopt, on our own motion, a Declaratory Ruling, finding that MIEAC no longer exerts market power, and thus is no longer a dominant carrier, with respect to its provision of CEA service. Next, as an alternative basis for providing the relief requested by MIEAC, in the accompanying Memorandum Opinion and Order, pursuant to section 10 of the Communications Act of 1934, as amended (Act),⁴ we grant MIEAC’s petition for forbearance from dominant carrier regulation of its CEA service, subject to a condition that it comply with our rules applicable to non-dominant carriers going forward. In adopting this Declaratory Ruling and, in the alternative, conditionally granting MIEAC’s Petition, we continue our commitment to eliminating unnecessary and costly regulatory requirements while continuing to fulfill our statutory obligations to protect consumers and serve the public interest.⁵ Pursuant to section 10 of the Communications Act of 1934, as amended,⁶ our actions today relieve MIEAC of dominant carrier regulations that—as applied to MIEAC—no longer serve their original purpose and are unnecessary to serve the public interest, to ensure that MIEAC’s charges and practices for its CEA service are just and reasonable and not unjustly and unreasonably discriminatory, or to protect consumers.

II. BACKGROUND

A. Relevant Regulatory History

1. Dominant Carrier Regulation

3. In the 1970s, competition emerged in the long-distance services marketplace, as competitive providers sought to enter and capture market share once held by the former monopoly long distance provider, AT&T.⁷ Reacting to this influx of competitive providers, the Commission established a two-tiered regulatory approach under which common carriers are classified as either dominant or non-

² Petition of Minnesota Independent Equal Access Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) from Regulation as a Dominant Carrier, WC Docket No. 22-407 (filed Nov. 22, 2022) (Petition). On January 6, 2023, the Commission issued a Public Notice seeking comment on the Petition. *Pleading Cycle Established for Comments on MIEAC’s Petition for Forbearance from Dominant Carrier Regulations*, WC Docket No. 22-407, Public Notice, DA 22-1242 (WCB Dec. 1, 2022) (*MIEAC Public Notice*). MIEAC “requests relief only for itself, not for any other CEA provider, as other providers may or may not be situated similarly to MIEAC.” Petition at 9. Accordingly, the forbearance relief we grant in this proceeding is specifically limited to MIEAC and does not pertain to other CEA providers or their services.

³ See, e.g., *Application of Iowa Network Access Division et al.*, W-P-C-6025, Memorandum Opinion, Order, and Certificate, 3 FCC Rcd 1468, para. 3 (1988).

⁴ See 47 U.S.C. § 160.

⁵ See, e.g., *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8285, para. 3 (“We will consistently aim to modernize[] our rules by removing outmoded regulations, while preserving requirements that remain essential to our fundamental mission to ensure competition, consumer protection, universal service, and public safety.”) (internal quotation omitted).

⁶ See 47 U.S.C. § 160.

⁷ These competitive providers were known as interexchange carriers or IXCs. See, e.g., *Access Charge Reform et al.*, CC Docket No. 96-262 et al., Sixth Report and Order, 15 FCC Rcd 12962, 12965, para. 7 (2000) (*CALLS Order*) (subsequent history omitted).

dominant in their provision of regulated services.⁸ Under this framework, the most extensive regulations are imposed on dominant carriers, defined as carriers with market power—i.e., the power to control prices.⁹ These dominant carrier regulations counter the opportunity and incentive dominant carriers have to charge supra-competitive rates.¹⁰ By contrast, non-dominant carriers lack market power and are subject to more relaxed regulation that reduces barriers to entry and facilitates greater competition.¹¹ The first dominant carriers included legacy AT&T and the Bell Operating Companies (BOCs) that were spun off from AT&T and that owned and controlled the last-mile telephone network to end-user customers after the divestiture.¹² Other voice service providers that did not possess market power were considered non-dominant.¹³

4. Over the past 40-plus years, legislative mandates, as well as regulatory and technological changes, have led the voice service marketplace to evolve from a small number of dominant carriers relying on a single technology and operating in separate local and long-distance markets, to an all-distance, multi-technological, and increasingly competitive marketplace. In response, the Commission has reformed its dominant and non-dominant carrier regulatory regime multiple times to fulfill its responsibilities under the Act.¹⁴ The current dominant carrier regulations apply to MIEAC's CEA service under two provisions of the Act, sections 203 and 214(a), and are the subject of the Petition before us today.¹⁵

5. *Section 203 and Part 61 Dominant Carrier Regulations.* Section 203 of the Act requires common carriers to file tariffs with the Commission listing the charges for their interstate services and

⁸ *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, CC Docket No. 79-252, First Report and Order, 85 F.C.C.2d 1, 10-11, paras. 25-27 (1980) (*1980 Section 214 Streamlining Order*).

⁹ 47 CFR § 61.3(q).

¹⁰ *See 1980 Section 214 Streamlining Order*, 85 F.C.C.2d at 4, para. 15.

¹¹ *Id.* at 8, 20-21, paras. 33, 85-89.

¹² In the court-ordered break-up of the Bell System, the local exchange operations of the BOCs were divested from the rest of AT&T's operations, including AT&T's long-distance business. *See CALLS Order*, 15 FCC Rcd at 12956, para. 8. The BOCs "maintained monopoly franchises in their local market, but by splitting them off from AT&T's long-distance business, the federal courts removed an incentive for the BOCs to favor AT&T's long-distance business over its competitors." *Id.* Now AT&T competed directly with other IXC competitors to provide interstate, interexchange service, and all of the competitors, including AT&T, paid the BOCs for the service of providing the necessary access to end users, i.e., exchange access service. *Id.* Other independent (non-BOC) local exchange carriers (LECs) held similar monopoly franchises in their local service areas and also provided long-distance carriers with the ability to originate and complete their customers' calls to the end user. *Id.* at para. 7.

¹³ *See 1980 Section 214 Streamlining Order*, 85 F.C.C.2d at 11, para. 27.

¹⁴ For example, under cost-based rate-of-return regulation, a dominant carrier's rates were generally set at levels to give the carrier an opportunity to recover its operating costs plus an authorized rate of return on the regulated rate base (plant in service minus accumulated depreciation). *Connect America Fund et. al*, WC Docket No. 10-90 et al., Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087, 3172, para. 229 (2016). Through the end of 1990, access service revenues were governed by rate-of-return regulation. Later, under price cap regulation, which initially was adopted only for the largest LECs, price ceilings were established at reasonable levels, encouraging the carrier to improve its "efficiency by harnessing profit-making incentives to reduce costs, invest efficiently in new plant and facilities, and develop and deploy innovative service offerings" *CALLS Order*, 15 FCC Rcd at 1268-69, para. 16. Today, local exchange carriers that generally provide exchange access service are divided between "incumbents," carriers that were providing local exchange service when Congress enacted the Telecommunications Act of 1996 and "competitive" carriers that subsequently entered local exchange markets. *See* 47 CFR § 51.5; 47 U.S.C. § 251(h).

¹⁵ 47 U.S.C. §§ 203, 214(a); 47 CFR pt. 61, subpt. E; 47 CFR §§ 43.43, 61.58, 63.03, 63.71.

also the “practices[] and regulations affecting such charges.”¹⁶ The Commission implemented these requirements for dominant carriers in part 61, subpart E of its rules.¹⁷ Specifically, for dominant, cost-based rate regulated carriers, section 61.38 of the rules describes the supporting material to be filed with the tariffs of carriers with revenues that exceed \$500,000 in the most recent 12-month period, or are estimated to exceed \$500,000 for a representative 12-month period.¹⁸ The supporting material for such tariffs must include “an explanation of the changed or new matter, the reasons for the filing, the basis of ratemaking employed, and economic information to support the changed or new matter.”¹⁹ A smaller dominant, cost-based rate carrier that is “described as a subset 3 carrier in § 69.602” of the rules and that “serves 50,000 or fewer access lines in a study area” may elect to file tariffs pursuant to section 61.39.²⁰ The supporting material for these tariffs must include an explanation of the filing in the transmittal and a description of the basis for ratemaking that complies with the relevant Commission rules contained in section 61.39(b).²¹ And the requirements for the tariffs of dominant, price-cap regulated carriers are contained in sections 61.41 to 61.49 of the Commission’s rules.²² There are also customer notification and minimum-effective-period requirements that apply only to dominant carriers.²³

6. *Section 214(a) and Part 63 Dominant Carrier Regulations.*²⁴ Enacted to prevent anticompetitive practices, section 214(a) of the Act governs entrance into and exit from the telecommunications market.²⁵ When Congress adopted section 214(a), it required carriers to obtain Commission authorization to construct, acquire, operate, or engage in transmission over lines of communication.²⁶ It also required carriers to seek Commission authorization before discontinuing reducing, or impairing service to a community or part of a community.²⁷ Subsequently, the Commission

¹⁶ 47 U.S.C. § 203(a).

¹⁷ 47 CFR pt. 61, subpt. E.

¹⁸ 47 CFR § 61.38(a).

¹⁹ 47 CFR § 61.38(b).

²⁰ 47 CFR § 61.39(a).

²¹ 47 CFR § 61.39(b).

²² 47 CFR §§ 61.41-49.

²³ See, e.g., 47 CFR §§ 61.58(a)(4) (customer notification), 61.59 (minimum effective periods).

²⁴ See 47 U.S.C. § 214 (“Extension of lines or discontinuance of service; certificate of public convenience and necessity”); 47 CFR §§ 63.03, 63.71.

²⁵ See 47 U.S.C. § 214(a); Implementation of Section 402(b)(2)(A) of the Telecommunications Act of 1996, CC Docket No. 97-11, Report and Order, and Second Memorandum Opinion and Order, 14 FCC Rcd 11364, 11366, para. 3 & n.9 (1999) (1999 Section 214 Streamlining Order) (noting that “Congress enacted the section 214(a) entry certification requirements to prevent useless duplication of facilities that could result in increased rates being imposed on captive telephone ratepayers” (citing 78 Cong. Rec. 10314 (1934) (Remarks of Rep. Rayburn))).

²⁶ 47 U.S.C. § 214(a) (“No carrier shall undertake the construction of a new line or of an extension of any line, or shall acquire or operate any line, or extension thereof, or shall engage in transmission over or by means of such additional or extended line, unless and until there shall first have been obtained from the Commission a certificate that the present or future public convenience and necessity require or will require the construction, or operation, or construction and operation, of such additional or extended line.”). For convenience, in certain circumstances this item uses “entry” or “transfer of control” as shorthand that encompasses the statutory terms “construct, acquire, operate, or engage in transmission of lines of communication” unless the context indicates otherwise.

²⁷ *Id.* (“No carrier shall discontinue, reduce, or impair service to a community, or part of a community, unless and until there shall first have been obtained from the Commission a certificate that neither the present nor future public convenience and necessity will be adversely affected thereby.”). For convenience, in certain circumstances, this item uses “exit” or “discontinue” (or “discontinued” or “discontinuance,” etc.) as shorthand that encompasses the statutory terms “discontinue, reduce, or impair” unless the context indicates otherwise. The Commission has since
(continued....)

conferred blanket section 214(a) operating authority on all carriers, dominant and non-dominant alike, thus relieving them of the need to seek Commission authorization on a case-by-case basis to construct lines and provide domestic telecommunications services.²⁸ Over the years, recognizing that ease of entry and exit is a necessary part of a truly competitive market,²⁹ the Commission has taken action to promote competition, consistent with the purpose of section 214(a), by streamlining, reducing, and eliminating unnecessary or more burdensome section 214(a)-related requirements.³⁰ But as the Commission further streamlined the application processes for obtaining authorization for transfers of control and discontinuances to allow for expedited filing and review, it maintained the distinction between dominant and non-dominant carriers.³¹

7. *Section 214(a) Transfers of Control.* In granting blanket entry authorization under section 214(a), the Commission nevertheless continued to apply section 214(a) application requirements to transfers of control of lines or authorizations to operate,³² regardless of the carrier's status as dominant or non-dominant.³³ Under section 63.03 of the transfer of control rules, dominant carriers are more

extended its streamlined section 214(a) discontinuance requirements applicable to non-dominant carriers to providers of interconnected voice over Internet protocol (VoIP) service. *IP Enabled Services*, WC Docket No. 04-36, Report and Order, 24 FCC Rcd 6039, 6045-46, 6047, paras. 11, 14 (2009) (extending the domestic discontinuance requirements to interconnected VoIP providers in order to “safeguard[] the public interest in continuity of such services” without classifying interconnected VoIP services as either telecommunications services or information services).

