

applicable executive orders and statutory provisions as follows:

1. Executive Order 18266: Regulatory Planning and Review and Executive Order 13563: Improving Regulations and Regulatory Review

The Office of Management and Budget has exempted this rule from its review under Executive Orders 12866 (58 FR 51735, October 4, 1993) and Executive Order 13563 (76 FR 3821 January 21, 2011).

2. Paperwork Reduction Act

This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

3. Regulatory Flexibility Act

This rule authorizes state requirements for the purpose of RCRA 3006 and imposes no additional requirements beyond those required by state law. Accordingly, I certify that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.).

4. Unfunded Mandates Reform Act

Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

5. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) does not apply to this rule because it will not have federalism implications (i.e., substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government).

6. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) does not apply to this rule because it will not have tribal implications (i.e., substantial direct effects on one or more Indian tribes, or on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes).

7. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

This rule is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant as defined in Executive Order 12866 and because the EPA does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

8. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not a significant regulatory action as defined in Executive Order 12866.

9. National Technology Transfer Advancement Act

EPA approves state programs as long as they meet criteria required by RCRA, so it would be inconsistent with applicable law for EPA, in its review of a state program, to require the use of any particular voluntary consensus standard in place of another standard that meets the requirements of RCRA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply to this rule.

10. Executive Order 12988

As required by Section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct.

11. Executive Order 12630: Evaluation of Risk and Avoidance of Unanticipated Takings

EPA has complied with Executive Order 12630 (53 FR 8859, March 18, 1988) by examining the takings implications of the rule in accordance with the Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings issued under the executive order.

12. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low Income Populations

Because this rule proposes authorization of pre-existing state rules and imposes no additional requirements beyond those imposed by state law and there are no anticipated significant adverse human health or environmental

effects, the rule is not subject to Executive Order 12898 (59 FR 7629, February 16, 1994).

List of Subjects in 40 CFR Part 271

Environmental Protection; Administrative Practice and Procedure; Confidential business information; Hazardous materials transportation; Hazardous waste; Indians—lands; Intergovernmental relations; Penalties; Reporting, and Recordkeeping requirements.

Authority: This action is issued under the authority of Sections 2002(a), 3006 and 7004(b) of the Solid Waste Disposal Act, as amended, 42 U.S.C. 6912(a), 6926, 6974(b).

Dated: September 19, 2012.

Susan Hedman,

Regional Administrator, Region 5.

[FR Doc. 2012-24779 Filed 10-5-12; 8:45 am]

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 20

[WT Docket No. 12-269; FCC 12-119]

Policies Regarding Mobile Spectrum Holdings

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission seeks comment on whether to retain or modify the current case-by-case analysis used to evaluate mobile spectrum holdings in the context of transactions and auctions, as well as whether to adopt bright-line limits advocated by some providers and public interest groups. In addition, the Commission seeks comment on updating the spectrum bands that should be included in any evaluation of mobile spectrum holdings and whether to make distinctions between different bands. Further, the Commission seeks comment on the appropriate product and geographic markets and other implementation issues such as attribution rules, remedies, and possible transition issues.

DATES: Interested parties may file comments on or before November 23, 2012, and reply comments on or before December 24, 2012.

ADDRESSES: You may submit comments, identified by WT Docket No. 12-269, by any of the following methods:

■ **Federal eRulemaking Portal:** <http://www.regulations.gov>. Follow the instructions for submitting comments.

■ *Federal Communications Commission's Web site:* <http://www.fcc.gov/cgb/ecfs/>. Follow the instructions for submitting comments.

■ *Mail:* Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although the Commission continues to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

■ *People with Disabilities:* Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by email: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT:

Christina Clearwater, Wireless Telecommunications Bureau, Spectrum and Competition Policy Division, (202) 418-1893, email at Christina.Clearwater@fcc.gov, or Nicole McGinnis, Wireless Telecommunications Bureau, Spectrum and Competition Policy Division, (202) 418-2877, email at Nicole.McGinnis@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking (NPRM) in WT Docket No. 12-269, adopted September 28, 2012, and released September 28, 2012. The full text of the NPRM is available for inspection and copying during business hours in the FCC Reference Information Center, Portals II, 445 12th Street SW., Room CY-A257, Washington, DC 20554. It may also be purchased from the Commission's duplicating contractor at Portals II, 445 12th Street SW., Room CY-B402, Washington, DC 20554; the contractor's Web site, <http://www.bcpweb.com>; or by calling (800) 378-3160, facsimile (202) 488-5563, or email FCC@BCPIWEB.com. Copies of the NPRM also may be obtained via the Commission's Electronic Comment Filing System (ECFS) by entering the docket number WT Docket No. 12-269. Additionally, the complete item is available on the Federal Communications Commission's Web site at <http://www.fcc.gov>.

I. Introduction

1. With this Notice of Proposed Rulemaking, the Commission initiates a

review of its policies governing mobile spectrum holdings in order to ensure that they fulfill its statutory objectives given changes in technology, spectrum availability, and the marketplace since the Commission's last comprehensive review more than a decade ago. In the last few years, large, medium, and small providers as well as public interest groups have raised concerns about the current approach, and sought review. In addition, the Commission adopts, in a separate proceeding, a Notice of Proposed Rulemaking in GN Docket No. 12-268 soliciting comment on the framework for an incentive auction of the broadcast television spectrum, which will represent a major addition of new spectrum available for mobile broadband. The Commission initiates this proceeding to provide rules of the road that are clear and predictable, and that promote the competition needed to ensure a vibrant, world-leading, innovation-based mobile economy.

2. Since the Commission's last comprehensive review of these issues, the number of spectrum bands used for mobile wireless services has expanded; new, innovative service offerings have been rolled out; increasingly sophisticated devices have been introduced into the marketplace; and consumers have adopted these devices to access a wide array of bandwidth-intensive applications. In light of the surge in consumer demand for mobile broadband services that require greater bandwidth, spectrum—a key input in the provision of mobile wireless services—is becoming increasingly critical for all providers. In this proceeding, the Commission seeks comment on retaining or modifying the current case-by-case analysis used to evaluate mobile spectrum holdings in the context of transactions and auctions, as well as on bright-line limits advocated by some providers and public interest groups. In addition, the Commission seeks comment on updating the spectrum bands that should be included in any evaluation of mobile spectrum holdings and whether it should make distinctions between different bands. The Commission also takes a fresh look at geographic market analysis and other implementation issues such as attribution rules, remedies, and possible transition issues. This proceeding affords the Commission the opportunity to receive valuable input from a broad range of active participants in the mobile broadband industry, as well as trade associations and consumer groups, that have requested that its policies be revised to keep pace with market changes.

II. Background

A. Statutory Framework

3. Section 309(j)(3)(B) of the Communications Act provides that, in designing systems of competitive bidding, the Commission shall “promot[e] economic opportunity and competition and ensur[e] that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses.”¹ Additionally, under the Communications Act, when reviewing a proposed license assignment or transfer application, the Commission must determine whether the applicant has demonstrated that the proposed assignment or transfer of control of licenses will serve the public interest, convenience, and necessity.² Moreover, Congress has established the promotion of competition as a fundamental goal of the nation's mobile wireless policy.³ More recently, Congress enacted Section 6404 of the *Spectrum Act*, which modifies Section 309(j) to prohibit the Commission from preventing an otherwise qualified entity from participating in an auction, but reaffirms the Commission's authority “to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition.”⁴

B. The Commission's Policies Regarding Mobile Spectrum Holdings

4. Access to spectrum is a precondition to the provision of mobile wireless services. Ensuring the availability of sufficient spectrum is critical for promoting the competition that drives innovation and investment. Over time, the Commission has increased the amount of spectrum available for the provision of mobile wireless services, making this additional spectrum available in different frequency bands, bandwidths, and licensing areas. As discussed below, in order to address its statutory mandate, the Commission has implemented a variety of mobile spectrum aggregation policies and rules, including the cellular cross interest rule, the Personal Communications Service (PCS) cross-ownership rule, the Commercial Mobile Radio Services (CMRS) spectrum cap, and the current case-by-case spectrum aggregation analysis.

5. *Cellular Services.* In 1981, in establishing the rules for the licensing of

¹ 47 U.S.C. 309(j)(3)(B).

² 47 U.S.C. 310(d).

³ See 47 U.S.C. 332(a)(3), (c)(1)(C).

⁴ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112-96, Section 6404 (*Spectrum Act*).

cellular service, the Commission decided to award two cellular services licenses per market—a separate allocation of 20 megahertz for incumbent wireline carriers and an allocation of 20 megahertz for other applicants.⁵ With two licensees per market, the Commission reasoned it would be more difficult for a single entity to dominate the cellular market nationwide.⁶ The Commission adopted the cellular cross-interest rule in 1991 “to guarantee the competitive nature of the cellular industry and to foster the development of competing systems.”⁷ The rule was adopted when only two cellular licensees provided mobile voice services in each geographic area of the U.S.⁸ At that time, a party with a controlling interest in one of the cellular licensees was prohibited from having more than a five percent direct or indirect ownership interest in the other licensee in the same cellular geographic service area (CGSA).⁹ In the *Second Biennial Review Order* in 2001, the Commission eliminated the cellular cross-interest rule in Metropolitan Statistical Areas (MSAs) after finding numerous competitive choices for consumers in urban markets.¹⁰ Later, in 2004, the Commission eliminated the cellular cross-interest rule in favor of a case-by-case review for all markets, finding that the continued application of the cellular cross-interest rule in Rural Service Areas (RSAs) could impede the development of new services in rural and underserved areas.¹¹

⁵ Inquiry Into the Use of the Bands 825–845 MHz and 870–890 MHz for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission’s Rules Relative to Cellular Communications Systems, CC Docket No. 79–318, *Report and Order*, 86 FCC 2d 469, 488–92 paras. 38–43 (1981) (*Cellular Report and Order*).

⁶ See *Cellular Report and Order*, 86 FCC 2d at 491 para. 43.

⁷ Amendment of Part 22 of the Commission’s Rules to Provide for Filing and Processing of Applications for Unserved Areas in the Cellular Service and to Modify Other Cellular Rules, CC Docket No. 90–6, *First Report and Order and Memorandum Opinion and Order on Reconsideration*, 6 FCC Rcd 6185, 6628 para. 104 (1991) (*Cellular First Report and Order*).

⁸ See *Cellular First Report and Order*, 6 FCC Rcd at 6228 para. 103.

⁹ See *Cellular First Report and Order*, 6 FCC Rcd at 6228 paras. 104–105.

¹⁰ 2000 Biennial Regulatory Review—Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01–14, *Report and Order*, 16 FCC Rcd 22668, 22671 para. 7, 22707 para. 84 (2001) (*Second Biennial Review Order*).

¹¹ See *Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services*, WT Docket No. 02–381, *Report and Order and Further Notice of Proposed Rule Making*, 19 FCC Rcd 19078, 19113–115 paras. 63–67 (2004) (*Rural Report and Order*).

6. *Cellular/PCS Cross-Ownership Rule*. In 1993, in establishing the initial PCS service rules, the Commission imposed service-specific limitations on the aggregation of broadband PCS spectrum and on cellular/PCS cross-ownership.¹² The Commission limited broadband PCS licensees to 40 megahertz of total spectrum allocated to broadband PCS,¹³ and limited cellular licensees to 10 megahertz of broadband PCS spectrum in their cellular service areas.¹⁴ In 1996, the Commission eliminated the service-specific limitations on the aggregation of broadband PCS spectrum and on cellular/PCS cross-ownership, and decided to rely solely on the 45 megahertz CMRS spectrum cap, implemented in 1994, “to ensure that multiple service providers would be able to obtain broadband PCS spectrum and thereby facilitate the development of competitive markets for wireless services.”¹⁵

7. *CMRS Spectrum Cap*. In 1994, the Commission implemented a spectrum cap on Cellular, broadband PCS, and Specialized Mobile Radio (SMR) spectrum to promote diversity and competition in mobile services,¹⁶ “recognizing the possibility that mobile service licensees might exert undue market power or inhibit market entry by other service providers if permitted to aggregate large amounts of spectrum.”¹⁷ The Commission found that a spectrum cap provided a “minimally intrusive means” to ensure that the mobile communications marketplace remained competitive and preserved incentives

¹² See Amendment of the Commission’s Rules to Establish New Personal Communications Services, *Second Report and Order*, 8 FCC Rcd 7700, 7728 para. 61, 7745 para. 106 (1993) (*PCS Second Report and Order*).

¹³ See *PCS Second Report and Order*, 8 FCC Rcd at 7728 para. 61.

¹⁴ See *PCS Second Report and Order*, 8 FCC Rcd at 7745 para. 106. See also Amendment of the Commission’s Rules to Establish New Personal Communications Services, *Memorandum Opinion and Order*, 9 FCC Rcd 4957, 4984 paras. 66–67 (1994).

¹⁵ See *Second Biennial Review Order*, 16 FCC Rcd at 22673 para. 13 (citing Amendment of Parts 20 and 24 of the Commission’s Rules—Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission’s Cellular/PCS Cross-Ownership Rule, WT Docket No. 96–59, *Report and Order*, 11 FCC Rcd 7824, 7869 para. 94 (1996), *aff’d*, 12 FCC Rcd 14031 (1997), *aff’d sub nom. BellSouth Corp. v. FCC*, 162 F.3d 1215 (D.C. Cir. 1999)).

¹⁶ Implementation of Sections 3(n) and 332 of the Communications Act—Regulatory Treatment of Mobile Services, GN Docket No. 93–252, *Third Report and Order*, 9 FCC Rcd 7988, 8100 para. 238, 8109 para. 263 (1994) (*CMRS Third Report and Order*).

¹⁷ *CMRS Third Report and Order*, 9 FCC Rcd at 8100 para. 239.

for efficiency and innovation.¹⁸ Under former Section 20.6 of the Commission’s rules, no licensee in the broadband PCS, Cellular, or SMR services regulated as CMRS could have an attributable interest in more than 45 megahertz of licensed spectrum (broadband PCS, cellular, and SMR spectrum regulated as CMRS) that has significant overlap in any geographic area.¹⁹ A few years later, the Commission increased the cap to 55 megahertz in the RSAs.²⁰ Subsequently, in the *Second Biennial Review Order*, the Commission eliminated the spectrum cap effective January 1, 2003,²¹ in favor of case-by-case review of mobile spectrum holdings.²²

8. *Case-by-Case Analysis*. Since 2003, the Commission has examined the competitive effects of proposed wireless transactions involving the transfer, assignment, or lease of Commission licenses by employing a case-by-case review. In 2008, the Commission determined that it would apply the case-by-case analysis to spectrum acquired via auction.²³ Beginning in 2004, the Commission has used a two-part screen to help identify markets where the acquisition of spectrum provides particular reason for further competitive analysis.²⁴ The Commission does not,

¹⁸ See *CMRS Third Report and Order*, 9 FCC Rcd at 7999 para. 16.

