

**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 Fixed and Mobile Broadband  
Access, Educational and Other Advanced  
Services in the 2150-2162 and 2500-2690  
MHz Bands

Transforming the 2.5 GHz Band

WT Docket No. 18-120

**JOINT REPLY COMMENTS**  
**NATIONAL EBS ASSOCIATION AND CATHOLIC TECHNOLOGY NETWORK**

The Catholic Technology Network (“CTN”) and the National EBS Association (“NEBSA”) submit these reply comments in response to the above-referenced Notice of Proposed Rulemaking (“*Notice*”). The comments demonstrate that in areas of the country where Educational Broadband Service (“EBS”) spectrum is licensed, the spectrum is not underutilized. There is widespread deployment of mobile and fixed wireless services, which are being used for both educational and commercial purposes. There is no reason to transform, and potentially disrupt, existing uses of the 2.5 GHz band. However, the Commission should license all remaining unassigned EBS spectrum and establish priority filing windows for new local educational entities to become EBS licensees.

**I. Existing Flexible Use Rules Have Resulted in Widespread and Efficient Use of EBS Spectrum.**

The comments reinforce CTN’s and NEBSA’s view that a complete transformation of the 2.5 GHz band is neither necessary nor in the public interest. Flexible use rules are already in place, which have fostered educational use of the band and created a robust secondary market for

commercial broadband services. The comments describe the many and varied ways in which EBS spectrum is being used in furtherance of the educational mission of pre-K-12 schools, colleges, and universities.

For example, the comments of the Northern Arizona University Foundation describe why EBS lease revenues are vital to sustaining University programs that address the needs of rural, Tribal and other underserved populations.<sup>1</sup> The comments of America's Public Television Stations describe how the South Carolina Educational Television Commission uses Sprint wireless devices to provide wireless broadband access and filtered, educational content to hundreds of pre-K program locations.<sup>2</sup> The comments also describe how public schools and universities in the Detroit, Michigan area have partnered with Sprint to provide funding for educational programs and wireless Internet devices that are used for education and to support other community endeavors, including training and computers for thousands of low-income households.<sup>3</sup>

Northern Michigan University uses EBS spectrum over a large region to operate a self-deployed, educational LTE network covering significant portions of Michigan's rural Upper Peninsula. Thousands of students, faculty and staff access this network to complete study and teaching assignments, primarily in areas where commercial broadband service is unavailable.<sup>4</sup> Similarly, the Kings County Superintendent of Schools has deployed a county-wide LTE network capable of providing wireless broadband service to virtually all of the 27,000 public school

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<sup>1</sup> Northern Arizona University Foundation Comments at 3 and 7.

<sup>2</sup> America's Public Television Stations and Corporation for Public Broadcasting Comments at 4.

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

<sup>4</sup> Northern Michigan University Comments at 4-5.

students in the rural, agricultural county, along with 5,500 school faculty and staff and their families.<sup>5</sup>

Florida Atlantic University provides wireless devices to students who cannot afford Internet service, to nursing faculty during community service visits, and to graduate students living in remote environmental research housing.<sup>6</sup> The School Board of Broward County and the School Board of Miami-Dade County use funds from spectrum leasing to subsidize the operation of their programming and online production departments as well as for technology and communications projects within their districts.<sup>7</sup> Mobile Citizen has provided wireless broadband service over Sprint's network to over 1,100 educational institutions, nonprofit organizations and social welfare agencies, having found widespread adoption for reducing the digital divide and homework gap.<sup>8</sup>

With respect to commercial use, Sprint's comments leave no doubt that the existing flexible use regime for EBS spectrum has been a resounding success. Sprint has long-term lease arrangements involving approximately 1,600 call signs in the 2.5 GHz band; approximately 1,500 of those call signs are assigned to EBS licensees.<sup>9</sup> The band serves as the backbone of Sprint's 3G/4G LTE network, which covers 302 million POPs and serves over 54 million customers.<sup>10</sup> There is no doubt that Sprint's 2.5 GHz spectrum assets can support significant capacity and throughput where deployed, and the Wireless Communications Association International

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<sup>5</sup> Kings County Superintendent of Schools Comments at 3-4.