²⁸ The Commission first granted blanket authority to non-dominant carriers and later extended it to dominant carriers. *1980 Section 214 Streamlining Order*, 85 F.C.C.2d at 7, 11, paras. 18, 27 (granting non-dominant carriers blanket authority for unlimited expansion of circuits into their authorized geographic service areas); *1999 Section 214 Streamlining Order*, 14 FCC Rcd at 11372, para. 12 (granting blanket authority to all carriers including dominant carriers and finding such action “will promote competition by deregulating domestic entry, allowing carriers to construct, operate, or engage in transmission over lines of communication without filing an application with the Commission”); *see also* 47 CFR § 63.01(a). Separately, the Telecommunications Act of 1996 eliminated carriers' obligation to get Commission authorization in the specific case of line extensions. Telecommunications Act of 1996, Pub. L. 104-104, § 402(b)(2)(A) (1996) (“The Commission shall permit any common carrier—(A) to be exempt from the requirements of section 214 of the Communications Act of 1934 for the extension of any line; . . .”).

²⁹ *1980 Section 214 Streamlining Order*, 85 F.C.C.2d at 7, para. 18.

³⁰ *See 2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8303-55, paras. 60-192; *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84, 33 FCC Rcd 5660, 5677, para. 37 (2018); *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84, 32 FCC Rcd 11128, 11162-63, 11165-66, 11169, paras. 88-89, 97-100, 109 (2017); *see also Implementation of Further Streamlining Measures for Domestic Section 214 Authorizations*, Report and Order, CC Docket No. 01-150, 17 FCC Rcd 5517 (2002) (*2002 Section 214 Transfer of Control Streamlining Order*); *1999 Section 214 Streamlining Order*, 14 FCC Rcd 11364; *1980 Section 214 Streamlining Order*, 85 F.C.C.2d 1.

³¹ *See 2002 Section 214 Transfer of Control Streamlining Order*, 17 FCC Rcd at 5518-19, paras. 1-2 (adopting section 63.03 to streamline certain section 214(a) transfers of control); *1999 Section 214 Streamlining Order*, 14 FCC Rcd at 11378-81, paras. 26-32 (revising section 63.71 to provide for automatic-approvals of section 214(a) discontinuances with different time periods for automatic grants for dominant and non-dominant carriers).

³² 47 U.S.C. § 214(a).

³³ 47 CFR § 63.03; *see also 1999 Section 214 Streamlining Order*, 14 FCC Rcd at 11374-75, para. 18. In making the determination whether a transfer of control will serve the present and future public convenience and necessity, the Commission considers whether the transaction could result in public interest harms by substantially frustrating or impairing the objectives or implementation of the Act or related statutes. The Commission then employs a balancing test, weighing any potential public interest harms of the proposed transaction against any potential public interest benefits. These analyses do not differ based on the carrier's classification as dominant or non-dominant. *See, e.g., Application of Verizon Communications Inc. and América Móvil S.A.B. de C.V. for Consent to Transfer*

(continued....)

limited in the extent to which they are eligible for presumptive streamlined treatment for transfers of control than non-dominant carriers.³⁴

8. *Section 214(a) Discontinuance Authority.* In addition to transfers of control, section 214(a) requires that a carrier obtain Commission authorization before it discontinues, reduces, or impairs service to a community or part of a community.³⁵ The Act and the Commission's rules set forth the conditions and procedures for obtaining authorization for service discontinuances,³⁶ and again different rules apply to dominant carriers than non-dominant carriers.³⁷ Today, while both dominant and non-dominant carriers are subject to streamlined processing, an application filed by a dominant carrier seeking to discontinue an interstate telecommunications service is subject to automatic grant on the 60th day after filing the application, whereas for applications filed by non-dominant carriers such grant occurs on the 31st day after filing the application.³⁸

2. CEA Providers and the Regulation of Interstate Switched Access Service

9. Interstate switched access service, which includes centralized equal access service, enables interexchange carriers to obtain access to local telephone exchanges to originate and complete interstate long distance telephone calls.³⁹ For example, when an interexchange carrier's (IXC) subscriber in New York calls someone in Chicago, the IXC connects the call between local networks in both cities. Historically, the calling party would pay the IXC, which in turn would pay the appropriate local exchange carriers a fee to access the local networks at either end of the call.⁴⁰

Control of International Section 214 Authorization, GN Docket No. 21-112; IBFS File No. ITC-T/C-20200930-00173, Memorandum Opinion and Order, 36 FCC Rcd 16994, 16999, para. 21 (2021) (*Verizon-TracFone Order*). The Commission first assesses whether the proposed transaction complies with the specific provisions of the Act, other applicable statutes, and the Commission's rules. *See id.*; 47 CFR §§ 63.03-.04.

³⁴ *See* 47 CFR § 63.03(b)(2) (setting forth the limited conditions under which a dominant carrier's application is eligible for presumptive streamlined treatment).

³⁵ 47 U.S.C. § 214(a).

³⁶ *See* 47 CFR §§ 63.60 *et seq.*

³⁷ *See* 47 CFR § 63.71(f)(1) (stating that domestic discontinuance applications will be automatically granted on the 31st day after filing for non-dominant carriers and on the 60th day after filing for dominant carriers). The Commission will grant discontinuance authority only if it determines that "neither the present nor future public convenience and necessity will be adversely affected." 47 U.S.C. § 214(a). Congress adopted this provision in section 214(a) to prevent "a loss or impairment of a service offering to a community or part of a community without adequate public interest safeguards." *Western Union Tel. Co. Petition for Order to Require the Bell Sys. to Continue to Provide Group/ Supergroup Facilities*, Memorandum Opinion and Order, 74 F.C.C.2d 293, 295 (1979); *see also* *1980 Section 214 Streamlining Order*, 85 F.C.C.2d at 39, 43, paras. 114, 128 (explaining the purpose of the discontinuance provision was, in part, "to minimize service disruptions which Congress envisioned would result from the complete monopolization of the telegraph market due to the merger of Western Union and Postal Telegraph"). The Commission's evaluation of whether a planned discontinuance of service will adversely affect the public convenience or necessity is the same regardless of the carrier's status as dominant or non-dominant.

³⁸ 47 CFR § 63.71(f); *see also* *1999 Section 214 Streamlining Order*, 14 FCC Rcd at 11380, para. 29 (explaining "[t]he additional time is warranted following applications by dominant carriers, to ensure adequate opportunity for comments to be filed on whether substitute service is available[.]" and "[t]his revision will promote competition and reduce regulation by applying to all carriers the automatic grant discontinuance procedures that currently apply only to non-dominant domestic carriers"). In both cases, however, the Commission may remove an application from streamlined treatment and automatic grant if it determines more time is necessary to make its public interest finding.

³⁹ *See, e.g., AT&T Corp. v. FCC*, 970 F.3d 344, 346 (D.C. Cir. 2020); *CALLS Order*, 15 FCC Rcd at 12966, para. 8.

⁴⁰ *See, e.g., AT&T Corp. v. FCC*, 970 F.3d at 346.

10. CEA providers like MIEAC were formed following the break-up of AT&T in 1984, as the nation transitioned from a “monopoly market structure to a competitive one.”⁴¹ Before then, telephone subscribers generally obtained both local and long-distance services from the same company, AT&T.⁴² The divestiture of AT&T resulted in separate local networks, mostly controlled by BOCs and a long-distance network operated by AT&T. As a result, AT&T began competing directly with other companies to provide long-distance service, giving consumers more service options. Because the long-distance companies were largely separate from the local exchange carriers, the IXC had to pay the LECs for the last-mile access to end users.⁴³

11. As a consequence of the divestiture, the court imposed “equal access” obligations that required the BOCs to begin providing equivalent connections to IXCs other than AT&T, by enabling customers to use competing long-distance networks using the same “1+ dialing” that customers had historically been able to use to access AT&T’s long-distance network.⁴⁴ The Commission later determined that the independent telephone companies should be required to implement equal access under certain circumstances and under certain schedules that differed from those that governed the BOC telephone companies through the divestiture of AT&T.⁴⁵ The new equal access requirements, however, posed problems when applied to independent local exchange carriers in more rural areas. Many small, rural incumbent LECs operated switches that could not provide service to more than one long-distance carrier on a 1+ basis, and claimed that they lacked the financial ability to upgrade or replace their existing

⁴¹ See, e.g., *Application of Indiana Switch Access Division for Authority Pursuant to Section 214 of the Communications Act of 1934 and Section 63.01 of the Commission's Rules and Regulations, to Lease Transmission Facilities to Provide Access Service to Interexchange Carriers in the State of Indiana*, File No. W–P–C–5671, Memorandum Opinion and Order, 1 FCC Rcd 634, 635, para 5 (1986) (*Indiana Switch 214 Order*) (Commission denied application for review of underlying Common Carrier Bureau order and affirmed that decision granting Indiana Switch authority to provide centralized equal access service); see also *supra* n.12. MIEAC is one of three CEA providers in the nation. Iowa Network Access Division d/b/a Aureon Network Services and South Dakota Network, LLC are the other CEA providers. MIEAC is a Minnesota corporation, formed on October 6, 1988, with its headquarters in Plymouth, Minnesota. Minnesota Independent Equal Access Corporation, Tariff F.C.C. No. 2, Transmittal Number 33, Tariff Review Plan (TRP) Submittal for July 1, 2022 Access Charge Tariff Filing, Interstate Access Tariff Filing Prospective Period, July 1, 2022 – June 30, 2023, Description and Justification, at 4 (filed June 24, 2022) (MIEAC Tariff Description and Justification) <https://apps.fcc.gov/etfs/public/otherFiling.action?idLec=42> “MIEAC no longer has three separate TDM tandem switches but is now absorbed into a nationwide distributed switch architecture that is utilized to provide capacity as well as physical and network redundancy.” *Id.* at 5. MIEAC is a wholly-owned subsidiary of Onvoy, LLC d/b/a Inteliquent. Petition at 3.

⁴² See, e.g., *CALLS Order*, 15 FCC Rcd at 12965, para. 5.

⁴³ See, e.g., *CALLS Order*, 15 FCC Rcd at 12966, para. 8.

⁴⁴ See generally *Common Carrier Bureau Releases Rep. on Equal Access Lines & Presubscribed Lines*, 1997 WL 677407 (Nov. 3, 1997), available at https://transition.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/eqacc-97.pdf; see also *Minnesota Independent Equal Access Corp.*, Docket No. P-3007/NA-89-76, Order Granting Certificate of Authority To Provide Equal Access Service, 1991 WL 501782, 119 P.U.R.4th 8, 9 (Minn. PUC Jan. 10, 1991) (*Minn. PUC Order*), amended and clarified by *Minnesota Independent Equal Access Corp.*, Docket No. P-3007/NA-89-76, Order After Reconsideration, 123 P.U.R.4th 234, 1991 WL 501849 (Minn. PUC May 20, 1991). The Minnesota Commission explained that the Bell Operating Companies “were required to make available to competing IXCs access arrangements to the local network equal in kind and quality to those available to AT&T for interLATA toll. These new access arrangements taken together constitute a service system known as ‘equal access.’” *Minn. PUC Order* at 2) (citing *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 196-98 (D.D.C. 1982), *aff’d sub nom. Maryland v. United States*, 460 U.S. 1001 (1983)); see also 47 U.S.C. § 251(g). Local Access and Transport Areas refer to geographical boundaries that are generally used to determine whether a call is local or long distance in nature. See 47 CFR § 51.5.