¹⁹ See 1998 Biennial Regulatory Review—Spectrum Aggregation Limits for Wireless Telecommunications Carriers, WT Docket No. 98–205, *Report and Order*, 15 FCC Rcd 9219, 9224 para. 8 (1999) (*First Biennial Review Order*) (quoting former 47 CFR 20.6(a)). A “significant overlap” of a PSC licensed service area, CGSA, and SMR service area occurred when at least ten percent of the population of the PCS licensed service area was within the cellular geographic service area and/or SMR service area. See *id.* (citing former Section 20.6(c)). The spectrum cap sunset on January 1, 2003. 47 CFR 20.6(f).

²⁰ See *First Biennial Review Order*, 15 FCC Rcd at 9254–57 paras. 80–84.

²¹ See 47 CFR 20.6(f); *Second Biennial Review Order*, 16 FCC Rcd at 22669 para. 1, 22696 para. 55. The Commission also raised the spectrum cap to 55 MHz in all markets during the sunset period. See 47 CFR 20.6(a); *Second Biennial Review Order*, 16 FCC Rcd at 22671 para. 6, 22693 para. 47.

²² See *Second Biennial Review Order*, 16 FCC Rcd at 22670–71 para. 6.

²³ See Union Telephone Company, Cellco Partnership d/b/a Verizon Wireless, Applications for 700 MHz Band Licenses, Auction No. 73, *Memorandum Opinion and Order*, 23 FCC Rcd 16787, 16791 para. 9 (2008) (*Verizon Wireless-Union Tel. Order*).

²⁴ See, e.g., Applications of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC and Cox TMI, LLC for Consent to Assign AWS–1 Licenses, et al., WT Docket No. 12–4, *Memorandum Opinion and Order and Declaratory Ruling*, FCC 12–95 (rel. Aug. 23, 2012) at para. 48 (*Verizon Wireless-SpectrumCo Order*); Application of AT&T Inc. and Qualcomm Incorporated For Consent to Assign Licenses and Authorizations, WT Docket No. 11–18, *Order*, 26 FCC Rcd 17589, 17602 para. 31 (2011) (*AT&T-Qualcomm Order*); Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer

however, limit its consideration of potential competitive harms in proposed transactions solely to markets identified by its initial screen.²⁵ The first part of the screen considers changes in market concentration as a result of the transaction and is based on the size of the post-transaction Herfindahl-Hirschman Index (HHI)²⁶ and the change in the HHI.²⁷ The second part examines the amount of spectrum that is suitable and available on a market-by-market basis for the provision of mobile telephony/broadband service.²⁸ For those markets highlighted by one or both steps in the analysis, the Commission routinely conducts detailed, market-by-market reviews to determine whether the transaction would result in an increased likelihood or ability in those markets for the combined entity to behave in an anticompetitive manner.²⁹ The case-by-case analysis considers variables that are important in predicting the incentives and ability of service providers to successfully reduce competition on price or non-price terms, and transaction-specific public interest benefits that may mitigate or outweigh any harms arising from the transaction.³⁰

Control of Licenses and Authorizations, WT Docket No. 04-70, *Memorandum Opinion and Order*, 19 FCC Rcd 21522, 21552 para. 58 (2004) (*Cingular-AT&T Wireless Order*).

²⁵ See, e.g., *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 48; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17609-10 paras. 49-50; Applications of AT&T Inc. and Centennial Communications Corp. For Consent to Transfer Control of Licenses, Authorizations, and Spectrum Leasing Arrangements, WT Docket No. 08-246, *Memorandum Opinion and Order*, 24 FCC Rcd 13915, 13946-48 paras. 71-74, 13952 para. 85 (2009) (*AT&T-Centennial Order*); Applications for the Assignment of License from Denali PCS, L.L.C. to Alaska Digital, L.L.C. and the Transfer of Control of Interests in Alaska Digital, L.L.C. to General Communication, Inc., WT Docket 06-114, *Memorandum Opinion and Order*, 21 FCC Rcd 14863, 14898 para. 85 (2006).

²⁶ The Herfindahl-Hirschman Index (HHI), which is calculated by summing the squares of all provider subscriber market shares in any given market, is a commonly used measure of market concentration in competition analysis.

²⁷ The HHI screen identifies for further case-by-case market analysis those markets in which, post-transaction, the HHI would be greater than 2800 and the change in the HHI would be 100 or greater, or the change in the HHI would be 250 or greater, regardless of the level of the HHI. The HHI screen has remained the same since the Commission adopted the case-by-case review process.

²⁸ See, e.g., *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 59; see also *infra* discussion on determining spectrum that is suitable and available for the relevant product market at para. 26.

²⁹ This Notice of Proposed Rulemaking does not address the part of our review that considers changes in market concentration based on HHI, but considers only our review of mobile spectrum holdings.

³⁰ See Applications of Cellco Partnership d/b/a Verizon Wireless and Atlantis Holdings LLC For

C. Criticisms of Current Case-by-Case Analysis Approach

9. In its consideration of transactions, the Commission generally has reviewed and, when necessary, adjusted its case-by-case analysis to reflect changing industry and consumer needs. In recent years, large and small wireless providers, as well as trade associations and public interest groups, have requested that the Commission undertake an examination of its current policies regarding mobile spectrum holdings. For example, Verizon Wireless has contended that the Commission should reconsider the particular spectrum to be examined in a competitive analysis and has urged that the Commission include additional spectrum bands. AT&T has expressed concerns that the current case-by case evaluation is not clear and predictable and the spectrum screen changes from one transaction to the next. AT&T has argued that there is “more regulatory uncertainty on top of an industry that is a foundation for a lot of today’s innovation, making it difficult for all of us to allocate and commit capital,” and that “we don’t know how much spectrum we’re allowed to hold.” Sprint Nextel has argued that the current method of evaluating spectrum holdings values spectrum equally, “regardless of whether it lies within more valuable ‘beachfront’ bands or in higher-frequency bands of limited commercial use.” T-Mobile has argued that to further the goal of a robust marketplace, the Commission should modify its case-by-case evaluation to recognize the difference in value of spectrum above and below 1 GHz.

10. The Rural Cellular Association (RCA) has urged the Commission to “take a fresh approach to its competitive analysis” instead of “recycl[ing] the outdated spectrum screen.” RTG has urged the Commission to conduct a more in-depth competitive review of large-scale transactions, in part by adopting a lower spectrum screen that will trigger a heightened level of review and allow consideration of certain factors other than the amount of spectrum held by licensees, in order to determine whether further spectrum concentration will threaten market competition. Both RTG and Leap Wireless have contended that the case-

Consent to Transfer Control of Licenses, Authorizations, and Spectrum Manager and *De Facto* Transfer Leasing Arrangements and Petition for Declaratory Ruling that the Transaction is Consistent with Section 310(b)(4) of the Communications Act, WT Docket No. 08-95, *Memorandum Opinion and Order and Declaratory Ruling*, 23 FCC Rcd 17444, 17460 para. 26 (2008) (“*Verizon Wireless-ALLTEL Order*”).

by-case approach creates uncertainty and/or suggest that an alternative approach would provide greater clarity.³¹ Free Press has urged the use of a spectrum screen based on spectrum value, contending that the current spectrum screen, a “simple old analytical tool,” is insufficient to reveal changes in market power. Similarly, Public Knowledge has argued that the assumptions underlying the method used to calculate the spectrum screen have proven to be unreliable, and that the Commission should consider the long-term implications of spectrum holdings among carriers.

D. The Current Wireless Landscape

11. During the past decade, the use of wireless services has surged as the number of spectrum bands used to provide mobile wireless services has expanded, an array of increasingly sophisticated devices has been introduced in the marketplace, and new service offerings have been rolled out. As discussed below, some of these changes could have implications for its policies regarding mobile spectrum holdings. The industry is undergoing a transformation, from an industry providing predominantly voice services to one that is increasingly focused on providing data services, particularly mobile broadband services. This transition has led to the need of competitors for more spectrum to meet the increasing demand for mobile broadband, which consumes greater amounts of bandwidth. In order to ensure that its policies continue to serve the public interest and keep pace with changing technologies and consumer needs, the Commission must consider these and other industry changes.

12. Facilitating access by all providers to valuable spectrum resources they need to serve their customers is essential given the current mobile wireless landscape. The rapid adoption of smartphones, as well as tablet computers and the wide-spread use of mobile applications, combined with deployment of high-speed 3G and 4G technologies, is driving more intensive use of mobile networks. A single smartphone can generate as much traffic as 35 basic-feature phones; a tablet as

³¹ See, e.g., RTG Reply Comments, RM No. 11498, at 1-3 (urging the Commission to consider instituting a spectrum cap); Leap Comments, RM No. 11498, at 8-9. (advocating bright-line rules). Because this Notice of Proposed Rulemaking addresses policies regarding mobile spectrum holdings from a broad perspective, we decline to initiate the more narrowly-tailored requests made in RTG’s petition for rulemaking. See RTG Petition for Rulemaking, RM No. 11498, at 5 (proposing that the FCC impose, on a county level, a 110 MHz aggregation limit below 2.3 GHz).

much traffic as 121 basic-feature phones; and a single laptop can generate as much traffic as 498 basic-feature phones.³² The adoption of smartphones alone increased at a 50 percent annual growth rate in 2011, from 27 percent of U.S. mobile subscribers in December 2010 to nearly 42 percent in December 2011.³³ Moreover, global mobile data traffic is anticipated to grow eighteen-fold between 2011 and 2016.³⁴ Indeed, a study by the Council of Economic Advisors (CEA) found that “the spectrum currently allocated to wireless is not sufficient to handle the projected growth in demand, even with technological improvements allowing for more efficient use of existing spectrum and significant investment in new facilities.”³⁵

13. Given the limited spectrum resources, the Commission must consider how its policies regarding mobile spectrum holdings can accommodate the increasing demand for spectrum by all providers. While there are numerous ways in which wireless service providers can increase network capacity to satisfy increasing demand, acquiring more spectrum has been the least costly way for all providers to address capacity constraints. In light of these circumstances, ensuring that the Commission’s policies regarding mobile spectrum holdings promote access to spectrum is critical.³⁶

³² See Cisco White Paper, Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2011–2016, at 7, February 14, 2012, available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf (last visited Sept. 6, 2012).

³³ comScore 2012 Mobile Future in Focus (2012), available at http://www.comscore.com/Press_Events/Presentations_Whitepapers/2012/2012_Mobile_Future_in_Focus (last visited Sept. 6, 2012). For consumers ages 25–34, eight of ten recent new phone purchases were smartphones. See Survey: New U.S. Smartphone Growth by Age and Income, NIELSENWIRE, Feb. 20, 2012, available at http://blog.nielsen.com/nielsenwire/online_mobile/survey-new-u-s-smartphone-growth-by-age-and-income/ (last visited Sept. 6, 2012).

³⁴ See Cisco White Paper, Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2011–2016, Executive Summary, February 14, 2012, available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.html (last visited Sept. 6, 2012).

³⁵ Council of Economic Advisors, The Economic Benefits of New Spectrum for Wireless Broadband at 5 (Feb. 2012), available at http://www.whitehouse.gov/sites/default/files/cea_spectrum_report_2-21-2012.pdf (last visited Sept. 6, 2012).

³⁶ We note that Congress, as well as the Commission and NTIA, has taken innovative steps to bring additional spectrum suitable for mobile broadband to the commercial marketplace. For instance, Congress recently passed the *Spectrum Act*, which authorizes the auction and repurposing of television broadband spectrum for the provision of wireless services. See Middle Class Tax Relief

and Job Creation Act of 2012, Pub. L. No. 112–96, Subtitle D—Spectrum Auction Authority, Section 6401 *et seq.* As another example, the Commission has opened a proceeding to increase the supply of spectrum for mobile broadband by providing for flexible use of 40 megahertz of spectrum assigned to the Mobile Satellite Service (MSS) in the 2 GHz Band. See, e.g., Service Rules for Advanced Wireless Services in the 2000–2020 MHz and 2180–2200 MHz Bands, WT Docket No. 12–70, *Notice of Proposed Rulemaking and Notice of Inquiry*, 27 FCC Rcd 3561 (2012) (*AWS-4 NPRM*). NTIA undertook a “fast-track” review of several bands that could be reallocated to mobile use. See U.S. Department of Commerce, *An Assessment of the Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675–1710 MHz, 1755–1780 MHz, 3500–3650 MHz, and 4200–4220 MHz, 4380–4400 MHz Bands* (Oct. 2010), available at http://www.ntia.doc.gov/reports/2010/FastTrackEvaluation_11152010.pdf (NTIA *Fast Track Report*) (last visited Sept. 6, 2012). Additionally, on August 13, 2012, the Commission granted T-Mobile’s application for experimental special temporary authority to begin testing possible use of the 1755 MHz to 1780 MHz band on a shared basis for providing commercial mobile broadband services. See *FCC Experimental Special Temporary Authorization*, Call Sign No. WF9XQW, File No. 0373-EX-ST-2012, available at <https://apps.fcc.gov/els/GetAtt.html?id=128554> (last visited Sept. 6, 2012).

