

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

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the	)	
Commission’s Rules to Facilitate the Provision of	)	WT Docket No. 03-66
Fixed and Mobile Broadband Access, Educational	)	(Terminated)
and Other Advanced Services in the 2150-2162	)	
and 2500-2690 MHz Bands	)	
	)	
Transforming the 2.5 GHz Band	)	WT Docket No. 18-120

**NOTICE OF PROPOSED RULEMAKING**

**Adopted: May 10, 2018**

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**Comment Date: [30 days after Federal Register publication]**  
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By the Commission: Chairman Pai and Commissioners O’Rielly, Carr, and Rosenworcel issuing separate statement; Commissioner Clyburn not participating.

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**I. INTRODUCTION**

1. The 2.5 GHz band (2496-2690 MHz) constitutes the single largest band of contiguous spectrum below 3 gigahertz and has been identified as prime spectrum for next generation mobile

operations, including 5G uses.<sup>1</sup> Significant portions of this band, however, currently lie fallow across approximately one-half of the United States, primarily in rural areas. Moreover, access to the Educational Broadband Service (EBS) has been strictly limited since 1995, and current licensees are subject to a regulatory regime largely unchanged from the days when educational TV was the only use envisioned for this spectrum. Today, we propose to allow more efficient and effective use of this spectrum band by providing greater flexibility to current EBS licensees as well as providing new opportunities for additional entities to obtain unused 2.5 GHz spectrum to facilitate improved access to next generation wireless broadband, including 5G. We also seek comment on additional approaches for transforming the 2.5 GHz band, including by moving directly to an auction for some or all of the spectrum.

## II. BACKGROUND

2. EBS, formerly known as ITFS (Instructional Television Fixed Service),<sup>2</sup> permits the transmission of instructional material for the formal education of students by accredited public and private schools, colleges, and universities.<sup>3</sup>

3. Currently, eligibility to hold an EBS license is limited to (1) accredited public and private educational institutions, (2) governmental organizations engaged in the formal education of enrolled students, and (3) nonprofit organizations whose purposes are educational and include providing educational and instructional television materials to accredited institutions and governmental organizations.<sup>4</sup> EBS licenses generally are held by state government agencies, state universities and university systems, public community and technical colleges, private universities and colleges, public elementary and secondary school districts, private schools (including Catholic school systems and other religious schools), public television and radio stations, hospitals and hospital associations, and other non-profit educational entities.<sup>5</sup>

4. EBS licensees operate in 114 megahertz of the 2.5 GHz band; the remaining 80 megahertz is assigned to the Broadband Radio Service (BRS).<sup>6</sup> EBS licensees are authorized to operate

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<sup>1</sup> See <http://www.ericsson.com/assets/local/policy-makers-and-regulators/170331-3gpp-spectrum-bands.pdf> (last visited March 22, 2018).

<sup>2</sup> See *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165, 14169-70, para. 6 (2004) (*BRS/EBS R&O* or *BRS/EBS FNPRM*). ITFS was an analog television-like service, while EBS is a broadband service.

<sup>3</sup> 47 CFR § 27.1203(b)-(c); see also *Amendment of the Commission's Rules with Regard to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service; and Applications for an Experimental Station and Establishment of Multi-Channel Systems*, Report and Order, 94 FCC 2d 1203, 1208, para. 9 (1983) (*1983 R&O*) citing *Amendment of Parts 2 and 4 of the Commission Rules and Regulations to Establish a New Class of Educational Television Service for the Transmission of Instructional and Cultural Material to Multiple Receiving Locations on Channels in the 1990-2110 MHz or 2500-2690 MHz Frequency Band; Amendment of Parts 1, 7, 9, 10, 11, and 16*, Report and Order, 39 FCC 846, 852-3, para. 25 (1963) (*MDS R&O*), *recon. denied*, 39 FCC 873 (1964) (*ETV Decision*).

<sup>4</sup> 47 CFR § 27.1201(a). The entity also must be “otherwise qualified under the statutory provisions of the Communications Act of 1934, as amended.” *Id.*

<sup>5</sup> Based on a review of the Universal Licensing System conducted on March 22, 2018; see also, Letter from Fred B. Campbell, Jr., President and CEO, Wireless Communications Association International to Marlene H. Dortch, Secretary, Federal Communications Commission, Attach. at 8 (filed Apr. 8, 2010).

<sup>6</sup> As noted below, in 1983 the Commission re-allotted the E and F channel groups to MDS. In 1991, the Commission re-allotted three additional channels (collectively termed the H channel block) in the 2500-2690 MHz band from the Private Operational-Fixed Microwave Service (OFS) to MDS in order to provide even more spectrum for multichannel video operations. See *Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave*

(continued....)

on the A, B, C, D, and G channel groups, with each group comprised of three 5.5 MHz channels in the lower or upper band segment and one 6 MHz channel in the mid-band segment.<sup>7</sup> Since 1983 the Commission has allowed EBS licensees to lease their excess capacity to commercial providers,<sup>8</sup> but it has required EBS licensees to retain five percent of their capacity for educational use, and it further has required that they use each channel at least 20 hours per week for educational purposes.<sup>9</sup>

5. Currently, there are 1,300 EBS licensees holding over 2,190 licenses.<sup>10</sup> EBS licenses generally are based on a 35-mile radius circular Geographic Service Area (GSA) (with an area of 1934 square miles), although due to a historical license modification process the Commission adopted in 2005, many EBS licenses have much smaller, irregular GSAs.<sup>11</sup> Incumbent EBS licenses cover only about one half of the geographic area of the United States in any given channel.<sup>12</sup> In the rest of the country, mostly rural areas west of the Mississippi River, the 2.5 GHz spectrum remains unassigned.<sup>13</sup> There is some EBS

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*Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service*, GN Docket No. 90-54, Order on Reconsideration, 6 FCC Rcd 6764, 6792, para. 6 (1991), *recon. denied*, 7 FCC Rcd 5648 (1992). In 2004, the Commission designated the 2495-2500 MHz band for use in connection with the 2500-2690 MHz band and relocated MDS channel 1 from 2150-2156 MHz to 2496-2502 MHz and MDS channel 2 from 2156-2162 MHz to 2618-2624 MHz. *BRS/EBS R&O*, 19 FCC Rcd at 14169, 14176-80, paras. 6, 21-29 and n.56. MDS Channel 1 and MDS Channel 2 were renamed BRS 1 and BRS 2, respectively. *Id.* at 14183-84, paras. 37-38. Thus, BRS is assigned the E, F, and H channel groups and BRS 1 and BRS 2. *Id.*

<sup>7</sup> 47 CFR § 27.5(i). In addition, a few grandfathered ITFS licensees, whose licenses were issued before 1983, are authorized to operate on the E and F channel groups, but these licensees may not apply for major modifications to their licenses; in 1983, the Commission reallocated the E and F channel groups for use by MDS. *Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to frequency allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service*, Gen Docket No. 80-112 and CC Docket No. 80-116, Report and Order, 94 FCC 2d 1203, 1204, para. 4 (1983). MDS was renamed BRS, and currently the E, F, and H channel groups are assigned to BRS. *See BRS/EBS R&O*, 19 FCC Rcd at 14183-84, paras. 37-38; *see also Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, & Cable Television Relay Service*, GN Docket No. 90-54, Order on Reconsideration, 6 FCC Rcd 6764, 6792, para. 6 (1991), *recon. denied*, 7 FCC Rcd 5648 (1992).

<sup>8</sup> *Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to Frequency Allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service*, Gen Docket No. 80-112 and CC Docket No. 80-116, Report and Order, 94 FCC 2d 1203, 1204, para. 4 (1983) (*First Leasing Decision*).

<sup>9</sup> *BRS/EBS R&O*, 19 FCC Rcd at 14232-34, paras. 179-181.

<sup>10</sup> These numbers are based on a review of the Universal Licensing System conducted on March 22, 2018.

<sup>11</sup> On January 10, 2005, many EBS licenses had their 35-mile radius circles reduced when the Commission converted their Protected Service Areas (PSAs) to Geographic Service Areas (GSAs) through the “splitting-the-football” process. *BRS/EBS R&O*, 19 FCC Rcd at 14192-94, paras. 60-65. “Splitting-the-football” refers to a process initially used informally by licensees in the Multichannel Distribution Service (MDS) and ITFS industry to handle interference issues in GSAs that overlap. *Id.* 47 CFR § 27.1206(a) (“The area for incumbent site-based licensees that is bounded by a circle having a 35 mile radius and centered at the station’s reference coordinates, which was the previous PSA entitled to incumbent licensees prior to January 10, 2005, and is bounded by the chord(s) drawn between intersection points of the licensee’s previous 35-mile PSA and those of respective adjacent market, co-channel licensees.”); *see also BRS/EBS R&O*, 19 FCC Rcd at 14192-94, paras. 60-65; *BRS/EBS Third MO&O*, 21 FCC Rcd at 5612 n.7.

<sup>12</sup> This estimate is based on a review of the Universal Licensing System conducted on March 22, 2018.

<sup>13</sup> *Id.*

spectrum unassigned in urban areas as well, but such spectrum generally is only available in small, irregularly shaped areas between GSAs that are considerably smaller than the area of a 35-mile radius circle.

6. The Commission suspended the processing of EBS applications in 1993.<sup>14</sup> Only twice since then has the Commission opened filing windows for EBS applications. In 1995, the Commission provided a five-day window for the filing of applications for new construction permits and for major changes to existing EBS facilities.<sup>15</sup> And in 1996, the Mass Media Bureau announced a sixty-day window for the filing of a limited class of applications, but during that window, it only permitted the filing of EBS modification applications and amendments to pending EBS applications proposing to co-locate with an authorized wireless cable facility.<sup>16</sup>

7. During the past 20 years, the Commission, on several occasions, has considered assigning EBS spectrum licenses by auction.<sup>17</sup> Most recently, the Commission in 2008 decided to use competitive bidding to license unassigned BRS spectrum but held that a “broader record should be developed on how to distribute licenses for unassigned EBS spectrum,” and it sought further comment on how to license unassigned EBS spectrum in the *BRS/EBS Second FNPRM*.<sup>18</sup>

8. In response to the *BRS/EBS Second FNPRM*, commenters proposed various alternative licensing schemes, including awarding licenses through a comparative point system;<sup>19</sup> permitting only consortia to apply for a Basic Trading Area (BTA) license (an area consisting of several counties

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<sup>14</sup> *Amendment of Part 74 of the Commission’s Rules with Regard to the Instructional Television Fixed Service*, MM Docket No. 93-24, Notice of Proposed Rulemaking, 8 FCC Rcd 1275, 1277, para. 9 (1993). The Commission made an exception to the freeze for major change proposals for EBS applications to accommodate settlement agreements among mutually exclusive applicants. *Id.* at 1277, para. 9 n.13; *see also Amendment of Part 74 of the Commission’s Rules with Regard to the Instructional Television Fixed Service*, Order and Further Notice of Proposed Rulemaking, MM Docket No. 93-24, 9 FCC Rcd 3348, 3354, paras. 42-43 (1994).

<sup>15</sup> *See Notice of Instructional Television Fixed Service Filing Window from October 16, 1995, through October 20, 1995*, Public Notice, Report No. 23565A (rel. Aug. 4, 1995).

<sup>16</sup> *Mass Media Bureau Announces Commencement of Sixty (60) Day Period for Filing ITFS Modifications and Amendments Seeking to Co-Locate Facilities with Wireless Cable Operations*, Public Notice, 11 FCC Rcd 22422, 22422-23 (1996).

<sup>17</sup> *See, e.g., See Implementation of Section 309(j) of the Communications Act—Competitive Bidding for Commercial Broadcast and Instructional Television Fixed Services Licenses, Reexamination of the Policy Statement on Comparative Broadcast Hearings, Proposals to Reform the Commission’s Comparative Hearing Process to Expedite the Resolution of Cases*, MM Docket No. 97-234, GC Docket No. 92-52, and GEN Docket No. 90-264, First Report and Order, 13 FCC Rcd 15920, 15999-16001 paras. 197-204 (1998) (*Commercial Broadcast Competitive Bidding First Report & Order*), *recon. denied*, 14 FCC Rcd 8724, *modified*, 14 FCC Rcd 12541 (1999), *aff’d sub nom. Orion Commc’ns, Ltd. v. FCC*, 213 F.3d 761 (D.C. Cir. 2000) (finding EBS spectrum is not exempt from the use of competitive bidding to assign new licenses subject to mutually exclusive applications); *BRS/EBS NPRM*, 18 FCC Rcd at 6816-19, paras. 233-240 (seeking comment on assigning licenses for unassigned EBS spectrum by competitive bidding); *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Fourth Memorandum Opinion and Order and Second Notice of Proposed Rulemaking and Declaratory Ruling, 23 FCC Rcd 5992, 6005, para. 20 (2008) (*BRS/EBS Fourth MO&O or BRS/EBS Second FNPRM*).

<sup>18</sup> *BRS/EBS Second FNPRM*, 23 FCC Rcd at 6005, para. 20.

<sup>19</sup> *See e.g.,* Comments of the Catholic Technology Network Comments at 3-7 (filed Sept. 22, 2008) (CTN Comments); Comments of Myers Lazarus at 11 (filed Sept. 22, 2008) (Myers Lazarus Comments); Reply Comments of Native Public Media at 5 (filed Oct. 22, 2008) (Native Public Media Reply).

surrounding a common commercial center);<sup>20</sup> permitting existing licensees to expand their respective GSAs to the borders of the BTA, which would eliminate all white space and in turn, eliminate the need to file applications for new licenses (“GSA maximization”);<sup>21</sup> and permitting licensees to expand their respective GSAs to the borders of the BTA after accepting applications for new stations (reverse GSA maximization).<sup>22</sup> Subsequently, on June 6, 2014, the Catholic Technology Network, the National EBS Association, the Wireless Communications Association International, and the Hispanic Information and Telecommunications Network, Inc. proposed a multi-step process for licensing unassigned EBS spectrum.<sup>23</sup> Unused EBS spectrum, however, has remained generally unavailable since 1995.<sup>24</sup>

### III. DISCUSSION

9. In accordance with the Commission’s goal of making additional spectrum available for flexible use, and to promote use of 2.5 GHz frequencies that have been unassigned for far too long, we propose and seek comment on a number of steps to encourage and facilitate more efficient use of this

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<sup>20</sup> See, e.g., Comments of the American Association of School Administrators(AASA), Association of Education Service Agencies, Association of School Business Officials International, Consortium for School Networking, International Society for Technology in Education, National Association of State Boards of Education, National Education Association, National Association of Independent Schools, National Rural Education Association, Organizations Concerned about Rural Education , and Rural Schools and Community Trust at 12-13 (filed Sept. 22, 2008) (The Schools Comments); see also *Ex Parte* letter from James H. Johnston, Esq., counsel for AASA, the School Superintendents Association to Marlene H. Dortch, Secretary, Federal Communications Commission Attach. at 4 (filed June 8, 2015).