⁴⁵ *MTS and WATS Market Structure Policies and Requirements, Phase III*, CC Docket No. 78-72, Report and Order, 100 F.C.C.2d 860 (1985) (extending equal access obligations to independent telephone companies).

switches to provide equal access.⁴⁶ Further, they argued that the low volume of traffic from each individual incumbent LEC meant that IXC's would be unwilling to incur the high costs required to construct the facilities needed to interconnect long distance networks directly to the rural LEC's individual end office switches.⁴⁷

12. In some states, groups of small, rural incumbent LECs sought to address these issues by forming new, specialized entities to provide CEA service.⁴⁸ CEA providers, which were treated like local exchange carriers, allowed rural LECs to provide equal access without incurring the costs associated with upgrading their switches.⁴⁹ They enable rural customers to reach the networks of long-distance providers that have not built facilities to the end offices serving those customers, by connecting the IXC's facilities to a centralized switch and network operated by the CEA provider.⁵⁰ The term "centralized equal access service" reflects the shift of equal access capability from the end-office to a central tandem switch that aggregates calls from many different end offices.⁵¹ The CEA provider, in turn, connects LEC networks to the IXC's networks at various points of interconnection.⁵² When the Commission first authorized CEA providers "to provide access service to interexchange carriers," it determined that those providers, including MIEAC, were subject to LEC dominant-carrier regulation.⁵³

3. Access Charge Reform

13. *2011 USF/ICC Transformation Order.* In 2011, the Commission adopted the *USF/ICC Transformation Order*, reforming the access charge rules and requiring LECs to reduce many of their switched access rates to bill-and-keep over several years.⁵⁴ The transition of those rates was completed in

⁴⁶ *AT&T Corp., Complainant, v. Iowa Network Services, Inc. d/b/a Aureon Network Services, Defendant*, Proceeding No. 17-56, EB-17-MD-001, Memorandum Opinion and Order, 32 FCC Rcd 9677, 9678, para. 5 (2017) (*Aureon Liability Order*), *aff'd, rev'd, & remanded in part sub. nom. AT&T Corp. v. FCC*, 970 F.3d 344 (D.C. Cir. 2020); *Minn. PUC Order* at 2.

⁴⁷ *Aureon Liability Order*, 32 FCC Rcd at 9678-79, para. 5.

⁴⁸ *Id.* at 9679, para. 5.

⁴⁹ See *Minn. PUC Order* at 3 (explaining MIEAC "provide[d] equal access service on behalf of and in conjunction with ILECs . . . by connecting unconverted end-office switches with MIEAC's access tandem equipped with equal access capability. . . . ILECs [were] able to provide equal access service without undergoing end-office conversion. ILECs whose end-offices contain[ed] the older electro-mechanical switches need[ed] not [to] replace them with upgraded computer controlled (i.e., digital) equipment. The ability to bypass end-office conversion and avoid upgrading to digital equipment [was] a short cut to the provision of equal access . . .").

⁵⁰ *Id.*

⁵¹ See *Minn. PUC Order* at 3.

⁵² *Id.*

⁵³ See, e.g., *Indiana Switch 214 Order*, 1 FCC Rcd at 634, paras. 1-2 (explaining that the CEA provider in that case, Indiana Switch Access Division, "is a dominant carrier providing exchange access service."); *Application of Iowa Network Access Division for Authority Pursuant to Section 214 of the Communications Act of 1934 and Section 63.01 of the Commission's Rules and Regulations to Lease Transmission Facilities to Provide Access Service to Interexchange Carriers in the State of Iowa*, File No. W-P-C-6025, Memorandum Opinion, Order and Certificate, 3 FCC Rcd 1468, 1469, para. 10 (1988) (granting authority to Iowa Network Access Division (INAD) to provide centralized equal access service and explaining "INAD is a dominant carrier providing exchange access services subject to Title II regulations"). See also 47 U.S.C. § 153(32) (defining local exchange carrier as "any person that is engaged in the provision of telephone exchange service or exchange access").

⁵⁴ See *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, 17677, 17934-36, 18149, paras. 36, 801 & fig. 9, 1404 (2011) (*USF/ICC Transformation Order*), *pets. for review denied sub nom. FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014); 47 CFR §§ 51.915, 51.917. Price cap incumbent LECs were required to transition certain tariffed switched access rates effective July 1 on each of those years to bill-and-keep (\$0) over a six-year period that ended in 2018. Rate-of-

(continued....)

2020.⁵⁵ For purposes of the *USF/ICC Transformation Order* and the attendant rules, MIEAC is a competitive LEC.⁵⁶ First, MIEAC is a LEC under section 51.5 because it “provi[des] . . . exchange access.”⁵⁷ Secondly, MIEAC is not an incumbent LEC under section 51.5 because it neither provided “telephone exchange service” on February 8, 1996, nor was it a member of NECA on February 8, 1996, (or a successor to a member).⁵⁸ MIEAC is therefore a competitive LEC for purposes of the rules adopted by the *USF/ICC Transformation Order* because a “competitive local exchange carrier is any local exchange carrier, as defined in [Section] 51.5, that is not an incumbent local exchange carrier.”⁵⁹

14. The Commission applied its access charge reforms, including the transition to reduced switched access rates, to all competitive LECs, including CEA providers, through section 51.911(c) which, in turn, applied the “procedures” of rule 61.26 (the CLEC Benchmark Rule) to all competitive LECs, including CEA providers.⁶⁰ Pursuant to the benchmark rule, as a general matter, a competitive LEC may not tariff interstate switched access rates that are higher than the rate for similar services offered by the incumbent LEC serving the same area.⁶¹

15. In the *USF/ICC Transformation Order*, the Commission explained that modernizing the intercarrier compensation system was necessary to ensure affordable voice and broadband service “as consumers increasingly shift from traditional telephone service to substitutes including Voice over Internet Protocol (VoIP), wireless, texting, and email.”⁶² The new switched access pricing rules created “a more incentive-based, market-driven approach [to] reduce arbitrage and competitive distortions by phasing down byzantine per-minute and geography-based charges . . . provid[ing] more certainty and predictability regarding revenues to enable carriers to invest in modern, IP networks.”⁶³ CEA providers, like all LECs, were subject to the access charge reforms adopted in the *USF/ICC Transformation Order*.⁶⁴

16. *2016 Interstate Switched Access Declaratory Ruling.* In 2016, the Commission determined that its intercarrier compensation reforms and transitional pricing rules had “progressed to a point where incumbent LECs no longer possess market power over interstate switched access,” and thus

return incumbent LECs were required to transition certain tariffed switched access rates effective July 1 on each of those years to bill-and-keep (\$0) over a nine-year period that ended in 2020. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17934-36, para. 801, fig. 9; 47 CFR §§ 51.907(h), 51.909(j).

⁵⁵ See 47 CFR §§ 51.907, 51.909; see also *July 1, 2023 Annual Access Charge Tariff Filings*, WC Docket No. 23-9, Order, DA 23-282, para. 3 (WCB Apr. 3, 2023).

⁵⁶ See 47 CFR §§ 51.901-51.919.

⁵⁷ 47 CFR § 51.5; see 47 U.S.C § 153(20).

⁵⁸ 47 CFR § 51.5.

⁵⁹ 47 CFR 51.903(a).

⁶⁰ 47 CFR § 51.911(c); 47 CFR § 61.26 (the CLEC Benchmark Rule). The obligations created by the CLEC Benchmark Rule were adopted in their initial form in 2001, and prohibit a competitive LEC from tariffing interstate access rates above those charged by the competing incumbent LEC for similar services. See *Access Charge Reform; Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, CC Docket No. 96-262, Seventh Report and Order and Further Notice of Proposed Rulemaking, 16 FCC Rcd 9923 (2001) (*CLEC Access Charge Reform Order*); 47 CFR § 61.26. Section 61.26 directly applies only to non-dominant carriers, but the CLEC benchmarking obligation extends to MIEAC, and other CEA providers, by application of 47 CFR § 51.911(c). See *AT&T Corp. v. FCC*, 970 F.3d at 349-50; *Iowa Network Access Division Tariff F.C.C. No. 1*, WC Docket No. 18-60 et al., Order, 37 FCC Rcd 2519, 2520, para. 3 (2022) (*Aureon Data Order*). In this order, we refer to sections 51.911(c) and 61.26, as the “benchmarking requirement.”

⁶¹ 47 CFR § 51.911(c); 47 CFR § 61.26 (the CLEC Benchmark Rule).

⁶² *USF/ICC Transformation Order*, 26 FCC Rcd at 17669, para. 9.

⁶³ *Id.*

⁶⁴ 47 CFR §§ 51.907, 51.909, 51.911(c).

found they were no longer dominant in providing these services.⁶⁵ The Commission explained that “the market for switched access services has changed dramatically with . . . adoption of bill-and-keep as a new methodology,” and the transitional pricing rules “put default rates for interstate switched access service into effect” that “prevent incumbent LECs from charging IXCs excessive rates for switched access or inappropriately shifting costs among rate elements.”⁶⁶

17. While basing its finding that incumbent LECs do not possess market power “primarily on changes to the regulatory structure of interstate switched access,” the Commission also indicated that “broad market trends” demonstrating the “competitive decline” of this service “could provide a compelling basis for finding” that a carrier lacked market power and was no longer dominant.⁶⁷ The Commission pointed out its finding was “consistent with today’s marketplace realities”—as consumers and businesses “increasingly . . . abandon their landlines in favor of communications technologies that do not rely on local telephone switches” and “switched access voice lines.”⁶⁸

18. The Commission did not, however, extend non-dominant status to CEA providers as part of the *2016 Declaratory Ruling*.⁶⁹ As the Commission later explained, “[a] non-dominance determination (i.e., a determination that a carrier lacks market power) involves an examination of many factors concerning the market for the services in question” and it had not made a non-dominance finding as to CEA providers because there was no record or other basis on which it could find that CEA providers lacked market power, given that CEA providers did not participate in the proceeding.⁷⁰ “[U]niquely situated under the existing rules,” CEA providers thus remained the only LECs subject to dominant carrier cost support rules in the provision of interstate switched access service, while at the same time subject to the benchmarking requirement applicable to competitive LECs.⁷¹

⁶⁵ *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8285, 8292, 8295, paras. 4, 27, 34.

⁶⁶ *Id.* at 8291-92, 8295, paras. 22, 27, 33 (The Commission explained that the “comprehensive overhaul of its intercarrier compensation and universal service regimes has fundamentally changed the regulatory character of interstate switched access. This regulatory restructuring of the marketplace has led to conditions under which no carrier can exert market power in its provision of these services, regardless of its dominance classification.”); *see also id.* at 8297-98, para. 43 (“The reforms of the *USF/ICC Transformation Order* lie at the heart of today’s ruling” that incumbent LECs are non-dominant in providing interstate switched access services.).

⁶⁷ *Id.* at 8293, para. 29.

⁶⁸ *Id.* at 8288-90, 8293, paras. 13, 17, 28 (“Interstate switched access was once an indispensable functionality that made long distance communications across multiple networks possible. When every telephone subscriber used a switched access line, every long distance caller relied on interstate switched access by technological necessity. Today, switched access telephone lines are far from ‘a monopoly platform for the delivery of voice services.’ Consumers and businesses rely less than ever on local telephone switches—and, accordingly, on interstate switched access—to communicate over long distances.”) (internal citation omitted).

⁶⁹ *Id.* at 8290, para. 19 n.43.