14. Since the sunset of the spectrum cap, there also have been other changes in the wireless industry that warrant reexamination of the Commission’s policies. In 2003, when the Commission eliminated the spectrum cap, there were six mobile telephone operators that analysts then described as nationwide: AT&T Wireless, Sprint PCS, Verizon Wireless, T-Mobile, Cingular Wireless (“Cingular”), and Nextel.³⁷ Today, as a result of mergers and other transactions, there are four nationwide providers: Verizon Wireless, AT&T, T-Mobile, and Sprint Nextel.³⁸ As of December 2003, the top six facilities-based nationwide providers served approximately 78 percent of total mobile wireless subscribers in the country.³⁹ By December of 2009, the top four facilities-based nationwide providers had increased their combined market share to 88 percent.⁴⁰ Moreover, since 2003, a number of regional and rural

and Job Creation Act of 2012, Pub. L. No. 112–96, Subtitle D—Spectrum Auction Authority, Section 6401 *et seq.* As another example, the Commission has opened a proceeding to increase the supply of spectrum for mobile broadband by providing for flexible use of 40 megahertz of spectrum assigned to the Mobile Satellite Service (MSS) in the 2 GHz Band. See, e.g., Service Rules for Advanced Wireless Services in the 2000–2020 MHz and 2180–2200 MHz Bands, WT Docket No. 12–70, *Notice of Proposed Rulemaking and Notice of Inquiry*, 27 FCC Rcd 3561 (2012) (*AWS-4 NPRM*). NTIA undertook a “fast-track” review of several bands that could be reallocated to mobile use. See U.S. Department of Commerce, *An Assessment of the Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675–1710 MHz, 1755–1780 MHz, 3500–3650 MHz, and 4200–4220 MHz, 4380–4400 MHz Bands* (Oct. 2010), available at http://www.ntia.doc.gov/reports/2010/FastTrackEvaluation_11152010.pdf (NTIA *Fast Track Report*) (last visited Sept. 6, 2012). Additionally, on August 13, 2012, the Commission granted T-Mobile’s application for experimental special temporary authority to begin testing possible use of the 1755 MHz to 1780 MHz band on a shared basis for providing commercial mobile broadband services. See *FCC Experimental Special Temporary Authorization*, Call Sign No. WF9XQW, File No. 0373-EX-ST-2012, available at <https://apps.fcc.gov/els/GetAtt.html?id=128554> (last visited Sept. 6, 2012).

³⁷ See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, WT Docket No. 04–111, *Ninth Report*, 19 FCC Rcd 20597, 20613 para. 36 (2004) (*Ninth Annual CMRS Competition Report*).

³⁸ See, e.g., *AT&T-Qualcomm Order*, 26 FCC Rcd at 17604 para. 35; *AT&T-Centennial Order*, 24 FCC Rcd 13915; *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd 17444; Applications of Nextel Communications, Inc. and Sprint Corporation For Consent To Transfer Control of Licenses and Authorizations, WT Docket No. 05–63, *Memorandum Opinion and Order*, 20 FCC Rcd. 13967 (2005) (*Sprint-Nextel Order*).

³⁹ See *Ninth Annual CMRS Competition Report*, 19 FCC Rcd at para. 174, A–8, Table 4.

⁴⁰ See *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9760, Table 14, and John C. Hodulik *et al.*, *US Wireless 411 Report for 4Q2010*, UBS Investment Research, UBS, at 13, Table 8.

facilities-based providers have exited the marketplace through mergers and acquisitions, including Dobson Communications, SunCom Wireless, Rural Cellular Corporation, ALLTEL, and Centennial Communications.⁴¹ In addition, there have been significant spectrum-only transactions, such as the transaction at the end of 2011 in which AT&T acquired Qualcomm’s nationwide Lower 700 MHz downlink spectrum⁴² and the more recent transaction in which Verizon Wireless acquired AWS–1 licenses from SpectrumCo, LLC, and Cox TMI.⁴³

III. Discussion

15. In the sections below, the Commission seeks comment on whether and how to revise its policies and rules regarding mobile spectrum holdings. In particular, the Commission asks that comments address how to ensure that its policies and rules afford all interested parties greater certainty, transparency and predictability to make investment and transactional decisions, while also promoting the competition needed to ensure a vibrant, increasingly mobile economy driven by innovation. First, the Commission discusses general approaches to address competitive harm resulting from foreclosing access to spectrum, including a case-by-case analysis, bright-line limits, and other methodologies, and how they might apply not only to secondary market transactions but also to initial spectrum licensing after auctions. The Commission then takes a fresh look at implementation issues under various approaches, such as which spectrum should be considered, relevant product and geographic markets, and issues relating to attribution rules, appropriate remedies and transition concerns.

16. The Commission also seeks comment on the costs and benefits of any proposals or proposed changes to policies and rules. The Commission asks that commenters take into account only those costs and benefits that directly result from the implementation of the particular approach or rule that could be adopted. Further, to the extent possible, commenters should provide specific data and information, such as actual or estimated dollar figures for each specific cost or benefit addressed, including a description of how the data or information was calculated or obtained, and any supporting

⁴¹ See *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9722, Table 10.

⁴² See generally *AT&T-Qualcomm Order*, 26 FCC Rcd 17589.

⁴³ See generally *Verizon Wireless-SpectrumCo Order*, FCC 12–95.

documentation or other evidentiary support.⁴⁴

A. General Approaches to Mobile Spectrum Holdings

1. Case-by-Case Analysis

17. The Commission seeks comment on its current policies regarding mobile spectrum holdings. In general, the Commission currently examines the impact of spectrum aggregation on competition, innovation, and the efficient use of spectrum on a case-by-case basis, after establishing the relevant product and geographic markets in each case.⁴⁵ The Commission has applied this approach to wireless transactions, using an initial spectrum screen, since 2004,⁴⁶ and to mobile spectrum acquired through competitive bidding since 2008.⁴⁷ In reviewing a proposed wireless transaction, the Commission evaluates the current spectrum holdings of the acquiring firm that are “suitable” and “available” in the near term for the provision of mobile telephony/broadband services.⁴⁸ The current screen identifies local markets where an entity would acquire more than approximately one-third of the total spectrum suitable and available for the provision of mobile telephony/broadband services.⁴⁹ The Commission does not, however, limit its consideration of potential competitive harms in proposed transactions solely to markets identified by its initial screen.⁵⁰ The Commission balances a number of

factors in its analysis, considering the totality of the circumstances in each market.⁵¹ The Commission also has considered whether harms in numerous local markets may result in nationwide harms.⁵²

18. The Commission recognizes that a case-by-case approach affords flexibility to consider different circumstances, permits a variety of factors to be considered, and allows it to better tailor any remedies to the specific harm and circumstances, particularly in its review of wireless transactions. In addition to recognizing factors unique to each licensee, a case-by-case approach allows the Commission to consider the changing needs of the mobile wireless marketplace more generally. On the other hand, a case-by-case approach is time- and resource-intensive, and has been criticized for creating uncertainty as to whether a particular transaction will be approved.⁵³ One commenter, however, has suggested generally that a case-by-case approach can provide sufficiently clear guidance to enable providers to make their transactional and investment decisions.⁵⁴ The Commission seeks comment on the costs and benefits of a case-by-case analysis to consumers, wireless service providers, and others, as well as the overall effectiveness of such an approach in achieving its public policy objectives. Should the Commission change its current case-by-case analysis process? For instance, should the Commission continue to use a screen that includes a measure of spectrum holdings? Could the Commission take measures to make the process more transparent, predictable, or better tailored to promote its goals? For example, should the Commission consider a regular review of its policies and guidelines to keep pace with changing marketplace conditions? Should the Commission adopt guidelines setting forth the factors that will be considered during any review of a licensee’s mobile spectrum holdings or delegate authority to the Wireless Telecommunications Bureau to do so?

19. Finally, the Commission seeks comment on the specific costs and benefits of applying a case-by-case approach to initial licenses acquired through competitive bidding. Does a case-by-case analysis afford auction

participants sufficient certainty to determine whether they would be allowed to hold a given license post-auction? Does the lack of a bright-line spectrum limit deter auction participation? Further, does the lack of a bright-line rule provide an opportunity for licensees to bid on spectrum, regardless of whether they believe they ultimately would be allowed to hold the licenses, in order to raise bidding costs or foreclose other competitors from acquiring certain licenses? A case-by-case approach could result in an inefficient auction process if the Commission ultimately denies the winning bidder’s application to hold a license. In addition to imposing costs on competitors, the expenditure of public or private resources and resulting delay in awarding the spectrum to another bidder impose costs on the public. The Commission seeks comment on whether there are additional measures it would need to adopt to promote an effective and efficient auction process while discouraging the potential for anticompetitive behavior. If the Commission continues its case-by-case analysis for secondary market transactions, should the Commission adopt another approach for initial licensing rather than a case-by-case analysis, such as band-specific limits adopted prior to an auction?

2. Bright-Line Limits

20. As discussed above, the Commission employed a CMRS spectrum cap to prevent excessive spectrum concentration, but eliminated that cap in 2003 and then started using the current case-by-case approach. Before employing a CMRS spectrum cap, the Commission used other bright-line limits on spectrum holdings.⁵⁵ There have been many changes in the mobile wireless industry since the Commission first started using a case-by-case approach to assess spectrum concentration, as noted above, and the Commission believes that these changes warrant reevaluating that approach.⁵⁶ The Commission seeks comment on whether adoption of bright-line limits would serve the public interest now, and also on the specific costs and benefits of adopting such an approach. Bright-line limits could offer providers greater certainty, clarity, and predictability regarding which licenses they could acquire. Bright-line limits might encourage auction participation

⁴⁴ During the pendency of this proceeding, the Commission will continue to apply its current case-by-case approach to evaluate mobile spectrum holdings during our consideration of secondary market transactions and initial spectrum licensing after auctions.

⁴⁵ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17602 paras. 31–32.

⁴⁶ See *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21568–69 paras. 107–12. See also *AT&T-Qualcomm Order*, 26 FCC Rcd at 17602 para. 31; *AT&T Inc. and Cellco Partnership d/b/a Verizon Wireless Seek FCC Consent To Assign or Transfer Control of Licenses and Authorizations and Modify a Spectrum Leasing Arrangement*, WT Docket No. 09–104, *Memorandum Opinion and Order*, 25 FCC Rcd 8704, 8720–21 para. 32 (2010) (*AT&T-Verizon Wireless Order*).

⁴⁷ See *Verizon Wireless-Union Tel. Order*, 23 FCC Rcd at 16791–92 para. 9.

⁴⁸ See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 59; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17605–06 para. 38; *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8723–24 para. 39; *AT&T-Centennial Order*, 24 FCC Rcd at 13934 para. 43. See *infra* discussion of determining spectrum suitable and available for the relevant product market at para. 26.

⁴⁹ See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 59; *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17473 para. 54.

⁵⁰ See, e.g., *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 48; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17609–10 paras. 49–50; *AT&T-Centennial Order*, 24 FCC Rcd 13915, 13946–48 paras. 71–74, 13952 para. 85.

⁵¹ See, e.g., *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17487–88 para. 91.

⁵² See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 76.

⁵³ See, e.g., “Stephenson: Verizon/Cable Deals Could Offer Guidance From FCC,” TR Daily (June 12, 2012).

⁵⁴ See Union Tel. Co. Comments, RM No. 11498, at i.

⁵⁵ See *PCS Second Report and Order*, 8 FCC Rcd 7700, 7728 para. 61, 7745 para. 106.

⁵⁶ See *Second Biennial Review Order*, 16 FCC Rcd at 22694 para. 50. See *supra* section II.D.: The Current Wireless Landscape.

or more secondary market transactions by affording parties greater certainty and predictability to develop their business plans and obtain necessary financing. On the other hand, a bright-line approach would limit the Commission's flexibility to consider individualized circumstances and to respond swiftly to the changing needs of the mobile wireless industry and consumers. If the Commission were to adopt bright-line limits, how could the Commission do so in a manner that preserves its flexibility?

21. The Commission seeks comment on related implementation issues with respect to applying bright-line limits to initial licenses acquired through competitive bidding as well as to licenses acquired through the secondary market. The Commission further seeks comment on whether it should consider applying a band-specific spectrum limit in the context of any band-specific service rules that are adopted prior to an auction. Such an approach would be consistent with the Commission's practice of seeking comment on spectrum aggregation issues with respect to particular spectrum bands prior to an auction, would afford auction participants greater certainty, and would allow the Commission to re-evaluate its spectrum aggregation policies in the context of newly available spectrum bands and changing industry and consumer needs.⁵⁷ Further, adopting band-specific spectrum limits generally applicable to all licensees would be consistent with Section 6404 of the *Spectrum Act*, which recognizes the Commission's authority "to adopt and enforce rules of general applicability, including rules concerning spectrum aggregation that promote competition."⁵⁸ For instance, should the Commission consider adopting limits on the amount of spectrum that entities could acquire in the context of spectrum auctions mandated by the *Spectrum Act*? The Commission seeks comment on these approaches.

3. Alternative Approaches

22. The Commission seeks comment on any alternative approaches to evaluate the competitive effect of spectrum aggregation. Are there other mechanisms for evaluating spectrum aggregation that would better serve the public interest and meet the Commission's statutory objectives? In this regard, the Commission seeks

⁵⁷ See, e.g., Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band, WT Docket No. 07–195, *Notice of Proposed Rulemaking*, 22 FCC Rcd 17035, 17079–80 paras. 101–03 (2007).

⁵⁸ *Spectrum Act* at Section 6404.

comment on whether there are different ways in which it could conduct a case-by-case analysis, such as adopting a case-by-case analysis that does not include an initial spectrum screen. Another approach would be to combine some elements of a bright-line limit with a case-by-case analysis. One hybrid approach would be to adopt a bright-line threshold that, if exceeded, would trigger a heightened burden on the applicants to demonstrate that approval of the proposed transaction would be in the public interest. The Commission seeks comment on these approaches and how they could be implemented, and on any other alternatives.

B. Implementation Issues

23. Certain threshold issues would need to be considered if the Commission were to adopt any new or modified approach to reviewing mobile spectrum holdings, including establishing initial definitions such as the relevant product and geographic markets, assessing the spectrum bands that should be included, and deciding how to treat different spectrum bands. Finally, the Commission discusses attribution and remedies, and explores whether there are other factors for it to consider in this area.

1. Relevant Product Market

24. In order to assess competition in a given market, the Commission has initiated its analysis of a proposed transaction by establishing definitions for the relevant product market. In recent wireless transactions, the Commission has determined that the relevant product market is a combined "mobile telephony/broadband services" product market,⁵⁹ comprised of mobile voice and data services, including mobile voice and data services provided over advanced broadband wireless networks (mobile broadband services).⁶⁰ In *AT&T-Qualcomm* and *Verizon Wireless-SpectrumCo*, while the

⁵⁹ See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 53; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17603 para. 33; *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8721 para. 35; *AT&T-Centennial Order*, 24 FCC Rcd at 13932 para. 37. The Commission has previously determined that there are separate relevant product markets for interconnected mobile voice and data services, and also for residential and enterprise services, but found it reasonable to analyze all of these services under a combined mobile telephony/broadband services product market. See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17603 para. 33; *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8721 para. 35; *AT&T-Centennial Order*, 24 FCC Rcd at 13932 para. 37.

⁶⁰ See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 53; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17602–03 paras. 32–33; *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8721 para. 35; *AT&T-Centennial Order*, 24 FCC Rcd at 13932 para. 37.

