

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Service Rules for Advanced Wireless Services in the 2000-2020 MHz and 2180-2200 MHz Bands	)	WT Docket No. 12-70
	)	
Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz	)	ET Docket No. 10-142
	)	
Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands	)	WT Docket No. 04-356
	)	

**REPLY COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®**

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**REPLY COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®**

**I. INTRODUCTION AND SUMMARY**

CTIA – The Wireless Association® (“CTIA”)<sup>1</sup> respectfully submits these Reply Comments in response to the Commission’s Notice of Proposed Rulemaking and Notice of Inquiry (“AWS-4 Notice”) proposing service, technical, assignment, and licensing rules for spectrum between 2000-2020 MHz and 2180-2200 MHz (the “AWS-4 band” or “2 GHz MSS band”).<sup>2</sup> Once again, the Commission has developed a record that demonstrates the extreme need for additional spectrum for wireless broadband services. Further, it is clear that for the Commission to best promote both the public interest and productive use of this spectrum, it must

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<sup>1</sup> CTIA is the international association of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, Advanced Wireless Service, 700 MHz, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

<sup>2</sup> *Service Rules for Advanced Wireless Service in the 2000-2020 MHz and 2180-2200 MHz Bands*, Notice of Proposed Rulemaking and Notice of Inquiry, FCC 12-32 (2012) (“AWS-4 Notice”).

take certain actions with respect to the AWS-4 band. In particular, the Commission should adopt band plans and service rules that: (1) take into account the risk of harmful interference to neighboring incumbent operations, and (2) make the most productive use of both the AWS-4 and nearby spectrum identified for mobile broadband services. This may ultimately result in the creation of alternate band plans, several of which have been proposed and/or supported in this proceeding. The record also makes clear that the Commission must consider whether granting access to a full forty megahertz of terrestrial spectrum solely to the MSS provider serves the public interest. The opening comments also demonstrate the buildout requirements proposed by the Commission are unreasonably punitive and would not serve the public interest, and CTIA reiterates its opposition to that proposal.

While CTIA generally shares the views of many commenters who have participated in this proceeding, it takes this opportunity to urge the Commission to reject two unnecessary and problematic proposals offered in the initial round. First, the Commission should decline the “use it or share it” requirements proposed by the Public Interest Organizations in their Comments. CTIA believes that this proposed regime would improperly undermine the rights of the AWS-4 spectrum licensee(s) and its efforts to make this important spectrum available to the public in a timely and productive manner. Further, CTIA urges the Commission to refrain from adopting specific interference rules associated with GPS services in this proceeding.

CTIA commends the Commission for initiating this proceeding and for taking this important step toward making additional spectrum available for mobile broadband services. By adopting allocation and service rules for this spectrum as described below, the Commission can ensure that it will “provide for flexible use of this spectrum, [] encourage innovation and

investment in broadband, and . . . provide a stable regulatory environment in which broadband deployment could develop.”<sup>3</sup>

## **II. OPENING COMMENTS SHOW WIDESPREAD SUPPORT FOR THE POSITIONS ADVANCED BY CTIA IN THIS PROCEEDING.**

In its opening Comments, CTIA made numerous proposals regarding the licensing and use of the 2 GHz MSS spectrum. In particular, CTIA observed that the 2 GHz MSS spectrum can and should play an important role in addressing the spectrum crunch, that the Commission must be mindful of the potential harmful interference effects of its actions, and that the Commission may wish to explore alternate band plans such as the Extension Band Concept proposed by the Commission in the NOI. CTIA further noted that the Commission should examine the public interest considerations associated with granting increased terrestrial rights in the AWS-4 band, and that it should reject the adoption of unprecedented penalties for failure to meet construction requirements. The record developed in the initial comment round reflects widespread support for each of these positions.

### **A. AWS-4 Spectrum Should Play an Important Role in Addressing the Spectrum Crunch.**

In its opening Comments, CTIA highlighted the numerous benefits of wireless broadband and the impact that surging demand for these services is having on spectrum-constrained networks. Although “[m]obile broadband is changing the world for the better,”<sup>4</sup> “the demand for mobile services is on pace to exceed the capacity of our mobile networks.”<sup>5</sup> For this reason, CTIA is pleased that the Commission has initiated this proceeding, and urges the Commission to

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<sup>3</sup> *Id.* at ¶ 1.