⁷⁰ *Aureon Liability Order*, 32 FCC Rcd at 9690-91, para. 27.

⁷¹ *See* 47 CFR § 51.911(c); *Iowa Network Access Division, Tariff F.C.C. No. 1*, WC Docket No. 18-60, Transmittal No. 36, Memorandum Opinion and Order, 33 FCC Rcd 7517, 7563, para. 114 n.344 (2018) (*Aureon First Tariff Investigation Order*) (concluding the first Aureon tariff investigation) (“With respect to the competitive LEC benchmark and the cost-based rate, we recognize that CEA providers . . . are uniquely situated under the existing rules due to their status as both competitive LECs and dominant carriers.”). This Commission decision and two other related orders were appealed to the D.C. Circuit Court in Consolidated Case Nos. 18-1258, 19-1014, and 19-1087; these appeals were subsequently voluntarily dismissed by the petitioners. *See Iowa Network Access Division, Tariff F.C.C. No. 1*, WC Docket No. 18-60, Order on Reconsideration, 33 FCC Rcd 11860 (2018) (denying petition for consideration of *Aureon First Tariff Investigation Order*); *Iowa Network Access Division, Tariff F.C.C. No. 1*, WC Docket No. 18-60, Transmittal No. 38, Memorandum Opinion and Order, 34 FCC Rcd 1510 (2019) (concluding the second Aureon tariff investigation); *Iowa Network Services, Inc. d/b/a Aureon, Petitioner, v. FCC, Respondents, AT&T Services, Inc. et al., Intervenor*, D.C. Cir. No. 18-1258 Consolidated with Nos. 19-1014, 19-1087, Order, (continued....)

19. *2018 Aureon First Tariff Investigation Order*. As part of its investigation into tariffs filed by another CEA provider, Aureon, the Commission explained that CEA providers face multiple independent and overlapping regulatory requirements.⁷² In addition to being regulated as dominant carriers operating under cost-based rate regulation for their CEA services, CEA providers were also considered competitive LECs under the 2011 access charge reforms and subject to the benchmark requirement.⁷³ First, as dominant carriers, CEA providers are subject to the cost-based tariff filing requirements in section 61.38, which include developing specific cost information and projections to support their tariffed rates.⁷⁴ As part of this filing process they must submit explanations and data to support proposed tariff changes, such as a cost of service study for the most recent 12 months, a study containing a projection of costs for a representative 12-month period, and estimates of the effect of the proposed changes on traffic and revenues for the affected service.⁷⁵

20. Second, in addition to being required to comply with section 61.38, CEA providers, as competitive LECs, are also subject to the benchmarking requirement.⁷⁶ Given that CEA providers are subject to both cost-based rate regulations and the benchmarking requirements, the Commission has determined that their tariffed rates must be the lower of the benchmark rate or the cost-supported rate.⁷⁷

Document No. 1903718 (D.C. Cir. June 24, 2021) (granting petitioners' joint unopposed motion for voluntary dismissal).

⁷² *Aureon First Tariff Investigation Order*, 33 FCC Rcd at 7563, para. 114.

⁷³ *Aureon First Tariff Investigation Order*, 33 FCC Rcd at 7563, paras. 114-15.

⁷⁴ See *id.* at 7519, para. 4. Dominant carriers are required to file and maintain tariffs either as rate-of-return or price cap carriers. See *Aureon Liability Order*, 32 FCC Rcd at 9679, para. 7. CEA providers, subject to the same cost-based rate information as rate-of-return dominant carriers, may elect to file tariffs under sections 61.38 or 61.39 of our rules, depending on their size and revenues, either individually or under a National Exchange Carrier Association tariff. See *Aureon Liability Order*, 32 FCC Rcd at 9679, para. 7; 47 CFR §§ 61.38, 61.39, 69.601 *et seq.* The Commission explained that, even though it found incumbent LECs to be non-dominant, it expected that these carriers generally would continue to file access tariffs on seven or 15 days' notice to receive the benefit of deemed lawful rates. *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8299, para. 46. Incumbent LECs are also "required under the transitional rules to submit cost support as part of their annual tariff filings." *2016 Technology Transitions DR and Order*, 31 FCC at 8299, para. 47 (citing 47 CFR § 51.919).

⁷⁵ 47 CFR § 61.38 ("Supporting information to be submitted with letters of transmittal" in tariff filings).

⁷⁶ 47 CFR § 51.911(c) (referencing the procedures in 47 CFR § 61.26); see *supra* n.60; see also *Aureon Data Order*, 37 FCC Rcd at 2520, para. 3; *USF/ICC Transformation Order*, 26 FCC Rcd at 17937, para. 807 (finding that application of the intercarrier compensation reforms would generally apply to competitive LECs via the competitive LEC benchmark rule in an effort to eliminate disparate regulatory treatment between different classes of carriers); see also *Aureon Liability Order*, 32 FCC Rcd at 9689, para. 25.

⁷⁷ See *Aureon Data Order*, 37 FCC Rcd at 2520, para. 3; *Aureon First Tariff Investigation Order*, 33 FCC Rcd at 7563-64, para. 115 ("[S]ection 61.38 [dominant carrier cost support requirements] and the competitive LEC section 51.911 [benchmarking] requirements 'complement each other' and therefore Aureon must meet the requirements of each, independent of one another Because these rules provide for independent calculations, and therefore limitations on the rate for Aureon's switched transport service, we find that Aureon may only tariff a rate at the lower of the benchmark rate or cost-based rate.") (emphasis in original). The Commission has explained that the rate transition required by the *USF/ICC Transformation Order* and applied to competitive LECs via the competitive LEC benchmark does not permit a CEA provider to charge a cost-based tariff rate above the benchmark even if that cost-based rate was calculated in compliance with the applicable accounting and rate-of-return rules. *Aureon First Tariff Investigation Order*, 33 FCC Rcd at 7566, para. 121 (explaining that the rules adopted in the *USF/ICC Transformation Order* have been upheld by the U.S. Court of Appeals for the Tenth Circuit).

Further, under the Commission's rules, MIEAC's tariffed tandem service rate for originating 8YY traffic is capped at the nationwide rate of \$0.001.⁷⁸

B. MIEAC's Petition for Forbearance

21. On November 22, 2022, MIEAC filed a Petition, requesting that the Commission forbear from applying dominant carrier rules and requirements pursuant to sections 203 and 214(a) of the Act to its CEA service offerings.⁷⁹ No party filed any comments in response to the Petition.⁸⁰ As a result, the record before us contains no objections to the Petition nor disagreements with the facts MIEAC presents therein.

22. The Commission granted authority to MIEAC in 1990 under section 214(a) of the Act, to lease and operate transmission facilities to provide CEA service—consisting of both originating and terminating switched access service—to IXC's through a centralized switching facility in Minnesota.⁸¹ As a CEA provider, MIEAC serves IXC's, enabling them to aggregate and deliver long-distance traffic to and from end users.⁸² Today, MIEAC's statewide network includes an Internet Protocol (IP) tandem switching system and geographically dispersed tandem access points known as Toll Transfer Points,

⁷⁸ Petition at 11; *see also 8YY Access Charge Reform*, WC Docket No. 18-156, Report and Order, 35 FCC Rcd 11594 (2020) (*8YY Access Charge Reform Order*) (combining separate 8YY transport and tandem switching charges into a single nationwide tandem switched transport access service rate capped at \$0.001 per minute).

⁷⁹ *See generally* Petition & Appx. A ("Scope of Requested Relief"). Specifically, MIEAC seeks forbearance from the following requirements in the Act and our rules: 47 U.S.C. § 203 (as it relates to dominant carriers); 47 U.S.C. § 214 (as it relates to dominant carriers); 47 CFR pt. 61, subpart E (setting forth "General Rules for Dominant Carriers"); 47 CFR § 61.58 (to the extent it provides notice requirements for tariff publications by dominant carriers); 47 CFR § 63.03 (to the extent it limits dominant carrier eligibility for presumptive streamlined treatment for transfers of control); 47 CFR § 63.71 (to the extent it provides discontinuance rules specific to domestic dominant carriers); 47 CFR § 43.43 (requiring reports by dominant carriers of proposed changes in depreciation rates applicable to operated plant). We treat MIEAC's Petition as both a request for declaratory ruling that it is no longer a dominant carrier with respect to its CEA service and a separate request for forbearance from dominant carrier regulation of its CEA service.

⁸⁰ *See generally MIEAC Public Notice*. In accepting the application for filing and placing it on public notice, we find that the Petition is complete as filed, in compliance with section 1.54 of our rules. 47 CFR § 1.54. The Commission defines "complete as filed" to mean that a forbearance petition must meet all of the requirements stated in section 1.54, including requirements to explicitly state the scope of the relief requested, address each element of the statute as it applies to the rules or provisions from which the petitioner seeks relief, identify any other proceedings pending before the Commission where the petition speaks to the relevant issues, and comply with format requirements. *See id.*; *see also Petition to Establish Procedural Requirements to Govern Proceedings For Forbearance Under Section 10 of the Communications Act of 1934, as Amended*, WC Docket No. 07-267, Report and Order, 24 FCC Rcd 9543, 9553-54, paras. 16-19 (2009). MIEAC's Petition satisfies these criteria.

⁸¹ Petition at 3 (citing *Application of Minnesota Independent Equal Access Corp.*, File No. W-P-C-6400, Memorandum Opinion, Order and Certificate (Com. Car. Bur. Domestic Facilities Div. Aug. 22, 1990) (*MIEAC Section 214 Order*). The Minnesota Public Utilities Commission granted MIEAC and its affiliate, Minnesota Equal Access Facilities Company, Certificates of Public Convenience and Authority to provide CEA service within the state of Minnesota. *See generally Minn. PUC Order*.

⁸² *See MIEAC Tariff Description and Justification* at 5. MIEAC's switches connect the networks of participating local carriers, known as subtending carriers, to the IXC's networks. For example, an AT&T subscriber in rural Minnesota might originate a call to someone in New York, and MIEAC would connect the call from its subtending carrier to the AT&T network. Conversely, if someone in New York called someone in rural Minnesota, their IXC would connect the call from its local New York network to MIEAC, which in turn would connect it to the appropriate subtending carrier. If a LEC operating in Minnesota does not subtend MIEAC's network, the IXC sends calls to that LEC's Minnesota customers through a network provider other than MIEAC.

where IXCs may interconnect with MIEAC's network.⁸³ MIEAC's tandem switching and transport service enables IXCs to aggregate their long-distance traffic at a single point for completion to and from the local exchanges of more than 80 independent LECs, and provides 1+ presubscription (equal access) service allowing customers to connect to the IXC of their choice in those exchanges.⁸⁴ MIEAC's tariff governing its CEA service includes the following interstate switched access rate elements: originating switched transport for 8YY calls; originating switched transport for 1+ interexchange calls; terminating transport; and terminating tandem switching.⁸⁵

23. In seeking relief from dominant carrier regulation, MIEAC argues that it "cannot effectively exercise market power over any class of traffic it carries" because both LECs and IXCs may exercise options for service that are effective alternatives to the switching and transport service that MIEAC provides.⁸⁶ According to MIEAC, each of the five Local Access and Transport Areas (LATAs) it serves "has at least one, and in several cases multiple, access tandems operated by LECs that offer transport service in competition with MIEAC."⁸⁷ MIEAC explains that IXCs may route terminating traffic through these tandems instead of using MIEAC's CEA service.⁸⁸

24. MIEAC also explains that, although the original rationale for CEA service was to provide 1+ origination service for LECs that lacked presubscription capability in their own switches, today the software to provide presubscribed 1+ service is readily available to all subtending LECs.⁸⁹ Therefore, LECs that do not want to use the 1+ origination service provided by MIEAC could opt to subtend their switches to other access tandems and offer IXCs the ability to originate traffic through those tandems instead of using MIEAC's CEA service.⁹⁰

C. Forbearance Under Section 10 of the Act

25. Section 10 of the Act, as amended by the Telecommunications Act of 1996,⁹¹ requires the Commission to forbear from applying any requirement of the Act or of our regulations to a telecommunications carrier or telecommunications service if the Commission determines that: (1) enforcement of the requirement "is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications

⁸³ Petition at 3. MIEAC does not operate end-office switches or provide local exchange telephone service directly to consumers. *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.* at 10 (citing Minnesota Independent Equal Access Corp. Tariff F.C.C. No. 2, Transmittal No. 33, 2nd Revised Page 6-37, Section 6.7.1(A) (July 1, 2022) (MIEAC Transmittal No. 33). The CEA service that MIEAC describes in its Petition is listed in its interstate "Switched Access Tariff," although its tariff does not define or reference "CEA service" as such. *See* Petition at 10. These services are listed under the tariff section titled, "Switched Transport Rates," and consist of "Originating Switched Transport (composite) – Non-8YY," "Originating Switched Transport (composite) – 8YY," "Terminating Transport," and "Terminating Tandem Switching." MIEAC Transmittal No. 33. The "composite" reference with regard to "originating switched transport" service denotes that the rate includes tandem transport and switching elements. *See* MIEAC Tariff Description and Justification at 8.