Commission evaluated the transaction using a combined mobile telephony/broadband market, it recognized the growing importance of mobile broadband services and focused its analysis to an increasing degree on mobile broadband services.⁶¹

25. The Commission seeks comment on whether the current approach to the product market definition continues to be appropriate. Given the transition to data-centric services and the development of more spectrum-efficient technologies that will transmit voice as data,⁶² the Commission seeks comment on whether the relevant product market has changed and, if so, whether these changes warrant any modifications to the Commission's product market definition. For example, should the Commission modify the relevant product market definition to reflect differentiated service offerings, devices, and contract features?⁶³ The Commission also seeks comment on whether it should separately define smaller product markets that may be nested within a larger defined product market and, if so, how it would analyze such smaller defined product markets vis-à-vis the larger defined product market. What are the costs and benefits if the Commission were to modify its product market definition versus keeping the current combined "mobile telephony/broadband services" product market or focusing the analysis on mobile broadband services? Commenters also should discuss how their particular approach for the relevant product market definition is supported by economic or antitrust theory.

2. Suitable and Available Spectrum

26. In order to assess whether any particular spectrum acquisition exceeds a certain threshold of available spectrum, the Commission first must determine what spectrum it will include in its overall evaluation. Currently, the Commission includes spectrum in its case-by-case analysis if it determines that it is suitable and available for the

⁶¹ See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at paras. 53, 70; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17602–03 para. 32, 17605 para. 38.

⁶² One example of changing technology is the development of "Voice Over LTE" (or "VoLTE"). See "MetroPCS Unveils First U.S. Voice Over LTE Service, Phone," by Chloe Albanesius, PCMag.com, Aug. 8, 2012, available at <http://www.pcmag.com/article2/0,2817,2408216,00.asp> (last visited Sept. 6, 2012).

⁶³ See American Antitrust Institute Comments, WT Docket No. 11–65, at 6; Sprint Petition To Deny, WT Docket No. 11–65, at 11–15; Free Press Petition to Deny, WT Docket No. 11–65, at 9–12; Greenlining Institute Petition To Deny, WT Docket No. 11–65, at 4, 12–13.

relevant product market.⁶⁴ “Suitability” is determined by whether the spectrum is capable of supporting mobile service given its physical properties and the state of equipment technology, whether the spectrum is licensed with a mobile allocation and corresponding service rules, and whether the spectrum is committed to another use that effectively precludes its use for the relevant mobile service.⁶⁵ Particular spectrum is considered to be “available” if it is fairly certain that it will meet the criteria for suitable spectrum in the near term.⁶⁶ In recent applications of the spectrum screen, the Commission has included cellular, PCS, SMR, and 700 MHz spectrum, as well as AWS-1 and certain BRS spectrum, where available.⁶⁷

27. Should the Commission continue to consider spectrum based on its suitability and availability for a given product market? Are there other factors that the Commission should consider in determining whether particular spectrum bands are suitable and available for the relevant product market? The Commission seeks comment on any measures that might increase the transparency with which it determines what spectrum it would include in a case-by-case spectrum analysis or in implementing bright-line limits. For example, should the Commission adopt a regular process to add or remove existing or newly allocated spectrum bands for purposes of assessing spectrum concentration? The Commission also seeks comment on the costs and benefits of implementing a new process for identifying the spectrum to include in a case-by-case spectrum analysis. The Commission seeks comment on the legal, economic, and engineering justifications to support the existing or any modified criteria for determining the suitability and availability of spectrum.

28. While mobile wireless operators primarily have used licenses associated with three different frequency bands to provide mobile voice and, in most cases, mobile data services—cellular (in the 850 MHz band), SMR (in the 800/900 MHz band), and broadband PCS (in the

1.9 GHz band)—providers are now incorporating additional spectrum bands into their networks, such as BRS and EBS in the 2.5 GHz band, AWS in the 1.7/2.1 GHz band, and the 700 MHz band. These bands enable the provision of additional competitive mobile voice and data services.⁶⁸ In several recent transactions, some parties have suggested modifying the Commission’s spectrum analysis to include additional spectrum bands, such as the BRS spectrum that is not currently included in the screen, EBS, or MSS.⁶⁹ Others also have argued in favor of including WCS spectrum, citing certain changes the Commission made to the WCS technical service rules that enable licensees to provide mobile broadband service in a portion of the WCS band.⁷⁰ Aside from general factors the Commission should consider in determining whether spectrum is suitable and available, the Commission also seeks comment on the application of these factors to particular spectrum bands. Which spectrum bands should be included in the Commission’s spectrum analysis? In particular, at what point should television broadcast spectrum that is repurposed in the incentive auction be included in the analysis?⁷¹ Commenters also should discuss at what point other spectrum bands, such as WCS and the frequencies the Commission is required to auction under the *Spectrum Act*,⁷² should be included in the analysis. Are there any band-specific factors the Commission may want to consider in determining suitability and availability of a particular band? Further, the Commission seeks comment on whether there are any economic or technical justifications that would warrant modifying the criteria used to determine the suitability and availability of spectrum. For example, should the Commission consider factors such as channel size, potential interference

⁶⁸ See *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9822–23 para. 269.

⁶⁹ See, e.g., *AT&T-Qualcomm Order*, 26 FCC Rcd at 17606–07 para. 40; *AT&T-Qualcomm Application, Public Interest Statement*, WT Docket No. 11–18, at 22–27.

⁷⁰ See, e.g., *RCA Petition To Deny*, WT Docket No. 11–18, at 10–11. See also Amendment of Part 27 of the Commission’s Rules To Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, *Report and Order*, 25 FCC Rcd 11710, 11711 para. 1 (2010) (*WCS Report and Order*), recon. pending.

⁷¹ See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12–268, *Notice of Proposed Rulemaking*, FCC 12–118 (adopted Sept. 28, 2012).

⁷² See *Spectrum Act* at Section 6401 (identifying the following bands 1915–1920 MHz, 1995–2000 MHz, and 2155–2180 MHz).

issues, or conditions that may develop after the allocation and licensing of spectrum (such as technological developments that affect the timely deployment of services)? If the Commission were to modify the criteria it uses to determine the suitability and availability of spectrum, how could it do so in a manner that promotes clarity and predictability?⁷³

29. Further, the Commission seeks comment on whether it should remove any spectrum bands from its consideration. For instance, the Commission recently indicated that, as the provision of mobile broadband services becomes increasingly central to wireless transactions, it may be appropriate to reduce the amount of suitable SMR spectrum from 26.5 megahertz to 14 megahertz to reflect the portion of SMR spectrum through which mobile broadband service can be provided.⁷⁴ The Commission seeks comment on how much SMR spectrum is suitable and available in the near term for mobile broadband services.⁷⁵ The Commission notes that the Upper 700 MHz D Block is to be reallocated for public safety service rather than commercial service. The Commission seeks comment, however, on whether and how, pursuant to Section 6101 of the *Spectrum Act*,⁷⁶ this spectrum and the existing public safety broadband spectrum may be relevant to its spectrum analysis in the event such spectrum is leased to a commercial licensee pursuant to this section of the *Spectrum Act*.⁷⁷ The Commission seeks comment on these considerations, and whether there are any additional spectrum bands that should be reduced or removed from its analysis.

3. Relevant Geographic Market Area

30. Defining the relevant geographic market is important in accurately assessing the competitive effects that may result from a potential transaction. This can be a difficult process in some instances, as the licensed areas of different spectrum bands, and even within the same band, may not be the same. Under the case-by-case analysis, the Commission has found that relevant geographic markets are local, larger than

⁷³ We also seek comment below on whether such factors should be reflected in any valuation approach. See *infra* at para. 38.

⁷⁴ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17607 para. 42.

⁷⁵ See Improving Spectrum Efficiency Through Flexible Channel Spacing and Bandwidth Utilization for Economic Area-Based 800 MHz Specialized Mobile Radio Licensees, WT Docket No. 12–64, *Report and Order*, 27 FCC Rcd 6489 (2012).

⁷⁶ See *Spectrum Act* at Section 6101.

⁷⁷ See *Spectrum Act* at Section 6101.

⁶⁴ See *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 59; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17605–06 para. 38; *AT&T-Centennial Order*, 24 FCC Rcd at 13935 para. 43.

⁶⁵ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17605–06 para. 38; *AT&T-Centennial Order*, 24 FCC Rcd at 13935 para. 43; *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17473 para. 53.

⁶⁶ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17606 para. 38.

⁶⁷ See, e.g., *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 59; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17605–06 para. 39; *AT&T-Centennial Order*, 24 FCC Rcd at 13935 para. 43.

counties, may encompass multiple counties, and, depending on the consumer's location, may even include parts of more than one state.⁷⁸ The Commission has primarily used Cellular Market Areas (CMAs)⁷⁹ as the local geographic markets in which to analyze the potential competitive harms arising from spectrum concentration as a result of the transaction.⁸⁰

31. In the recent *Verizon Wireless-SpectrumCo Order*, the Commission found that it was appropriate to analyze the local markets in which consumers purchase mobile wireless services where they live, work, and shop.⁸¹ The Commission also considered the potential nationwide competitive impacts of the transaction because the proposed acquisition would be in the majority of markets across the country and harms that may occur at the local level collectively could have nationwide competitive effects.⁸² The Commission noted that although there are local geographic markets for retail wireless services, prices and service plan offerings do not vary for most providers across most geographic markets.⁸³ Moreover, the four nationwide providers, as well as other providers of retail mobile telephony/broadband services, set the same rates for a given plan everywhere and advertise nationally.⁸⁴ Also, mobile broadband equipment and devices are developed

and deployed primarily on a national scale.⁸⁵

32. In light of the above, the Commission seeks comment on the appropriate geographic market definition to use when evaluating a licensee's mobile spectrum holdings. If the Commission were to adopt bright-line limits or continue to use a case-by-case analysis, what should be the applicable geographic market? Should the Commission adopt a two-tiered approach under which there is a spectrum threshold at the local level and a separate threshold that applies on a nationwide basis?⁸⁶ Is there another approach that would allow the Commission to consider both local and national competitive effects in establishing a spectrum threshold for bright-line limits or case-by-case analysis? Commenters should discuss any other issues with respect to geographic market definition that might be relevant to adopting a bright-line limit, case-by-case analysis, or any other approach that would promote competition and prevent excessive concentration of spectrum in any given area.

4. Applicable Spectrum Threshold

33. As part of the current case-by-case review process, the Commission examines the amount of spectrum suitable and available on a market-by-market basis for the provision of mobile telephony/broadband service. The Commission uses a spectrum screen, which is approximately one-third of the total spectrum suitable and available for mobile telephony/broadband services, to help identify markets where the acquisition of spectrum provides particular reason for further competitive analysis. The Commission conducts the further competitive analysis to determine whether the transaction would result in an increased likelihood or ability in those markets for the combined entity to behave in an anticompetitive manner.⁸⁷

34. The spectrum threshold can affect the number of competitors in a geographic market. The one-third threshold currently used in the Commission's case-by-case review envisions at least three competitors having access to approximately the same amount of suitable spectrum for providing mobile wireless broadband

service. Whether the Commission uses the threshold in a case-by-case review or as a bright-line limit, is one-third the appropriate threshold level, or should the threshold be higher in rural areas? Given that the licensed geographic areas of different spectrum bands, and even within the same band, may not be the same, commenters should address any issue that may arise in calculating mobile spectrum holdings at the local level. Finally, for transactions that involve a large geographic area with national characteristics, the Commission seeks comment on how to calculate mobile spectrum holdings at the national level.⁸⁸ For example, should the Commission use an approach similar to the one used in *AT&T-Qualcomm*, in which the Commission calculated providers' spectrum holdings on a "MHz*POPs" basis?⁸⁹ Would it be better to use population-weighted average megahertz, which the Commission reported in the *Verizon Wireless-SpectrumCo Order*,⁹⁰ and/or a nationwide-weighted average market share? Are there are other methods to compute spectrum holdings at the national level?

5. Making Distinctions Among Bands

35. The Commission also seeks comment on whether it should adopt an approach to evaluating a licensee's mobile spectrum holdings that accounts for differing characteristics of spectrum bands. The Commission has recognized that spectrum resources in different frequency bands can have disparate technical characteristics that affect how the bands can be used to deliver mobile services.⁹¹ In particular, the Commission has noted that the more favorable propagation characteristics of lower frequency spectrum, *i.e.*, spectrum below 1 GHz, allow for better

⁷⁸ See, e.g., *AT&T-Qualcomm Order*, 26 FCC Rcd at 17604 para. 34; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21562-63 paras. 89-90; 21561 para. 82 (citing the Supreme Court's definition of a relevant geographic market in *Tampa Electric Co. v. Nashville Coal Co.*, 365 U.S. 320, 327 (1961) as "the area of effective competition to which purchasers can practicably turn for services"). The Commission based its findings on the "hypothetical monopolist test." Under the DOJ/FTC Horizontal Merger Guidelines, the hypothetical monopolist test ensures that markets are not defined too narrowly, but it does not lead to a single relevant market. The Guidelines also provide that "the Agencies may evaluate a merger in any relevant market satisfying the test, guided by the overarching principle that the purpose of defining the market and measuring market shares is to illuminate the evaluation of competitive effects." See DOJ/FTC Horizontal Merger Guidelines Section 4.1.1.

⁷⁹ CMAs are standard geographic areas used for the licensing of cellular systems and are comprised of Metropolitan Statistical Areas (MSAs) and Rural Service Areas (RSAs). See 47 CFR 22.909; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17603 para. 32 n.96.

⁸⁰ See, e.g., *AT&T-Qualcomm Order*, 26 FCC Rcd at 17604 para. 34.

⁸¹ See *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 58.

⁸² See *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 58; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17603-05 paras. 32, 34.

⁸³ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17604 para. 35.

⁸⁴ See *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 57; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17604 para. 35.

⁸⁵ See *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 57; *AT&T-Qualcomm Order*, 26 FCC Rcd at 17605 para. 35.

⁸⁶ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17603 para. 32 (finding that it was appropriate to analyze competitive effects on both a national and local level).

⁸⁷ See Section III.A.1, *supra*.

⁸⁸ See also the discussion regarding evaluating competitive effects at the national level in Section III.B.3, *supra*.

⁸⁹ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17608 para. 45. The Commission noted that it calculated MHz*POPs by multiplying the megahertz of spectrum held in an area by the population in that area. See *id.* n.128.

⁹⁰ *Verizon Wireless-SpectrumCo Order*, FCC 12-95, at para. 77. Population-weighted average megahertz is calculated by adding the provider's MHz*POPs and dividing by the U.S. population. See *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9830 para. 288, 9831, Table 28.