<sup>21</sup> Comments of the National EBS Association at 22-24 (Filed Sept. 22, 2008) (NEBSA Comments) (Filed Sept. 22, 2008), Comments of Bellville ISD at 6 (filed Sept. 22, 2008) (Bellville ISD Comments) (filed Sept. 22, 2008), Comments of Indiana Higher Education Telecommunications System at 6 (filed Sept. 22, 2008) (IHETS Comments), Comments of Source for Learning at 5-6 (Filed Sept. 22, 2008) (Source for Learning Comments), Comments of Hispanic Information and Telecommunications Network at 9-13 (Filed Sept. 22, 2008) (HITN Comments), Joint Comments of Adams Telcom, Inc., Central Texas Communications, Inc., Leaco Rural Telephone Cooperative, Inc., Public Service Communications, Inc., Vermont Telephone Company, Inc. and Wisper Wireless Solutions, LLC at 4-7 (filed Sep. 22, 2008) (Adams *et al.* Comments).

<sup>22</sup> *Ex Parte* Letter filed by Edwin N. Lavergne, Counsel to CTN and Donna A. Balaguer, Counsel to the United States Conference of Bishops and the National Catholic Educational Association (dated June 1, 2009) (CTN June 2009 *Ex Parte*) at Attachment.

<sup>23</sup> *Ex Parte* Letter from Catholic Technology Network, National EBS Association, Wireless Communications Association International and Hispanic Telecommunications Information Network, Inc. (filed June 6, 2014) (Catholic Technology Network et. al. *Ex Parte*). The Catholic Technology Network et. al. *Ex Parte* proposes a multiple step process for licensing unassigned EBS spectrum: first, conversion/expansion of existing EBS licenses to county licenses; second, a special window for EBS-eligible Native American Tribal entities to apply for EBS spectrum; third, a similar window for all EBS-eligible entities; and, fourth, a window for a limited number of applications for remaining EBS spectrum. We note that the Catholic Technology Network et. al. *Ex Parte* was filed in Docket 03-66, and numerous parties filed and had *ex parte* communications with staff. We hereby terminate Docket 03-66; any filings made in Docket 03-66 are hereby incorporated into the instant proceeding and all remaining issues from Docket 03-66 subsumed herein, to enable consideration of any substantive information contained in filings made in that docket.

<sup>24</sup> Since the freeze was instituted, a number of requests for waiver and special temporary authority to permit use of unassigned DBS frequencies have been granted. See, e.g., *Application of The Board of Trustees of Northern Michigan University For a New Educational Broadband Service Station*, Memorandum Opinion and Order, 23 FCC Rcd 11832 (WTB 2008); *Application of The Nisqually Indian Tribe*, Memorandum Opinion and Order, 28 FCC Rcd 15569 (WTB BD 2013); *The Board of Trustees of Northern Michigan University*, Memorandum Opinion and Order, 28 FCC Rcd 15576 (WTB BD 2013); *The Board of Trustees of Northern Michigan University*, Memorandum Opinion and Order, 28 FCC Rcd 15583 (WTB BD 2013); *Application of The Board of Trustees of Northern Michigan University For a New Educational Broadband Service Station*, Memorandum Opinion and Order, 31 FCC Rcd 3371 (WTB BD 2016).

spectrum. First, given the irregularity of current EBS geographic service areas (as well as outdated regulatory requirements), we propose to rationalize existing EBS holdings so that existing licensees have new opportunities to put 2.5 GHz spectrum to its highest and best use. Second, we seek comment on whether to open one or more local priority filing windows so that existing licensees, Tribal Nations, and educational entities could get access to unassigned spectrum in the 2.5 GHz band. Third, we propose to use geographic area licensing to assign any remaining spectrum, which may result in the auction of any licenses for 2.5 GHz spectrum still unassigned after rationalizing holdings and any new filing windows. Finally, we seek comment on additional approaches for transforming the 2.5 GHz band, including by moving directly to an auction for some or all of the spectrum. We believe the proposed changes discussed herein will reduce unnecessary regulatory burdens on licensees, promote greater spectrum efficiency, and facilitate the full use of EBS spectrum to provide advanced mobile broadband services, particularly in rural areas where this spectrum sits idle today.

#### **A. Rationalizing Existing 2.5 GHz Holdings**

10. Ensuring that the radio spectrum is used efficiently and intensively is an important public interest goal—a goal that also serves the interests of the existing licensees. The Commission traditionally has recognized that a spectrum policy based on flexible use in regular geographic areas has several advantages.<sup>25</sup> Such flexible use licensing can promote broadband deployment, ensure the spectrum is put to its most beneficial use, allow licensees to respond to consumer demand for new services, and maximize the probability of success for new services.<sup>26</sup>

##### **1. Regular Geographic License Areas**

11. As an initial step, we propose to rationalize the GSAs of existing EBS licensees, except grandfathered licensees in the E and F Channel groups, to a defined geographic area, namely, the sum of census tracts that are covered by, or that intersect, a licensee's existing GSA. We propose that such rationalization should occur automatically (*i.e.*, we would update our licensing records to reflect the change), so existing licensees would not be required to file applications with the Commission or otherwise notify the Commission to effectuate this change.<sup>27</sup>

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<sup>25</sup> See, e.g., *Amendment to Harmonize and Streamline Part 20 of the Commission's Rules Concerning Requirements for Licensees to Overcome a CMRS Presumption*, Report and Order, 32 FCC Rcd 10731, 10738, para. 15 (2017).

<sup>26</sup> See, e.g., *Id.*, *Amendment of Parts 1 and 22 of the Commission's Rules with Regard to the Cellular Service, Including Changes in Licensing of Unserved Areas*, Second Report and Order and Second Further Notice of Proposed Rulemaking, 32 FCC Rcd 2518, 2520, para. 1 (2017); *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6567, 6871, paras. 744-745 (2014).

<sup>27</sup> We note that we followed a similar automatic process when ITFS licensees were awarded a protected service area ("PSA"), the precursor to a GSA, and when the PSA was expanded from 15 miles to 35 miles. See *Amendment of Part 74 of the Commission's Rules with Regard to the Instructional Television Fixed Service*, Report and Order, 10 FCC Rcd 2907, 2917, para. 59 (1995); *Amendment of Parts 21, 43, 74, 78, and 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands Affecting: Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service & Cable Television Relay Service*, Order on Reconsideration, 6 FCC Rcd 6764, 6766-67, paras. 9-10 (1991). We also note that pursuant to our existing rules, grandfathered EBS licensees on the E and F channel groups would not be permitted to expand their GSAs. 47 CFR §27.1216. Pursuant to 47 CFR §27.1216, because there may be both EBS and BRS stations on the same channels in the same market, grandfathered E and F group EBS channels have previously been limited in their ability to expand their GSAs. This may still be the case. We seek comment on whether rationalizing the holdings of grandfathered EBS licensees on the E and F channel groups would be feasible, whether we could use a similar rationalization scheme as proposed herein for EBS generally, and whether doing so would facilitate more intensive use of 2.5 GHz spectrum.

12. We seek comment on whether such expansion<sup>28</sup> should include every census tract that is covered by or that intersects the licensee's existing GSA. Alternatively, should a census tract be included only if a minimum percentage of that census tract overlaps the GSA, and, if so, what should that minimum percentage threshold be (e.g., 10 percent, 25 percent, 50 percent)? We also seek comment on whether, if we adopt a minimum percentage overlap threshold, that minimum percentage should be a percentage of the census tract's geography or of the census tract's population.

13. Second, we propose that, in this rationalization process, each current EBS GSA will be converted to a single license made up of all the census tracts it covers or intersects, rather than converted to a collection of separate licenses, each the size of a single census tract. We seek comment on this proposal.

14. Finally, we seek comment on how to resolve situations in which two or more co-channel GSAs overlap the same census tract(s), and whether simply setting the threshold for required overlap at 50 percent in order to include the census tract in the GSA is the best way to address such a situation. Are there other ways to address situations in which co-channel GSAs overlap the same census tracts?

15. Modifying EBS licenses to GSAs based on census tracts should generate two particular benefits. First, since census tract boundaries are pre-determined and follow regular geographic separation patterns (e.g., divisions based on streets), the boundaries of census tract-based GSAs should be easier to determine than a circular GSA that cuts across regular geographic boundaries.

16. Second, rationalizing incumbent EBS licenses based on census tracts would yield white spaces that also are based on the boundaries of census tracts and/or counties (since census tracts nest into counties), rather than irregular shapes and slivers. This regularity in the shape and size of white spaces would facilitate new entry into the 2.5 GHz band. We seek comment on these views. Commenters should discuss the costs and benefits of such a license area change.

17. As an alternative to basing GSAs on census tracts, we seek comment on whether we should expand existing GSAs to include the counties covered by or that intersect the GSA. Under this alternative, we seek comment on whether to include a county only if a minimum percentage of the county overlaps the GSA and, if so, what that minimum percentage should be (e.g., 50 percent, 75 percent). We also seek comment on whether, if we adopt a minimum percentage overlap threshold, that the minimum percentage should be a percentage of the county's geography or of the county's population. In addition, we seek comment on how to resolve situations where more than one EBS licensee is in the same county, and whether and to what extent automatic expansion on a county basis will result in inefficient use of spectrum.

18. We also seek comment on any other issue that may arise from rationalizing existing EBS holdings and allowing EBS licensees to apply to expand their GSA boundaries. In addition to the criteria stated above, are there any other requirements that existing licensees should satisfy in order to be permitted to expand into the vacant area of a county? For instance, should the right to expand to county boundaries be limited to licensees that provide service to a given percentage of that county? If so, what should the minimum percentage be? Should the minimum percentage be a percentage of the county's geography or of the county's population? Should we establish a requirement that the incumbent licensee's GSA cover a minimum percentage of the area in a county before it is allowed to expand into the remainder of the county? In the alternative, should we simply have existing licensees maintain their current contours, rather than rationalizing existing holdings? Commenters should discuss cost and benefits of any advocated approach and support their position with quantitative and qualitative data.

## **2. Additional Flexibility for EBS Licenses**

19. Granting additional flexibility to EBS licensees has been an effective means of allowing

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<sup>28</sup> Under limited circumstances a GSA might be reduced instead of expanded.

better use of the 2.5 GHz band. In 1983, when the Commission allowed 2.5 GHz licensees to lease excess capacity, it provided educators with another means of acquiring the resources needed to operate ITFS facilities for education.<sup>29</sup> In 2004, when the Commission created BRS and EBS, the more flexible technical rules allowed the bands to be used for broadband services.<sup>30</sup> Now, significant amounts of commercial broadband data flow through the 2.5 GHz band.<sup>31</sup> We believe subsequent events have confirmed the Commission's prediction that "consumer benefits will be maximized if BRS/EBS licensees are able to take advantage of the flexible use standard in Part 27."<sup>32</sup> We now seek comment on granting additional flexibility to EBS licensees in order to promote more intensive and efficient spectrum use.

20. First, we propose to provide EBS licensees with the flexibility to assign or transfer control of their licenses to entities that are not EBS-eligible. Specifically, we propose to eliminate the limit on what entities can hold EBS licenses (rule 27.1201) and make clear that licensees may assign or transfer control of their licenses to other entities.<sup>33</sup> We note that the existing licensees have built out their systems since 2011 and understand how they use their EBS licenses as well as the availability of wireless broadband in their area. Under this proposal, the decision whether to lease or transfer a license would rest with the EBS licensee.<sup>34</sup> There is little reason to think that, at this point in time, the Commission is better positioned than licensees themselves to determine how to maximize the use of 2.5 GHz spectrum for licensees and their communities. And there is little reason to think that licensees should not be allowed to decide for themselves whether to continue to hold their licenses or to transfer their licenses to a third party in the secondary market. We seek comment on this proposal.

21. EBS licensees whose licenses were granted via waiver since the EBS filing freeze was instituted are currently prohibited from leasing the spectrum.<sup>35</sup> Consistent with our consideration of providing additional secondary-markets flexibility to existing EBS licensees, we propose to eliminate any special restrictions on such licensees; accordingly, those whose licenses were granted via waiver would have the same flexibility to lease their spectrum or to transfer or assign their licenses as we propose for other EBS licensees. We seek comment on this proposal.

22. We also seek comment on eliminating the educational use requirements for EBS

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<sup>29</sup> 1983 R&O, 48 Fed. Reg at 33892, para. 118.

<sup>30</sup> BRS/EBS R&O, 19 FCC Rcd at 14168, 14169-70, paras. 4, 6. Similarly, the Commission's clarification of the permissible length of lease terms in 2009 provided greater certainty to both licensees and lessees. *Provision of Fixed and Mobile Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Fifth Memorandum Opinion and Order and Third Further Notice of Proposed Rulemaking, 24 FCC Rcd 12258 (2009).

<sup>31</sup> Colin Gibbs, *Fierce Wireless Sprint: More than half of our LTE traffic is on 2.5 GHz* (Nov, 9, 2016); <http://www.fiercewireless.com/wireless/sprint-more-than-half-our-lte-traffic-2.5-ghz> (March 3, 2018).

<sup>32</sup> BRS/EBS R&O, 19 FCC Rcd at 14237, para. 187.

<sup>33</sup> See 47 CFR § 27.1201 (limiting EBS eligibility to certain educational entities).

<sup>34</sup> If the EBS licensee's lease provides for an option or right of first refusal with respect to a license, the provisions of the contract would apply, subject to the requirement that all assignments and transfers of Commission licenses are subject to Commission consent.