<sup>4</sup> FCC Chairman Julius Genachowski, Prepared Remarks to International CTIA Wireless 2012 at 3 (May 8, 2012) (“Genachowski 2012 CTIA Remarks”), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-313945A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-313945A1.pdf).

<sup>5</sup> *Id.* at 4.

heed the findings of commenters that a productive deployment of the 2 GHz spectrum is key to addressing the spectrum crunch.

Since CTIA filed its initial Comments in this proceeding, Cisco has released new data demonstrating the critical need for additional spectrum for mobile broadband. Cisco predicts that the number of devices connected to IP networks worldwide will be nearly three times as high as the global population in 2016.<sup>6</sup> Global mobile data traffic comprised 2 percent of total IP traffic in 2011, and will be 10 percent of total IP traffic by 2016.<sup>7</sup> In North America, monthly Internet traffic will generate 5 billion DVDs' worth of traffic – 18.2 exabytes per month.<sup>8</sup> As consumers increasingly rely on mobile broadband in their daily lives and use mobile broadband networks for ever more sophisticated services, the strain on wireless networks will get progressively greater.

Opening comments demonstrate this continued strain on mobile networks created by increasing demand for bandwidth-intensive broadband services. Nokia Siemens Networks predicts that there will be a thousand-fold increase in total mobile broadband traffic by 2020.<sup>9</sup> Wireless consumers “desire to be connected ‘anywhere and anytime’ and they are demanding the capability to send and receive huge volumes of data in order to conduct business and manage their personal lives.”<sup>10</sup> And commenters also expect this demand to increase: Alcatel-Lucent

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<sup>6</sup> Cisco, *Cisco Visual Networking Index: Forecast and Methodology, 2011-2016* at 1 (May 30, 2012), available at [http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white\\_paper\\_c11-481360.pdf](http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360.pdf) (“Cisco May 2012 VNI”).

<sup>7</sup> *Id.* at 2.

<sup>8</sup> *Id.*

<sup>9</sup> Comments of Nokia Siemens Networks, WT Docket No. 12-70, at 2 (May 17, 2012) (“Nokia Siemens Networks Comments”).

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

reports that “[t]he use of new mobile multimedia services, connected device applications and machine-to-machine services is expected to continue to grow, as the new wireless Internet Protocol infrastructures being implemented today set the stage for innovation and expansion of the wireless ecosystem.”<sup>11</sup>

Commenters agree that bringing additional spectrum to market is key to maintaining the highly beneficial role that mobile broadband plays in the United States. As MetroPCS observed, “[m]obile service is an important force behind broadband deployment and continued competition, but more spectrum must be provided in order to allow the mobile industry to fulfill its future potential.”<sup>12</sup> Sprint Nextel, meanwhile, has argued that “[m]aking additional spectrum available for mobile broadband is one important element for satisfying longer-term consumer demand, and the Commission’s recent proposals provide the regulatory foundation for putting valuable but underutilized spectrum to commercial use.”<sup>13</sup> Verizon Wireless stated that providing the flexibility to provide terrestrial services in the 2 GHz band without the need to comply with existing Ancillary Terrestrial Component (“ATC”) rules is likely to promote the deployment of services in this band.<sup>14</sup>

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<sup>11</sup> Comments of Alcatel-Lucent, WT Docket No. 12-70, at 4 (May 17, 2012) (“Alcatel-Lucent Comments”).

<sup>12</sup> Comments of MetroPCS Communications, Inc., WT Docket No. 12-70, at 15 (May 17, 2012) (“MetroPCS Comments”).

<sup>13</sup> Comments of Sprint Nextel, WT Docket No. 12-70, at 3 (May 17, 2012) (“Sprint Nextel Comments”).