⁹¹ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17609-11 para. 49. See also *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9832-37 paras. 289-97. In its consideration of mobile wireless competition issues, the DOJ has noted the differences between the use of lower and higher frequency bands. See, e.g., *United States of America et al. v. Verizon Communications Inc. and ALLTEL Corporation*, Competitive Impact Statement, Case No. 08-cv-1878, at 5-6 (filed Oct. 30, 2008), available at <http://www.justice.gov/atr/cases/f238900/238947.pdf> (last visited Sept. 6, 2012).

coverage across larger geographic areas and inside buildings,⁹² while higher frequency spectrum may be well-suited for providing capacity, such as in high-traffic urban areas.⁹³ Because the properties of lower and higher frequency spectrum are complementary, the Commission has recognized that both types of spectrum may be helpful for the development of an effective nationwide competitor that can address both coverage and capacity needs.⁹⁴ The Commission also has noted that there currently is significantly more spectrum above 1 GHz potentially available for mobile broadband services than spectrum below 1 GHz.⁹⁵ The Commission seeks comment on whether its policies regarding mobile spectrum holdings should include separate consideration of spectrum in different frequency bands, e.g., below or above 1 GHz. Would a separate spectrum threshold limit for spectrum holdings below 1 GHz, as some countries have adopted, advance the goals of promoting wireless competition, innovation, investments and broadband deployment in rural areas?⁹⁶

⁹² See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17609–11 para. 49. See also, e.g., Service Rules for the 698–746, 747–762 and 777–792 MHz Band, WT Docket No. 06–150, *Second Report and Order*, 22 FCC Rcd 15289, 15349 para. 158, 15354–55 para. 176, 15400–401 para. 304 (2007); Unlicensed Operation in the TV Broadcast Bands, ET Docket No. 04–186, *Second Report and Order and Memorandum Opinion and Order*, 23 FCC Rcd 16807, 16820–21 para. 32 (2008); Unlicensed Operation in the TV Broadcast Bands, ET Docket No. 04–186, *Second Memorandum Opinion and Order*, 25 FCC Rcd 18661, 18662 para. 1 (2010).

⁹³ See *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9832 para. 289, 9836 para. 296; see also *AT&T-Qualcomm Order*, 26 FCC Rcd at 17609–11 para. 49.

⁹⁴ See, e.g., *AT&T-Qualcomm Order*, 26 FCC Rcd at 17609–11 para. 49, n.140; *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9837 para. 297.

⁹⁵ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17611 para. 49; *Fifteenth Mobile Wireless Competition Report*, 26 FCC Rcd at 9836 para. 296.

⁹⁶ Some countries conducting or planning auctions of spectrum reclaimed as part of the transition from analog to digital television have adopted various measures that recognize the differences between lower-frequency and higher-frequency spectrum in the context of spectrum aggregation limits. See, e.g., Federal Network Agency, Decisions of the President's Chamber of the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway of 12 October 2009 on Combining the Award of Spectrum in the Bands 790 to 862 MHz, 1710 to 1725 MHz and 1805 to 1820 MHz with Proceedings to Award Spectrum in the Bands 1.8 GHz, 2 GHz and 2.6 GHz for Wireless Access for the Provision of Telecommunications Services, at 6 (2009), available at http://www.bundesnetzagentur.de/cae/servlet/contentblob/138364/publicationFile/3682/DecisionPresidentChamberTenor_ID17495pdf.pdf (adopting limits on sub-1 GHz spectrum in Germany's 4G auction) (last visited Sept. 6, 2012); Office of Communications (Ofcom), *Statement on Assessment of Future Mobile Competition and Award of 800 MHz and 2.6 GHz*, at Executive

36. If the Commission were to adopt differential treatment for different spectrum bands, what mechanism should the Commission use to evaluate the aggregation of below 1 GHz spectrum? Should the Commission add a threshold limit for below 1 GHz spectrum as part of its current case-by-case review? For example, the Commission could establish a trigger under which an entity that would hold, post-transaction, more than one third of the relevant spectrum below 1 GHz in a geographic market would be subject to a more detailed competitive review in that market. Or, alternatively, the Commission could establish bright-line limits for spectrum holdings below 1 GHz. If so, what should those limits be? Should the Commission consider adopting limits on the amount of below 1 GHz spectrum that entities could acquire in the context of spectrum auctions? The Commission also could adopt a hybrid approach, for instance, in which it establishes a bright-line limit for below 1 GHz spectrum and conduct a case-by-case analysis of total mobile spectrum holdings. Under such an approach, no licensees could aggregate more than the specified percentage of spectrum below 1 GHz in the market, but the Commission would conduct a case-by-case review on total mobile spectrum holdings, with a particular focus on markets where an applicant's post-transaction spectrum holdings would exceed a spectrum screen threshold. What are the costs and benefits of these various approaches? Is 1 GHz an appropriate demarcation line for a separate competitive analysis and associated threshold? Consistent with the Commission's intention regarding the applicability of any revised policies for overall spectrum holdings,⁹⁷ the Commission would not anticipate revisiting licensees' current spectrum holdings under any revised policy for below 1 GHz spectrum, but instead would grandfather those holdings.

37. Are there other ways the Commission should distinguish among spectrum bands, such as taking into account the value of spectrum held by each licensee rather than the amount of spectrum held, as some parties have proposed?⁹⁸ For example, Sprint Nextel

Summary, page 3, (2012), available at <http://stakeholders.ofcom.org.uk/binaries/consultations/award-800mhz/statement/Statement-summary.pdf> (adopting limits on sub-1 GHz spectrum in United Kingdom's upcoming 4G auction) (last visited Sept. 6, 2012).

⁹⁷ See *infra* at para 49.

⁹⁸ See Free Press Reply To Opposition, WT Docket No. 12–4, at 23; Free Press Petition to Deny, WT Docket No. 12–4, at 12; Public Knowledge *et al.* Petition to Deny, WT Docket No. 12–4, at 47; RCA Petition to Condition or Deny, WT Docket No.

has proposed that an analysis of the book values of spectrum holdings as reflected in providers' SEC filings would be helpful in the Commission's analysis.⁹⁹ To address what it contends is a growing "spectrum gap" between the largest spectrum providers and other competing providers, Public Knowledge suggested, among other things, that spectrum be weighted by its suitability for mobile data use and, further, that spectrum held by providers with substantial existing spectrum holdings or spectrum that has not yet been built out be weighted more heavily.¹⁰⁰ Free Press similarly argued that the Commission should use "inputs that determine value" and suggested that these inputs should primarily be "wavelength, contiguous block size, block pairing, market density and demographics, and interference issues."¹⁰¹ T-Mobile has asked the Commission to recognize the difference in value of spectrum above and below 1 GHz by assigning different value weights to each of the spectrum bands.¹⁰² The value weights would be derived from analysts' reports, which in turn are based on prices paid at auction and publicly available information about spectrum transactions.¹⁰³ T-Mobile proposed the following specific value weights: cellular, 1.7; 700 MHz, 1.5; SMR, 1.5; AWS/PCS, .75; and BRS, .2.¹⁰⁴ AT&T argued that the Commission should not adopt such an approach for several reasons, including because the Commission already considers propagation and other physical characteristics in determining whether to count spectrum in the case-by case analysis, the marketplace already accounts for cost differences between different spectrum bands, and there are many factors other than propagation characteristics that determine the relative value of spectrum.¹⁰⁵ The Commission seeks comment on these suggested approaches.

38. If the Commission were to assign value to spectrum for purposes of its policy on mobile spectrum holdings,

12–4, at 52; T-Mobile Comments, WT Docket No. 11–186, at 6–7.

⁹⁹ See Sprint Nextel Comments, WT Docket No. 12–4, at 18 n. 45.

¹⁰⁰ See Letter from Harold Feld, Legal Director, Public Knowledge, to Marlene Dortch, Secretary, FCC, WT Docket No. 12–4 (Apr. 30, 2012) at 3.

¹⁰¹ See Free Press Petition to Deny, WT Docket No. 12–4, at 16.

¹⁰² See T-Mobile Comments, WT Docket No. 11–186, at 6–8.

¹⁰³ See T-Mobile Comments, WT Docket No. 11–186, at 7.

¹⁰⁴ See T-Mobile Comments, WT Docket No. 11–186, at 7.

¹⁰⁵ See AT&T Supplemental Reply Comments, WT Docket No. 11–186, at 6–13.

what variables should it consider? The Commission recognizes, for example, that license values tend to vary with geographic location.¹⁰⁶ Moreover, in recent auctions, licenses in densely populated markets generally were sold at higher winning bids than those in less populated areas.¹⁰⁷ The value of a license can also depend on its location within the spectrum band.¹⁰⁸ For instance, spectrum blocks at the edge of a band can be less valuable due to the increased risk of interference to and from operations on neighboring bands.¹⁰⁹ Should the Commission take these factors into account in assigning value to licenses? Should the Commission consider changes in the value of spectrum as technology evolves?¹¹⁰ As a practical matter, how should the Commission quantify differences in value? How would the Commission use spectrum valuation in applying bright-line limits, as opposed to a case-by-case analysis? What are the

¹⁰⁶ See Kimberly M. Randolph, *Spectrum Licenses: Valuation Intricacies*, available at <http://www.srr.com/article/spectrum-licenses-valuation-intricacies> (last visited Sept. 6, 2012).

¹⁰⁷ For example, in the 700 MHz band auction (Auction No. 73), the winning bid for the lower 700 MHz B-Block license in New York City (\$4.57 per MHz*POP, or \$884 million) was much higher, both in dollars per MHz per person and in total dollars, than the winning bid for the lower 700 MHz B Block license in Binghamton, NY (\$.04 per MHz*POP, or \$186,000). See more information about the 700 MHz band auction, available at http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=73 (last visited on Sept. 6, 2012).

¹⁰⁸ See Kimberly M. Randolph, *Spectrum Licenses: Valuation Intricacies*, available at <http://www.srr.com/article/spectrum-licenses-valuation-intricacies> (last visited Sept. 6, 2012).

¹⁰⁹ For example, the average auction price for A-Block licenses was much lower than the average price for B-Block licenses in the lower 700 MHz band. See Auction 73 results, available at http://wireless.fcc.gov/auctions/default.htm?job=releases_auction&id=73&page=P (last visited Sept. 6, 2012). See also ITU Broadband Series, *Exploring the Value and Economic Valuation of Spectrum*, April 2012, page 1, available at http://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports_SpectrumValue.pdf (last visited Sept. 6, 2012).

¹¹⁰ Spectrum values can be affected by technologies adopted by licensees. For example, spectrum aggregation technologies might affect spectrum value. See Mohammed Alotaibi, and Marvin A. Sirbu, *Spectrum Aggregation Technology: Benefit-Cost Analysis and its Impact on Spectrum Value*, at 12–13, 39th Research Conference on Communication, Information, and Internet Policy, 2011, available at http://papers.ssrn.com/so13/papers.cfm?abstract_id=1985738 (last visited Sept. 6, 2012). Similarly, for those service providers that hold spectrum in high frequency bands, Wi-Fi off-load may mitigate the disadvantage of inferior indoor coverage. See J.P. Morgan, *The Economics of Wireless Data—Part 3*, at 50, March 26, 2012, available at https://mm.jpmorgan.com/stp/t/c.do?i=83100-F7&u=a_p*d_814984.pdf?h_-177n712 (last visited Sept. 6, 2012).

costs and benefits of attaching a value to spectrum?

39. The Commission seeks comment on other methods or considerations that might be relevant in reviewing its policies regarding mobile spectrum holdings. In its current case-by-case approach, the Commission considers factors such as the number of rival service providers, firms' network coverage, rival firms' and the licensee's market shares, the applicant's post-transaction spectrum holdings, and the spectrum holdings of each of the rival service providers.¹¹¹ Should the Commission modify the factors it considers or include other marketplace conditions that may affect competition? For example, in order to be considered a meaningful competitor for purposes of a market-by-market analysis, should a licensee have a particular weighted average market share or hold a particular amount of spectrum in the geographic market at issue? The Commission also seeks comment on how to take into account special circumstances, such as how efficiently the licensee is using its existing spectrum resources and whether it has alternatives to meet its competitive needs aside from acquiring more spectrum. Would imposing some level of spectral efficiency and/or a spectrum utilization requirement, perhaps coupled with a higher level bright-line limit or a higher case-by-case spectrum threshold, help prevent spectrum warehousing and encourage more efficient spectrum use? Some parties have suggested that as part of a case-by-case analysis, the Commission should calculate the spectrum HHI, or the increase in concentration of spectrum shares post-transaction.¹¹² What would be the benefits and costs of such measures?

6. Attribution Rules

40. No matter which approach the Commission decides to take, it needs attribution rules to determine which of a licensee's spectrum interests counts toward that licensee's total mobile spectrum holdings. Under the spectrum cap, the Commission's attribution rules

¹¹¹ See, e.g., *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8732 para. 63; *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17487–88 para. 91.

¹¹² For example, U.S. Cellular has argued that the Commission should apply HHI measurements to "greenfield" spectrum acquired at auction. See U.S. Cellular (USCC) Comments, RM No. 11498, at 8; USCC Reply Comments (RM No. 11498) at 2; see also Letter from John Bergmayer, Senior Staff Attorney, Public Knowledge, to Marlene Dortch, Secretary, FCC, WT Docket No. 12–4 (March 27, 2012) at 4; Sprint Nextel Comments, WT Docket No. 12–4, at 19–20; Free Press Reply to Opposition, WT Docket No. 12–4, at 24.

were designed to protect competition in the wireless services marketplace by making certain equity and non-equity interests attributable. Some non-equity interests in spectrum, as well as equity interests in spectrum that are less than controlling, can potentially confer the ability to significantly influence wireless service offerings and prices to one or a few parties, and the Commission seeks to make these interests cognizable under its attribution rules.¹¹³

41. Over time, while the Commission's policies regarding mobile spectrum holdings have changed, its attribution rules consistently have focused on a licensee's controlling interests, as well as non-controlling and other interests above a certain percentage threshold or that result in *de facto* influence or control. Today, when reviewing transactions on a case-by-case basis, the Commission generally considers all equity ownership interests of ten percent or more to be attributable to those interest holders, but it has the flexibility to examine equity and non-equity ownership and other interests that do not meet the ten percent equity interest threshold, as the Commission deems those interests relevant.¹¹⁴ In the past, the Commission had attribution rules for counting controlling and some non-controlling interests toward the CMRS spectrum cap that were generally consistent with current practice.¹¹⁵ Under those rules, the Commission attributed to a licensee's total spectrum holdings both controlling interests and a number of non-controlling interests, including in most cases equity interests of twenty percent or more.¹¹⁶ For

¹¹³ See, e.g., Implementation of Sections 3(n) and 332, Regulatory Treatment of Mobile Services, GN Docket No. 93–252, *Fourth Report and Order*, 9 FCC Rcd 7123, 7124 paras. 5–6 (1994).

¹¹⁴ See, e.g., Sprint Nextel Corporation and Clearwire Corporation Applications for Consent To Transfer Control of Licenses, Leases, and Authorizations, WT Docket No. 08–94, *Memorandum Opinion and Order*, 23 FCC Rcd 17570, 17601–02 para. 78 (2008) (*Sprint Nextel-Clearwire Order*) (declining to attribute interests below ten percent). See also *AT&T-Centennial Order*, 24 FCC Rcd at 13917 para. 7, 13946–47 paras. 71–74.

¹¹⁵ See 47 CFR 20.6(d)(1)-(10). The relevant rules governing divestiture of interests are in subsection (e) of the same rule. See 47 CFR 20.6(e). Section 20.6 ceased to be effective on January 1, 2003. See 47 CFR 20.6(f). See also 47 CFR 1.2110 (attribution rules for competitive bidding purposes).

¹¹⁶ These non-controlling interests included partnership and other ownership interests; interests of investment companies, insurance companies, and banks holding stock through their trust departments; non-voting stock interests; debt interests and instruments such as warrants, convertible debentures, and options; limited partnership interests; officers and directors; ownership interests held indirectly through an intervening corporation; managing interests; and

purposes of its cellular cross-interest rule described above, the Commission generally included as attributable interests, in addition to any controlling interest, partnership and other ownership interests of twenty percent or more.¹¹⁷

42. In light of these past and present approaches, the Commission seeks comment on whether and how the attribution rules that are used to implement its policies regarding mobile spectrum holdings should be amended if it decides to continue the existing case-by-case review of transactions or in the event that it alters its transaction review mechanism. Regardless of which approach taken, what interests should be attributable for purposes of reviewing mobile spectrum holdings? The attached draft rules generally follow the attribution standards the Commission currently applies,¹¹⁸ but the Commission seeks comment on whether it should make any changes in those standards. For instance, the Commission seeks comment on what level of non-controlling interest should be attributable, and whether that level should be different whether it adopts a case-by-case approach or a bright-line limit. The Commission seeks comment on the types of interests that should be of primary importance when it reviews proposed transactions, and whether and how the importance of any attributable interests may have changed over time. Should the Commission define as attributable any interests that have not been attributed in the past or exclude any non-controlling interests that have been attributed in the past? If the Commission makes any changes to its spectrum holdings review process, how, if at all, should the Commission attribute leased mobile spectrum holdings? Finally, the Commission notes that the draft attribution rules include a waiver provision. The Commission seeks comment on this provision.

7. Remedies

43. In considering applications for initial licenses and applications for the assignment or transfer of control of licenses, including spectrum leasing, the Commission must determine whether the applicants have

parties with joint marketing arrangements. See 47 CFR 20.6(d)(1)–(10). Section 20.6 ceased to be effective on January 1, 2003. See 47 CFR 20.6(f). See also 47 CFR 1.2110 (attribution rules for competitive bidding purposes).

¹¹⁷ See 47 CFR 22.942 (repealed 2004), available at <http://www.gpo.gov/fdsys/pkg/CFR-2002-title47-vol2/pdf/CFR-2002-title47-vol2-sec22-942.pdf> (last visited Sept. 6, 2012).

¹¹⁸ See Appendix A: Proposed Rules.

demonstrated that the application will serve the public interest, convenience, and necessity.¹¹⁹ The Commission reviews the competitive effects of a transaction under the broad public interest standard,¹²⁰ and may impose remedies, such as requiring divestitures of certain licenses, to address potential harms likely to result from a transaction or to help ensure the realization of potential benefits promised for the transaction.¹²¹

44. The Commission seeks comment on what remedies, including divestitures, would be appropriate for it to require in order to prevent competitive harm. The Commission seeks comment on the value of divestitures as a remedy to redress particular competitive harms, and whether different approaches or types of divestitures would best serve the Commission's goals, including providing clarity and certainty to parties while promoting competition. If granting a license application or an assignment or transfer of control of licenses to a licensee would result in competitive harm, should that licensee be required to divest spectrum only in markets where it would exceed the spectrum aggregation threshold, or should it be required to divest more broadly across its licensed markets, and under what, if any, conditions? The Commission notes that there are a number of approaches to divestitures, including a clustered approach that would require divestitures of population centers to allow a prospective purchaser to offer a viable service and to minimize or prevent piecemeal divestiture.¹²² Other approaches could include full business unit divestitures, spectrum-only divestitures, divestitures with a "right of first refusal" to a particular set of licensees, particular limits on parties that have licenses divested to them (such as requiring divestiture to rural or midsize carriers that may be in a position to offer roaming),¹²³ or divestiture of spectrum by sale on the secondary market. The Commission seeks comment on these or other approaches, including remedies that could provide greater predictability to allow the industry to better make

¹¹⁹ 47 U.S.C. 310(d).

¹²⁰ See, e.g., *AT&T-Qualcomm Order*, 26 FCC Rcd at 17599–600 para. 25.

¹²¹ See, e.g., *AT&T-Verizon Wireless Order*, 25 FCC Rcd at 8718 para. 25; *AT&T-Centennial Order*, 24 FCC Rcd at 13929 para. 30; *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17463 para. 29; *Sprint Nextel-Clearwire Order*, 23 FCC Rcd at 17582 para. 22; *Cingular-AT&T Wireless Order*, 19 FCC Rcd at 21546 para. 43.

¹²² See *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17517 para. 160.

¹²³ See *id.*

needed investment decisions. The Commission also seeks comment on measures it can adopt to facilitate spectrum being divested expeditiously to licensees that will put it to use quickly and efficiently.¹²⁴ If the Commission decides to permit divestiture of spectrum by sale on the secondary market, what conditions, limits, or other rules should apply?

45. Many licensees hold spectrum in multiple frequency bands with different propagation or other characteristics, and some spectrum holdings may be more valuable than others. Some parties have proposed that the Commission should adopt different criteria for divestiture based on whether the spectrum to be divested is from lower or upper frequency bands¹²⁵ or is immediately "useable" by another licensee, perhaps for a particular technology.¹²⁶ The Commission seeks comment on these proposals and any other factors it should consider when determining which and how much spectrum should be divested to prevent competitive harms. The Commission also seeks comment on any other approach to spectrum divestiture that would meet its goals of promoting competition yet make its policies regarding mobile spectrum holdings more clear, transparent, and predictable.

46. As an alternative or supplement to divestiture, the Commission has also placed conditions on transactions to remedy certain aspects that may be contrary to the public interest, convenience, and necessity, including any potential anti-competitive effects of the transaction. For example, in the *Verizon Wireless-ALLTEL Order*, in addition to requiring divestiture, the Commission conditioned its approval on Verizon Wireless's commitments regarding roaming availability and rates, a phase down of competitive ETC high cost support, and using counties for measuring compliance with the Commission's E911 location accuracy rules governing handset-based technologies.¹²⁷ In the *AT&T-*

¹²⁴ *Verizon Wireless-SpectrumCo Order*, FCC 12–95, Statement of Commissioner Ajit Pai, approving in part and concurring in part, at 1, available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0823/FCC-12-95A6.pdf (last visited Sept. 6, 2012).

¹²⁵ See Letter from Carl W. Northrop, Counsel for MetroPCS, to Marlene Dortch, Secretary, FCC, WT Docket No. 12–4, (Apr. 26, 2012) at 3; see also RCA Reply to Opposition to Petition to Condition or Otherwise Deny Transactions, WT Docket No. 12–4, at 35.

¹²⁶ See, e.g., RCA Reply Comments, WT Docket No. 12–4, at 35; RCA Petition To Condition or Deny, WT Docket No. 12–4, at 55.

¹²⁷ See *Verizon Wireless-ALLTEL Order*, 23 FCC Rcd at 17546–47 para. 233.

Qualcomm Order, as another example, the Commission required AT&T to make roaming commitments and imposed additional conditions designed to protect against interference with competitors using neighboring 700 MHz spectrum.¹²⁸ In the *Verizon Wireless-SpectrumCo Order*, the Commission required Verizon Wireless to make roaming commitments and imposed accelerated buildout requirements on the AWS-1 spectrum Verizon Wireless acquired.¹²⁹ The Commission seeks comment on the extent to which it should remedy the potential harms posed by a transaction by placing other conditions, such as, for example, requirements to offer leasing, roaming or collocation, in conjunction with, or in lieu of, requiring divestitures. Would application of such remedies be appropriate if the Commission adopts bright-line limits? How can the Commission provide clarity and guidance on such remedies and the circumstances under which such remedies may be appropriate?

47. The Commission also seeks comment on whether there are other remedial approaches it could require and how it might apply them. Commenters should discuss and, to the extent possible, quantify any associated costs or benefits of implementing any remedial approaches or any other proposals. Commenters should address the particular benefits associated with these remedies, and the cost savings, if any, that may be available from requiring certain conditioned spectrum access.

48. With regard to spectrum acquired through competitive bidding, the Commission prospectively applies a competitive analysis of spectrum to be acquired through auctions in order to determine whether granting a winning bidder's license application is in the public interest and whether requiring divestiture prior to granting such application is necessary to protect the public interest.¹³⁰ The Commission seeks comment on what changes and clarifications might be needed in using divestiture as a remedy to cure competitive harm resulting from spectrum acquired in an auction in the context of a case-by case analysis. Are there any differences or additional considerations among remedies that are applicable to spectrum acquired through auctions and those applicable to licenses acquired through secondary

market transactions? What else should the Commission take into account when determining and applying remedies in the event it adopts bright-line limits that apply in an auction?

8. Transition Issues

49. If the Commission were to change its current case-by-case approach or adopt new rules or policies, the Commission seeks comment on transition issues to consider as new rules or policies are implemented. For example, the Commission would not anticipate revisiting licensees' current spectrum holdings under any revised policy, but instead it would anticipate grandfathering those holdings. The Commission seeks comment on that issue, as well as on any other transition issues that may arise in implementing the new rules or policies.

IV. Procedural Matters

A. Initial Regulatory Flexibility Analysis

50. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact of the policies and rules proposed in the Notice of Proposed Rulemaking (NPRM) on a substantial number of small entities. Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadline for comments as listed on the first page of this document. The Commission will send a copy of the NPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).

51. Although Section 213 of the Consolidated Appropriations Act of 2000 provides that the RFA shall not apply to the rules and competitive bidding procedures for frequencies in the 746–806 MHz Band, the Commission believes that it would serve the public interest to analyze the possible significant economic impact of the proposed policy and rule changes in this band on a substantial number of small entities. Accordingly, this IRFA contains an analysis of this impact in connection with all spectrum that falls within the scope of the NPRM, including spectrum in the 746–806 MHz Band.

1. Need for, and Objectives of, the Proposed Rules

52. With this NPRM, the Commission initiates a review of its policies governing mobile spectrum holdings in order to ensure that they fulfill its

statutory objectives given changes in technology, spectrum availability, and the marketplace since the Commission's last comprehensive review. Specifically, the Commission seeks comment on retaining or modifying the current case-by-case analysis used to evaluate mobile spectrum holdings in the context of transactions and auctions, as well as on bright-line limits advocated by some providers and public interest groups. In addition, the Commission seeks comment on updating the spectrum bands that should be included in any evaluation of mobile spectrum holdings, and whether the Commission should make distinctions between different bands. The Commission also takes a fresh look at the relevant product market, geographic market, and other implementation issues such as attribution rules, remedies, and transition issues. The Commission initiates this proceeding to provide rules of the road that are clear and predictable, and that promote the competition needed to ensure a vibrant, world-leading, innovation-based mobile economy.

53. In its examination of the current case-by-case analysis used to evaluate mobile spectrum holdings, the Commission seeks comment on the costs and benefits of a case-by-case analysis to consumers, wireless service providers and others, as well as the overall effectiveness of such an approach in achieving its public policy objectives. The Commission also seeks comment on the specific costs and benefits of applying a case-by-case approach to initial licenses acquired through competitive bidding. In this regard, the Commission seeks comment on whether a case-by-case analysis affords auction participants sufficient certainty to determine whether they would be allowed to hold a given license post-auction and on whether the lack of a bright-line spectrum limit deters participation or provides an opportunity for bidding, regardless of whether bidders believe they ultimately would be allowed to hold the licenses, in order to raise bidding costs or foreclose other competitors from acquiring certain licenses. Further, the Commission requests comment on whether there are additional measures the Commission would need to adopt to promote an effective and efficient auction process while discouraging the potential for anticompetitive behavior, such as including band-specific limits adopted prior to an auction.

54. In addition, the Commission seeks comment on whether the adoption of bright-line limits would serve the public interest now, and on the specific costs

¹²⁸ See *AT&T-Qualcomm Order*, 26 FCC Rcd at 17613–14 paras. 56–57, 17616–18 paras. 61–68.

¹²⁹ *Verizon Wireless-SpectrumCo Order*, FCC 12–95, at para. 121.

¹³⁰ *Verizon Wireless-Union Tel. Order*, 23 FCC Rcd at 16791 para. 9.

and benefits of adopting bright-line limits. The Commission also seeks comment on related implementation issues with respect to applying bright-line limits to both initial licenses acquired through competitive bidding as well as to licenses acquired through the secondary market. The Commission further requests comment on whether it should consider applying a band-specific spectrum limit in the context of any band-specific service rules that it adopts prior to an auction. Are there any alternative approaches to evaluate the competitive effect of spectrum aggregation, such as adopting a case-by-case analysis that does not include an initial spectrum screen? The Commission seeks comment on these approaches and how they could be implemented, and on any other alternatives.

55. If the Commission were to adopt any new or modified approach to reviewing mobile spectrum holdings, certain threshold issues would need to be considered, including initial definitions of the relevant product and geographic markets, deciding the relevant spectrum bands and their treatment, as well as attribution rules and potential remedies. Toward that end, the Commission seeks comment on whether the relevant product market has changed and, if so, whether these changes warrant any modifications to the Commission's product market definition. The Commission also seeks comment on how it should determine what spectrum to include in its overall evaluation. The Commission requests comment on any measures that might increase the transparency with which it determine what spectrum it would include in a case-by-case spectrum analysis or in implementing bright-line limits. The Commission further seek comment on the costs and benefits of implementing a new process for identifying the spectrum to include in a case-by-case spectrum analysis. Finally, what are the legal, economic, and engineering justifications to support the existing or any modified criteria for determining suitability and availability of spectrum?

56. Aside from general factors the Commission should consider in determining whether spectrum is suitable and available, the Commission also seeks comment on the application of these factors to particular spectrum bands. Specifically, the Commission seeks comment on which spectrum bands should be included, reduced, or removed from consideration in its spectrum analysis and whether there are any band-specific factors the Commission should consider in

determining suitability and availability of a particular band.

57. The Commission also seeks comment on the appropriate geographic market definition to use when evaluating a licensee's mobile spectrum holdings, including any other issues with respect to geographic market definition that might be relevant to adopting a bright-line limit, case-by-case analysis, or any other approach that would promote competition and prevent excessive concentration of spectrum in any given area. Should the Commission adopt a two-tiered approach under which there is a spectrum threshold at the local level and a separate threshold that applies on a nationwide basis? In addition, the Commission seeks comment on the appropriate spectrum threshold to be used in evaluating mobile spectrum holdings, including whether the threshold should be higher in rural areas. For transactions that involve a large geographic area with national characteristics, the Commission also seeks comment on how to calculate mobile spectrum holdings at the national level.

58. The Commission has recognized that spectrum resources in different frequency bands can have disparate technical characteristics that affect how the bands can be used to deliver mobile services. Therefore, the Commission seeks comment on whether the Commission should adopt an approach to evaluating a licensee's mobile spectrum holdings that accounts for differing characteristics of spectrum bands, including whether the spectrum is below or above 1 GHz. If the Commission were to adopt differential treatment for different spectrum bands, the Commission seeks comment on what mechanism it should use to evaluate the aggregation of below 1 GHz spectrum and whether to apply different threshold limits—for example one to spectrum below 1 GHz and another to spectrum above 1 GHz. The Commission also seeks comment on whether to take into account the value of spectrum held by each licensee rather than the amount of spectrum held. If it were to assign value to spectrum, the Commission seeks comment on what variables it should consider when doing so. Possible variables include geographic location and location within the spectrum band itself.

59. Further, the Commission seeks comment on other methods or considerations that might be relevant in reviewing its policies regarding mobile spectrum holdings. For instance, should the Commission take into account special circumstances, such as how efficiently the licensee is using its

existing spectrum resources and whether it has alternatives to meet its competitive needs aside from acquiring more spectrum? As part of a case-by-case analysis, should the Commission calculate the spectrum HHI, or the increase in concentration of spectrum shares post-transaction?

60. No matter which approach it decides to take, the Commission needs attribution rules to determine which of a licensee's spectrum interests counts toward that licensee's total mobile spectrum holdings. Whether or not the Commission decides to alter its review mechanism for transactions and license applications, the Commission seeks comment on whether and how the attribution rules that are used to implement its policies regarding mobile spectrum holdings should be amended and on what interests should be attributable for purposes of reviewing mobile spectrum holdings. The Commission also seeks comment on the types of interests that should be of primary importance when it reviews proposed transactions, and whether and how the importance of any attributable interests may have changed over time. Additionally, the Commission seeks comment on whether it should define as attributable any interests that have not been attributed in the past or exclude any non-controlling interests that have been attributed in the past. Further, if the Commission makes any changes to its spectrum holdings review process, how, if at all, should it attribute leased mobile spectrum holdings.

61. In considering applications for initial licenses and applications for the assignment or transfer of control of licenses, including spectrum leasing, the Commission must determine whether the applicants have demonstrated that the application will serve the public interest, convenience, and necessity. The Commission reviews the competitive effects of a transaction under the broad public interest standard, and may impose remedies, such as requiring divestitures of certain licenses, to address potential harms likely to result from a transaction or to help ensure the realization of potential benefits promised for the transaction. With this in mind, the Commission seeks comment on what remedies, including divestitures, would be appropriate for the Commission to require in order to prevent competitive harm. The Commission also seeks comment on the value of divestitures as a remedy to redress particular competitive harms, and whether different approaches or types of divestitures including a clustered approach, full business unit divestitures,

spectrum-only divestitures, divestitures with a “right of first refusal” to a particular set of licensees, particular limits on parties that have licenses divested to them (such as requiring divestiture to rural or midsize carriers that may be in a position to offer roaming), or divestiture of spectrum by sale on the secondary market, would best serve the Commission’s goals.

62. The Commission also seeks comment on measures it can adopt to facilitate spectrum being divested expeditiously to licensees that will put it to use quickly and efficiently, and what conditions, limits or other rules should apply if the Commission should decide to permit divestiture of spectrum by sale on the secondary market. Toward that end, the Commission proposes rules governing mobile spectrum holdings. These include proposed Section 20.21(b), which would require applicants subject to divestiture of interests as required by the Commission, in conjunction with the grant of a license application or a transfer of control or assignment of authorization, to divest expeditiously, and within the time period specified by the Commission.¹³¹ The Commission also proposes rules governing the attribution of interests, including controlling interests, non-controlling interests, and waivers.¹³² These proposed rules generally follow the attribution standards it currently applies, but the Commission seeks comment on whether it should make any changes in those standards, including the level of non-controlling interest that should be attributable, and whether that level should be different whether the Commission adopts a case-by-case approach or a bright-line limit.

63. In addition, many licensees hold spectrum in multiple frequency bands with different propagation or other characteristics, and some spectrum holdings may be more valuable than others. The Commission seeks comment on whether it should adopt different criteria for divestiture based on whether the spectrum to be divested is from lower or upper frequency bands or is immediately “useable” by another licensee, perhaps for a particular technology, and any other factors it should consider when determining which and how much spectrum should be divested to prevent competitive harm. The Commission also seeks comment on any other approach to spectrum divestiture that would meet its

goals of promoting competition yet make its policies regarding mobile spectrum holdings more clear, transparent and predictable.

64. Further, as an alternative or supplement to divestiture, the Commission has previously placed conditions on transactions to remedy certain aspects that may be contrary to the public interest, convenience, and necessity, including any potential anti-competitive effects of the transaction. The Commission seeks comment on the extent to which it should remedy the potential harms posed by a transaction by placing other conditions on it, including leasing, roaming, or collocation, in conjunction with or in lieu of requiring divestitures. The Commission also seeks comment on whether there are other remedial approaches it could require and how it might apply them. The Commission further seeks comment on what changes and clarifications might be needed in using divestiture as a remedy to cure competitive harm resulting from spectrum acquired in an auction in the context of a case-by case analysis.

Finally, the Commission seeks comment on whether there are any transition issues to consider if new rules or policies are implemented. The Commission anticipates that grandfathering existing holdings in excess of any spectrum limit it may adopt would serve the public interest. The Commission seeks comment on the grandfathering issue, as well as on any other transition issues that may arise in implementing the new rules or policies.

2. Legal Basis

65. The sources of authority for the actions proposed in this NPRM are contained in Sections 1, 2, 4(i), 4(j), 301, 303(g), 303(r), 309(j) and 310(d) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 151, 152, 154(i), 154(j), 301, 303(g), 303(r), 309(j) and 310(d).

3. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

66. 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 and policies, if adopted. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act. A “small business concern” is one

which: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

67. In the following paragraphs, the Commission further describes and estimates the number and type of small entities that may be affected by its proposals regarding mobile spectrum holdings. Implementing new policies regarding mobile spectrum holdings would affect entities that hold or lease spectrum within spectrum bands that are available for mobile wireless service.

68. This IRFA analyzes the number of small entities affected on a service-by-service basis. When identifying small entities that could be affected by the Commission’s new rules, this IRFA provides information that describes auction results, including the number of small entities that were winning bidders. However, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily reflect the total number of small entities currently in a particular service. The Commission does not generally require that licensees later provide business size information, except in the context of an assignment or a transfer of control application that involves unjust enrichment issues.

69. *Small Businesses, Small Organizations, and Small Governmental Jurisdictions.* Its action may, over time, affect small entities that are not easily categorized at present. The Commission therefore describes here, at the outset, three comprehensive, statutory small entity size standards that encompass entities that could be directly affected by the proposals under consideration. As of 2009, small businesses represented 99.9% of the 27.5 million businesses in the United States, according to the SBA. Additionally, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”

Nationwide, as of 2007, there were approximately 1,621,315 small organizations. Finally, the term “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.” Census Bureau data for 2007 indicate that there were 89,527 governmental jurisdictions in the United States. The Commission estimates that, of this total, as many as 88,761 entities may qualify as “small governmental jurisdictions.” Thus, the Commission estimates that most governmental jurisdictions are small.

¹³¹ See proposed 47 CFR 20.21(b), Appendix A, *supra*.

¹³² See proposed 47 CFR 20.21(c), Appendix A, *supra*.

70. *Cellular Licensees.* The SBA has developed a small business size standard for small businesses in the category “Wireless Telecommunications Carriers (except satellite).” Under that SBA category, a business is small if it has 1,500 or fewer employees. The census category of “Cellular and Other Wireless Telecommunications” is no longer used and has been superseded by the larger category “Wireless Telecommunications Carriers (except satellite).” The Census Bureau defines this larger category to include “establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services.”

71. In this category, the SBA has deemed a wireless telecommunications carrier to be small if it has fewer than 1,500 employees. For this category of carriers, Census data for 2007, which supersedes similar data from the 2002 Census, shows 1,383 firms in this category. Of these 1,383 firms, only 15 (approximately 1%) had 1,000 or more employees. While there is no precise Census data on the number of firms in the group with fewer than 1,500 employees, it is clear that at least the 1,368 firms with fewer than 1,000 employees would be found in that group. Thus, at least 1,368 of these 1,383 firms (approximately 99%) had fewer than 1,500 employees. Accordingly, the Commission estimates that at least 1,368 (approximately 99%) had fewer than 1,500 employees and, thus, would be considered small under the applicable SBA size standard.

72. *Wireless Telecommunications Carriers (except satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular phone services, paging services, wireless Internet access, and wireless video services. The appropriate size standard under SBA rules is for the category Wireless Telecommunications Carriers (except satellite). The size standard for that category is that a business is small if it has 1,500 or fewer employees. For this category, census data for 2007 show that there were 1,383 firms that operated for the entire year. Of this total, 1,368 firms had 999 or fewer employees and 15 had 1000

employees or more. Thus, under this category and the associated small business size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities that may be affected by its proposed action.

73. *2.3 GHz Wireless Communications Services.* This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (“WCS”) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years. The SBA approved these definitions. The Commission conducted an auction of geographic area licenses in the WCS service in 1997. In the auction, seven bidders that qualified as very small business entities won 31 licenses, and one bidder that qualified as a small business entity won a license.

74. *1670–1675 MHz Services.* This service can be used for fixed and mobile uses, except aeronautical mobile. An auction for one license in the 1670–1675 MHz band was conducted in 2003. The Commission defined a “small business” as an entity with attributable average annual gross revenues of not more than \$40 million for the preceding three years, which would thus be eligible for a 15 percent discount on its winning bid for the 1670–1675 MHz band license. Further, the Commission defined a “very small business” as an entity with attributable average annual gross revenues of not more than \$15 million for the preceding three years, which would thus be eligible to receive a 25 percent discount on its winning bid for the 1670–1675 MHz band license. The winning bidder was not a small entity.

75. *3650–3700 MHz Band Licensees.* In March 2005, the Commission released an order providing for the nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, the Commission estimates that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

76. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and

specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite). Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees. Census data for 2007 shows that there were 1,383 firms in the Wireless Telecommunications Carriers (except Satellite) category that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. According to Trends in Telephone Service data, 434 carriers reported that they were engaged in wireless telephony. Of these, an estimated 222 have 1,500 or fewer employees and 212 have more than 1,500 employees. Therefore, approximately half of these entities can be considered small. Similarly, according to 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. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, the Commission estimates that the majority of wireless firms can be considered small.

77. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a “small business” for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous years. For F-Block licenses, an additional small business size standard for “very small business” was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three years. These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA. No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the

first two C-Block auctions. A total of 93 bidders that claimed small and very small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks. On April 15, 1999, the Commission completed the re-auction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22. Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

78. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status. Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses. On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71. Of the 14 winning bidders in that auction, six claimed small business status and won 18 licenses. On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78. Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.

79. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3))*. For the AWS-1 bands, the Commission has defined a “small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a “very small business” as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. In 2006, the Commission conducted its first auction of AWS-1 licenses. In that initial AWS-1 auction, 31 winning bidders identified themselves as very small businesses. Twenty-six of the winning bidders identified themselves as small businesses. In a subsequent 2008 auction, the Commission offered 35 AWS-1 licenses. Four winning bidders identified themselves as very small businesses, and three of the winning bidders identified themselves as a small business. For AWS-2 and AWS-3,

although the Commission does not know for certain which entities are likely to apply for these frequencies, it notes that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but has proposed to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.

80. *Lower 700 MHz Band Licenses*. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. Additionally, the Lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (“MSA/RSA”) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years. The SBA approved these small size standards. An auction of 740 licenses was conducted in 2002 (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)). Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business, or entrepreneur status and won a total of 329 licenses. A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses. Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses. In 2005, the Commission completed an auction of 5 licenses in the lower 700 MHz band (Auction 60). All three winning bidders claimed small business status.

81. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*. An auction of A, B

and E block licenses in the Lower 700 MHz band was held in 2008. Twenty winning bidders claimed small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years). Thirty-three winning bidders claimed very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years). In 2011, the Commission conducted Auction 92, which offered 16 lower 700 MHz band licenses that had been made available in Auction 73 but either remained unsold or were licenses on which a winning bidder defaulted. Two of the seven winning bidders in Auction 92 claimed very small business status, winning a total of four licenses.¹³³

82. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses. On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block. The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

83. *700 MHz Guard Band Licenses*. In 2000, the Commission adopted the *700 MHz Guard Band Report and Order*, in which it established rules for the A and B block licenses in the Upper 700 MHz band, including size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits. A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years. Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years. SBA approval of these definitions is not required. An auction of these licenses was conducted in 2000. Of the 104 licenses auctioned, 96 licenses were won by nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses was

¹³³ *Id.*

held in 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.