<sup>6</sup> South Florida EBS Licensees Joint Comments at 2-3.

<sup>7</sup> *Id.*

<sup>8</sup> Voqal Comments at 7.

<sup>9</sup> Sprint Comments at 3 and 14.

<sup>10</sup> *Id.* at 2.

(“WCA”) confirms that in those areas of the country where EBS is licensed, the spectrum is readily available for commercial use.<sup>11</sup>

The comments also reinforce CTN and NEBSA’s view that forward-looking Commission rules and policies have ensured that ample 2.5 GHz spectrum is available to commercial wireless carriers for the deployment of future 5G services. Sprint has announced the planned rollout of 5G services in nine metropolitan areas and anticipates that after EBS geographic service areas (“GSAs”) are rationalized and unassigned EBS spectrum is licensed, the full potential of the 2.5 GHz band will be unlocked for both 4G expansion and 5G development.<sup>12</sup> Thus, assertions from some commenters that the existing eligibility, educational use and lease rules have “outlived their purpose” and prevent licensees from achieving the most efficient use of their spectrum, fly in the face of reality.<sup>13</sup> As noted in our comments, EBS does not need “fixing” – it needs “finishing.”

## **II. Existing EBS GSAs Should be Rationalized.**

CTN and NEBSA agree with the many parties who support the idea of expanding existing EBS GSAs automatically to county boundaries as opposed to census tracts.<sup>14</sup> CTN and NEBSA also agree that the Commission should establish a minimum threshold of existing geographic coverage within a county before a GSA is eligible for expansion in order to avoid conferring

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<sup>11</sup> *Id.* at 3; WCA Comments at 4.

<sup>12</sup> Sprint Comments at 3-4.

<sup>13</sup> *See* Wireless Internet Service Providers Association (“WISPA”) Comments at iii and 12 and T-Mobile Comments at 1.

<sup>14</sup> *See e.g.*, Sprint Comments at 4, WISPA Comments at 8, AT&T Comments at 6, Northern Michigan University Comments at 6-7, and Hispanic Information and Telecommunications Network, Inc. Comments at 4-5.

unwarranted spectrum windfalls on some licensees.<sup>15</sup> The 10% threshold proposed by Sprint appears reasonable.

Whatever decision the Commission reaches, authorizations for extended GSAs should be included within existing EBS license authorizations (*i.e.*, any extended areas of coverage should not be assigned as separate and distinct license authorizations).<sup>16</sup> The Commission also should ensure that GSAs which are not extended (*e.g.*, because they cover less than the established coverage threshold of a county) will not be reduced in size or otherwise adversely affected through the rationalization process.

### **III. Priority Filing Windows Should be Used to Issue New EBS Licenses.**

CTN and NEBSA support the Commission's proposal to establish local priority filing windows for the issuance of new EBS licenses to rural Tribal Nations and new educational entities following the completion of the GSA rationalization process.<sup>17</sup> CTN and NEBSA disagree with proposals put forward by Sprint and other commercial service providers to forego priority filing windows in favor of auctioning EBS white space to the highest bidder immediately after GSAs have been rationalized.<sup>18</sup> These proposals ignore the benefits of the existing EBS regulatory

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<sup>15</sup> Proposed minimum coverage thresholds range from 10% to 80%. *See* Sprint Comments at 5 (“if an EBS licensee’s GSA encompasses 10% or more of the geographic area of an overlapping county, its license area should be expanded to include the rest of the county”); WISPA Comments at 9 (existing GSAs “should not expand where the licensee is the only licensee with a GSA covering the county and the GSA covers less than 35 percent of the area of the county”); and Midcontinent Communications Comments at 10 (“to yield the greatest white space possible for auction, and thereby the most efficient spectrum use, the Commission should use an 80% threshold based on geography.”).

<sup>16</sup> *See e.g.*, Sprint Comments at 5 and 8 and WCA Comments at 31.

<sup>17</sup> If the Commission implements a single, comprehensive automatic rationalization process as proposed by most commenters, there would be no need for a priority window to further expand existing GSA boundaries as suggested in paragraphs 32-34 of the *Notice*.