<sup>35</sup> See, e.g., *Application of The Board of Trustees of Northern Michigan University For a New Educational Broadband Service Station*, Memorandum Opinion and Order, 23 FCC Rcd 11832 (WTB 2008); *Application of The Nisqually Indian Tribe*, Memorandum Opinion and Order, 28 FCC Rcd 15569 (WTB BD 2013); *The Board of Trustees of Northern Michigan University*, Memorandum Opinion and Order, 28 FCC Rcd 15576 (WTB BD 2013); *The Board of Trustees of Northern Michigan University*, Memorandum Opinion and Order, 28 FCC Rcd 15583 (WTB BD 2013); *Application of The Board of Trustees of Northern Michigan University For a New Educational Broadband Service Station*, Memorandum Opinion and Order, 31 FCC Rcd 3371 (WTB BD 2016).

licensees. The educational use requirements, which have not been updated since 1998<sup>36</sup> were based on the use of analog video and permitted many administrative uses to fulfill the educational requirement. Today, however, most EBS licensees or their commercial lessees are providing digital broadband service, offered 24/7, at the school itself, at home, or anywhere within the licensee's GSA. It appears the existing educational use requirements are out of date and do not fit the actual use of the spectrum. Given the additional flexibility we are granting EBS licensees, we seek comment on whether there is value in attempting to update the educational use requirements—who is better positioned to determine the highest and best use of 2.5 GHz spectrum, the Commission or licensees? Commenters should explain and quantify the benefits and costs of these regulatory requirements, including whether to update them (and if so, how).

23. We also propose to eliminate the current restrictions on EBS lease terms. Under existing rules, EBS licensees are prohibited from leasing their facilities for a term longer than 30 years and lessees are required to provide EBS lessors with the opportunity to revisit their lease terms at years 15, 20, and 25 to review their “educational use requirements in light of changes in educational needs, technology, and other relevant factors and to obtain access to such additional services, capacity, support, and/or equipment as the parties shall agree upon in the spectrum leasing arrangement to advance the EBS licensee’s educational mission.”<sup>37</sup> To that end, we propose to eliminate these lease restrictions on a going-forward basis.<sup>38</sup> We also seek comment on any other revisions needed to fully rationalize our rules for the transferability, leasing, and use of EBS spectrum. Are there other restrictions that unnecessarily reduce the ability of licensees to put this spectrum to its highest and best use?

24. Finally, we ask whether, in light of the actions we take in this proceeding, we should modify our treatment of EBS in the spectrum screen. In the *Mobile Spectrum Holdings Report and Order*, the Commission concluded that it was necessary to include most EBS spectrum into the spectrum screen “to reflect today’s marketplace realities.”<sup>39</sup> While the Commission found that EBS spectrum generally was suitable and available for the provision of mobile telephony/mobile broadband services,<sup>40</sup> it did apply a discount.<sup>41</sup> Specifically, the Commission first excluded the five percent of the EBS capacity that is reserved for educational uses because it remains committed to EBS spectrum serving educational purposes.<sup>42</sup> Second, it excluded the EBS white space.<sup>43</sup> After taking these discounts into consideration, the Commission, in 2014, included 89 megahertz of EBS spectrum in the screen.<sup>44</sup> Are any changes to this treatment warranted? Should we reconsider the spectrum aggregation screen?

## **B. Opportunities to Acquire New 2.5 GHz Licenses**

25. Once the Commission has rationalized the holdings of existing EBS licensees, unassigned portions of the 2.5 GHz band will be ready for new assignment—bringing new opportunities to rural

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<sup>36</sup> See *Amendment of Parts 1 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Two-way Transmissions*, Report and Order, 13 FCC Rcd 19112 (1998).

<sup>37</sup> 27 CFR §1214(e).

<sup>38</sup> While we propose to eliminate EBS-specific term-related restrictions for leases, we do not propose to eliminate the requirement that lease notifications must be refiled for each new license term. 47 CFR § 1.9030(g)(2).

<sup>39</sup> *Policies Regarding Mobile Spectrum Holdings; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6133, 6184-6185 para. 118 (2014) (*Mobile Spectrum Holdings Report and Order*), recon. denied, Order on Reconsideration, 30 FCC Rcd 8635 (2015).

<sup>40</sup> *Id.* at 6186, para. 123.

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

<sup>43</sup> *Id.* at 6186, para. 124.

<sup>44</sup> *Id.*

communities that have lacked access to this spectrum before. We propose to use geographic area licensing to assign any remaining spectrum, which should result in the auction of licenses for unassigned portions of the 2.5 GHz band and seek comment on whether we should first open up to three new local priority filing windows to give existing licensees, Tribal Nations, and educational entities an opening to access 2.5 GHz spectrum to serve their local communities. We also propose build-out requirements for these new licenses to ensure that all Americans have the opportunity to benefit from the 2.5 GHz band.

### 1. New Local Priority Filing Windows

26. When the Commission reopened applications for the 2.5 GHz band in 1985, it expressed a “strong preference” for local applicants in the licensing process.<sup>45</sup> The Commission found then that local applicants were “convincingly demonstrated . . . to be the best authorities for evaluating their educational needs and the needs of others they propose to serve in their communities,” to “best understand the educational needs . . . of their communities,” and to “act most responsibly in designing and developing [2.5 GHz] systems.”<sup>46</sup> It thus opened a “local priority period” to give “more local entities . . . the opportunity to fill more channels as financial support from non-[instructional] use becomes more widespread.”<sup>47</sup>

27. Now that the Commission is again opening the 2.5 GHz band for additional licensing, we start by seeking comment on whether we should open up to three new filing windows for qualifying applicants that want to use currently unassigned 2.5 GHz spectrum to serve their local communities. In each filing window, qualifying applicants would have the opportunity to apply for one or more vacant channels of EBS spectrum in areas where the applicant can show it has a local presence. The first filing window would be for existing EBS licensees, the second for Tribal Nations, and the third for other educational entities. We seek comment on whether we should open any new local priority filing windows, if any, as well as the details of such windows in turn.

28. In responding, commenters should discuss whether such priority filing windows to assign licenses is consistent with our statutory authority to assign licenses that could be used for telecommunications, and Commission policy and precedent regarding use of competitive bidding. Also, should these entities be given preference over others, in light of other benefits provided to these entities, such as various Universal Service programs, including E-Rate and the Connect America Fund? We also seek comment on whether such filing windows can be misused and result in unjust enrichment, with licenses being sold or leased to ineligible entities for profit. What effect might these priority windows have on the attractiveness of the remaining spectrum for other applicants? Should we have one combined priority window for these entities, or the three we seek comment on below?

29. *Local Presence.* When the Commission previously created a local priority period, it defined as “local” those “institutions and organizations that are physically located in the community, or metropolitan area, where service is proposed.”<sup>48</sup> We propose for any new local priority filing window, should the Commission choose to implement this approach, to similarly require an applicant to demonstrate, as part of the application process, that it is physically located within the license area applied for. We seek comment on this requirement<sup>49</sup> and what it would mean in practice. For example, should a

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<sup>45</sup> See *ITFS Local Priority Order*, 101 FCC 2d 49,57, para. 19.

<sup>46</sup> See *id.* at 56, para. 16. Notably, the Commission also found local applicants preferable for designing the content and related aspects of the ITFS systems then in use in the 2.5 GHz band.

<sup>47</sup> *Id.* at 57, para. 18.

<sup>48</sup> *Id.* at 59, para. 22.

<sup>49</sup> We note that some commenters had indicated support for a localism requirement earlier in this proceeding. See Comments of CTN at 5-7; Comments of AASA at 7, 12, 13; Comments of Myers Lazrus at 13; Reply Comments of the United States Conference of Catholic Bishops at 1-2 (filed Oct. 22, 2008); Reply Comments of National Catholic Educational Association at 1-2 (filed Oct. 22, 2008).

college or university be considered to be physically located in any area in which it has a campus?<sup>50</sup> Should an entity created by a state or local government for the purpose of serving formal educational needs, such as a public school or a school district, be considered to be physically located in every area where it has a school building? Should having a physical or mailing address within a particular area, be sufficient to demonstrate that the applicant has a local presence within that area?<sup>51</sup> Are there any situations in which simply having some sort of physical address is not indicative of the local presence of an applicant? Commenters should discuss whether the proposed definition of local presence would serve the public interest and provide any relevant qualitative and quantitative data to support their positions.

30. Commenters also should address what documentation applicants must provide to make such a demonstration. Should the determination of whether an applicant is considered to have a local presence be based solely on an applicant's physical location(s) and/or physical address(es)? Commenters should discuss other factors that should be considered and explain how any factors that they suggest will ensure that the local priority filing window is available only to local applicants. We also seek comment any other issues that we may need to address to implement a local presence requirement.

31. We note that the majority of current EBS licensees, such as school districts, schools, colleges and universities, appear to have a local presence where they have licenses. It also appears that the entities most likely to be affected by a local presence requirement are the "national" licensees.<sup>52</sup> Although national licensees serve a purpose in providing educational services to educational institutions and students, educational entities with a local presence have a closer understanding of the needs of their local communities and are more likely to use 2.5 GHz spectrum to meet such needs, especially in rural areas. Entities with a local presence are part of the communities they wish to serve, and requiring local presence would increase the likelihood that the EBS spectrum would be put to beneficial use for local communities. We seek comment on these views.

32. *Local Priority Filing Window 1: Existing Licensees.* If the Commission decides to use priority filing windows, we seek comment on whether it should open a window for existing EBS licensees. Opening such a window would allow existing licensees that are already providing service in a significant portion of a county (and have a local presence in that county) to expand their service to the county border.<sup>53</sup> Existing licensees have already deployed service throughout a portion may be best positioned to quickly put the white-spaces in their local area to use through an edging-out strategy. In addition, since a number of school districts are based on county boundaries, allowing county expansion could allow county-based school districts to better provide services to the students within their districts, and in many cases, to provide services to those students at home, as well as on school premises.<sup>54</sup> Alternatively, such a window would preclude other applicants from accessing 2.5 GHz white spaces, including new entrants long excluded from the band. We seek comment on opening such a local priority filing window.

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<sup>50</sup> See *ITFS Local Priority Order*, 101 FCC 2d at 59, para. 22.

<sup>51</sup> *Id.*

<sup>52</sup> National filers are those that hold licenses all over the country and provide services to the students of an unrelated educational institution, in contrast to licensees that hold licenses only in regional or local areas and provide services to their own enrolled students or the students of a neighboring educational institution. National licensees already hold over 300 licenses, approximately 15 percent of all EBS licenses. These numbers are based on a review of the Universal Licensing System.

<sup>53</sup> To be clear, should another licensee already hold licenses for census tracts in that county, we would not intend the county-expansion to encompass those areas.

<sup>54</sup> Kings County, California was required to apply for special temporary authorizations to build its educational broadband system because its GSA did not cover much of the county. See File Nos. 0004787793, 0004787800 (filed June 27, 2011, granted Sep. 2, 2011).

33. Were we to open such a window, we would propose to limit participation to existing licensees as of the adoption of this *Notice of Proposed Rulemaking*.<sup>55</sup> Setting a firm, fixed date allows all commenters and the Commission to easily discern what entities would be potential applicants for this window should we adopt it. Furthermore, applicants in this window would be limited to seeking county-based licenses only in counties where they have a local presence. And finally, applicants in this window would be limited to seeking county-based licenses only where they hold, after the rationalization of existing license areas, licenses on a particular channel that cover at least 25 percent of census tracts in a county. We seek comment on these conditions. In particular, what adjustments to these conditions, if any, would be appropriate to ensure that the goals of such a window would be met? For example, should we require licensees to hold licenses covering even more of a county (say 50 percent of census tracts)? Or should we require that a local presence of the licensee lie inside the county but outside the already-licensed area of the licensee (under a theory that licensees should be permitted to expand to cover areas where they have a physical presence but otherwise restricted so that new licensees have the opportunity to participate in the 2.5 GHz band)?

34. What other conditions, if any, should we adopt on participants in such a window? For example, should we exclude channels in counties in which more than one existing licensee would qualify for expansion on a single channel? If so, how would we determine all counties in which existing licensees meet the local presence requirement? Alternatively, should we only exclude channels in counties in which more than one licensee holds licenses covering at least 25 percent of the census tracts in the county? Should we exclude tribal areas that are contained within a county that would be subject to the Tribal Nations window discussed below? We seek comment on these and any other issues related to opening a new local priority filing window for existing licensees.

35. *Local Priority Filing Window 2: Rural Tribal Nations.* We seek comment on whether the Commission, if it decides to pursue this approach, should open a new local priority filing window for rural Tribal Nations. The Commission has recognized that “members of federally-recognized American Indian Tribes and Alaska Native Villages and other residents of Tribal lands have lacked meaningful access to wired and wireless communications services.”<sup>56</sup> Opening such a window would allow rural Tribal Nations an opportunity to access 2.5 GHz spectrum to address educational and communications needs of their communities and residents on rural Tribal lands, including the deployment of advanced wireless services to areas that have too long been without. Alternatively, such a window would preclude other applicants from accessing 2.5 GHz white spaces. We seek comment on opening such a local priority filing window.

36. Were we to open such a window, we would propose to limit participation to federally-recognized American Indian Tribes and Alaska Native Villages located in rural areas.<sup>57</sup> Such a request would appear to comport with Native Public Media’s request to open the 2.5 GHz band to Indian Tribes

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<sup>55</sup> We seek comment on whether holders of special temporary authority (an STA) who are not full-fledged licensees should qualify for such a window. Should we expect them to have the permanent facilities in place to quickly expand service to the county edge?

<sup>56</sup> See *Improving Communications Services for Tribal Nations by Promoting Greater Utilization of Spectrum over Tribal Lands*, Notice of Proposed Rulemaking, 26 FCC Rcd 2623, 2624, para. 1 (2011) (*Wireless Spectrum Tribal Lands NPRM*); see also *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans In a Reasonable and Timely Fashion*, 2018 Broadband Deployment Report, Docket 17-199, FCC 18-10 at 3, 27-28, paras. 6, 57-58 (rel. Feb 2, 2018) (noting that Tribal areas continue to lag behind with respect to broadband deployment).