<sup>14</sup> Comments of Verizon Wireless, WT Docket No. 12-70, at 4 (May 17, 2012) (“Verizon Wireless Comments”) (“The proposals in the NPRM and NOI in this proceeding are an excellent means of filling part of this spectrum demand. Indeed, by providing flexibility in the 2 GHz band as proposed, the Commission will promote mobile broadband deployment. If the Commission adopts the proposal in its NPRM, it would provide licensees with greater flexibility to deploy terrestrial services without having to comply with the Commission’s existing Ancillary Terrestrial Component rules. Such an action could promote the deployment of terrestrial mobile broadband services in this band.”).

Moreover, the 2 GHz spectrum is ideal spectrum for mobile broadband services. As the Telecommunications Industry Association (“TIA”) observed in its comments, “[w]ireless broadband services are best provided utilizing wide and contiguous spectrum,” and the 2 GHz band will allow for just that.<sup>15</sup> Further, this spectrum is adjacent to like services, which will promote numerous benefits such as a reduction in deployment costs and an accelerated standards development process.<sup>16</sup> In its initial Comments, CTIA highlighted these and other benefits of the 2 GHz band, and for this reason strongly supports the reallocation of this spectrum for mobile broadband and notes the wireless industry’s great enthusiasm for the use of the 2 GHz band for this purpose.

**B. Numerous Parties Expressed Concern About Harmful Interference to Adjacent PCS Operations.**

While the proximity of the 2 GHz band to similar mobile broadband services has several benefits noted above, the band plan proposed in the NPRM also creates challenges regarding potential harmful interference. In the *AWS-4 Notice*, the Commission observed that flexible use of 2 GHz spectrum must be balanced against the protection of incumbent operations in neighboring bands.<sup>17</sup> CTIA supports the Commission’s effort in the *AWS-4 Notice* to gather

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<sup>15</sup> Comments of the Telecommunications Industry Association, WT Docket No. 12-70, at 6 (May 17, 2012) (“TIA Comments”).

<sup>16</sup> *Id.* at 8 (“When two similar wireless broadband services are adjacent to each other, they experience the benefits of contiguous bands noted above. Furthermore, adjacency to like services reduces interference concerns to or from services allocated in adjacent bands. The allowance of wider bandwidth technologies can more effectively maximize potential uses, especially in areas where 20 MHz blocks are used. Further, there is a reduction in deployment costs for networks and equipment providers. Moreover, the standard development process is accelerated, as existing equipment can be modified rather than requiring new technology developments to support other bands; this acceleration speeds products to market.”).

<sup>17</sup> *AWS-4 Notice* at ¶ 29.

information on how best to prevent this interference, and notes that the Commission's interference concerns are shared by many in the wireless industry.

Because the lower MSS uplink band is directly adjacent to the H Block, is only 5 MHz from the PCS G Block licensed to Sprint Nextel, and only 10 MHz from the PCS C Block that has already been deployed for mobile broadband services, there is a considerable risk of harmful interference caused by the proximity of these uplink and downlink operations.<sup>18</sup> As Motorola Mobility observed, “[t]he lack of adequate separation between the frequencies that 2 GHz AWS-4 devices would transmit upon and those over which broadband PCS devices receive creates a significant possibility that AWS-4 mobile devices might cause harmful interference to broadband PCS devices.”<sup>19</sup> CTIA agrees with Sprint Nextel that in this proceeding, “the Commission must

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<sup>18</sup> See, e.g., Comments of AT&T Inc., WT Docket No. 12-70, at 6 (May 17, 2012 (“AT&T Comments”)) (“In the context of proposals to introduce mobile operations to the lower PCS H Block, AT&T has previously explained that PCS devices are highly susceptible to interference from mobile transmitters operating in the spectrum near to the PCS downlink band, because PCS devices were developed with filter characteristics based upon the band plan in place at the time of the creation of the Broadband PCS. This same dynamic exists with respect to the possibility of interference from AWS-4 mobile devices.”); Comments of Sprint Nextel Corporation, WT Docket No. 12-70, at 10 (May 17, 2012) (“Sprint Nextel Comments”) (“The 1995-2000 MHz H Block downlink band would be susceptible to MSS and AWS-4 uplink interference under certain conditions. Such mobile-to-mobile interference is highly probabilistic, but establishing primary terrestrial uses in the satellite spectrum could pose additional interference risks.”). See also Comments of TerreStar Networks, Inc., ET Docket No. 10-142, at 4-5 (July 8, 2011) (“TerreStar 2 GHz Comments”) (“The juxtaposition of uplink and downlink bands in adjacent spectrum creates unique interference issues, including the risk of H-Block base station transmitters interfering with MSS satellite and ATC base stations. This risk of interference is well known to the Commission, and has been a matter of public record for more than six years. These issues should be taken into account when considering potential 2 GHz band plans.”).