<sup>18</sup> *See e.g.*, Sprint Comments at 10-12, AT&T Comments at 5-6, WCA Comments at 25, and WISPA Comments at iv and 17.

regime, which by Sprint’s own admission, has enabled the 2.5 GHz band to serve as the backbone of its 4G network.

CTN and NEBSA also disagree with WCA’s assertion that the reservation of EBS spectrum for educators is “no longer necessary” because many EBS licensees provide educational services by riding over-the-top of a commercial broadband network and leasing 95% of their capacity for commercial use.<sup>19</sup> Contrary to what WCA would have the Commission believe, there is nothing *wrong* with educators riding over-the-top of commercial broadband networks. Indeed, shared networks were anticipated and encouraged by the Commission as a means of making efficient use of EBS spectrum.<sup>20</sup> Thus, intensive *commercial* use of EBS spectrum is *precisely* the outcome one would expect given the rules and policies adopted by the Commission over many years.

For decades, the Commission encouraged EBS licensees to lease up to 95% of their spectrum, and educators embraced that call by establishing successful public-private partnerships with commercial broadband providers – most notably Sprint.<sup>21</sup> As Sprint points out, the “Commission has consistently encouraged these types of secondary market arrangements as a means of promoting intense spectrum usage.”<sup>22</sup> Auctioning all remaining white space will ensure that new educational institutions will *never* have the opportunity to benefit from EBS. Conversely, the establishment of priority filing windows will give educators the ability to partner with

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<sup>19</sup> WCA Comments at 8 and 24.

<sup>20</sup> See NEBSA and CTN Comments at 5-7.

<sup>21</sup> See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, MM Docket No. 97-217, *Report and Order*, 13 FCC Rcd 19112, 19159 at ¶¶ 89-90 (1998) (explaining that the 5% reservation should maximize flexibility for system design to meet varied operator needs and maximize spectrum available for leasing while maintaining sufficient capacity for educational use).

<sup>22</sup> Sprint Comments at 14.

commercial entities while ensuring educational benefits to the community that otherwise would not occur through commercialization.

#### **IV. Current EBS Licensees and Leasing Arrangements Should Not be Disrupted.**

There is widespread agreement that whatever decisions the Commission ultimately makes, the new rules and policies adopted in this proceeding should not override the provisions of any lease or other agreement between EBS licensees and commercial operators.<sup>23</sup> Consistent with past practice, existing leases should be grandfathered and the rule changes adopted in this proceeding should be subject to the provisions of such agreements.

#### **V. EBS Licenses Should Not Be Sold to Commercial Entities.**

Predictably, commercial service providers have called for the commercialization of EBS spectrum by allowing EBS licenses to be sold to commercial entities. There are many reasons not to take this path including the widespread availability of EBS for commercial use under current rules, the many and varied ways in which EBS spectrum contributes to education, and the strong demand for new EBS licenses by new educational institutions.

As new technologies evolve, the EBS reservation ensures that at least some of the nation's spectrum resources are dedicated to education. Allowing EBS licenses to be sold to commercial entities is sure to result, over time, in the loss of EBS as a public asset to the detriment of education. While the *Notice* describes open eligibility as merely giving EBS licensees a *choice* to sell or lease

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<sup>23</sup> See e.g., Sprint Comments at 9 footnote 24 (“Existing leases should remain in effect according to their terms.”); WISPA Comments at 10 (“WISPA notes that any changes the Commission adopts should not override the provisions of any lease or other agreement between the EBS licensee and its commercial lessee; rather, consistent with past practice, existing leases should be grandfathered and the rule changes subject to the provisions of such agreements.”); and WCA Comments at 29 (“The Commission should take no action in this proceeding that interferes with existing leases or that would modify spectrum allocations to reduce bandwidth or geographic service areas assigned to any 2.5 GHz band licensee or lessee.”).