<sup>57</sup> Alternatively, should we authorize any “Native American Tribal entity” to participate, including any entity that is listed on the U.S. Secretary of the Interior’s currently published list of Indian Tribes recognized to be eligible for the special programs and services provided by the United States to Indians because of their status as Indians? See *The Federally Recognized Indian Tribe List Act of 1994* (Indian Tribe Act, Public Law 103-154, 108 Stat. 4791 (1994)) (*Indian Tribe Act*).

and Tribal Governments to account for the special trust relationship between Tribal Nations and the Federal Government and the fact that Native Americans are acutely underrepresented in communications media.<sup>58</sup> Furthermore, applicants in this window would be limited to seeking new licenses only in rural areas where they have a local presence—that would include rural Tribal lands associated with the Tribal Nation itself. We seek comment on how much of the license area would need to be Tribal lands to qualify. Would 25 percent be sufficient? 50 percent? We further seek comment on how to define rural Tribal lands for these purposes. Should we use the definition of rural Tribal lands used for E-rate program and Lifeline; *i.e.*, Tribal Lands that are not part of “an urbanized area or urban cluster area with a population equal to or greater than 25,000”?<sup>59</sup> We ask commenters to discuss any issues that may arise out of a particular definition of Tribal Lands. We seek comment on whether to exclude lands that currently are not inhabited by members of the Tribal Nations and/or are held as private property from the definition. To this end, we request comment on how to ensure that the only entities eligible to participate in this filing window are entities that meet our definition of a Tribal Nation, and whose Tribal lands are lands where tribal members reside as a group and are not used for purely commercial purposes. We seek comment on these conditions. In particular, what adjustments to these conditions, if any, would be appropriate to ensure that the goals of such a window would be met?

37. We next seek comment on whether licenses granted for white spaces in such a local priority window should be at the county level or on a census-tract-by-census-tract basis. Commenters should discuss why a particular geographic area size would be appropriate taking into account all relevant information, including border interference coordination needs, propagation characteristics of the band, and the services that will be offered. We note that using a smaller license area (census tracts) would increase the fit between areas licensed to Tribal Nations and Tribal lands, but may have offsetting efficiency losses. Commenters should discuss the costs and benefits of any advocated approach and support their position with quantitative and qualitative data.

38. We also propose that, if we were to adopt such a local priority filing window, we would not limit the number of channels that a Tribal Nation could acquire. Given the state of wireless technologies (including the use of progressively wider channels), we believe that allowing access to contiguous spectrum on any number of available channels would more efficiently accommodate varying business models and spectrum needs for wireless broadband. We seek comment on this proposal.

39. Finally, we seek comment on any other ways by which we could encourage the use of 2.5 GHz spectrum on Tribal Lands. Should we impose any additional obligations to ensure that Tribal Nations hold 2.5 GHz licenses for the benefit of their Tribal community? We seek comment on these and any other issues related to opening a new local priority filing window for Tribal Nations, and in particular we seek government-to-government consultation and coordination with federally recognized Tribes on these issues and the input of inter-Tribal government associations and Native representative organizations.

40. *Local Priority Filing Window 3: New Educational Entities.* To the extent that we implement any filing windows, we seek comment on whether the Commission should open a new local priority filing window for educational entities that do not currently hold any 2.5 GHz licenses. Opening such a window would allow new educational entities that have never had the opportunity to benefit from holding and using 2.5 GHz spectrum (and that have a local presence in a particular area) the opportunity to access this spectrum for the first time. We note that the majority of requests for waiver of the current

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<sup>58</sup> Native Public Media Reply at 2-3.

<sup>59</sup> See *Bridging the Digital Divide for Low-Income Consumers, et al.*, Fourth Report and Order, Order on Reconsideration, Memorandum Opinion and Order, Notice of Proposed Rulemaking, and Notice of Inquiry, 32 FCC Rcd 10475, 10478, para. 5 (2017).

filing freeze have come from educators with a local presence in the communities that they wish to serve.<sup>60</sup> Alternatively, such a window would preclude the auction of any licenses for remaining 2.5 GHz white spaces.<sup>61</sup> We seek comment on opening such a local priority filing window.

41. Were we to open such a window, we would propose to limit participation to accredited institutions as well as governmental organizations engaged in the formal education of enrolled students who are not 2.5 GHz licensees as of the adoption of this Notice of Proposed Rulemaking.<sup>62</sup> Setting a firm, fixed date allows all commenters and the Commission to easily discern what entities would be potential applicants for this window should we adopt it. Furthermore, applicants in this window would be limited to seeking licenses only in areas where they have a local presence. We seek comment on these conditions. In particular, what adjustments to these conditions, if any, would be appropriate to ensure that the goals of such a window would be met?

42. We next seek comment on whether licenses granted for white spaces in such a local priority window should be at the county level or on a census-tract-by-census-tract basis. Commenters should discuss why a particular geographic area size would be appropriate taking into account all relevant information, including border interference coordination needs, propagation characteristics of the band, and the services that will be offered. Since a number of school districts are based on county boundaries, would allowing county-based licenses allow county-based school districts to better provide services to the students within their districts, and in many cases, to provide services to those students at home, as well as on school premises?<sup>63</sup> Commenters should discuss the costs and benefits of any advocated approach and support their position with quantitative and qualitative data.

43. We also propose that, if we were to adopt such a local priority filing window, we would not limit the number of channels that a new educational entity could acquire. Given the state of wireless technologies (including the use of progressively wider channels), we believe that allowing access to contiguous spectrum on any number of available channels would more efficiently accommodate varying business models and spectrum needs for wireless broadband. We seek comment on this proposal.

44. *Local Priority Filing Process.* We seek comment on the appropriate time frame for any new local priority filing windows. How long should we keep this window open, and how much notice should be given to applicants before the filing window opens? For example, should each such filing window last 30 days with at least 90 days' notice to potential applicants of the licenses available? We ask entities that are interested in participating in the application window and obtaining 2.5 GHz licenses to indicate their interests and the difficulties that they may face to help us evaluate any possible technical and process issues that may arise in implementing one or more new local priority filing windows for applicants and processing such applications. Given technical limitations of the Universal Licensing

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<sup>60</sup> See, e.g., Pending EBS Application of Monterey Peninsula Unified School District, File No. 0007664266 (arguing that a waiver would permit Applicant to provide critical broadband services to students and their families in otherwise unserved and underserved areas of Monterey County, California, where the school district is located); Pending EBS Application of Kings County Superintendent of Schools, File Numbers 0007949111 and 0007949111 (arguing that a waiver would permit Applicant to continue to provide services to its students located within the county).

<sup>61</sup> We note that several educational entities have argued that that it is not practical for educational institutions to participate in an auction. See NEBSA Comments at 7; Myers Lazrus Comments at 9; HITN Comments at 12; Comments of North Carolina Association of Community College Presidents at 2 (filed Aug. 8, 2008); Adams *et al.* Comments at 2-3; Bellville ISD Comments at 18; IHETS Comments at 18; SFL Comments at 17.

<sup>62</sup> As before, we seek comment on whether holders of special temporary authority (an STA) who are not full-fledged licensees should qualify for such a window.

<sup>63</sup> Kings County, California was required to apply for special temporary authorizations to build its educational broadband system because its GSA did not cover much of the county. See File Nos. 0004787793, 0004787800 (filed June 27, 2011, granted Sep. 2, 2011).

System (ULS), we note that we may not be able to accept applications for all available EBS licenses in one general filing window. If that is the case, and we divide the available licenses among multiple filing windows, how should such division be implemented: by region; by population, with the most populous States first or last; alphabetically; or by some other method? We seek comment on these and related issues.

45. *Resolving Mutually Exclusive Applications.* The Act requires that, if the Commission accepts mutually exclusive applications for initial spectrum licenses, the Commission “shall grant the license . . . through a system of competitive bidding.”<sup>64</sup> The Commission assigns licenses for commercial and private internal use through competitive bidding in order to place the licenses in the hands of the parties that value them most highly and that are able to use them most effectively.<sup>65</sup> If the Commission decides to create one or more local priority filing windows, as discussed here, they would result in relatively few mutually exclusive applications, but such a result is not precluded. Therefore, should we receive mutually exclusive applications, we must use competitive bidding to assign initial licenses subject to mutually exclusive applications. We seek comment on limiting such competitive bidding to the mutually exclusive applicants in that particular filing window, however. In addition, we propose to employ the Part 1 rules governing competitive bidding design, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants.<sup>66</sup> We do not propose to adopt designated entity provisions. Under this proposal, such rules would be subject to any further modifications that the Commission may adopt for its Part 1 general competitive bidding rules in the future. We seek comment on this proposal.

46. We also seek comment on whether to allow a settlement window for the filers to resolve any mutual exclusivity before we accept any application for a 2.5 GHz license. We also seek comment on any alternative “engineering solutions, negotiation, threshold qualifications, service regulations, and other means”<sup>67</sup> of avoiding mutually exclusive applications for new licenses that might further the public interest and comply with the Act.

47. *Holding Periods for Licenses Acquired through a Local Priority Filing Window.* We seek comment on whether to impose a special holding period on any license acquired through a local

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<sup>64</sup> 47 CFR § 309(j)(1).

<sup>65</sup> See *Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Second Report and Order, 9 FCC Rcd 2348, 2349-50, paras. 4-5 (1994).

<sup>66</sup> See, e.g., *Amendment of Part 1 of the Commission’s Rules—Competitive Bidding Procedures*, WT Docket No. 97-82, Order, Memorandum Opinion and Order and Notice of Proposed Rule Making, 12 FCC Rcd 5686 (1997); Third Report and Order and Second Further Notice of Proposed Rule Making, 13 FCC Rcd 374 (1997) (“*Part 1 Third Report and Order*”); Order on Reconsideration of the Third Report and Order, Fifth Report and Order, and Fourth Further Notice of Proposed Rule Making, 15 FCC Rcd 15293 (2000), *aff’d in part and modified in part*, Second Order on Reconsideration of the Third Report and Order, and Order on Reconsideration of the Fifth Report and Order, 18 FCC Rcd 10180 (2003); Seventh Report and Order, 16 FCC Rcd 17546 (2001); Eighth Report and Order, 17 FCC Rcd 2962 (2002); Second Order on Reconsideration of the Part 1 Fifth Report and Order, 20 FCC Rcd 1942 (2005); *Implementation of the Commercial Spectrum Enhancement Act and Modernization of the Commission’s Competitive Bidding Rules and Procedures*, WT Docket 05-211, Report and Order, 21 FCC Rcd 891 (2006) (“*CSEA/Part 1 Report and Order*”), *recons. pending*; Second Report and Order and Second Further Notice of Proposed Rule Making, 21 FCC Rcd 4753 (2006) (“*CSEA/Part 1 Designated Entity Second Report and Order and Second FNPRM*”), *recons. pending*; Order on Reconsideration of the Second Report and Order, 21 FCC Rcd 6703 (2006) (modified by Erratum and Notice of Office of Management and Budget Approval of Information Collections, 21 FCC Rcd 6622 (WTB 2006)), *petition for review dismissed sub nom. Council Tree Communications, Inc. v. FCC*, 503 F.3d 284 (3d Cir. 2007); Second Order on Reconsideration of the Second Report and Order, 23 FCC Rcd 5425 (2008), *vacated in part, Council Tree Communications, Inc. v. FCC*, 619 F.3d 235 (3d Cir. 2010); Order, FCC 12-12 (Feb. 1, 2012).

<sup>67</sup> 47 U.S.C. § 309(j)(6)(E).

priority filing window, if any. Although we generally seek to facilitate the free transfer of licenses among parties, granting certain entities local priority filing windows is premised on the idea that such entities are uniquely qualified to hold spectrum licenses and ensures that the licenses are put to their highest and best use—something that could not occur if such an entity quickly flipped that license to another, nonqualifying entity. Should we expect that these licenses are likely to be used by the licensee, or that they ultimately will be leased or sold to others who are not eligible for the priority preference? Should the Commission implement a holding period that deters the lease or sale of spectrum to ineligible entities? What factors should the Commission consider in establishing a holding period? What is the most appropriate length for a holding period so as to alleviate concerns involving any potential for speculative behavior or acquisition of 2.5 GHz licenses by entities that do not have a *bona fide* interest in providing service? Would a three, five, or seven-year or more holding period be most appropriate for these circumstances? In determining the appropriate length of holding period, should we consider the chances for and mitigate the potential unjust enrichment by those receiving a priority preference? Are there additional steps that should be taken to ensure that entities are not unjustly enriched? Should we require the licensee to demonstrate completion of certain buildout requirements before allowing a transfer of control? Should we prohibit an EBS licensee that is granted a license during one of the local priority windows proposed herein from leasing 100 percent or some other percentage of their capacity to a commercial entity during the holding period? We seek comment on these issues.

48. For EBS licenses granted via the local priority windows proposed above, we propose to require that licensees must reserve a minimum of 20 percent of the capacity of their channels for educational uses that “further the educational mission of accredited public and private schools” consistent with paragraphs (b) and (c) of Section 27.1203<sup>68</sup> of the Commission’s rules, and may not enter into spectrum leasing arrangements involving this reserved capacity. For EBS licensees that choose to provide a broadcast-type service, we propose to require such licensees to offer 20 hours per channel, per week of educational programming. We seek comment on these proposals.

## 2. Licensing White Spaces

49. We propose, after any new licenses have been assigned through one or more local priority filing windows should the Commission choose to implement that approach, that any remaining 2.5 GHz spectrum<sup>69</sup> be made available for commercial use via competitive bidding. We propose that the Commission would conduct an auction for licenses of EBS spectrum in conformity with the general competitive bidding rules set forth in Part 1, Subpart Q, of the Commission’s rules. As proposed above for mutually exclusive applications filed in the three EBS filing windows, we propose to employ the Part 1 rules governing competitive bidding design, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants.<sup>70</sup> We also propose not to apply designated entity preferences in this auction. We seek comment on this proposal.

50. We seek comment on the appropriate geographic size of new 2.5 GHz white space licenses (*e.g.*, county, census tract, or something else) and the size of the channel blocks (*e.g.*, existing channels or the entire available band). Commenters should discuss the costs and benefits of adopting their proposed geographic area size and channel block size and why such area and channel block sizes would serve the public interest taking into account all the characteristics of this band.

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<sup>68</sup> 47 CFR §27.1203(b)-(c).

<sup>69</sup> In the *BRS/EBS Second FNPRM*, 23 FCC Red at 6060, para. 180, the Commission sought comment on a variety of issues related to licensing EBS spectrum in the Gulf of Mexico. We need not address whether to eliminate restrictions on EBS spectrum in the Gulf of Mexico because, as we explain herein, we propose to eliminate restrictions on all remaining “white space” EBS spectrum and make it available for commercial use via competitive bidding.

<sup>70</sup> See, *Section 3.B.4, supra*.

51. Consistent with our longstanding approach, we would initiate a public notice process to solicit public input on certain details of auction design and the auction procedures. This public notice process would address auction-specific matters such as the competitive bidding design and mechanisms, minimum opening bids and/or reserve prices, caps on bidding credits, and payment procedures. In advance of the auction, another public notice would announce the auction procedures and provide detailed instructions for potential auction participants. We also seek comment on whether any of our Part 1 rules should be modified for an auction of licenses in these frequency bands.