⁸⁶ Petition at 4.

⁸⁷ *Id.* at 4.

⁸⁸ *Id.* ("In LATA 620, CenturyLink has access tandems in Rochester, Owatonna and Windom. In addition, Consolidated Communications has an access tandem in Mankato. In LATA 624, CenturyLink has an access tandem in Duluth. In LATA 626, CenturyLink has an access tandem in St. Cloud. In LATA 628, CenturyLink and Peerless have access tandems in Minneapolis. In LATA 636, CenturyLink has access tandems in Wadena and Grand Forks, ND.").

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ 47 U.S.C. § 160(a).

service are just and reasonable and are not unjustly or unreasonably discriminatory;” (2) enforcement of that requirement “is not necessary for the protection of consumers;” and (3) “forbearance from applying such provision or regulation is consistent with the public interest.”⁹² Forbearance is warranted only if all three elements are satisfied and required whenever all three elements are satisfied.⁹³

III. DECLARATORY RULING

26. We find on our own motion⁹⁴ that the Commission’s rules implementing sections 203 and 214(a) of the Act concerning dominant carrier treatment no longer apply to MIEAC with respect to its provision of CEA service. Generally, where carriers lack market power, they are not considered dominant under the Commission’s rules.⁹⁵ Based on the facts and arguments presented in MIEAC’s unchallenged Petition, and in light of the regulatory reforms and marketplace changes that have occurred with respect to interstate switched access services since MIEAC was first deemed dominant, we declare that MIEAC lacks market power in its provision of CEA service. As a consequence, MIEAC is no longer subject to dominant carrier regulation in the provision of its CEA service, including the Commission’s rules implementing sections 203 and 214(a) of the Act.⁹⁶

A. The Absence of Market Power

27. MIEAC’s lack of market power is the foundational premise of our action today that relieves MIEAC of dominant carrier regulation of its CEA service.⁹⁷ To conduct a market-power analysis we must first determine the relevant geographic and product markets.⁹⁸ In this case, the relevant geographic market is limited to the five LATAs in Minnesota (and part of North Dakota) where MIEAC provides CEA service.⁹⁹ And the relevant product markets consist of interstate switched access service,

⁹² *Id.* In making the public interest determination, the Commission must also consider, pursuant to section 10(b) of the Act, “whether forbearance from enforcing the provision or regulation will promote competitive market conditions.” *Id.* § 160(b).

⁹³ *Id.* § 160(a) (stating that the Commission “shall forbear from applying any regulation or any provision of this chapter to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, in any or some of its or their geographic markets, if the Commission determines that” the three elements set forth in that paragraph are met (emphasis added)); *see also Cellular Telecomms. & Internet Ass’n v. FCC*, 330 F.3d 502, 509 (D.C. Cir. 2003) (explaining that the three elements of section 10(a) are conjunctive and that the Commission could properly deny a petition for failure to meet any one element).

⁹⁴ *See* 47 CFR § 1.2(a) (“The Commission may, in accordance with section 5(d) of the Administrative Procedure Act, on motion or on its own motion issue a declaratory ruling terminating a controversy or removing uncertainty.”).

⁹⁵ *See, e.g.*, 47 CFR § 61.3(q); *see also 2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8290, para. 20 n.46.

⁹⁶ The Commission has authority to issue a declaratory ruling “to terminate a controversy or remove uncertainty.” 5 U.S.C. § 554(e); *see also* 47 CFR § 1.2. The Administrative Procedure Act and the Commission’s rules give us wide latitude to resolve such uncertainties via declaratory rulings. *See* 5 U.S.C. § 554(e) (“The agency, with like effect as in the case of other orders and in its sound discretion, may issue a declaratory order to terminate a controversy or remove uncertainty.”); 47 CFR § 1.2; 47 CFR § 0.91(b), (m); 47 CFR § 0.291 (delegating to the Wireline Competition Bureau Chief “authority to perform all functions of the Bureau, described in § 0.91”).

⁹⁷ *See* 47 CFR § 61.3(q) (defining “dominant carrier” as a “carrier found by the Commission to have market power (i.e., power to control prices)”; *see also 2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8287, para. 10 (“By contrast, non-dominant carriers lack the market power necessary to sustain prices either unreasonably above or below costs.”) (internal quotation marks omitted).

⁹⁸ *See, e.g., Motion of AT&T Corp. To Be Reclassified as a Non-Dominant Carrier*, Order, 11 FCC Rcd 3271, 3275-76, 3293-94, paras. 7, 38 (1995) (*AT&T Domestic Non-Dominance Order*).

⁹⁹ Petition at 4 (noting that MIEAC provides CEA service in LATAs 620, 624, 626, 628, and 636, and that in LATA 636 (which spans parts of Minnesota and North Dakota), CenturyLink has access tandems in both Minnesota and North Dakota).

or, more specifically, interstate originating and terminating switched access rate elements, including interstate tandem switching and transport for IXCs.¹⁰⁰

28. With the relevant markets defined, we turn to our analysis of MIEAC's ability to exercise market power, which "depends, in part, on the structure of the market in which [MIEAC] operates."¹⁰¹ Market structure is a product of marketplace competition.¹⁰² As MIEAC explains, "[e]ach of the five LATAs that MIEAC serves has at least one, and in several cases multiple, access tandems operated by LECs" that offer tandem switching and transport service in competition with MIEAC.¹⁰³ No comments were filed. Accordingly, there is no dispute of this assessment of the prevailing competitive conditions or contrary evidence regarding the state of competition. We find that the presence of these competitors significantly limits any potential market power that MIEAC could wield.¹⁰⁴

29. Our analysis is further informed by regulatory and technological changes that have occurred with respect to interstate switched exchange access service since MIEAC was first authorized to operate. Importantly, the *USF/ICC Transformation Order* adopted substantial reforms to the regulations governing switched access rates that reduced the switched access rate elements that access service providers are permitted to charge IXCs for under their tariffs.¹⁰⁵ Indeed, it was these reforms that led the Commission to later find in 2016 that "no carrier can exert market power in its provision of [interstate switched access] services, regardless of its dominance classification."¹⁰⁶ Because MIEAC must benchmark its CEA interstate switched access rates to the incumbent LEC CenturyLink—whose rates transitioned to zero or were capped as a result of the intercarrier compensation reforms—MIEAC is similarly prevented from charging supra-competitive rates for its interstate switched access service. This limitation would hold MIEAC's rates in check even if—contrary to the facts presented—it was not subject to effective competition.

¹⁰⁰ Petition at 3 (observing that MIEAC provides "tandem switching and transport services" to "over 80 [LECs] across five different [LATAs] and provides 1+ presubscription (CEA) services"). The Petition before us fails to distinguish the market for interstate tandem services from interstate switching services, and we decline to undertake such a granular analysis without more.

¹⁰¹ See *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8291, para. 22 (citing (*CLEC Access Charge Reform Order*, 16 FCC Rcd at 9936, para. 32); *AT&T Domestic Non-Dominance Order*, 11 FCC Rcd at 3293, para. 38).

¹⁰² See, e.g., *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8287, para. 11 (stating that to determine market power in a dominance analysis, "the Commission historically has examined clearly identifiable market features such as the number and size distribution of competing firms, the nature of barriers to entry, and the availability of reasonably substitutable services") (citations and internal quotation marks omitted).

¹⁰³ Petition at 4 (identifying competing access tandems in LATAs 620, 624, 626, 628, and 636). Though MIEAC adds that "IXC access customers have the option of building direct connection routes to any local exchange," we fail to find that argument persuasive, as it has always been the case that IXCs could build such connections. See Petition at 4.

¹⁰⁴ Our assessment of market power also reflects our evaluation of the market as it would exist were MIEAC not classified as a dominant provider. See generally *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8295, para. 33 (finding that regulatory developments had fundamentally altered the market and created conditions that no longer sustain marketplace dominance).

¹⁰⁵ See generally *USF/ICC Transformation Order*.

¹⁰⁶ See *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8292, 8295, paras. 26, 33. The fact that CEA providers were not included in this finding was not because the Commission found they continued to have market power over switched access service, but rather because CEA providers do not provide service to end users, such providers were not part of the underlying petition for declaratory relief and there was no record concerning CEA service in that proceeding. See *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8290, para. 19 n.43; *Aureon Liability Order*, 32 FCC Rcd at 9691, para. 27.

30. MIEAC's inability to raise its switched access rates to unjust and unreasonable levels is supported by the Commission's decision in the *Aureon First Tariff Investigation Order*, which held that CEA providers are subject to the *lower* of the rate prescribed by the competitive LEC benchmarking rules adopted in the *USF/ICC Transformation Order*, or the cost-based rate, thus further constraining the rates MIEAC can charge for its switched access service, independent of the dominant carrier pricing and related rules.¹⁰⁷ MIEAC's current tariffed rates are below the maximum allowed for fully-distributed cost-based rates,¹⁰⁸ which in turn are lower than the applicable benchmark rates.¹⁰⁹ This illustrates that competitive pressures have depressed MIEAC's pricing beneath the level permitted by our pricing rules. We therefore agree with MIEAC that "regulatory reforms have restructured the marketplace such that MIEAC is unable to exert market power."¹¹⁰

31. The Commission has previously recognized that, in addition to regulatory reforms, "[t]he competitive decline of switched telephone service could provide a compelling basis for finding that incumbent LECs lack market power over interstate switched access"¹¹¹ Indeed, the broad market trends showing the shift away from switched access telephone services, such as MIEAC's CEA service, are well-documented: "[R]esidential and business customers now choose [telephone] service from wireless, Voice over Internet Protocol (VoIP), cable, and other providers offering bundled, multi-functional, broadband offerings that render voice service just one application among many."¹¹² Further, as MIEAC points out, "today the software to provide presubscribed 1+ service is readily available to all subtending LECs" providing competitive alternatives to MIEAC's CEA service that did not exist when it was initially authorized.¹¹³ MIEAC also reports that the number of terminating minutes of use (MOU) on its network has "dramatically declined" since 2012, while originating MOU have "steadily declined" for

¹⁰⁷ See *supra* para. 20.