84. *Specialized Mobile Radio.* The Commission adopted small business size standards for the purpose of determining eligibility for bidding credits in auctions of Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands. The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. The Commission defined a “very small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$3 million for the preceding three years. The SBA has approved these small business size standards for both the 800 MHz and 900 MHz SMR Service. The first 900 MHz SMR auction was completed in 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 licenses in the 900 MHz SMR band. In 2004, the Commission held a second auction of 900 MHz SMR licenses and three winning bidders identifying themselves as very small businesses won 7 licenses. The auction of 800 MHz SMR licenses for the upper 200 channels was conducted in 1997. Ten bidders claiming that they qualified as small or very small businesses under the \$15 million size standard won 38 licenses for the upper 200 channels. A second auction of 800 MHz SMR licenses was conducted in 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.

85. The auction of the 1,053 800 MHz SMR licenses for the General Category channels was conducted in 2000. Eleven bidders who won 108 licenses for the General Category channels in the 800 MHz SMR band qualified as small or very small businesses. In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded. Of the 22 winning bidders, 19 claimed small or very small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed to be small businesses.

86. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the

800 and 900 MHz bands. The Commission does not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues not exceeding \$15 million. One firm has over \$15 million in revenues. In addition, the Commission does not know how many of these firms have 1,500 or fewer employees. The Commission assumes, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

87. *1.4 GHz Band Licensees.* The Commission conducted an auction of 64 1.4 GHz band licenses in the paired 1392–1395 MHz and 1432–1435 MHz bands, and in the unpaired 1390–1392 MHz band in 2007. For these licenses, the Commission defined “small business” as an entity that, together with its affiliates and controlling interests, had average gross revenues not exceeding \$40 million for the preceding three years, and a “very small business” as an entity that, together with its affiliates and controlling interests, has had average annual gross revenues not exceeding \$15 million for the preceding three years. Neither of the two winning bidders claimed small business status.

88. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (“MDS”) and Multichannel Multipoint Distribution Service (“MMDS”) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) (previously referred to as the Instructional Television Fixed Service (“ITFS”). In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three years. The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, the Commission estimates that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA

authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities. After adding the number of small business auction licensees to the number of incumbent licensees not already counted, the Commission finds that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules. In 2009, the Commission conducted Auction 86, which resulted in the licensing of 78 authorizations in the BRS areas. The Commission offered three levels of bidding credits: (i) A bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) will receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) will receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years (entrepreneur) will receive a 35 percent discount on its winning bid.¹³⁴ Auction 86 concluded in 2009 with the sale of 61 licenses. Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

89. In addition, the SBA’s Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹³⁵ Thus, the Commission estimates that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises 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,

¹³⁴ *Id.* at 8296 para. 73.

¹³⁵ The term “small entity” within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. 601(4)–(6). The Commission does not collect annual revenue data on EBS licensees.

and video using wired telecommunications networks.

Transmission facilities may be based on a single technology or a combination of technologies." For these services, the Commission uses the SBA small business size standard for the category "Wireless Telecommunications Carriers (except satellite)," which is 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use the most current census data. According to Census Bureau data for 2007, there were a total of 955 firms in this previous category that operated for the entire year. Of this total, 939 firms employed 999 or fewer employees, and 16 firms employed 1,000 employees or more. Thus, the majority of these firms can be considered small.

4. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

90. The NPRM initiates a review of the FCC's policies and rules governing mobile spectrum holdings. The FCC seeks comment on whether it should retain or modify its current rules. To the extent the Commission retains its current policies, this proceeding will not result in any additional reporting, recordkeeping, or other compliance burdens. If the FCC modifies its rules, those changes could alter the compliance requirements (and burdens) that apply to small entities. Those burdens, which may be offset by efficiencies associated with any modified rules, could include professional skills necessary to monitor and abide by the new rules, burdens associated with the ability to retain or acquire additional spectrum, and costs associated with changes in market competition.

5. Steps Taken To Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

91. The RFA requires an agency to describe any significant alternatives that it has considered in developing its 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.¹³⁶

92. In light of the surge in consumer demand for mobile broadband services that require greater bandwidth, spectrum is becoming increasingly critical for all providers. With that in mind, the Commission initiates a review of policies governing mobile spectrum holdings. This proceeding provides the opportunity to obtain valuable input from a broad range of active participants in the mobile broadband industry, trade associations, and consumer groups that have requested that the Commission's policies be revised to keep pace with market changes. The Commission seeks comment on whether and how to revise its policies and rules regarding mobile spectrum holdings. In particular, the Commission seeks alternatives that address how to ensure that its policies and rules afford all interested parties greater certainty, transparency and predictability to make investment and transactional decisions, while reducing the regulatory burdens on small entities.

93. First, the Commission seeks comment on retaining or modifying the current case-by-case analysis used to evaluate mobile spectrum holdings in the context of transactions and auctions, as well as on bright-line limit proposals advocated by some providers and public interest groups. The Commission seeks comment on the costs and benefits of a case-by-case analysis to consumers, wireless service providers and others, as well as the overall effectiveness of such an approach in achieving its public policy objectives. The Commission requests alternatives that would reduce the burdens on small entities while making the process more transparent, predictable, or better tailored to promote its goals.

94. The Commission also seeks comment on whether adoption of bright-line limits would now serve the public interest, and if so on its potential application, and on the specific costs and benefits of adopting bright-line limits. The Commission seeks possible alternatives that would best balance the goal of providing greater certainty, clarity, and predictability with regard to auction participation and secondary market transactions while maximizing the Commission's flexibility to consider individualized circumstances and respond swiftly to the changing needs of the mobile wireless industry and consumers, all while reducing the burden on small entities. Further, the Commission seeks comment on any alternative approaches regarding the competitive effect of spectrum

aggregation, how alternative approaches could be implemented, and on any other alternatives that would further reduce burdens on small businesses.

95. The Commission also seeks comment on whether the current approach to the product and geographic market definitions continues to be appropriate when evaluating a licensee's mobile spectrum holdings. The Commission seeks alternate proposals that might increase the transparency with which it determines what spectrum it would include in a case-by-case spectrum analysis or in implementing bright-line limits, as well as any other approach that would promote competition and prevent excessive concentration of spectrum in any given area. Such alternative proposals should address the issue of reducing burdens on small business.

96. In addition, the Commission seeks comment on updating the spectrum bands that should be considered in any evaluation of mobile spectrum holdings and whether to make distinctions between bands. The Commission requests alternatives that would reduce the burdens on small entities while advancing the goals of promoting wireless competition, innovation, investments and broadband deployment in rural areas.

97. The Commission also seeks comment on whether and how the attribution rules that are used to implement its policies regarding mobile spectrum holdings should be amended if the Commission decides to continue its existing case-by-case review of transactions and in the event that the Commission alters its transaction review mechanism. Further, the Commission seeks comment on its proposed rules regarding attribution standards, which include a waiver provision, and more generally on the types of interests that should be of primary importance when the Commission reviews proposed wireless transactions, and whether and how the importance of any attributable interests may have changed over time. The Commission seeks to receive alternate proposals regarding potential changes to the attribution rules in general, and more specifically how any proposed changes could limit the burdens on small entities.

98. The Commission also seeks comment on what remedies, including divestitures, would be appropriate to prevent competitive harm, and how it might apply them. The Commission seeks comment on the value and types of divestitures that would be effective remedies to redress particular competitive harms, its proposed divestiture rule, and any other

¹³⁶ See 5 U.S.C. 603(c).

alternative approaches that could provide greater predictability to allow the industry to better make needed investment decisions, while easing the burden on small entities. Commenters should discuss and quantify any associated costs or benefits of implementing any remedial approaches or any other proposals that would best serve the Commission's goals of providing clarity and certainty to parties while promoting competition and further reducing the burden on small business.

99. Finally, if the Commission were to change its current case-by case approach or adopt new rules or polices, the Commission seeks comment on whether there are any transition issues to consider as new rules or policies are implemented, such as considering grandfathering spectrum held before the effective date of any new rule or policy. The Commission seeks alternate proposals that would best achieve the goal of reducing the burdens on small business while making its policies regarding mobile spectrum holdings more clear, transparent and predictable.

100. For each of the proposals in the Notice, the Commission seeks discussion, and where relevant, alternative proposals, on the effect that each prospective new requirement, or alternative rules, might have on small entities. For each proposed rule or alternative, the Commission seeks discussion about the burden that the prospective regulation would impose on small entities and how the Commission could impose such regulations while minimizing the burdens on small entities. For each proposed rule, the Commission asks whether there are any alternatives it could implement that could achieve the Commission's goals while at the same time minimizing the burdens on small entities. For the duration of this docketed proceeding, the Commission will continue to examine alternatives with the objectives of eliminating unnecessary regulations and minimizing any significant economic impact on small entities.

6. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules

None.

B. Paperwork Reduction Act Analysis

101. 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).

C. Ex Parte Rules

102. *Permit-But-Disclose*. The proceeding initiated by this Notice of Proposed Rulemaking shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.¹³⁷ 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.

D. Filing Requirements

103. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's

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

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- 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 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.
 - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St. SW., Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of *before* entering the building.
 - Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
 - U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street SW., Washington DC 20554.

104. *Availability of Documents*. Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street SW., CY-A257, Washington, DC 20554. These documents will also be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

105. *Accessibility Information*. To request information in accessible formats (computer diskettes, large print, audio recording, and Braille), send an email to fcc504@fcc.gov or call the FCC's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This document can also be downloaded in Word and Portable Document Format (PDF) at: <http://www.fcc.gov>.

¹³⁷ 47 CFR 1.1200 *et seq.*

106. *Additional Information.* For additional information on this proceeding, contact Monica DeLong, *Monica.DeLong@fcc.gov*, of the Wireless Telecommunications Bureau, Spectrum and Competition Policy Division, (202) 418-1337.

V. Ordering Clauses

107. Accordingly, *it is ordered*, pursuant to sections 1, 2, 4(i), 4(j), 301, 303(g), 303(r), 309(j) and 310(d) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 154(j), 301, 303(g), 303(r), 309(j) and 310(d), that this Notice of Proposed Rulemaking in WT Docket No. 12-269 IS *adopted*.

108. *It is further ordered* that the Commission's Consumer & Governmental Affairs Bureau, 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.

List of Subjects 47 CFR Part 20

Communications common carriers.
Federal Communications Commission.
Marlene H. Dortch,
Secretary.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 20 as follows:

PART 20—COMMERCIAL MOBILE SERVICES

1. The authority citation for part 20 continues to read as follows:

Authority: 47 U.S.C. 154, 160, 201, 251-254, 301, 303, 316, and 332 unless otherwise noted. Section 20.12 is also issued under 47 U.S.C. 1302.

2. Add § 20.21 to read as follows:

§ 20.21 Rules Governing Mobile Spectrum Holdings

(a) This section applies to mobile spectrum holdings that are suitable and available for commercial use. Applicants for mobile spectrum licenses for commercial use, for assignment or transfer of control of such licenses, or for long-term *de facto* transfer leasing arrangements as defined in § 1.9003 of subpart X of part 1 of these rules and long-term spectrum manager leasing arrangements as identified in § 1.9020(e)(1)(ii) must demonstrate that the public interest, convenience, and necessity will be served thereby. The Commission will evaluate any such license application consistent with the standards set forth in WT Docket No. 12-269.

(b) Divestiture of interests as required by the Commission, in conjunction with the grant of a license application or a transfer of control or assignment of authorization, must occur expeditiously, and within the time period specified by the Commission.

(c) *Attribution of Interests.* Ownership and other interests in mobile spectrum holdings for commercial use will be attributable to their holders pursuant to the following criteria:

(1) Controlling interests shall be attributable. Controlling interest means majority voting equity ownership, any general partnership interest, or any means of actual working control (including negative control) over the operation of the licensee, in whatever manner exercised.

(2) Non-controlling interests of 10 percent or more in mobile spectrum holdings shall be attributable. Non-controlling interests of less than 10 percent in mobile spectrum holdings shall be attributable if the Commission determines that such interest confers *de facto* control, including but not limited to partnership and other ownership interests and any stock interest in a licensee.

(3) The following interests in mobile spectrum shall also be attributable to holders:

(i) Officers and directors of a licensee shall be considered to have an attributable interest in the entity with which they are so associated. The officers and directors of an entity that controls a licensee or applicant shall be considered to have an attributable interest in the licensee.

(ii) Ownership interests that are held indirectly by any party through one or more intervening corporations will be determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain and application of the relevant attribution benchmark to the resulting product, except that if the ownership percentage for an interest in any link in the chain exceeds 50 percent or represents actual control, it shall be treated as if it were a 100 percent interest. (For example, if A owns 20 percent of B, and B owns 40 percent of licensee C, then A's interest in licensee C would be 8 percent. If A owns 20 percent of B, and B owns 51 percent of licensee C, then A's interest in licensee C would be 20 percent because B's ownership of C exceeds 50 percent.)

(iii) Any person who manages the operations of a licensee pursuant to a management agreement shall be considered to have an attributable interest in such licensee if such person, or its affiliate, has authority to make

decisions or otherwise engage in practices or activities that determine, or significantly influence, the nature or types of services offered by such licensee, the terms upon which such services are offered, or the prices charged for such services.

(iv) Any licensee or its affiliate who enters into a joint marketing arrangement with another licensee or its affiliate shall be considered to have an attributable interest in the other licensee's holdings if it has authority to make decisions or otherwise engage in practices or activities that determine or significantly influence the nature or types of services offered by the other licensee, the terms upon which such services are offered, or the prices charged for such services.

(v) Limited partnership interests shall be attributed to limited partners and shall be calculated according to both the percentage of equity paid in and the percentage of distribution of profits and losses.

(vi) Debt and instruments such as warrants, convertible debentures, options, or other interests (except non-voting stock) with rights of conversion to voting interests shall not be attributed unless and until converted or unless the Commission determines that these interests confer *de facto* control.

(vii) Long-term *de facto* transfer leasing arrangements as defined in § 1.9003 of subpart X of part 1 of these rules and long-term spectrum manager leasing arrangements as identified in § 1.9020(e)(1)(ii) that enable commercial use shall be attributable to lessees, lessors, sublessees, and lessors for purposes of this section.

(4) Requests for waivers of paragraph (c) of this section, pursuant to § 1.925 of the Commission rules, must contain the information necessary to make an affirmative showing to the Commission that:

(a) The interest holder is not likely to affect the relevant geographic market(s) in an anticompetitive manner;

(b) The interest holder is not involved in the day-to-day operations of the licensee and does not have the ability to influence the licensee on a regular basis; and

(c) Grant of a waiver is in the public interest because the benefits to the public of common ownership outweigh any potential harm to the market.

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