### 3. Requirements for New 2.5 GHz Licenses

52. The current performance requirements for licensees in the 2.5 GHz band were set forth in 2006, as part of the ongoing efforts to transition the band to the new band plan established in 2004.<sup>71</sup> The 2006 *BRS/EBS Second Report and Order* established a substantial service regime for BRS and EBS licensees<sup>72</sup> and required licensees to demonstrate compliance by May 1, 2011.<sup>73</sup> The 2006 *BRS/EBS Second Report and Order* also established specific safe harbors, including 30 percent population coverage for mobile or point-to-multipoint use, or six permanent links per million for fixed point-to-point services.<sup>74</sup> The 2006 *BRS/EBS Second Report and Order* also established an educational safe harbor for EBS licensees, consisting of 20 hours of educational use per channel, per week.<sup>75</sup> In 2010, the Commission established a new requirement for new BRS licenses issued after November 6, 2009: The licensee must make a showing of substantial service within four years from the date of issue of the license.<sup>76</sup> We seek comment on how effective these performance requirements have been.

53. Last year, the Commission adopted a unified regulatory framework for the Wireless Radio Services (WRS) that replaced the existing patchwork of service-specific rules regarding renewal, comparative renewal, continuity of service, and partitioning and disaggregation, with clear, consistent rules of the road for WRS licensees.<sup>77</sup> The Commission included BRS in the new WRS framework,<sup>78</sup> but excluded EBS from the WRS framework on the ground that “this service presents unique issues that are

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<sup>71</sup> *BRS/EBS Second R&O*, 21 FCC Rcd at 5719-21, paras. 276-79; see also *BRS/EBS FNPRM*, 19 FCC Rcd at 14282-84, paras. 321-22.

<sup>72</sup> *BRS/EBS Second R&O*, 21 FCC Rcd at 5719-21, paras. 276-79.

<sup>73</sup> *Id.* at 5733, paras. 303-04. The deadline was later extended to November 1, 2011. See *National EBS Association and Catholic Television Network*, Memorandum Opinion and Order, 26 FCC Rcd 4021, 4026, paras. 11-12 (WTB 2011).

<sup>74</sup> *BRS/EBS Second R&O*, 21 FCC Rcd at 5725-26, para. 288.

<sup>75</sup> 47 CFR § 27.1214(a)(1).

<sup>76</sup> See *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Third Report and Order, 25 FCC Rcd 7743 (2010).

<sup>77</sup> See *Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services*, Second Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 8874 (2017) (*WRS 2<sup>nd</sup> R&O*). This framework did not change existing performance requirement obligations. Rather, it clarified the relationship between “performance requirements” (sometimes referred to as “construction requirements” or “buildout requirements”) and “renewal standards.” *Id.* at paras. 20-21. Performance requirements are specified for each service or band (not in the WRS proceeding) and are one component of renewal standards. *Id.* at para. 21. Licenses subject to WRS must meet the renewal standards at the end of every license term, including the initial one. *Id.* The discussion of “performance requirements” in this section refers to the performance/construction requirements themselves, not to the separate issue of renewal standards.

<sup>78</sup> *WRS 2<sup>nd</sup> R&O*, 32 FCC Rcd at 8880, para. 14.

under consideration in” this present proceeding.<sup>79</sup>

54. *Performance Requirements for New 2.5 GHz Licenses.* We propose more robust performance requirements for any new 2.5 GHz licenses granted through a local priority filing window or a system of competitive bidding. For mobile and fixed point-to-multipoint services, we propose an interim benchmark of 50 percent population coverage and a final benchmark of 80 percent population coverage. For fixed point-to-point services, we propose an interim benchmark of 20 point-to-point links per million persons (one link per 50,000 persons) in a license area, and a final benchmark of 40 point-to-point links per million persons (one link per 25,000 persons) in a licensed area. These benchmarks are slightly higher than those for the AWS-3 and WCS bands (which have similar propagation characteristics) given the maturity of technologies already developed and deployed in the 2.5 GHz band.<sup>80</sup> For educational broadcast services, we seek comment on an interim benchmark of 50 percent population coverage and a final benchmark of 80 percent population coverage. We seek comment on these performance benchmarks and on any other requirements that may be more appropriate for this band. Are there considerations specific to this band that would warrant a different approach? Are there new technological developments, or issues specific to the 2.5 GHz band, that render a usage-based approach or any other approach suitable here? When should the interim benchmark showing be required? What penalty should apply to licensees that do not meet it? In addition, because we seek comment on whether to adopt a licensing framework based on census tracts, we also seek comment on how such a framework would affect performance requirements. Is there some other method of evaluating meaningful service, beyond traditional metrics, that might be more appropriate considering the size of license areas? We also seek comment on whether there are other more appropriate construction requirements for educational services.

55. *Renewal Standards.* We also propose to bring any new 2.5 GHz licenses granted through a local priority filing window or a system of competitive bidding into the unified regulatory renewal framework for WRS. We believe that updating the renewal standards in this manner will encourage rapid deployment of next generation wireless services, including 5G. We also seek comment on bringing existing EBS licensees, once their licenses have been rationalized as discussed earlier, into the WRS framework for license renewal. What are the costs and benefits of each approach?

### C. Cleaning Up the 2.5 GHz Rules

56. The process for transitioning BRS and EBS licensees to the new band plan was completed in 2011.<sup>81</sup> While a few Multichannel Video Programming Distributors have received waivers to opt out of the transition so that they can continue providing service, all other licensees have transitioned to the new band plan. It therefore appears that the transition rules are no longer necessary.<sup>82</sup> We believe it is in the public interest to eliminate regulations that are out of date and no longer necessary. We therefore propose to eliminate the BRS/EBS transition rules.

57. We also propose to make various non-substantive, clarifying amendments to Section 27.1206. The proposed changes are contained in Appendix A. The changes are designed to make the rules easier to understand without changing the substantive requirements for BRS. We seek comment on these proposed changes.

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<sup>79</sup> *Id.* at para. 13.

<sup>80</sup> See 47 CFR § 27.14(p), (s).

<sup>81</sup> See WT Docket No. 06-136.

<sup>82</sup> Should an MVPD operator decide that it wishes to discontinue video service and transition to the new band plan, it can follow the process established by the Wireless Telecommunications Bureau in *Antilles Wireless, LLC d/b/a USA Digital, et al.*, Order on Reconsideration, 25 FCC Rcd 8052, 8058, paras. 13-14 (WTB 2010).

#### D. Additional Approaches for Transforming the 2.5 GHz Band

58. We seek comment on other approaches to rationalizing and opening up the 2.5 GHz band for more productive and intensive use. Generally, are there better ways to restructure the 2.5 GHz band that will ensure that it is put to its highest and best use? In particular, we seek comment on other licensing and auction ideas and alternatives to the local priority filing window approach. Commenters should provide information about the costs and benefits of any approach suggested.

59. For instance, should we, regardless of the scope of incumbent operations, create new geographic area licenses? If so, what types of geographic area licenses should the FCC create? Should we license the spectrum based on census tracts or counties or some other size? Commenters should discuss whether their view of the appropriate geographic area size changes if the Commission is considering licenses that encompass more than the white spaces previously discussed,<sup>83</sup> and if so why. Additionally, what channel size or sizes should we use in licensing this spectrum?

60. If the FCC were to adopt this approach, how would we account for reasonable investment-backed expectations and incumbent operations? Would a different approach than those considered in section III.A. above be preferable, and if so why? For example, should we convert incumbent licenses into new, flexible use spectrum licenses that would be subject to our secondary market rules? If so, how? Should our approach to incumbent licensees depend on or consider the existing and/or historic use of the spectrum by those incumbent licensees, including, for instance, the construction of facilities or degree to which the spectrum has consistently been put to use?

61. Should we consider moving directly to auction for this spectrum, rather than open priority filing windows for certain entities? In section III.B.2, we seek comment on auctioning the white spaces, but, instead, should we consider other auction options, such as an incentive auction of this spectrum in order to provide incentives for incumbents to make underutilized spectrum available for commercial use? In particular, should we rely on Section 6402 of the Spectrum Act, now codified at 47 U.S.C. § 309(j)(8)(G) (or some other source of authority) to encourage incumbent licensees to relinquish voluntarily some or all of their spectrum usage rights to permit the assignment of new initial licenses subject to flexible-use service rules? Are there other means of assigning licenses and promoting more efficient uses that we should consider, such as an overlay auction<sup>84</sup> or other auction mechanisms? We seek comment on the implications of moving directly to auction.

62. Regardless of the particular approach we take to facilitate more intensive use of the 2.5 GHz spectrum, should we allow all entities that are interested in using this spectrum the same opportunity to acquire licenses in this band? In other words, should we not adopt local priority filing windows or otherwise grant preferential treatment to potential licensees based on their identity or other criteria?

#### IV. PROCEDURAL MATTERS

63. *Ex Parte Rules – Permit-But-Disclose.* Pursuant to Section 1.1200(a) of the Commission's rules,<sup>85</sup> this *NPRM* shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.<sup>86</sup> 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

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<sup>83</sup> See para 49, *supra*.

<sup>84</sup> In an overlay auction, the auction winner acquires spectrum rights "subject to the exclusion of overlapping, co-channel incumbent" licensees. See, e.g., 47 CFR § 27.1206(a)(2) (BRS). Typically, if an incumbent license cancels or is forfeited, the overlay licensee automatically acquires the right to operate in the area formerly covered by the incumbent license. See, e.g., 47 CFR § 27.1206(b) (BRS).

<sup>85</sup> 47 CFR § 1.1200(a).

<sup>86</sup> 47 CFR §§ 1.1200 *et seq.*

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.

64. *Comment Period and Procedures.* Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by 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 12<sup>th</sup> 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 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

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

66. *Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act of 1980 ("RFA"),<sup>87</sup> the Commission has prepared an Initial Regulatory Flexibility Analysis ("IRFA") of the possible significant economic impact on a substantial number of small entities of the policies and rules proposed in the *NPRM*. The IRFA is found in Appendix B. We request written public comment on the analysis. Comments must be filed in accordance with the same deadlines as comments filed in response to the *NRPM* and must have a separate and distinct heading designating them as responses to the IRFA.

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<sup>87</sup> See 5 U.S.C. § 603.

67. *Paperwork Reduction Analysis.* This document contains proposed new or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

68. *Further Information.* For further information contact John J. Schauble of the Wireless Telecommunications Bureau, Broadband Division, at 202-418-0274 or by e-mail to [John.Schauble@fcc.gov](mailto:John.Schauble@fcc.gov).

## V. ORDERING CLAUSES

69. IT IS ORDERED, pursuant to the authority found in Sections 1, 2, 3, 4(i), 7, 201, 301, 302, 303, 304, 307, 308, 309, and 310 of the Communications Act of 1934, 47 U.S.C. §§ 151, 152, 153, 154(i), 157, 201, 301, 302, 303, 304, 307, 308, 309, 310, and Section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302, and Section 1.411 of the Commission's Rules, 47 C.F.R § 1.411, that this *Notice of Proposed Rulemaking* IS HEREBY ADOPTED.

70. IT IS FURTHER ORDERED that NOTICE IS HEREBY GIVEN of the proposed regulatory changes described in this *Notice of Proposed Rulemaking*, and that comment is sought on these proposals.

71. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

## APPENDIX A

## Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 1 and 27 as follows:

**PART 1 – PRACTICE AND PROCEDURE**

1. The authority citation for part 27 continues to read as follows:

Authority: 47 U.S.C. 151, 154(i), 155, 157, 160, 201, 225, 227, 303, 309, 332, 1403, 1404, 1451, 1452, and 1455, unless otherwise noted.

2. Amend § 1.949 by revising paragraph (c) to read as follows:

**§ 1.949 Application for renewal of authorization**

\* \* \* \* \*

(c) *Implementation.* Covered Site-based Licenses, except Common Carrier Fixed Point-to-Point Microwave Service (part 101, subpart I of this chapter), and Covered Geographic Licenses in the 600 MHz Service (part 27, subpart N); 700 MHz Commercial Services (part 27, subpart F); Advanced Wireless Services (part 27, subpart L) (AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz) and AWS-4 (2000-2020 MHz and 2180-2200 MHz) only); and H Block Service (part 27, subpart K) must comply with paragraphs (d) through (h) of this section. Broadband Radio Service and Educational Broadband Service licenses (part 27, subpart M) initially issued after **[insert effective date of new rules]** must comply with paragraphs (d) through (h) of this section. All other Covered Geographic Licenses must comply with paragraphs (d) through (h) of this section beginning on January 1, 2023. Common Carrier Fixed Point-to-Point Microwave Service (part 101, subpart I) must comply with paragraphs (d) through (h) of this section beginning on October 1, 2018.

**PART 27 – MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES**

3. The authority citation for part 27 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302a, 303, 307, 309, 332, 336, 337, 1403, 1404, 1451, and 1452, unless otherwise noted.

4. Amend § 27.14 by revising paragraph (o) to read as follows:

**§ 27.14 Construction Requirements**

(1) All BRS and EBS licensees issued after **[insert effective date of new rules]**, must demonstrate compliance with the performance requirements described in this paragraph. All equipment used to demonstrate compliance must be in use and actually providing service, either for internal use or to unaffiliated customers, as of the interim deadline or the end of the license term, whichever is applicable.

(2) Licensees relying on mobile service must demonstrate reliable signal coverage of 50% of the population of the geographic service area by the interim deadline, and 80% of the population of the geographic service area by the end of the license term.

(3) Licensees relying on fixed service must demonstrate operation of one link for each 50,000 persons in the geographic service area by the interim deadline, and one link for each 25,000 persons in the geographic service area by the end of the license term.

5. Remove and reserve § 27.1201.

6. Revise § 27.1206 to read as follows:

**§ 27.1206 Geographic Service Area.**

(a) BRS:

(1) For BRS incumbent licenses granted before September 15, 1995, the GSA for a channel is the GSA as created on January 10, 2005.

(2) For BRS BTA authorization holders, the GSA for a channel is the BTA, subject to the exclusion of overlapping, co-channel incumbent GSAs created on January 10, 2005.

(3) If an incumbent BRS license is cancelled or is forfeited, the GSA area of the incumbent station shall dissolve and the right to operate in that area automatically reverts to the GSA licensee that held the corresponding BTA.

(b) For EBS:

(1) Incumbent EBS licensees

(i) The GSA of EBS licenses on the E and F channel groups is defined in § 27.1216 of this part. EBS licensees on the E and F channel groups are prohibited from expanding their GSAs.