¹⁰⁸ Commission staff determined MIEAC's fully-distributed cost-based rates on the following basis: At the 9.75% maximum authorized rate of return, based on data reflected in MIEAC's tariff year 2022-2023 tariff filing, Commission staff determined that MIEAC's terminating transport rate could be as high as \$0.001678 per MOU, taking MIEAC's terminating tandem switching rate, \$0.0021 per MOU, other switched access rates, and miscellaneous revenues as a given and after adjusting state and federal income taxes to be commensurate with the maximum return. Adding this terminating transport rate to MIEAC's terminating tandem switching rate produces a combined terminating tandem switching and transport rate of \$0.003778, a rate that falls below CenturyLink's CLEC benchmark terminating rate of \$0.006167 per MOU. See MIEAC F.C.C. Tariff No. 2, Transmittal No. 33, 2022 Annual Access and TRP Filing, Tbls. "MIEAC 2022 TRP Rate of Return_TY 23_Model" and "2022 TRP Access Filing_Rate of Return_ILEC Data" (filed June 24, 2022). Significantly, however, as MIEAC explains, it "has chosen to retain its existing terminating rates" at even lower levels – at \$0.0029 per MOU – because of the "competitive nature of terminating traffic." MIEAC Tariff Description and Justification at 7, 13-14; Petition at 11.

¹⁰⁹ See Petition at 11 (citing MIEAC Tariff Description and Justification at 12).

¹¹⁰ Petition at 2, 4, 9-10 (discussing MIEAC's lack of market power and presence of competition).

¹¹¹ 2016 *Technology Transitions DR and Order*, 31 FCC Rcd at 8293, para. 29.

¹¹² *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Enforcement of Obsolete ILEC Legacy Regulations That Inhibit Deployment of Next-Generation Networks et al.*, WC Docket No. 14-192, et al., Memorandum Opinion and Order, 31 FCC Rcd 6157, 6161, para. 5 (2015) (*USTelecom 2015 Forbearance Order*) (citation and internal quotation marks omitted). Indeed, customers for wireline voice services "have increasingly popular choices that did not exist when the equal access requirements were established, such as interconnected VoIP from facilities-based and over-the-top providers." *Id.* at 6185, para. 49 (citations omitted).

¹¹³ Petition at 4.

even longer, since 2008.¹¹⁴ Indeed, MIEAC's most recent figures illustrate these trends: for example, from 2020 to 2021, total interstate switched minutes on MIEAC's network decreased by 28 percent.¹¹⁵

B. Section 203 Tariffing Obligations

32. Our finding that MIEAC is no longer a dominant carrier in the provision of CEA service relieves MIEAC from complying with certain pricing and tariff-related rules that are no longer necessary to ensure just and reasonable rates.¹¹⁶ These rules include requirements to file tariffs, provide cost data and other information to support any tariff filings MIEAC chooses to make, notice periods for any tariff filings, and reports of proposed changes in depreciation rates.¹¹⁷ By reclassifying MIEAC as non-dominant with regard to CEA service, we relieve it of all tariffing obligations that would otherwise apply if classified as a dominant carrier. Going forward, MIEAC will be regulated as a non-dominant competitive LEC with respect to its CEA service, including being subject only to the rate caps applicable to non-dominant competitive LECs under the CLEC Benchmark Rule to ensure that any federally-tariffed rates are just and reasonable.¹¹⁸ Non-dominant carrier pricing and tariffing rules provide the Commission with ample authority to ensure MIEAC offers just and reasonable rates, terms, and conditions going forward.¹¹⁹

C. Section 214 Oversight

33. Our declaration that MIEAC is no longer dominant in its provision of its CEA service also results in streamlined non-dominant carrier section 214 transfer of control and discontinuance review procedures that apply to this service.¹²⁰

34. *Transfers of Control.* Because we find that MIEAC is no longer dominant in its provision of its CEA service, section 63.03 does not apply to that service to the extent it limits dominant carrier eligibility for presumptive streamlined treatment.¹²¹ This relief preserves sufficient Commission oversight of any transfers of control involving MIEAC, but expands the range of circumstances in which applications seeking Commission authorization for transfers of control involving MIEAC would be eligible for streamlined treatment. The Commission will still review any such applications, and it retains broad discretion to remove those applications from streamlined processing where circumstances and the public interest warrant.¹²² We therefore preserve sufficient Commission oversight of any transfers of control involving MIEAC, and find more conservative treatment unnecessary.

35. *Service Discontinuances.* Because MIEAC is now considered non-dominant with respect to its CEA services, any applications it files seeking Commission authorization to discontinue those services will be eligible for the shorter 31-day timeline for streamlined approval for discontinuance applications from non-dominant carriers.¹²³ Preserving the 60-day timeline for review of MIEAC's

¹¹⁴ *Id.* at 13. No party disputes that demand for MIEAC's CEA service has declined.

¹¹⁵ *Id.* at 13, 17 (Appx. B). MIEAC anticipates this trend of declining revenue will continue for year 2022-23 "due to steadily decreasing demand for originating and terminating traffic based on 2021 trends and the declining access lines of subtending LEC carriers." *Id.* at 13.

¹¹⁶ See 47 CFR pt. 61, subpt. E.

¹¹⁷ 47 CFR §§ 61.38, 61.39, 61.58, 43.43.

¹¹⁸ 47 CFR § 61.26.

¹¹⁹ See, e.g., 47 U.S.C. §§ 154(i), 208, 201, 202, 220, 254(k), 403; 47 CFR pt. 61, subpt. C.

¹²⁰ See 47 CFR §§ 63.03, 63.71; see generally *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8300-02, paras. 49-54.

¹²¹ 47 CFR § 63.03(b).

¹²² 47 CFR § 63.03(c); see *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8301, paras. 54.

¹²³ 47 CFR § 63.71(a)(5)(i), (f)(1).

applications to discontinue CEA services is not necessary to protect consumers. As with transfers of control, the Commission's discontinuance rules grant the Commission discretion to remove an application from streamlined processing when the public interest demands a more searching review.¹²⁴

IV. MEMORANDUM OPINION AND ORDER

36. In this Memorandum Opinion and Order, as an alternative basis for providing the relief requested by MIEAC set forth in our declaration of non-dominance above, we conditionally grant MIEAC's Petition to forbear from the Commission's dominant carrier rules stemming from sections 203 and 214(a) of the Act, subject to MIEAC's compliance with the non-dominant carrier rules associated with those same sections of the Act. In doing so, we follow precedent whereby the Commission has granted forbearance from particular provisions of the Act or regulations because other applicable regulatory requirements (including requirements imposed as a condition of the grant of forbearance) provided the necessary safeguards to ensure sufficient competition and protect consumer welfare.¹²⁵ Similar to those cases, forbearance from dominant carrier regulation conditioned upon compliance with non-dominant carrier rules does not create a regulatory vacuum; instead, as MIEAC itself observes, it will "be subject to regulation as a non-dominant carrier, including being subject to the rate caps" applicable to competitive LECs under the benchmarking requirement and the *8YY Access Charge Reform Order*,¹²⁶ and notice and opportunity for public comment under the transfer of control and discontinuance rules.¹²⁷ We

¹²⁴ 47 CFR § 63.71(a)(5), (f)(1); see *2016 Technology Transitions Order*, 31 FCC Rcd at 8300, para. 51.

¹²⁵ See, e.g., *Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks*, WC Docket No. 18-141 et al., Memorandum Opinion and Order, 34 FCC Rcd 2590, 2598-2602, paras. 16-24 (2019) (granting forbearance from the section 64.1903 separate affiliate obligations for independent rate-of-return LECs given "multiple statutory and regulatory safeguards to prevent the potential cost misallocation that th[is] . . . requirement . . . is intended to prevent"); *Petition of USTelecom for Forbearance Under 47 U.S.C. § 160(c) from Enforcement of Certain Legacy Telecommunications Regulations et al.*, WC Docket No. 12-61 et al., Memorandum Opinion and Order and Report and Order and Further Notice of Proposed Rulemaking and Second Further Notice of Proposed Rulemaking, 28 FCC Rcd 7627, 7675-76, paras. 107-08 (2013) (*2013 USTelecom Long Form Forbearance Order*) (granting forbearance from certain cost assignment rules where conditions imposed on the forbearance and other still-applicable rules and requirements were adequate to meet the Commission's needs); *Petition of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metropolitan Statistical Area*, WC Docket No. 04-223, Memorandum Opinion and Order, 20 FCC Rcd 19415, 19435-36, para. 43 (2005) (granting forbearance from discontinuance and transfer of control requirements applicable to dominant carriers "so long as Qwest is subject to the same treatment as non-dominant carriers" and stating that "we predicate this relief upon Qwest's compliance with the discontinuance rules that apply to non-dominant carriers"); *Petition for Forbearance of Iowa Telecommunications Services, Inc. d/b/a/ Iowa Telecom Pursuant to 47 U.S.C. § 160(c) from the Deadline for Price Cap Carriers to Elect Interstate Access Rates Based on the CALLS Order or a Forward Looking Cost Study*, CC Docket No. 01-331, Order, 17 FCC Rcd 24319, 24325-26, paras. 18-19 (2002) (granting forbearance from an interstate switched access rate regulation to allow rates to be reset at a forward-looking cost level in light of protections of the forward-looking cost approach and other, still-applicable legal requirements); *Petition for Forbearance from Application of the Communications Act of 1934, as Amended, to Previously Authorized Services*, Memorandum Opinion and Order, 12 FCC Rcd 8408, 8411-12, paras. 9-10 (Com. Car. Bur. 1997) (granting forbearance from section 203(c) of the Act for purposes of providing a refund in light of other, still-applicable legal requirements).

¹²⁶ Petition at 9; 47 CFR §§ 51.911(c), 61.26; *8YY Access Charge Reform Order*.

¹²⁷ See 47 CFR §§ 63.03, 63.71(a).

find forbearance from the dominant carrier provisions of sections 203¹²⁸ and 214¹²⁹ of the Act and associated dominant carrier regulations is not only appropriate but is required by section 10 of the Act,¹³⁰ particularly given that our non-dominant carrier rules will provide adequate safeguards to protect competition, and by extension, consumers.¹³¹

A. Forbearance from Section 203 and Related Dominant Carrier Regulatory Requirements

37. We find that forbearance from the pricing and tariff-related dominant carrier regulation of MIEAC's CEA service is warranted. The undisputed facts alleged in the Petition demonstrate that IXCs and MIEAC's subtending LECs now have access to a variety of routing options in MIEAC's service area in Minnesota.¹³² Non-dominant carrier regulation will adequately safeguard consumers from unjust or unreasonable rates, rendering dominant carrier regulation of MIEAC's CEA service unnecessary. Accordingly, MIEAC's Petition satisfies the section 10 criteria with respect to dominant carrier pricing and tariff-related rules.

38. *Section 10(a)(1)(Just and Reasonable Rates)*. We find that enforcement of our dominant carrier pricing and tariff-related regulation of MIEAC's CEA service offerings is unnecessary to ensure just and reasonable pricing of MIEAC's switched access rates.¹³³ To decide whether a regulation is necessary, the Commission considers "whether a current need exists for a rule," including whether there remains "a strong connection between what the agency has done by way of regulation and what the agency permissibly sought to achieve with the disputed regulation."¹³⁴ As discussed above, the

¹²⁸ We refer to the section 203 and the related regulations as "the pricing and tariff-related rules" throughout this section. Specifically, we forbear from applying part 61, subpart E, of the Commission's general rules concerning dominant carriers, notice requirements for tariff publications for dominant carriers, 47 CFR § 61.58, and reporting requirements of proposed changes in depreciation rates by dominant carriers, 47 CFR § 43.43, as these rules apply to MIEAC's CEA service.

¹²⁹ Specifically, we forbear from the Part 63 rules and regulations that govern the procedures for dominant carriers concerning transfers of control and discontinuance. See 47 CFR §§ 63.03, 63.71.

¹³⁰ 47 U.S.C. § 160(a) (mandating that "the Commission *shall* forbear from applying any regulation or any provision of this chapter to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, in any or some of its or their geographic markets" if the three listed conditions are met (emphasis added)).

¹³¹ See 47 CFR pt. 61, subpt. C ("General Rules for Nondominant Carriers"); *id.* §§ 63.03, 63.71.