<sup>19</sup> Comments of Motorola Mobility, Inc., WT Docket No. 12-70, at 3 (May 17, 2012) (“Motorola Mobility Comments”). Motorola Mobility further notes that “[t]his device-to-device interference scenario could occur because the five megahertz separation created by the Upper AWS-2 H Block at 1995-2000 MHz will not be sufficient to allow standard filters on LTE devices operating in the 2 GHz band at full power over a ten megahertz channel to adequately protect PCS devices from interference. . . . Creating a band plan with this interference challenge could require service providers either (1) to use devices with costly, one-off filters that could create additional challenges with respect to integrating AWS-4 with other commercial mobile bands and would otherwise reduce the marketability of devices, or (2) to implement internal guard bands and power limitations in excess of those required by the rules, which would reduce overall system capacity and performance.”

adopt service rules and band plans that protect core PCS operations from harmful interference from licensees located in spectrum newly allocated for mobile broadband use.”<sup>20</sup> Unless the Commission takes such actions, “the potential for harmful interference to PCS operators will override any benefits the Commission hopes to promote by authorizing flexible use in the AWS-4 band.”<sup>21</sup> CTIA agrees with the National Rural Telecommunications Cooperative that “[t]here is no question that incumbent services that are deployed and in current operation must be protected as new services are devised and come on line,”<sup>22</sup> and therefore urges the Commission to address these well-documented interference concerns in this proceeding.

Several parties have proffered potential solutions to the interference problem, and CTIA encourages the Commission to closely examine these proposals and only take actions that would not create interference to adjacent PCS bands. At this time, CTIA does not offer comment on any specific proposed solution, but asks the Commission to carefully examine the submissions in this proceeding and make it a priority to identify and address any interference risks in this band or that could be created by the Commission’s actions.

**C. Commenters Continue to Support Alternate Band Plans, and the Commission Should Undertake a Holistic Assessment of the 2 GHz Band in the Course of Band Planning.**

CTIA has consistently encouraged the Commission to take a holistic approach to band planning in the 2 GHz range that would take into account the complexities of different spectrum

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<sup>20</sup> Sprint Nextel Comments at 10. *See also* Nokia Siemens Networks Comments at 4 (“Nokia Siemens Networks agrees that there must be appropriate adjustments to protect adjacent operations while also protecting the uses of the 2 GHz allocation consistent with established and well accepted principles of co-existence between all licensees.”).

<sup>21</sup> Comments of T-Mobile USA, Inc., WT Docket No. 12-70, at 25 (May 17, 2012) (“T-Mobile Comments”).

<sup>22</sup> Comments of the National Rural Telecommunications Cooperative, WT Docket No. 12-70, at 10 (May 17, 2012) (“NRTC Comments”).

bands between 1675 MHz and 2.2 GHz.<sup>23</sup> In the *Notice of Inquiry* in this proceeding, the Commission has sought comment on an alternative band plan which incorporates NTIA's proposal to reallocate the 1695-1710 MHz band from Federal to commercial use. The record developed thus far in this proceeding makes clear that there remains considerable support for alternative band plans, including the Extension Band Concept proposed in the NOI, and the Commission should evaluate all of these proposals to consider how it may best make use of the maximum amount of spectrum in the 2 GHz range.

As Alcatel-Lucent observed, "the current NPRM is only one piece of the puzzle, with broadcast incentive auctions and various government bands among the spectrum set for near-term allocation for commercial broadband use."<sup>24</sup> The Commission's proposed Extension Band, as introduced in the *Notice of Inquiry*, also received support from several parties. Verizon Wireless stated that this proposal "would promote deployment even further by increasing the amount of spectrum available for mobile broadband in the 2 GHz band."<sup>25</sup> AT&T observed that "[b]y incorporating repurposed Federal government spectrum, the 2 GHz MSS band, and other currently unused terrestrial mobile allocations, the 2 GHz Extension Band Concept would advance the rationalization of the 2 GHz band while freeing up additional usable spectrum."<sup>26</sup>

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<sup>23</sup> The Commission has sought comment on broadband deployment in many different bands in this range. See, e.g., *Office of Engineering and Technology Requests Information on Use of 1675-1710 MHz Band*, Public Notice, ET Docket No. 10-123 (June 4, 2010); *Spectrum Task Force Requests Information on Frequency Bands Identified by NTIA as Potential Broadband Spectrum*, Public Notice, ET Docket No. 10-123 (Mar. 8, 2011); *Spectrum Task Force Invites Technical Input on Approaches to Maximize Broadband Use of Fixed/Mobile Spectrum Allocations in the 2 GHz Range*, Public Notice, ET Docket No. 10-142, WT Docket Nos. 04-356 and 07-195 (May 20, 2011).

<sup>24</sup> Alcatel-Lucent Comments at 17.

<sup>25</sup> Verizon Wireless Comments at 4.

<sup>26</sup> AT&T Comments at 14.

As CTIA previously noted, by obviating the need to create large guard bands, an alternative band plan may enable more spectrum to be put to productive use.<sup>27</sup> Furthermore some alternate plans may allow for a broader and a more likely integration of new spectrum into mobile devices and make more efficient use of the assignments. In sum, CTIA encourages the Commission to consider exploring a variety of band plans to determine how to most efficiently and effectively allocate as much spectrum as possible between 1675 MHz and 2.2 GHz.

**D. The Record Reflects Skepticism Regarding How This Spectrum Should Be Allocated.**

In its opening Comments, CTIA asked the Commission to explore whether its proposed grant of terrestrial rights to the incumbent licensee would serve the public interest and its policy objectives. CTIA now notes that several commenters in the initial round called into question whether the public interest would truly be served by the Commission allocating terrestrial rights to all forty megahertz of the AWS-4 band solely to the MSS provider.

Commenters question whether there continues to be a need for reserving the full 40 megahertz of spectrum for MSS use, and have proffered alternative proposals involving a partial grant of the spectrum for MSS. In its opening Comments, CTIA observed that the predecessors-in-interest of TerreStar and DBSD had previously stated that twenty megahertz was sufficient to meet peak demand levels in 2005,<sup>28</sup> and that, seven years later, the projections for peak demand usage made by these former incumbents have not materialized. In a similar vein, AT&T argued that “[t]here is no need to allow the MSS allocation to drive the use of 40 megahertz of spectrum where neither historic use of the band, nor projected future use, suggest that 40 megahertz is

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<sup>27</sup> CTIA Comments at 14.

<sup>28</sup> *Use of Returned Spectrum in the 2 GHz Mobile Satellite Service Frequency Bands*, Order, 20 FCC Rcd 19696, ¶¶ 27, 34 (2005).

needed for MSS.”<sup>29</sup> Accordingly, AT&T suggested that the Commission limit MSS to twenty megahertz of spectrum and allocate the remaining twenty to mobile broadband.<sup>30</sup> Similarly, MetroPCS has recommended that the Commission either take back twenty megahertz of this spectrum and reallocate it for terrestrial use, or that the Commission take back thirty megahertz of spectrum in the top 100 MSAs and retain all forty megahertz in the remaining markets.<sup>31</sup> And T-Mobile suggested that the Commission reassign twenty megahertz of the AWS-4 spectrum through a competitive auction, which it stated would preserve the incumbent’s ability to offer terrestrial service.<sup>32</sup>

Indeed, several commenters expressed concern that providing terrestrial rights to MSS for the full forty megahertz of the AWS-4 band would constitute an improper windfall. MetroPCS argued that “if the Commission were to implement the AWS-4 Proposal, the 40 MHz of 2 GHz MSS spectrum would vastly increase in value, thus giving DISH an unwarranted and unprecedented windfall.”<sup>33</sup> NTCH, meanwhile, cautioned the Commission that it must “make an affirmative determination that it is in the public interest for the incumbent licensee to receive a financial windfall on the order of several billion dollars while being permitted to operate in a manner wholly different from its original license.”<sup>34</sup>

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<sup>29</sup> AT&T Comments at 2.

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

<sup>31</sup> MetroPCS Comments at 5.

<sup>32</sup> T-Mobile Comments at 18, 23.

<sup>33</sup> MetroPCS Comments at 22.

<sup>34</sup> Comments of NTCH, Inc., WT Docket No. 12-70, at 4 (May 17, 2012) (“NTCH Comments”).

For these reasons, several commenters suggested that the Commission employ an auction mechanism to allocate some or all of this spectrum. T-Mobile stated that “reassigning 20 MHz of the AWS-4 spectrum through a competitive auction would serve the public interest by preventing a single licensee from receiving a substantial windfall at the expense of other licensees that have invested billions of dollars in deploying and expanding competitive wireless broadband networks.”<sup>35</sup> TIA also supported an auction framework, finding that “utilizing voluntary incentive auctions as an enticement may lead to more efficient use of spectrum by providing an appropriate mechanism for incumbent 2 GHz MSS licensees to vacate the band in favor of mobile broadband providers operating on new licenses.”<sup>36</sup>

CTIA encourages the Commission to weigh such public interest considerations – including whether there remains a need for 40 megahertz for MSS operations – as it develops policies and regulations in this proceeding. The record demonstrates that several participants are skeptical of the need for a full forty megahertz terrestrial allocation for MSS. In light of the spectrum crunch currently plaguing the country and the shortage of spectrum available in the near term, it is crucial that the Commission ensure that the 2 GHz allocation serve the public interest.

**E. The Buildout Requirements Proposed By the Commission are Unreasonably Punitive.**

Several commenters agreed with CTIA that the buildout requirements proposed by the Commission are unreasonably punitive and would not serve the public interest. CTIA once again stresses to the Commission that the penalties associated with these proposed requirements

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<sup>35</sup> T-Mobile Comments at 18.

<sup>36</sup> TIA Comments at 12.

would undermine not only the rights and interests of the licensee, but would run contrary to the public interest as well.

In the *AWS-4 Notice*, the Commission proposed unprecedented penalties for failure to meet buildout requirements in connection with AWS-4 licenses.<sup>37</sup> Specifically, the Commission suggested that if an AWS-4 licensee fails to meet its *interim* buildout requirement with respect to a particular authorization, all of the licensee's AWS-4 license authorizations shall terminate automatically.<sup>38</sup> In addition, if an AWS-4 licensee fails to meet its *final* buildout requirement for any authorization, the Commission proposed that its AWS-4 license for each license authorization area in which it fails to meet the buildout requirement shall terminate automatically.<sup>39</sup> CTIA urged the Commission to reject these proposals, as they are overly draconian and would not serve the public interest.

Several commenters agree with CTIA that these proposed buildout penalties carry the potential to severely undermine the public interest. In particular, AT&T notes that these proposed requirements “do not strike the appropriate balance between incentivizing deployment and affording licensees the flexibility necessary to put spectrum to its highest and best use.”<sup>40</sup> These requirements are particularly inappropriate because they result in an automatic loss of license without any procedural protections.<sup>41</sup> However, the dangers of the proposed buildout requirements are not limited to AWS-4 licensees – if applied, the buildout rules could have a substantial negative impact on consumers. As AT&T observed, under these requirements a

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<sup>37</sup> *AWS-4 Notice* at ¶¶ 90-98.

<sup>38</sup> *Id.* at ¶ 94.

<sup>39</sup> *Id.*

<sup>40</sup> AT&T Comments at 11.

<sup>41</sup> Alcatel-Lucent Comments at 16.

licensee may be rushed into a sub-optimal deployment,<sup>42</sup> and the result could be lower service quality for customers. Even more disturbing is the fact that an AWS-4 licensee could lose a license under which it is providing broadband service to tens of thousands of customers, in which case these customers would suddenly lose their wireless service under the proposed regime.<sup>43</sup> For the foregoing reasons, CTIA strongly opposes the proposed construction requirements and urges their rejection by the Commission.

### **III. THE COMMISSION SHOULD REJECT THE “USE IT OR SHARE IT” REQUIREMENTS PROPOSED BY THE PUBLIC INTEREST ORGANIZATIONS.**

In their Comments, the New America Foundation, Public Knowledge, and Consumers Union (collectively the “Public Interest Organizations”) have proposed the imposition of a “use it or share it” license condition that would require the AWS-4 licensee to permit other parties to use the spectrum until such time as service is actually deployed in the spectrum.<sup>44</sup> In support of their proposal, the Public Interest Organizations assert that this spectrum “has been almost completely fallow for more than a decade” and that much of the 2 GHz MSS spectrum “will remain [fallow] for many years until such time as DISH completes a nationwide buildout.”<sup>45</sup> Thus, they argue, opportunistic access could be permitted without causing harm to the licensee.

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<sup>42</sup> AT&T Comments at 11-12.

<sup>43</sup> Alcatel-Lucent Comments at 16 (“Unlike in some contexts, where failure to meet construction milestones has meant a failure to commence service *at all*, that is not necessarily the case in the AWS-4 context. With respect to AWS-4 deployment, the licensee could successfully provide broadband service to tens of thousands of customers but still fail to meet the milestones. In that situation, it would not serve the public interest to suddenly cut those customers off.”) (emphasis in original).

<sup>44</sup> Comments of The New America Foundation, Public Knowledge and Consumers Union, WT Docket No. 12-70, at 13 (May 17, 2012) (“Public Interest Organizations Comments”).

<sup>45</sup> *Id.* at 14-15.

<sup>46</sup> CTIA strongly opposes this condition as improperly undermining the rights of the spectrum licensee and its efforts to make this spectrum available to the public.

While the Public Interest Organizations contend that this spectrum will be “fallow” until such time as networks are rolled out to the public, this assertion ignores the multi-year process entailed by testing equipment and services in spectrum prior to launching commercial service. Requiring the AWS-4 licensee to share its spectrum with other users while engaging in this critical testing would undermine or delay the provision of service to the public in this band.

Further, the Public Interest Organizations understate the complexity of ensuring unlicensed operations vacate the spectrum at such time as the licensee is prepared to commence service in a particular market. By permitting unlicensed access to exclusively licensed spectrum, the Commission would be creating substantial uncertainty for the licensee as to whether it would be able to clear the band when needed. The result would be a substantially hindered or delayed deployment of AWS-4 service to consumers, an outcome that plainly contravenes the public interest.

To the extent that various entities are seeking spectrum access for non-licensee operations, the Commission’s existing secondary market framework is the more appropriate and equitable means for parties to obtain access to spectrum.<sup>47</sup> Under this framework, the entities

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<sup>46</sup> CTIA would note that the 2180 to 2200 MHz band continues to be utilized for fixed microwave services – thereby rendering the Public Interest Organizations’ fundamental argument that this spectrum is “fallow” as specious. From review of the Universal Licensing System, the Commission has 583 active licenses in the 2180-2200 MHz spectrum as of May 31, 2012.

<sup>47</sup> 47 C.F.R. § 1.9080. The Commission’s private commons option provides a cooperative mechanism for licensees or lessees to make licensed spectrum available to users employing advanced technologies in a manner similar to that by which unlicensed users gain access to spectrum to suit their particular needs. This framework eliminates the need to enter into individual spectrum leasing arrangements under the Commission’s rules. *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, 19 FCC Rcd 17503, ¶ 92 (2004).

seeking opportunistic access would have the consent and agreement of the spectrum licensee, and would negotiate terms that would protect the interests of all parties involved, with clearly defined rights and responsibilities. What the Public Interest Organizations have proposed, on the other hand, would create a chaotic environment in the AWS-4 band and make deployment of this band's intended services much more challenging for the licensee.

#### **IV. THE RECORD DEMONSTRATES THAT THE COMMISSION SHOULD NOT ADOPT GPS-SPECIFIC INTERFERENCE RULES IN THIS PROCEEDING.**

In its Comments, the U.S. GPS Industry Council has proposed that the Commission adopt as part of its Part 27 AWS rules several GPS-specific interference protections now contained in individual MSS ATC system authorizations and in Part 25.<sup>48</sup> While CTIA has consistently stressed the importance of protecting GPS operations from interference,<sup>49</sup> it submits that there are not GPS interference issues specific to this proceeding that necessitate consideration here.

The interference issues that plagued last year's LightSquared proceeding are distinguishable from the interference issues raised in this proceeding, and the Commission need not undertake the same complicated inquiry here. Specifically, CTIA notes that the AWS-4 band is located much farther – literally, hundreds of megahertz – from GPS operations than is LightSquared's spectrum. Indeed, the U.S. GPS Industry Council has affirmatively stated that the 2 GHz MSS band – unlike LightSquared's spectrum – is acceptable from an interference perspective.<sup>50</sup>

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<sup>48</sup> Comments of the U.S. GPS Industry Council, WT Docket No. 12-70 (May 17, 2012).

<sup>49</sup> *See, e.g.*, Comments of CTIA – The Wireless Association®, IB Docket No. 11-109 (Feb. 27, 2012).

<sup>50</sup> Comments of the U.S. GPS Industry Council, IB Docket No. 11-149, at 2 (Oct. 17, 2011) (“Importantly, it appears that introducing the operation of a terrestrial mobile broadband service of the type envisioned by New DBSD and TerreStar in the 2 GHz MSS/ATC bands should be able to occur without posing a significant threat of harmful interference to receivers operating with the U.S. Global Positioning System (‘GPS’) in the radionavigation-satellite service

More broadly, the Commission has previously noted the important role that receiver performance can play in interference avoidance, and this issue has attracted particular attention in connection with interference to GPS. The Commission recently recognized that new approaches to receiver performance “may enable more assured deployment of new services and reduce the necessity for involvement of regulators” and recently held a workshop on these issues.<sup>51</sup> CTIA submits that instead of memorializing rules that are not necessary to protect against harmful interference, it should continue its recent efforts to begin to address receiver performance. The Commission should provide the industry and government stakeholders the opportunity to continue working on these issues in more appropriate forums. CTIA looks forward to taking a leadership role on this issue and working with the Commission and interested stakeholders to facilitate these efforts. Thus, the Commission should not adopt unnecessary rules in the instant proceeding.

## V. CONCLUSION

CTIA and its members are enthusiastic about the 2 GHz band’s potential as a home for future innovative mobile broadband services. The record demonstrates widespread support for the positions advocated by CTIA in initial comments, and CTIA urges the Commission to adopt regulations consistent with these positions. In so doing, however, the Commission should reject the “use it or share it” regime supported by the Public Interest Organizations and should defer consideration of GPS interference issues to more appropriate proceedings. CTIA and its

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allocation in the 1559-1610 MHz band.”). *See also* Amendment of Section 2.106 of the Commission’s Rules to Allocate Spectrum at 2 GHz for use by the Mobile-Satellite Service; ET Dkt. No. 01-185, *Memorandum Opinion and Order and Second Order on Reconsideration*, FCC 05-30 at ¶¶69-71 (deferring FCC action on GPS interference issues based on private agreement reached between MSV and the GPS Industry Council).

<sup>51</sup> *Office of Engineering and Technology, Wireless Telecommunications Bureau, and Office of Strategic Planning Announce Workshop on “Spectrum Efficiency and Receiver Performance,”* Public Notice, DA 12-280 (rel. Feb. 24, 2012).

members look forward to continued participation in this proceeding and others that result in the allocation of much-needed additional spectrum for mobile broadband.

Respectfully submitted,

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