(ii) For EBS licenses not in the E and F channel groups in effect as of **[insert effective date of new rules]**, the GSA for a channel consists of all census tracts which are covered by or intersect its GSA existing as of **[insert effective date of new rules]**.

(2) New initial EBS licenses. The GSA for a channel for new initial licenses issued after **[insert effective date of new rules]**, is the county [census tract] for which the license is issued, subject to the exclusion of overlapping, co-channel incumbent GSAs.

7. Revise § 27.1214 to read as follows;

**§ 27.1214 EBS spectrum leasing arrangements and grandfathered leases.**

(a) All leases of current EBS spectrum entered into prior to January 10, 2005 and in compliance with leasing rules formerly contained in part 74 of this chapter may continue in force and effect, notwithstanding any inconsistency between such leases and the rules applicable to spectrum leasing arrangements set forth in this chapter. Such leases entered into pursuant to the former part 74 rules of this chapter may be renewed and assigned in accordance with the terms of such lease. All spectrum leasing arrangements leases entered into after January 10, 2005, pursuant to the rules set forth in part 1 and part 27 of this chapter, must comply with the rules in those parts.

(b) For leasing arrangements entered into between July 19, 2006 and **[insert effective date of new rules]**, the maximum permissible term of an EBS spectrum leasing arrangement (including the initial term and all renewal terms that commence automatically or at the sole option of the lessee) shall be 30 years. Any spectrum leasing arrangement in excess of 15 years that is entered into on or after July 19, 2006 and before **[insert effective date of new rules]** must include terms which provide the EBS licensee on the 15th year and every 5 years thereafter, with an opportunity to review its educational use requirements in light of changes in educational needs, technology, and other relevant factors and to obtain access to such additional services, capacity, support, and/or equipment as the parties shall agree upon in the spectrum leasing arrangement to advance the EBS licensee's educational mission.

8. Revise § 27.1217 to read as follows:

**§ 27.1217 Competitive bidding procedures for the Broadband Radio Service and the Educational Broadband Service.**

Mutually exclusive initial applications for BRS and EBS licenses are subject to competitive bidding. The designated entity provisions in Section 27.1218 of this part shall not apply to auctions held after **[insert effective date of rule]**. The general competitive bidding procedures set forth in part 1, subpart Q of this chapter will apply unless otherwise provided in this subpart.

9. Remove §§ 27.1230 through 27.1239.

**APPENDIX B****Initial Regulatory Flexibility Analysis**

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>1</sup> the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking (NPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the *NPRM*. The Commission will send a copy of this *NPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).<sup>2</sup> In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the Federal Register.<sup>3</sup>

**A. Need for, and Objectives of, the Proposed Rules**

2. In the *NPRM*, the Commission take steps to permit more flexible use of the 2496-2690 MHz (2.5 GHz) band by current Educational Broadband Service (EBS) licensees and to provide new opportunities for EBS eligible entities, Tribal Nations, and commercial entities to obtain unused 2.5 GHz spectrum to facilitate improved access to next generation wireless broadband, including 5G, for both educational and commercial uses. As mentioned in the *NPRM*, roughly half of EBS spectrum currently is unassigned, while the other half is assigned in geographic areas of various sizes and shapes and is subject to unique use and transfer restrictions. The irregularity in the current geographic service areas, combined in some cases with outdated regulatory requirements has impeded the efficient deployment of services, such as mobile broadband, in this spectrum band. Consistent with the Commission's goal of making additional spectrum available for flexible use, and to promote use of EBS frequencies that have been unassigned for far too long, we propose and seek comment on a number of steps to encourage and facilitate more efficient use of the 2.5 GHz band. Additionally, since the process for transitioning Broadband Radio Service (BRS) and EBS licensees to the new band plan was completed in 2011, we propose to eliminate the BRS/EBS transition rules. We believe it is in the public interest to eliminate these regulations that are out of date and no longer necessary.

**B. Legal Basis**

3. The proposed actions are authorized pursuant to sections 1, 2, 3, 4(i), 7, 201, 301, 302, 303, 304, 307, 308, 309, and 310 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 157, 201, 301, 302, 303, 304, 307, 308, 309, 310 and Section 706 of the Telecommunications Act of 1996, as amended, 47 U.S.C. § 1302.

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

4. 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.<sup>4</sup> The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."<sup>5</sup> In addition, the term "small business" has

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<sup>1</sup> 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>2</sup> 5 U.S.C. § 603(a).

<sup>3</sup> *Id.*

<sup>4</sup> 5 U.S.C. § 603(b)(3).

<sup>5</sup> 5 U.S.C. § 601(6).

the same meaning as the term “small business concern” under the Small Business Act.<sup>6</sup> 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.<sup>7</sup>

5. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.<sup>8</sup> First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA’s Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.<sup>9</sup> These types of small businesses represent 99.9 percent of all businesses in the United States which translates to 28.8 million businesses.<sup>10</sup>

6. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>11</sup> Nationwide, as of August 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).<sup>12</sup>

7. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”<sup>13</sup> U.S. Census Bureau data from the 2012 Census of Governments<sup>14</sup> indicate that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.<sup>15</sup> Of this number there were

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<sup>6</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>7</sup> 15 U.S.C. § 632.

<sup>8</sup> See 5 U.S.C. § 601(3)-(6).

<sup>9</sup> See SBA, Office of Advocacy, “Frequently Asked Questions, Question 1 – What is a small business?” [https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016\\_WEB.pdf](https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf) (June 2016)

<sup>10</sup> See SBA, Office of Advocacy, “Frequently Asked Questions, Question 2- How many small businesses are there in the U.S.?” [https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016\\_WEB.pdf](https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf) (June 2016).

<sup>11</sup> 5 U.S.C. § 601(4).

<sup>12</sup> Data from the Urban Institute, National Center for Charitable Statistics (NCCS) reporting on nonprofit organizations registered with the IRS was used to estimate the number of small organizations. Reports generated using the NCCS online database indicated that as of August 2016 there were 356,494 registered nonprofits with total revenues of less than \$100,000. Of this number, 326,897 entities filed tax returns with 65,113 registered nonprofits reporting total revenues of \$50,000 or less on the IRS Form 990-N for Small Exempt Organizations and 261,784 nonprofits reporting total revenues of \$100,000 or less on some other version of the IRS Form 990 within 24 months of the August 2016 data release date. See <http://nccs.urban.org/sites/all/nccs-archive/html/tablewiz/tw.php> where the report showing this data can be generated by selecting the following data fields: Report: “The Number and Finances of All Registered 501(c) Nonprofits”; Show: “Registered Nonprofits”; By: “Total Revenue Level (years 1995, Aug to 2016, Aug)”; and For: “2016, Aug” then selecting “Show Results”.

<sup>13</sup> 5 U.S.C. § 601(5).

<sup>14</sup> See 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with “2” and “7”. See also Program Description Census of Government <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=program&id=program.en.CO.G#>.

<sup>15</sup> See U.S. Census Bureau, 2012 Census of Governments, Local Governments by Type and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01>. Local governmental

(continued...)

37, 132 General purpose governments (county<sup>16</sup>, municipal and town or township<sup>17</sup>) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts<sup>18</sup> and special districts<sup>19</sup>) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category show that the majority of these governments have populations of less than 50,000.<sup>20</sup> Based on this data we estimate that at least 49,316 local government jurisdictions fall in the category of “small governmental jurisdictions.”<sup>21</sup>

8. *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 services, paging services, wireless internet access, and wireless video services.<sup>22</sup> The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.<sup>23</sup> For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.<sup>24</sup> Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1,000 employees or more.<sup>25</sup> Thus under this category and

(Continued from previous page) \_\_\_\_\_

jurisdictions are classified in two categories - General purpose governments (county, municipal and town or township) and Special purpose governments (special districts and independent school districts).

<sup>16</sup> See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>. There were 2,114 county governments with populations less than 50,000.

<sup>17</sup> See U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States – States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

<sup>18</sup> See U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. There were 12,184 independent school districts with enrollment populations less than 50,000.

<sup>19</sup> See U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01>. [The U.S. Census Bureau data did not provide a population breakout for special district governments.](#)

<sup>20</sup> See U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States - <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01>; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States-States - <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01>; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. <https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01>. While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.

<sup>21</sup> *Id.*

<sup>22</sup> NAICS Code 517210. See <https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en/ECN.NAICS2012.517210>.

<sup>23</sup> 13 CFR § 121.201, NAICS code 517210.

<sup>24</sup> U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 . [https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012\\_US/51SSSZ5//naics~517210](https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210).

<sup>25</sup> *Id.* Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

9. *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)).<sup>26</sup>

10. *BRS* - 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 calendar years.<sup>27</sup> 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, based on our review of licensing records, we estimate that of the 61 small business BRS auction winners, based on our review of licensing records, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 86 incumbent BRS licensees that are considered small entities (18 incumbent BRS licensees do not meet the small business size standard).<sup>28</sup> After adding the number of small business auction licensees to the number of incumbent licensees not already counted, there are currently approximately 133 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules.

11. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.<sup>29</sup> 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) received 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) received 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) received a 35 percent discount on its winning bid.<sup>30</sup> Auction 86 concluded in 2009 with the sale of 61 licenses.<sup>31</sup> 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.

12. *EBS* - Educational Broadband Service has been included within the broad economic

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<sup>26</sup> *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, MM Docket No. 94-131, PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

<sup>27</sup> 47 CFR § 21.961(b)(1) (1996).

<sup>28</sup> 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard of 1500 or fewer employees.

<sup>29</sup> Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86, *Public Notice*, 24 FCC Rcd 8277 (2009).

<sup>30</sup> *Id.* at 8296.

<sup>31</sup> Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period, *Public Notice*, 24 FCC Rcd 13572 (2009).

census category and SBA size standard for Wired Telecommunications Carriers since 2007. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.”<sup>32</sup> The SBA’s small business size standard for this category is all such firms having 1,500 or fewer employees.<sup>33</sup> U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.<sup>34</sup> Of this total, 3,083 operated with fewer than 1,000 employees.<sup>35</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

13. In addition to Census data, the Commission’s Universal Licensing System indicates that as of March 2018 there are 1,300 licensees holding over 2,190 active EBS licenses. The Commission estimates that of these 2,190 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.<sup>36</sup>

#### **D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements**

14. We expect the rules proposed in the *NPRM* will impose new or additional reporting or recordkeeping and/or other compliance obligations on small entities as well as other EBS licensees and EBS eligible entities. We discuss our proposals and the obligations that would result below, and seek comment on these matters, including cost and benefit analyses supported by quantitative and qualitative data from the parties in the proceeding.

15. *Rationalizing the GSAs of incumbent EBS Licensees.* We propose to rationalize the Geographical Service Areas (GSAs) of incumbent EBS licensees, except grandfathered licensees in the E and F Channel groups, to a defined geographic area, namely, the sum of census tracts that are covered by, or that intersect with, a licensee’s existing GSA. We propose that, in this rationalization process, each current EBS GSA will be converted to a single license made up of all the census tracts it covers, rather than converted to a collection of separate census tract-sized licenses. We also propose that EBS licensees with a local presence in a county be given the opportunity to apply to expand their GSA to the boundaries of a county where they have a local presence. Licensees who take advantage of that option would be subject to new performance requirements. As an alternative to basing GSAs on census tracts, we seek comment on whether we should expand existing GSAs to include the county (or counties) covered by or that intersect the GSA.

16. *Additional Flexibility for EBS Licenses.* We propose to provide EBS licensees with the flexibility to assign or transfer control of their licenses to entities that are not EBS-eligible. To provide additional flexibility and to facilitate the most efficient use of the EBS spectrum through a market-based

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<sup>32</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers,” (partial definition), <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

<sup>33</sup> See, 13 CFR § 121.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition shows the NAICS code as 517311 for Wired Telecommunications Carriers. See, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

<sup>34</sup> See U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). [https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012\\_US/51SSSZ5//naics~517110](https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110).

<sup>35</sup> *Id.*

<sup>36</sup> See 5 U.S.C. §§ 601(4)-(6). The term “small entity” within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000).

mechanism, we propose to allow an incumbent EBS licensee, in addition to leasing a portion of its license, to assign or transfer control of its entire license to entities that do not meet the eligibility criteria contained in Section 27.1201 of the Commission's rules. If the incumbent EBS licensee were to choose to assign or transfer its license, the new licensee would not be required to comply with the educational use requirements in Section 27.1203 of the Commission's rules. We seek comment on whether licensees whose license were granted via waiver, should be given additional flexibility to lease their spectrum or to transfer or assign their licenses freely. Given this flexibility to transfer or assign an entire EBS license to non-eligible entities, free of educational use requirements, we also propose to eliminate the educational use requirements in Section 27.1203 for all EBS licensees. We also propose to eliminate restrictions on EBS lease terms on a going forward basis and ask whether additional revisions are necessary to fully rationalize our rules for the transferability, leasing and use of EBS spectrum.

17. *Opportunities to Acquire New 2.5 GHz Licenses.* We propose to auction off licenses for unassigned portions of the 2.5 GHz band and seek comment on whether we should first open up to three new local priority filing windows to give existing licensees, Tribal Nations and educational entities an opportunity to access 2.5 GHz spectrum to serve their local communities. We also propose build-out requirements for these new licenses to ensure that all Americans have the opportunity to benefit from the 2.5 GHz band.

18. *New Local Priority Filing Window – Local Presence.* We propose to require an applicant to demonstrate as part of the application process that it has a local presence, and that an EBS-eligible entity should be considered to have a “local presence” when it is physically located within the license area where service is proposed. We seek comment on what documentation applicants must provide to demonstrate that they have a local presence.

19. *Local Priority Filing Window 1: Existing Licensees.* We seek comment on opening a window that would permit existing 2.5 GHz licensees to expand their service to the county border if they were able to demonstrate that they had a local presence in that county, and if they covered at least 25 percent of census tracts in that county. Such a window would allow existing licensees to quickly put white space to use, but it would also preclude new entrants.

20. *Local Priority Filing Window 2: Tribal Nations.* We seek comment on opening a new filing priority filing window for Tribal Nations. We propose to limit participation to federally-recognized American Indian Tribes and Alaska Native Villages that also have a local presence. We also propose not to limit the number of channels that a Tribal Nations could apply for as EBS-eligible entities for the purposes of participating in the Native National entity filing window. We ask commenters to propose other ways by which we could encourage the use of EBS spectrum on Tribal Lands and in Native communities.

21. *Local Priority Filing Window 3: New Educational Entities.* We seek comment on opening a new local priority filing window for educational entities that do not hold any 2.5 GHz spectrum. We would propose to limit participation in such a window to accredited institutions as well as governmental organizations engaged in the formal education of enrolled students who are not 2.5 GHz licensees as of the adoption of this NPRM and only in areas in which they have a local presence. We seek comment on whether to assign new EBS licenses on a county-wide or census tract basis.

22. *Local Priority Filing Process.* We seek comment on the appropriate time frame for any of the new local priority filing windows, how long the windows should be open, and how much notice to give. We ask entities that are interested in participating in the application window and obtaining 2.5 GHz licenses to indicate their interests and the difficulties that they may face to help us evaluate any possible technical and process issues that may arise in implementing one or more new local priority filing windows for applicants and processing such applications.

23. *Resolving Mutually Exclusive Applications.* While we do not anticipate many mutually exclusive applications based on the local priority filing windows, we note that the Communications Act requires that assign initial licenses subject to mutually exclusive applications through competitive

bidding. We propose to limit such competitive bidding to the mutually exclusive applications filed during a particular window, and ask for comment on that. We ask for comment on whether we should permit a settlement window to resolve such mutual exclusivity. We also propose to employ the Part 1 rules governing competitive bidding design, unjust enrichment, application and payment procedures, reporting requirements, and the prohibition on certain communications between auction applicants, and seek comment on this proposal.

24. *Holding Periods for Licenses Acquired Through a Local Priority Filing Window.* We seek comment on whether to impose a special holding period, and for how long, on any license acquired through a local priority filing window in order to ensure that licenses are not immediately flipped to a nonqualifying entity. We ask whether a three, five, or seven-year holding period would be most appropriate for these circumstances. We also ask whether licensees should be required to meet certain buildout requirements before allowing a transfer.

25. *Licensing White Spaces.* We propose that after any new licenses have been assigned through one or more local priority filing windows, any remaining 2.5 GHz spectrum would be made available for commercial use via competitive bidding using our general Part 1 competitive bidding rules. We seek comment on this proposal and on the appropriate size of such licenses and the size of channel blocks. We also propose to apply designated entity preferences in this auction, and to eliminate the EBS eligibility criteria contained in Section 27.1201 of the rules with respect to unassigned spectrum and ask for comment on these proposals.

26. *Requirements for New 2.5 GHz Licenses.* We propose more robust construction requirements for new 2.5 GHz licenses granted based on the proposed local priority filing window in the *NRPM* or a system of competitive bidding. For mobile and fixed point-to-multipoint services, we propose an interim benchmark of 50 percent population coverage and a final benchmark of 80 percent population coverage. For fixed point-to-point services, we propose an interim benchmark of 20 point-to-point links per million persons (one link per 50,000 persons) in a license area, and 40 point-to-point links per million persons (one link per 25,000 persons) in a licensed area. For educational broadcast services that provide least 20 hours of educational use per channel per week, we seek comment on an interim benchmark of 50% population coverage and a final benchmark of 80 percent population coverage. We also propose to bring any new 2.5 GHz licenses granted through a local priority filing window or a system of competitive bidding into the unified regulatory renewal framework for WRS. We seek comment on bringing existing EBS licensees into the WRS framework for license renewal once their licenses have been rationalized.

27. *Cleaning Up the 2.5 GHz Rules.* We propose to eliminate the BRS/EBS transition rules since the process for transitioning BRS and EBS licensees to the new band plan was completed in 2011 and the rules no longer appear necessary. We also propose to make various non-substantive, clarifying amendments to Section 27.1206 to make the rules easier to understand without changing the substantive requirements for BRS. The proposed changes are contained in Appendix A of the *NRPM* and we seek comment on these proposed changes.

**E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

28. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rules, or any part thereof, for such small entities.”<sup>37</sup>

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<sup>37</sup> 5 U.S.C. § 603(c)(1)-(4).

29. The Commission does not believe that its proposed changes will have a significant economic impact on small entities however, to get a better understanding costs and benefits associated with proposals and any alternatives raised in this proceeding as mentioned above in the previous section, the Commission has requested that commenters discuss the costs and benefits supported by quantitative and qualitative data of any approach advocated. The proposed changes expanding the use of the 2.5 GHz band will benefit small entities as well as entities of other sizes by reducing unnecessary regulatory burdens on licensees, promoting greater spectrum efficiency, and facilitating the full use of EBS spectrum to provide advanced mobile broadband services, particularly in rural areas where this spectrum sits idle today. Moreover, the proposed reforms will permit more flexible use of this spectrum by small and other sized entities that currently hold EBS licenses and will provide new opportunities for EBS eligible entities, Tribal Nations, and commercial entities to obtain unused 2.5 GHz spectrum to facilitate improved access to next generation wireless broadband, including 5G, for both educational and commercial uses.

30. More specifically, the Commission's proposed rationalization process for incumbent EBS licensees that would occur automatically allowing incumbent licensees to avoid a requirement to file applications with the Commission or to otherwise notify the Commission to effectuate this change would minimize some costs and/or administrative burdens on small entities associated with the rule, if adopted. Small entities should also benefit from removal of the filing freeze for new EBS licenses and the requirement that EBS eligible entities applying for a new license must have a local presence in the areas in which they wish to provide service, which will provide them greater opportunity to obtain EBS spectrum to meet the needs of their communities. In addition, small entities should benefit from the increased flexibility of our proposal to allow EBS licensees with the flexibility to assign or transfer control of their licenses to entities that are not EBS-eligible. We believe that, at this point in time, licensees are in the best position to determine how to use their licenses, or, alternatively, whether to transfer their licenses to a third party in the secondary market.

31. For existing EBS licenses the Commission's action declining to issue proposals creating new performance or renewal requirements will spare small entities and other existing EBS licensees the costs of new compliance requirements in these areas. With respect to performance requirements adopted for all new EBS licenses, the Commission believes such requirements are necessary to ensure that spectrum is being put into use and has proposed a variety of metrics to provide small entities as well as other licensees with a variety of means by which they may demonstrate compliance. The Commission anticipates that updating the performance requirements in this manner will encourage rapid deployment of next generation wireless services, including 5G, which will benefit small entities and the industry as a whole.

**F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules**

32. None.

## APPENDIX C

**List of Commenters to *BRS/EBS Second FNPRM*****Comments**

Adams Telecom, Inc. (Rural Commenters)  
American Association of School Administrators (AASA)  
American Petroleum Institute (API)  
Association of Educational Service Agencies (AESAs)  
Association of School Business Officials International (ASBO)  
Auburn Broadband, LLC (Joint Commenters)  
Bellville Independent School District  
Bridge the Divide Foundation (Joint Commenters)  
Broadpoint, Inc.  
Catholic Technology Network (CTN)  
Central Texas Communications, Inc. (Rural Commenters)  
Consortium for School Networking (CoSN)  
Hispanic Information and Telecommunications Network (HITN)  
Indiana Higher Education Telecommunication System  
International Society for Technology in Education (ISTE)  
Leaco Rural Telephone Cooperative, Inc. (Rural Commenters)  
Myers Lazrus  
National Association of Independent Schools (NAIS)  
National Association of State Boards of Education (NASBE)  
National EBS Association (NEBSA)  
National Education Association (NEA)  
National Rural Education Association (NREA)  
National School Boards Association (NSBA)  
Native Public Media (NPM)  
North Carolina Association of Community College Presidents (NCACCP)  
Organizations Concerned about Rural Education (OCRE)  
Public Service Communications, Inc. (Rural Commenters)  
Rocky Mountain Broadband, LLC (Joint Commenters)  
Rural School and Community Trust  
Sioux Valley Wireless  
The Source for Learning, Inc.  
Vermont Telephone Company, Inc. (Rural Commenters)  
Wireless Communications Association International, Inc. (WCA)  
Wisper Wireless Solutions, LLC (Rural Commenters)

**Reply Comments**

Adams Telecom, Inc. (Rural Commenters)  
American Association of School Administrators (AASA)  
American Petroleum Institute (API)  
Anderson-Shiro Consolidated Independent School District (Texas Schools)  
Archdiocese of Los Angeles Education and Welfare Corporation (Archdiocese)  
Association of Educational Service Agencies (AESAs)  
Association of School Business Officials International (ASBO)  
Auburn Broadband, LLC (Joint Commenters)  
Bald Knob School District (EBS Parties)  
Beebe School District (EBS Parties)  
Bellville Independent School District (Texas Schools)

Belmont University (EBS Parties)  
Butte County Office of Education (EBS Parties)  
Bridge the Divide Foundation (Joint Commenters)  
Broadpoint, Inc.  
California State Polytechnic University, Pomona (Calnet Consortium)  
California State University, Bakersfield (EBS Parties)  
California State University, Dominguez Hills (Calnet Consortium)  
California State University, Fresno (EBS Parties)  
California State University, Fullerton (Calnet Consortium)  
California State University, Long Beach (Calnet Consortium)  
California State University, Los Angeles (Calnet Consortium)  
California State University, Stanislaus (EBS Parties)  
Catholic Technology Network (CTN)  
Central Piedmont Community College (EBS Parties)  
Central Texas Communications, Inc. (Rural Commenters)  
Chicago Instructional Technology Foundation, Inc.  
Colorado State University (EBS Parties)  
Consortium for School Networking (CoSN)  
Cooperating School Districts of Greater St. Louis, Inc., (EBS Parties)  
Copley-Fairlawn City Schools (EBS Parties)  
Dallas-Fort Worth Hospital Council (EBS Parties)  
Eastern Iowa Community College District (EBS Parties)  
Edison College (EBS Parties)  
Evant Independent School District (EBS Parties)  
Gonzaga University (EBS Parties)  
Grayson County College (EBS Parties)  
Greater Dayton Public Television, Inc. (EBS Parties)  
Greenville Technical College (EBS Parties)  
Hispanic Information and Telecommunications Network (HITN)  
Indiana Higher Education Telecommunication System  
Innovative Technology Education Fund (EBS Parties)  
Illinois Institute of Technology  
International Society for Technology in Education (ISTE)  
KCTS Television (EBS Parties)  
Kentucky Authority for Educational Television (EBS Parties)  
Kern Community College District (EBS Parties)  
Kern County Superintendent of Schools (EBS Parties)  
Kern High School District (EBS Parties)  
Lane Community College (EBS Parties)  
La Roche College (EBS Parties)  
Leaco Rural Telephone Cooperative, Inc. (Rural Commenters)  
Linn Benton Community College (EBS Parties)  
Madisonville Consolidated Independent School District (Texas Schools)  
Mendocino College (EBS Parties)  
Merced County Office of Education (EBS Parties)  
Metropolitan Community College (EBS Parties)  
Minneapolis Public Schools (EBS Parties)  
Minnesota Tele-Media Board of Directors (MTM)  
Mumford Independent School District (Texas Schools)  
Myers Laurus  
National Association of Independent Schools (NAIS)  
National Association of State Boards of Education (NASBE)  
National Catholic Education Association (NCEA)

National EBS Association (NEBSA)  
National Education Association (NEA)  
National Rural Education Association (NREA)  
National School Boards Association (NSBA)  
Native Public Media (NPM)  
North Carolina Association of Community College Presidents (NCACCP)  
Northern Arizona University Foundation, Inc. (NAUF)  
Oklahoma City University  
Oklahoma Educational Television Authority (EBS Parties)  
Organizations Concerned about Rural Education (OCRE)  
Oregon State University (EBS Parties)  
Panama-Buena Vista Union School District (EBS Parties)  
Paradise Unified School District (EBS Parties)  
Paragould School District (EBS Parties)  
Point Pleasant Beach Board of Education (EBS Parties)  
Portland State University (EBS Parties)  
Public Television 19, Inc. (EBS Parties)  
Public Service Communications, Inc. (Rural Commenters)  
Red River Technology Center (EBS Parties)  
Regents of the University of California (EBS Parties)  
Regents of the University of Minnesota (EBS Parties)  
Riverview School District (EBS Parties)  
Rocky Mountain Broadband, LLC (Joint Commenters)  
Rock Valley College (EBS Parties)  
Rural School and Community Trust  
San Diego County Superintendent of Schools (EBS Parties)  
San Diego State University (EBS Parties)  
Santa Rosa City Schools (EBS Parties)  
Sioux Valley Wireless  
Sistema Universitario Ana G. Mendez (EBS Parties)  
Society for Christian Instruction of Lynden, Washington, Inc. (EBS Parties)  
South Carolina Educational Television Commission (EBS Parties)  
Southern Oregon University (EBS Parties)  
State of Wisconsin – Educational Communications Board (EBS Parties)  
Tarrant County College (EBS Parties)  
Texas State Technical College (TSTC)  
The Community Telecommunications Network, Inc.  
The George Mason University Instructional Foundation, Inc.  
The Source for Learning, Inc.  
Tulane University (EBS Parties)  
United States Conference of Catholic Bishops (USCCB)  
University of Evansville (EBS Parties)  
University of Idaho (EBS Parties)  
University of South Florida (EBS Parties)  
University of Maine System (EBS Parties)  
University of Maryland (EBS Parties)  
University of Oregon (EBS Parties)  
University of Wisconsin System (EBS Parties)  
Valley Lutheran High School (EBS Parties)  
Verde Valley School (EBS Parties)  
Vermont Telephone Company, Inc. (Rural Commenters)  
Western Oregon University (EBS Parties)  
Wireless Communications Association International, Inc. (WCA)

Wisper Wireless Solutions, LLC (Rural Commenters)  
WITF, Inc. (EBS Parties)