¹³² See Petition at 4. Nor are we required to conduct any more specific test of marketplace competition in light of these findings. See, e.g., *Earthlink, Inc. v. FCC*, 462 F.3d 1, 8 (D.C. Cir. 2006); *USTelecom 2015 Forbearance Order*, 31 FCC Rcd at 6163-65, paras. 9-10 (finding that "persuasive evidence of competition" was "not inherently necessary" to grant forbearance in light of general findings with respect to "broad market trends and shifting demand" and related "claims about competition"); see also *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8294, para. 32 (declining a traditional analysis of market share, demand and supply elasticity, and related analytical tools).

¹³³ Section 10(a) requires that we find that enforcement of the applicable regulations is not necessary to ensure that rates are just and reasonable and are not unjustly or unreasonably discriminatory. To the extent our findings here protect against rates, charges, practices, and classifications that are not just and reasonable, it logically follows that it also protects against charges, practices, and classifications that are unjust and unreasonable. Thus, to whatever extent the enforcement of dominant carrier regulation on the provision of CEA service is not necessary to ensure just and reasonable rates, it necessarily follows that it is not necessary to prevent the opposite from occurring, that is, unjust and unreasonable rates. Further, no party has advanced a theory under which MIEAC could engage in unreasonable practices and classifications regarding its CEA service without also being able to charge unjust and unreasonable rates.

¹³⁴ *USTelecom 2015 Forbearance Order*, 31 FCC Rcd at 6162-63, para. 8 (quoting *Cellular Telecomms. & Internet Ass'n v. FCC*, 330 F.3d at 512).

Commission's regulatory reforms in recent years have constrained interstate switched access rates and bolstered marketplace competition, which helps safeguard just and reasonable rates. Additionally, the *USF/ICC Transformation Order*, which "undermine[d] the distinction between dominant and non-dominant providers of interstate switched access services" through its access charge reforms obviates the need to subject MIEAC to dominant carrier tariffing and pricing rules any longer.¹³⁵ MIEAC also explains that "reduced market demand" has left it "unable to raise prices above competitive levels,"¹³⁶ and there is no record evidence contradicting that claim. Indeed, MIEAC has not raised any of its interstate switched access rates since December 2011.¹³⁷ Furthermore, its interstate rate of return has been below the Commission's ceiling at "all times since 2012."¹³⁸

39. IXC's will also be safeguarded from unjust or unreasonable access rates by the procedural requirements set forth in sections 51.911 and 61.26 of our rules that will apply, or continue to apply, to MIEAC's non-dominant interstate switched access tariffs going forward.¹³⁹ These requirements permit non-dominant carriers to file tariffs on one day's notice,¹⁴⁰ but both dominant and non-dominant carriers must file rate reductions or increases on seven or fifteen days' notice, respectively, for their rates to be "deemed lawful."¹⁴¹ Any tariff filed on shorter notice is not presumed to be just and reasonable and may be subject to refund. In addition, section 61.26 of our rules prohibits non-dominant competitive LECs from filing any tariffs for interstate switched access services unless the tariffed rates for those services are no higher than the rates charged for similar services by the competing incumbent LEC. This provision adequately protects MIEAC's customers from unjust and unreasonable rates for its CEA service, given this forbearance from dominant carrier regulation is conditioned on compliance with non-dominant carrier rules, including, but not limited to, the CLEC Benchmark Rule.¹⁴² Finally, notwithstanding the safeguards of the non-dominant carrier regulations, if an IXC believes that MIEAC is charging unjust and unreasonable tariffed rates going forward, that IXC may file a complaint with the Commission pursuant to sections 201 and 208 of the Act. Collectively, these safeguards confirm that dominant carrier regulation of MIEAC's CEA service is no longer needed to ensure just and reasonable rates.

40. *Section 10(a)(2) (Consumer Protection)*. Similarly, we find that dominant carrier pricing and tariff-related regulation of MIEAC's CEA service is unnecessary for consumer protection. Our reasoning relies heavily on our findings above concerning the continued availability of competitive alternatives to MIEAC's CEA services and the reasonableness of MIEAC's current rates, which fall below the benchmark rates and result in a rate of return lower than the maximum allowable rate of return for dominant carriers. Although regulatory reforms and technological and marketplace changes provide important safeguards on their own, we find the competitive LEC benchmarking requirement to be,

¹³⁵ *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8288, para. 14.

¹³⁶ Petition at 2.

¹³⁷ Petition at 10.

¹³⁸ *Id.* at 10, Appx. B. MIEAC further notes that its interstate rate of return is projected to drop to 3.15% in 2022-23, "based on 2021 trends and the declining access lines of subtending LEC carriers." Petition at 10, Appx. B. MIEAC's rate of return for 2021 was 6.34%. Petition at 10, Appx. B.

¹³⁹ 47 CFR §§ 51.911(c), 61.26.

¹⁴⁰ 47 CFR § 61.58(f).

¹⁴¹ 47 U.S.C. § 204(a)(3); 47 CFR § 61.58(a)(2)(i) ("Local exchange carriers may file tariffs pursuant to the streamlined tariff filing provisions of section 204(a)(3) of the Communications Act. Such a tariff may be filed on 7 days' notice if it proposes only rate decreases. Any other tariff filed . . . shall be filed on 15 days' notice.").

¹⁴² 47 CFR § 61.26(c).

perhaps, the most effective consumer protection safeguard. MIEAC must keep its switched access rates at or below the competitive LEC benchmark and such rates are presumptively reasonable.¹⁴³

41. CenturyLink is the competing incumbent LEC for purposes of MIEAC's benchmark obligation,¹⁴⁴ and MIEAC's "rates for composite switched transport on 1+ originating traffic and all terminating transport are capped at those of the incumbent [CenturyLink] under the benchmark rule."¹⁴⁵ Importantly, MIEAC projects a 3.15% rate of return for 2023, substantially lower than the Commission's authorized rate of return of 9.75%, as well as below the level which the current competitive LEC benchmark would permit.¹⁴⁶ As a result, the Commission's allowable rate of return has no operative effect on MIEAC's rates. In fact, the Petition demonstrates that the competitive pressures discussed herein have helped reduce pricing below the maximum levels permitted by either our dominant-carrier or non-dominant-carrier regulations, and thus below the threshold needed to protect consumers.¹⁴⁷ Indeed, the competitive LEC benchmarking requirement "prevent[s] MIEAC from charging IXCs excessive rates for CEA" service or from inappropriate cost shifting, rendering dominant carrier rate regulation unnecessary.¹⁴⁸

42. Additionally, after we forbear from applying our "General [Tariff] Rules for Dominant Carriers" to MIEAC, our "General Rules for Nondominant Carriers" will apply to MIEAC as a condition of this forbearance.¹⁴⁹ These include procedural regulations applicable to non-dominant carrier tariffed services, which provide further consumer protections. As a non-dominant competitive LEC, MIEAC would be entitled to fifteen (15) days from the effective date of an incumbent tariff filing to adjust its benchmarked tariffed rates, if any such adjustments are needed.¹⁵⁰ Further, the Commission retains the authority to require MIEAC to file cost support and other data with respect to its interstate switched

¹⁴³ See *CLEC Access Charge Reform Order*, 16 FCC Rcd at 9948, para. 60 (discussing "the conclusive presumption of reasonableness that we will accord to tariffed [competitive LEC] rates at or below the benchmark" of the relevant incumbent LEC).

¹⁴⁴ See MIEAC Tariff Description and Justification at 10 (explaining that "since CenturyLink is the ILEC operating tandem switches in the rate centers where MIEAC's Toll Transfer Points are located," MIEAC anticipates that CenturyLink would be the competing ILEC for benchmark purposes).

¹⁴⁵ Petition at 11.

¹⁴⁶ See Petition at 10.

¹⁴⁷ When CenturyLink's tariffed interstate tandem switched access rates are applied to the actual mileage of MIEAC's network, MIEAC's resulting benchmark rate for terminating traffic would be \$0.006167 per terminating MOU, however MIEAC's combined tariffed rate for terminating tandem switching and transport is only \$0.0029. Petition at 11; MIEAC Tariff Description and Justification at 12, 14 (rate elements for terminating transport and terminating tandem switching); see also MIEAC Tariff Description and Justification at 11-12 ("MIEAC's rate elements and rate structure do not mirror CenturyLink's tariff, so MIEAC conducted a comparison of its total interstate originating 1+ and terminating access minutes for 2021 using the CenturyLink rates versus revenues using the existing MIEAC rates.").

¹⁴⁸ See Petition at 11. By the same reasoning, our other pricing-related dominant carrier rules and regulations are equally unnecessary with regard to MIEAC's CEA service. Specifically, the requirement for MIEAC to report changes in depreciation rates, see 47 CFR § 43.43, is no more necessary than the "requirement to perform biennial cost studies and rate-of-return calculations." Petition at 11. These regulations have no relevance or applicability if a carrier is no longer subject to cost-based rate regulations.

¹⁴⁹ See 47 CFR § pt. 61, subpt. C ("General Rules for Nondominant Carriers") (including, for example, § 61.19 ("Detariffing of international and interstate, domestic interexchange services") and § 61.26 ("Tariffing of competitive interstate switched exchange access services")).

¹⁵⁰ See 47 CFR § 61.26(c).

access tariffs, as the Commission deems necessary for regulatory purposes, including to ensure just and reasonable rates, terms, and conditions.¹⁵¹

43. *Section 10(a)(3)(Public Interest)*. Finally, we find that forbearance from dominant carrier pricing and tariff-related rules and regulations as applied to MIEAC's CEA service will serve the public interest.¹⁵² We agree with MIEAC that there is no remaining benefit to maintaining dominant carrier requirements where we have found that dominant carrier regulation is no longer needed to ensure just and reasonable rates or to otherwise protect consumers.¹⁵³ We find that here, in the wake of regulatory reform and technological change, the application of our dominant carrier tariffing rules and requirements to MIEAC's CEA service "no longer bears any connection" to the basis for their original adoption.¹⁵⁴ MIEAC asserts that the costs of dominant carrier regulatory compliance are "significant and burdensome," and there is no record evidence to the contrary.¹⁵⁵ The Commission has based prior public interest findings on the benefits of reduced costs to carriers from eliminating unnecessary regulation.¹⁵⁶ We agree with MIEAC that there are "benefits to be realized from increased efficiency,"¹⁵⁷ and that "eliminating rules that increase a carrier's operating costs, in the absence of any benefit to maintaining such requirements, is in the public interest."¹⁵⁸

44. In making our public interest determination, we must also "consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions"¹⁵⁹ No carrier or other interested stakeholder has argued that competitive harm would occur in the absence of dominant carrier pricing and tariff-related regulation of MIEAC's CEA service. We therefore find it in the public interest to forbear from unnecessary dominant carrier pricing and tariff-related rules and to reduce overall costs by reducing MIEAC's regulatory obligations.¹⁶⁰

B. Forbearance from Section 214(a) Dominant Carrier Regulations

45. We find that forbearance relief is also warranted from the dominant carrier provisions associated with section 214(a) with respect to MIEAC's CEA service. As discussed above, MIEAC is subject to effective competition in its provision of interstate switched access service. Like the pricing and

¹⁵¹ See, e.g., 47 U.S.C. §§ 154(i), 208, 201, 202, 220, 254(k), 403.

¹⁵² See 47 U.S.C. § 160(a)(3).

¹⁵³ See Petition at 2.

¹⁵⁴ *Id.* at 9, 14.

¹⁵⁵ Petition at 14 ("MIEAC's costs to comply with the Commission's dominant carrier pricing and tariff filing rules are significant and burdensome").