their spectrum, in truth there may be no “*choice*” at all. As one commenter so aptly states, open eligibility will trigger an erosion of the educational EBS user base and isolate those educators that wish to remain licensees.<sup>24</sup> EBS licensees who wish to retain their licenses and continue to lease their spectrum will face a hostile lease environment. Commercial entities will have the incentive and ability to offer favorable *sale* terms and highly unfavorable (or no) *lease* terms.<sup>25</sup> In short, the public policy objectives served by EBS will be permanently compromised.<sup>26</sup>

## **VI. Existing Educational Use Standards Should be Retained.**

Two parties have suggested the idea of adopting a capacity-based, rather than time-based or content-based, usage standard for EBS.<sup>27</sup> While conceptually appealing, the problem with this suggestion is that it would require the Commission to inject itself into arms-length contract negotiations between the parties to EBS leasing arrangements by *mandating* that the commercial service provider turn over a certain percentage of its network broadband capacity to the EBS lessor. Another party has proposed that educational use standards be replaced with a requirement that

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<sup>24</sup> North American Catholic Educational Programming Foundation and Mobile Beacon (“NACEPF”) Comments at 9.

<sup>25</sup> *Id.* (“Far from empowering licensees with greater flexibility over the long-term, eliminating educational eligibility will leave EBS licensees with *fewer* options to partner with entities that would otherwise assist them in building, operating, and maintaining a robust network that utilizes this spectrum.”).

<sup>26</sup> In situations where an individual EBS licensee determines that it no longer has a continuing need for an EBS license, the licensee should transfer or assign the license to another eligible local educational institution that wants the license rather than selling it to a commercial entity.

<sup>27</sup> NACEPF Comments at 31 (proposing that “instead of the reserve requirement, the commercial operator be required to provide the EBS licensee with access to a minimum of 5% of the deployed data capacity the licensee contributed to the commercial operator’s network, and to measure that capacity on a deployed, rather than a theoretical, basis.”) and Voqal Comments at 15 (“Voqal believes the Commission should adopt a deployment-based educational use requirement for leased EBS spectrum that is based on the actual capacity of the spectrum lessee’s network. ... EBS licensees in leasing arrangements could receive an allotment of data throughput proportional to the spectrum they are contributing to the network that they would be required by rule to deploy for educational purposes.”).



EBS licensees offer affordable, uncapped wireless broadband service to at least 20% of the “customers” served by that licensee.<sup>28</sup> Again, this essentially would *mandate* the provision of massive free or reduced cost service by a commercial lessor to an EBS lessee. Moreover, it is difficult to envision an effective way to define and police such a requirement.

Some parties assert that the existing educational reservation and use requirements are difficult to administer and are not rationally tied to educational needs.<sup>29</sup> However, the fact is that EBS licensees and lessees have learned to accommodate these requirements in their leases and operations, and there is no question that educational needs are being well served under the current rules. While CTN and NEBSA understand that a new, clear and sensible digital reservation and use standard would be appealing, they have not been able to develop a better standard, nor have they seen a workable proposal made by others. On balance, therefore, CTN and NEBSA continue to believe that the existing educational reservation and use requirements should be retained because they are sufficiently flexible to accommodate the many and varied uses of EBS spectrum for education and have proven to work over time.<sup>30</sup>

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<sup>28</sup> Schools, Health and Libraries Broadband Coalition Comments at 5.

<sup>29</sup> See *e.g.*, T-Mobile Comments at 3.

<sup>30</sup> See *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Two-Way Transmissions*, Report and Order, MM Docket No. 97-217, 13 FCC Rcd 19112, 19154-55 at ¶ 81 (1998) (“The Commission has long been loath to substitute its judgment for the judgment of educational authorities concerning what precise ITFS usage is regarded as educational, where such usage otherwise complies with Commission requirements that it be provided to students enrolled in accredited institutions. We believe that availability of advanced technologies dictates that it is now time to accord ITFS licensees increased flexibility in determining which transmissions qualify as satisfying ITFS usage requirements, so long as such transmissions are in furtherance of the educational mission of an accredited public or private school, college or university, or other eligible institution...”).

Respectfully submitted,

NATIONAL EBS ASSOCIATION

CATHOLIC TECHNOLOGY NETWORK

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