**Ex Parte**

Albion Community Development Corporation, Inc. (60 EBS Licensees)  
Amelia County Public Schools  
American Association of School Administrators (AASA)  
American Petroleum Institute  
Aristotle, Inc.  
Armored School District #9 (60 EBS Licensees)  
Association of Educational Service Agencies (AESAs)  
Association of School Business Officials International (ASBO)  
Berrien County Board of Education (60 EBS Licensees)  
BOCES District of St Lawrence and Lewis Counties (60 EBS Licensees)  
Brantley County Board of Education  
Casair, Inc.  
Cascade Public Schools (60 EBS Licensees)  
Catholic Technology Network (CTN)  
Charlotte Independent School District (Charlotte High School) (60 EBS Licensees)  
Chicago Instructional Technology Foundation, Inc. (60 EBS Licensees)  
Chicksaw Nation  
Chireno Independent School District  
Clarksville Public Schools  
Clarendon Foundation (60 EBS Licensees)  
Cooter Reorganized School District R-4 (60 EBS Licensees)  
Consortium for School Networking (CoSN)  
Cross County School District (60 EBS Licensees)  
Danbury Independent School District (60 EBS Licensees)  
Denver Area Educational Telecommunications Consortium, Inc. (60 EBS Licensees)  
East Lycoming School District  
Educational Broadband Corp. (60 EBS Licensees)  
Eudora Unified School District #491 (60 EBS Licensees)  
Evans County School System (60 EBS Licensees)  
Everyoneon.com  
Florida Atlantic University (60 EBS Licensees)  
Fort Belknap Indian Community  
George West Independent School District (60 EBS Licensees)  
Glynn County School System (60 EBS Licensees)  
Greenville Technical College (60 EBS Licensees)  
Gulf Coast Community College (60 EBS Licensees)  
Hackett School District  
Happy House Daycare (60 EBS Licensees)  
Hawkeye Community College (60 EBS Licensees)  
Heard County School System (Heard High & Middle School)  
Hermleigh Independent School District (60 EBS Licensees)  
High Plains Community Schools (60 EBS Licensees)  
Hispanic Information and Telecommunications Network  
Hondo Independent School District (60 EBS Licensees)  
Hunt Independent School District (60 EBS Licensees)  
Instructional Telecommunications Foundation, Inc. (60 EBS Licensees)  
International Society for Technology in Education (ISTE)  
Jackson County School District (60 EBS Licensees)

Knippa Independent School District (60 EBS Licensees)  
Lake City Christian Academy (60 EBS Licensees)  
Lake City Community College (60 EBS Licensees)  
Landmark Baptist Church/Bethel Christian School (60 EBS Licensees)  
Lane College (60 EBS Licensees)  
Learning Paradigm, Inc. (60 EBS Licensees)  
Liberty Community Unit School District #2  
Liberty County School District (60 EBS Licensees)  
Lubbock Christian University (60 EBS Licensees)  
Main Street Broadband LLC (Main Street)  
Main Street Broadband LLC, Panhandle Area Educational Consortium, Gulf Coast Community College, and Liberty County School District (Main Street *et al.*)  
Marais des Cygnes Valley School District – USD 456 (60 EBS Licensees)  
Marion-Florence USD 408 (60 EBS Licensees)  
Mayetta Unified School District #337 (Royal Valley Schools) (60 EBS Licensees)  
Mobile Beacon  
Mobile Citizen  
National Association of Independent Schools (NAIS)  
National Association of State Boards of Education (NASBE)  
National Catholic Educational Association  
National Conference on Citizenship (60 EBS Licensees)  
National EBS Association (NEBSA)  
National Education Association (NEA)  
National Rural Education Association (NREA)  
National Rural Educational Advocacy Coalition  
National School Boards Association (NSBA)  
Native Public Media  
Newburgh Enlarged City School District (60 EBS Licensees)  
North American Catholic Educational Programming Foundation (60 EBS Licensees)  
Odin Public School District  
Organizations Concerned about Rural Education (OCRE)  
OTA Broadcasting, LLC  
Pampa Independent School District  
Panhandle Area Educational Consortium (60 EBS Licensees)  
Peabody Burns USD 398 (60 EBS Licensees)  
Portland Regional Educational Telecommunications Corporation (60 EBS Licensees)  
Regents of the University of Wisconsin System (60 EBS Licensees)  
Regulatory Committee Energy Telecommunications and Electrical Association (60 EBS Licensees)  
Rockne Educational Television, Inc. (60 EBS Licensees)  
Rural School and Community Trust  
San Diego State University (60 EBS Licensees)  
Santa Fe Trail USD 434 (60 EBS Licensees)  
School Board of Broward County, Florida (60 EBS Licensees)  
Select Spectrum, LLC  
School Superintendents Association  
Shekinah Network (60 EBS Licensees)  
Shelby School District #32 (60 EBS Licensees)  
SHLB Coalition  
South Carolina Educational Television Commission (SCETV)  
Sprint Corporation  
SW/WC Service Cooperative (60 EBS Licensees)  
Texas State Technical College (60 EBS Licensees)  
Twin Cities Telecommunications Group, Inc.

United States Conference of Catholic Bishops  
University of Maine System  
University of Massachusetts (60 EBS Licensees)  
University of South Florida (60 EBS Licensees)  
Voqal  
Wireless Communications Association International, Inc.  
Wisconsin Educational Communications Board (WECB)  
Wisper ISP, Inc.  
WJCT, Inc. (60 EBS Licensees)  
Yavapai Community College

**STATEMENT OF  
CHAIRMAN AJIT PAI**

Re: *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, WT Docket No. 03-66 (Terminated); *Transforming the 2.5 GHz Band*, WT Docket No. 18-120

Currently, a large portion of the 2.5 GHz band in approximately half of the United States lies fallow. And it's been that way for more than 20 years. This must change. We need to get this valuable spectrum into the hands of those who will provide service, including 5G, to Americans across the country, particularly in rural areas where the spectrum is currently mostly unused. So today, we take the first step toward putting that asset to work.

We're thinking openly and broadly as we look at licenses in the 2.5 GHz band's Educational Broadcasting Service, or EBS. One example: we ask about giving existing EBS licensees, along with other educational entities and Tribal communities, the chance to obtain new priority licenses and then auctioning off the remaining white spaces. We also propose to give current users more flexibility, such as by standardizing license areas and eliminating outdated restrictions on lease terms and how the spectrum is used.

I'm looking forward to beginning this process because I'm bullish on its end: making more spectrum available for the mobile services consumers increasingly rely upon.

I'd like to thank the staff who worked on this item: Chas Eberle, Nese Guendelsberger, John Schauble, Catherine Schroeder, Blaise Scinto, Dana Shaffer, Nadja Sodos Wallace, Don Stockdale, Joel Taubenblatt, and Nancy Zaczek from the Wireless Telecommunications Bureau; and David Horowitz, Keith McCrickard, and Bill Richardson from the Office of General Counsel. Unlike much of the 2.5 GHz band, you put your talents to productive use for the American people every day.

**STATEMENT OF  
COMMISSIONER MICHAEL O'RIELLY**

Re: *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, WT Docket No. 03-66 (Terminated); Transforming the 2.5 GHz Band, WT Docket No. 18-120*

Today, the Commission initiates another proceeding to ensure that the nation's spectrum is put to its most efficient use. And, there are few bands that are more in need of such a review than the Educational Broadband Service, or EBS, band. What started out in the early 1980s as an opportunity for educational institutions to provide instructional materials, while leasing some unused spectrum,<sup>125</sup> has morphed over time into something quite different – a broadband play for commercial wireless providers. In fact, by permitting educational organizations to lease their excess capacity to commercial wireless providers, of the approximate 2,190 active EBS licenses today, it is estimated that 2,000 of those licenses are leased in most part to commercial providers. While this is not necessarily problematic, we should stop pretending that this issue is about interactive school television channels or other educational purposes.

New approaches to the 2.5 GHz band are also needed because its current licensing paradigm, along with a history of freezes, has led to significant underuse of this spectrum nationwide. Therefore, I applaud the Chairman for bringing this notice forth.

At the same time, I am troubled about the possibility of repeating past spectrum policy mistakes by creating new local priority filing windows for preferred entities. It is one thing to allow long-standing incumbents greater flexibility to put their spectrum to better use or participate in the secondary market, it is quite another to issue new licenses for free or on the cheap, which then – consistent with EBS tradition – could be immediately leased or flipped to commercial providers. Why would we enrich such middlemen? Why would we continue the EBS charade and would doing so even be consistent with the law?

While I would have preferred that we not go down this path, I appreciate the Chairman's willingness to accept edits to inquire about the downsides of these filing windows and to seek broader comment, as requested by me and Commissioner Carr, on new ways to auction and license this band for commercial use. Let's figure out what to do with the incumbents, auction the rest, and put this band in the best position for future success. I look forward to engaging with all stakeholders about how to make this a reality.

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<sup>125</sup> *Amendment of Parts 2, 21, 74 and 94 of the Commission's Rules and Regulations in regard to Frequency Allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service, Gen Docket No. 80-112, CC Docket No. 80-116, Report and Order, 94 FCC 2d 1203, 1204 ¶ 4 (1983) (permitting licensees of the Instructional Television Fixed Service, or ITFS, which is the precursor to EBS and was established in 1963, the ability to lease of excess capacity).*

**STATEMENT OF  
COMMISSIONER BRENDAN CARR**

Re: *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, WT Docket No. 03-66 (Terminated); Transforming the 2.5 GHz Band, WT Docket No. 18-120*

In 1963, the FCC designated the 2.5 GHz band for the Instructional Television Fixed Service, or ITFS. In that pre-broadband age, the idea was that schools could broadcast educational video from one antenna to multiple schools, and those institutions in turn could distribute the video to classrooms through closed-circuit television.

Two decades later, nearly half of all states had zero ITFS licensees, even though we were essentially giving away licenses for free. Many educational institutions simply didn't have the resources or technical knowledge to use the spectrum.

So in the 1980s the FCC tried to determine the band's best use again—it allowed educational institutions to lease excess capacity to commercial broadcasters. Pay-TV operators used the spectrum for a few years with limited success. The FCC's predictive judgment once again failed to produce an optimal result and use of the band declined.

In the mid-2000s, the FCC took yet another shot at re-designating the spectrum—this time for mobile broadband, which we named the Educational Broadband Service, or EBS. EBS was a half-step towards liberalizing the band's use. We allowed educational institutions to lease the spectrum to entities that specialize in mobile broadband, such as wireless providers. But we kept requirements that limited the band's value and made little sense given trends in technology. For example, to this day, we require that licensees use each of the four channels of spectrum for educational purposes for 20 hours per week. That might have made sense when the 2.5 GHz band was used for TV, but what does the 20-hour mandate mean when the spectrum is being used for broadband?

And so, predictably, we continue to see mixed results today. The 2.5 GHz band lies fallow in about half of the country. And we estimate that more than 90 percent of the EBS licenses held by educational institutions are leased to other entities. On the upside, this demonstrates that there's a market for the spectrum among wireless providers. And it shows that many educational institutions have contracted with those providers so that each can focus on what it does best: the former can educate students, and the latter can build wireless networks.

But it also shows that the overwhelming majority of EBS spectrum is not being used for educational broadband. Instead, because of the Commission's outdated or incorrect judgments about the band's best use, schools and wireless providers have had to devote a lot of resources to work around our rules. There are many ways to advance our public policy goal of expanding network access in schools and enhancing online learning opportunities, including through our E-rate program. But, as the tortured history of the 2.5 GHz band shows, command and control set-asides and restrictions on spectrum use are not the most effective way to serve students.

Through this Notice, the Commission begins to step away from central planning and towards letting the market determine the band's highest and best use. It builds on our modern approach to spectrum policy, which favors flexible use, rather than the FCC dictating eligibility and use cases.

For the first time, we propose to allow the full transfer of EBS licenses from educational

institutions to providers, benefiting both parties. We propose to get rid of lease restrictions that devalue the band. And we seek to reform the geographic boundaries of licenses to encourage the full use of the spectrum.

I am glad to see that we are also going beyond the Notice's original proposals and priority filing windows. We now seek comment on additional options for rationalizing our approach to the band. For example, the Notice now asks whether we should consider an incentive auction or other mechanisms to allow the market to determine the band's highest and best use. After all, this band represents a potentially large, contiguous block of spectrum below 3 GHz that could be used for next generation mobile operations, including 5G. So we should recognize the significant investments that have already been made in the band while looking to remove regulatory barriers to expanding deployments. I want to thank my colleagues for agreeing to add this new section to the item. I look forward to reviewing the record as it develops.

And I want to thank the staff of the Wireless Telecommunications Bureau for their work on this item. It has my support.

**STATEMENT OF  
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, WT Docket No. 03-66 (Terminated); Transforming the 2.5 GHz Band, WT Docket No. 18-120*

Today we begin a rulemaking to release additional 2.5 GHz spectrum to the public, and in doing so, seek comment on how we can make more efficient and effective use of the airwaves reserved for the Educational Broadband Service. This is long overdue—and has my support.

The Educational Broadband Service has a long history. It got its start as a swath of spectrum known as Instructional Television Fixed Service, or ITFS. ITFS was first authorized back in 1963. The licenses were designed to assist educational institutions with delivering instructional television to schools and other higher learning facilities. A good idea, but many ITFS licensees had difficulty making full use of their spectrum and so the FCC permitted them to lease excess capacity for commercial use.

Fast forward to 2004. The FCC refreshed ITFS and renamed it the Educational Broadband Service. Moreover, there was an effort to reimagine the possibilities for these airwaves by encouraging their use not just for instructional television, but for educational broadband. Some promising efforts to ensure online access for students followed. But not every licensee was able to put this spectrum to the educational use the agency imagined.

This history is important. I believe it should inform our actions today. Because while we seek comment on how to increase flexibility for existing licensees, we must be mindful of the educational imperatives that have always informed their use. We need to be creative about how to pursue them in a modern and effective way.

Here's my idea.

Today, seven in ten teachers assign homework that requires access to broadband. But FCC data show that as many as one in three households do not subscribe to broadband service. Where these numbers overlap is what I call the Homework Gap.

According to the Senate Joint Economic Committee, the Homework Gap is real. By their count, it affects 12 million school-aged kids across the country. For students in households without broadband, getting homework done is hard. I've seen it firsthand in rural areas, urban areas, and everywhere in between. Kids sitting in parking lots late into the evening just to get a signal to do their nightly schoolwork. Students sliding into booths at fast food restaurants every afternoon to do their homework with fizzy drinks and fries. Parents cobbling together connectivity with trips to the homes of relatives and libraries with limited hours just to help their children get their assignments done.

It shouldn't be this hard. Today no child can be left offline. To have a fair shot at success, every student needs internet access, not only at school but also at home.

To tackle this challenge, we need some daring. We need to move past timid proposals that double down on the status quo. To this end, we need to use this proceeding to explore creative solutions. What if we repurposed the Educational Broadband Service through an incentive auction? What if we expanded the opportunities for spectrum use by auctioning not just licenses in inventory but through overlay rights? Then what if we took the revenue from this effort and used it to support new initiatives to

bridge the Homework Gap—to ensure every child has the internet access they need for schoolwork.

This could be a win for students and for wireless service. It could be a way to bridge the Homework Gap by honoring the history of the Educational Broadband Service but also bringing it firmly into the future.