¹⁵⁶ See, e.g., *Petition of AT&T Inc. for Forbearance under 47 U.S.C. § 160 from Enforcement of Certain of the Commission's Cost Assignment Rules et al.*, WC Docket No. 07-21 et al., Memorandum Opinion and Order, 23 FCC Rcd 7302, 7324, para. 40 (2008) (finding that granting forbearance of the Cost Assignment Rules "will likely result in substantial cost savings and enable AT&T to compete more effectively").

¹⁵⁷ See Petition at 12.

¹⁵⁸ *Id.* at 14.

¹⁵⁹ 47 U.S.C. § 160(b) ("In making the determination under subsection (a)(3), the Commission shall consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of telecommunications services.").

¹⁶⁰ See, e.g., *USTelecom 2015 Forbearance Order*, 31 FCC Rcd at 6178, para. 36 (finding that forbearance is in the public interest partly because it would reduce costs); see also Petition at 14 (asserting same). We need not find that cost savings would be reinvested to find they benefit the public. See *USTelecom 2015 Forbearance Order*, 31 FCC Rcd at 6178, para. 36; *2013 USTelecom Long Form Forbearance Order*, 28 FCC Rcd at 7650-51, para. 41 (finding that the cost reduction from elimination of unnecessary rules is in the public interest because it, in turn, generally benefits consumers through lower rates and greater competition).

tariff-related rules that we address above, this finding of effective competition justifies forbearance from dominant carrier section 214(a)-related requirements too—specifically, section 63.03 to the extent it limits dominant carrier eligibility for presumptive streamlined treatment for transfers of control applications and section 63.71(a) to the extent it provides almost double the timeframe within which domestic dominant carriers subject to streamlined treatment must wait to discontinue an interstate service after filing a discontinuance application.¹⁶¹ Our regulations governing transfers of control and service discontinuances for non-dominant carriers will apply to MIEAC as a condition of this forbearance, however, serving as regulatory backstops that will help ensure that the public interest is safeguarded and fulfilling the Commission’s statutory obligations under section 214(a). Forbearance here also is consistent with the Commission’s rationale for the dominant and non-dominant distinction in the first instance—i.e., “non-dominant carriers are unable to sustain the kind of business practices Congress was concerned about in adopting Section 214(a).”¹⁶² Further, even when MIEAC is regulated as a non-dominant carrier, the Commission will retain “broad flexibility to administer the Section 214(a) process in a manner that serves the public interest,” and, should circumstances require, it can always remove any MIEAC section 214(a) transfer of control or discontinuance applications from streamlined treatment if it finds that they merit a longer or more detailed review.¹⁶³ As explained below, MIEAC’s Petition satisfies the section 10 criteria with respect to dominant carrier section 214(a) transfer of control and discontinuance application rules.

1. Transfers of Control

46. *Section 10(a)(1) (Just and Reasonable Rates)*. We conclude that enforcement of the dominant carrier requirements applicable to transfer of control applications is not necessary to ensure just and reasonable rates for MIEAC’s CEA service. As discussed above with respect to section 203 and its related regulations, MIEAC faces reduced demand for its CEA service, and its interstate rate of return has consistently remained below the Commission’s ceiling since 2012.¹⁶⁴ Further, the benchmarking requirement will adequately protect MIEAC’s customers and ultimately consumers from unjust and unreasonable rates in the absence of dominant carrier status.¹⁶⁵ To the extent MIEAC enters into any section 214(a) transaction in the future for which it must seek Commission authorization, the Commission’s non-dominant carrier processing rules for such an application continue to enable the Commission to scrutinize the effect of such transaction on consumer rates and competition absent dominant carrier treatment.¹⁶⁶

47. *Section 10(a)(2)(Consumer Protection)*. We find that the evolving marketplace and the statutory and regulatory safeguards that work to ensure just and reasonable rates for MIEAC’s switched access service also ensure that consumers will not be harmed by forbearance from enforcement of the dominant carrier treatment applicable to MIEAC’s transfer of control applications. While the relief we grant today expands the range of circumstances in which such applications seeking Commission authorization for transfers of control involving MIEAC would be eligible for streamlined treatment, it does not eliminate Commission oversight of such applications nor the opportunity for interested

¹⁶¹ 47 CFR §§ 63.03, 63.71; *see generally* 2016 Technology Transitions DR and Order, 31 FCC Rcd at 8300-02, paras. 49-54.

¹⁶² 1980 Section 214 Streamlining Order, 85 F.C.C.2d at 39, para. 114 (dominant carrier treatment was “to serve primarily as a protection against excessive expenditures on plant by rate-base regulated common carriers and against service discontinuance by carriers in areas where customers had no reasonable alternative service available”).

¹⁶³ 2016 Technology Transitions DR and Order, 31 FCC Rcd at 8300, para. 51.

¹⁶⁴ *See* Petition at 10, Appx. B.

¹⁶⁵ *See* 47 CFR §§ 51.911(c), 61.26; *USF/ICC Transformation Order*, 26 FCC Rcd at 17937, para. 807 (providing that competitive LECs may not tariff interstate switched access rates above the tariffed rate for such services offered by the incumbent LEC serving the area).

¹⁶⁶ 47 CFR § 63.03(c); *see also* 2016 Technology Transitions DR and Order, 31 FCC Rcd at 8301, paras. 54.

stakeholders, including IXCs or consumers, to have notice and an opportunity for comment. Importantly, the Commission retains broad discretion when conducting merger and other transaction reviews to remove those applications from streamlined processing where circumstances and the public interest warrant.¹⁶⁷ We therefore preserve sufficient Commission oversight of any transfers of control involving MIEAC and any potential impact on consumer welfare.

48. *Section 10(a)(3)(Public Interest)*. Finally, we find that forbearing from the dominant carrier requirements applicable to transfer of control applications involving MIEAC's CEA service is in the public interest. Alleviating MIEAC of an unnecessary regulatory requirement serves the public interest by making the transfer of control process more efficient and predictable for a competitive service provider, thus allowing MIEAC to move more quickly toward operational efficiencies.¹⁶⁸ Further, the public interest remains safeguarded by the section 214(a) transfer of control application criteria, which enables the Commission to obtain any information it deems necessary to satisfy its public interest obligations in acting on such transactions, especially with regard to promoting competitive market conditions.¹⁶⁹

2. Service Discontinuances

49. *Section 10(a)(1)(Just and Reasonable Rates)*. For the same reasons stated above with respect to applications for transfers of control, we conclude that enforcement of the dominant carrier requirements applicable to discontinuance applications is not necessary to ensure just and reasonable rates for MIEAC's CEA service. Customer demand for MIEAC's CEA service continues to decline, and MIEAC has demonstrated that alternative service options are available to its CEA service in the LATAs where it seeks forbearance.¹⁷⁰ Additionally, to the extent our non-dominant discontinuance rules apply to any MIEAC switched access service discontinuance, interested or potential stakeholders having any concerns about the rates for alternative available services will have notice and the opportunity to comment on such discontinuance application.¹⁷¹

50. *Section 10(a)(2)(Consumer Protection)*. We find that the evolving marketplace for switched access services and the statutory and regulatory safeguards that work to ensure just and reasonable rates also ensure that consumers will not be harmed by forbearance from enforcement of the dominant carrier requirements applicable to section 214 discontinuance applications. The only impact of forbearing from the dominant carrier requirements of the section 214 discontinuance application process with respect to MIEAC's CEA service offerings is that any applications MIEAC files seeking Commission authorization to discontinue that service will be eligible for the shorter 31-day timeline for streamlined approval for discontinuance applications from non-dominant carriers.¹⁷² Preserving the 60-day timeline for review of MIEAC's applications to discontinue CEA service is not necessary to protect

¹⁶⁷ 47 CFR § 63.03(c); *see also* 2016 *Technology Transitions DR and Order*, 31 FCC Rcd at 8301, paras. 54.

¹⁶⁸ *Cf. 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, 10450, para. 134 (2018) (noting that eliminating outdated and unnecessary regulation serves the public interest by generally reducing "carriers' costs and, in turn, benefit[ing] consumers through lower rates and/or more vibrant competitive offerings"); 2013 *USTelecom Long Form Forbearance Order*, 28 FCC Rcd at 7651, para. 41 (stating that "eliminating unnecessary regulation will generally reduce providers' costs and, in turn, benefit consumers through lower rates and/or more vibrant competitive offerings and promotes competition by providing a more level playing field because other providers of similar services are not subject to the rules").

¹⁶⁹ *See* 47 CFR § 63.03; *Verizon-TracFone Order*, 36 FCC Rcd at 16999, para. 21.

¹⁷⁰ Petition at 2, 13.

¹⁷¹ 47 CFR § 63.71(a)(5)(i).

¹⁷² 47 CFR § 63.71(a)(5)(i), (f)(1).

consumers given the availability of alternative service offerings MIEAC recounts in its Petition.¹⁷³ And as with transfers of control, the Commission's discontinuance rules grant the Commission discretion to remove an application from streamlined processing when unresolved objections are received and the public interest demands a more searching review¹⁷⁴ such as instances where no adequate replacement service is available or the affordability of the available replacement services is called into question.¹⁷⁵

51. *Section 10(a)(3)(Public Interest)*. Finally, we find that forbearing from the dominant carrier requirements applicable to discontinuance applications is in the public interest. We agree with MIEAC that there is no "benefit to maintaining outdated and burdensome dominant carrier requirements that no longer bear any connection to the original basis for their adoption."¹⁷⁶ Providing for quicker approval of any required application from MIEAC to discontinue its CEA service would help reduce costs associated with continuing to offer and provide this service for which there is increasingly declining demand, leaving MIEAC free to use those resources sooner for newer, more popular services. Further, the public interest remains safeguarded by the general section 214(a) discontinuance application criteria,¹⁷⁷ and the continued ability of the Commission to remove any discontinuance application from streamlined automatic grant should the public interest require a more scrutinizing review.¹⁷⁸

V. ORDERING CLAUSES

52. ACCORDINGLY, IT IS ORDERED that, pursuant to sections 1-4, 10, 201, 202, 203, and 214 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, 201, 202, 203, and 214, and section 1.2 of the Commission's rules, 47 CFR § 1.2, this Declaratory Ruling and Memorandum Opinion and Order IS ADOPTED.

53. IT IS FURTHER ORDERED that, pursuant to sections 1-4 and 10 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 160, as an alternative basis for granting relief, the Petition for Forbearance filed by the Minnesota Independent Equal Access Corporation IS GRANTED, subject to MIEAC's compliance with the Commission's non-dominant carrier rules implementing sections 203 and 214(a) of the Act, 47 U.S.C. §§ 203, 214(a), as set forth herein.

54. IT IS FURTHER ORDERED that pursuant to section 1.103(a) of the Commission's rules, 47 CFR § 1.103(a), this Declaratory Ruling and Memorandum Opinion and Order SHALL BE EFFECTIVE upon release. Pursuant to sections 1.4 and 1.13 of the Commission's rules, 47 CFR §§ 1.4,

¹⁷³ See Petition at 3.

¹⁷⁴ See 47 CFR § 63.71(a)(5), (f)(1); *see also 2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8300, para. 51.

¹⁷⁵ As noted above, these constitute two of the criteria considered by the Commission in evaluating discontinuance applications. *See, e.g., 2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8304, para. 62 & n.167; *Western Union Division, Commercial Telegrapher's Union, A.F. of L. v. United States*, 87 F. Supp. 324, 335 (D.D.C. 1949), *aff'd*, 388 U.S. 864 (1949).

¹⁷⁶ See Petition at 2.

¹⁷⁷ See 47 CFR § 63.71; *2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8304, para. 62 & n.167.

¹⁷⁸ See 47 CFR § 63.71(a)(5), (f)(1); *see also 2016 Technology Transitions DR and Order*, 31 FCC Rcd at 8300, para. 51.

1.13, the time for appeal SHALL RUN from the release date of this Declaratory Ruling and Memorandum Opinion and Order.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary