

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Amendment of the Commission's Rules with	)	GN Docket No. 12-354
Regard to Commercial Operations in the 3550-	)	
3650 MHz Band	)	

**REPLY COMMENTS OF UNITED STATES CELLULAR CORPORATION**

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United States Cellular Corporation (“USCC”) submits these reply comments in support of the Petitions for Rulemaking filed by CTIA and T-Mobile USA, Inc.,<sup>1</sup> and in response to the comments filed in response to those petitions. USCC again urges the Commission to promptly release a Third Further Notice of Proposed Rulemaking in this proceeding seeking comment on the proposals set forth by CTIA and T-Mobile.

**I. INTRODUCTION & SUMMARY**

Wireless service providers will require a mix of low-, mid- and high-band spectrum in order to provide consumers with a seamless 5G experience. Mid-band spectrum is unique in this mix as it offers greater capacity than low-band spectrum and has superior propagation characteristics as compared to high-band spectrum. The 3.5 GHz band, therefore, presents a crucial opportunity to advance 5G deployments, especially given that it is the only mid-band spectrum that will be made available for mobile broadband operations in the near future.

Accordingly, the Commission must ensure that the licensing and technical rules for the 3.5 GHz band facilitate investment in the Citizens Broadband Radio (“CBR”) Service to the greatest

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<sup>1</sup> See Petition for Rulemaking, CTIA (June 16, 2017) (“CTIA Petition”); Petition for Rulemaking, T-Mobile USA, Inc. (June 19, 2017) (“T-Mobile Petition”). Unless otherwise indicated, all comments cited herein were filed in GN Docket No. 12-354 on July 24, 2017 in response to the Petitions for Rulemaking filed by CTIA and T-Mobile.

extent possible. USCC appreciates the Commission's efforts thus far with respect to authorizing use of the 3.5 GHz band for commercial 5G deployments. USCC again cautions, however, that the complexity and uncertainty inherent in some of the existing CBR Service licensing and technical rules could have a devastating effect on the level of investment in the 3.5 GHz band, and thereby, undermine the potential of the CBR Service to help meet consumers' data demands and to facilitate the nation's transition to 5G.

In particular, authorizing Priority Access Licenses ("PALs") on the basis of census tracts will result in an unmanageable licensing scheme that will dissuade investment in the 3.5 GHz band. Instead, the Commission should authorize PALs on the basis of Partial Economic Areas ("PEAs"), which are large enough to mitigate the administrative burdens, auction complexity, and interference risks that would arise from census tract-level licensing, but also small enough to permit targeted service deployments. In addition, the unreasonably short three-year term for PALs and the lack of PAL renewals will make PALs far less attractive to potential CBR Service licensees because of the very real risk that licensees' investments in the 3.5 GHz band will become stranded. In order to largely eliminate this risk, the Commission should increase the PAL term to ten years and adopt a procedure for awarding license renewal expectancies.

Further, given that a variety of potential CBR Service operators require the quality of service guarantees that will only be available in the 3.5 GHz band via a PAL, USCC urges the Commission to repeal the mutual exclusivity requirement for PAL auction applications, and instead permit the assignment of PALs in every license area, including in those license areas for which there is only one PAL applicant. Finally, USCC urges the Commission to make available in each license area the number of PALs for which applicants have applied, up to a maximum of seven PALs. The current policy of making available one less PAL in a license area than the total

number of PALs sought by applicants for that license area risks gradually phasing out PALs despite a consistent level of demand, and stranding the investments of PAL licensees by unnecessarily preventing them from reacquiring a PAL in the same license area.

## **II. PALs SHOULD BE AUTHORIZED ON THE BASIS OF PEAs, RATHER THAN CENSUS TRACTS**

USCC joins T-Mobile, CTIA, and numerous commenters in urging the Commission to authorize PALs on the basis of PEAs,<sup>2</sup> rather than at the census tract level, which AT&T stressed “would be unworkable and impractical.”<sup>3</sup> For instance, like USCC, commenters explained how the more than 74,000 census tract-level license areas would create significant administrative burdens for both the Commission and licensees.<sup>4</sup> Census tract-level licensing also would give rise to potentially insurmountable interference risks because “there would be no effective way to manage the incredible number of buffer zones necessary to ensure interference-free operations between PALs.”<sup>5</sup> In addition, the PAL auctions would be incredibly complex given that up to seven PALs could be authorized in each census tract.<sup>6</sup> As Verizon emphasized, the “complexity of a licensing scheme that must accommodate 518,000 potential licenses is unprecedented in the history of spectrum licensing...”<sup>7</sup>

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<sup>2</sup> See CTIA Petition at 9; T-Mobile Petition at 16; Comments of Verizon, p. 8 (“Verizon Comments”); Comments of AT&T Services, Inc., p. 7 (“AT&T Comments”); Comments of Qualcomm Incorporated, p. 5 (“Qualcomm Comments”); Comments of Ericsson, p. 7 (“Ericsson Comments”); 5G Americas Comments on T-Mobile Petition, p. 13 (“5G Americas Comments”); Comments of the Enterprise Wireless Association, p. 1 (“EWA Comments”).

<sup>3</sup> AT&T Comments at 8.

<sup>4</sup> See Ericsson Comments at 6; Qualcomm Comments at 5; Comments of T-Mobile USA, Inc., p. 5 (“T-Mobile Comments”); Comments of Nokia, p. 6 (“Nokia Comments”).

<sup>5</sup> AT&T Comments at 9; see Qualcomm Comments at 5 (explaining that census tract-level licensing would involve a “previously unforeseen number of border areas with bi-directional co-channel interference risks”); Ericsson Comments at 6.

<sup>6</sup> See AT&T Comments at 7; Ericsson Comments at 6.

<sup>7</sup> Verizon Comments at 7.

A number of commenters who oppose license areas larger than census tracts rely solely on the success of the incentive auction as support for their claim that the Commission, as well as bidders, could successfully manage an auction for census tract-sized PALs.<sup>8</sup> Although the interplay between the forward and reverse auctions undoubtedly made the incentive auction far more complex than previous auctions, the complexity inherent in the incentive auction is of a completely different nature than the complexity of an auction for census tract-level license areas. While these commenters may be correct that, as compared to the Commission’s past auctions, the primary difference would be “the number of lots up for auction,”<sup>9</sup> this broad claim utterly fails to acknowledge that the number of census tract-level PALs would be several orders of magnitude greater than the number of licenses offered in past auctions. For instance, while the incentive auction involved 2,912 wireless licenses (*i.e.*, seven licenses in each of the 416 PEAs), if the Commission authorizes PALs on the basis of census tracts, there could be more than 518,000 total PALs. For these reasons, census tract-level licensing would depress interest, and thereby decrease investment, in the 3.5 GHz band to the detriment of all potential CBR Service providers.

PEA-based licensing, on the other hand, would involve a far more manageable 416 license areas, and thus, would greatly mitigate “the interference risks and administrative difficulties presented by census tracts.”<sup>10</sup> In addition, PEA-based licensing would promote

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<sup>8</sup> See Comments of the Wireless Internet Service Providers, p. 22 (“WISPA Comments”); Comments of Starry, Inc., p. 5 (“Starry Comments”); Comments of Google Inc. and Alphabet Access in Response to Petitions for Rulemaking, p. 25 (“Google Comments”).

<sup>9</sup> Starry Comments at 5; see DSA Comments at 10 (“An auction with census-tract PALs is no different, from a technical perspective, than one for larger license areas – it simply would include a larger number of individual auctions.”).

<sup>10</sup> Verizon Comments at 8; see T-Mobile Comments at 4 (explaining that PEAs would “reduce border areas and minimize the risk of interference”); Qualcomm Comments at 5 (explaining that PEAs would “result in less interference problems and less administrative issues.”).

“efficient spectrum use by reducing the number of market borders at which licensees must manage interference.”<sup>11</sup> Authorizing PALs on the basis of PEAs also would promote efficient deployments and service offerings because wireless providers could reasonably aggregate PEAs into larger service areas that would allow for economies of scale and scope.

Although certain commenters who oppose the use of PEAs argue that service providers desiring larger service areas would have the option to aggregate census tracts, they largely ignore the fact that a service provider would need to aggregate an inordinate number of census tracts in order to benefit from economies of scale and scope.<sup>12</sup> For instance, Google simply claims that large service providers “will already necessarily have internal systems in place to manage their expansive spectrum holdings,” and notes that “Sprint and its Clearwire subsidiary already hold over 30,000 active FCC licenses.”<sup>13</sup> Google failed to mention, however, that those 30,000 licenses were acquired over several decades, and largely not via auctions. Moreover, Google’s example actually highlights the unreasonably large number of license areas that would result from census tract-level licensing. A service provider would need to successfully bid for more than 30,000 PALs to acquire 3.5 GHz spectrum rights for only half of the United States. Of course, given that many services planned for the 3.5 GHz band will require bandwidth greater than ten megahertz, and thus require multiple PALs in each license area, an aggregation of 30,000 PALs likely would, in fact, cover far less geography.

Authorizing PALs on the basis of PEAs also would be consistent with the licensing framework the Commission adopted for both the low- and high-band spectrum that, along with

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<sup>11</sup> AT&T Comments at 7.

<sup>12</sup> See WISPA Comments at v; Joint Comments of the Rural Wireless Association, Inc. and NTCA – The Rural Broadband Association, p. 5 (“RWA/NTCA Comments”); Comments of Vivint Wireless Inc., p. 5.

<sup>13</sup> Google Comments at 24.

the 3.5 GHz band, will be used to deploy 5G networks.<sup>14</sup> Specifically, “in both the 600 MHz band, at the low end of the 5G bundle, and the 39 GHz band, at the high end, the Commission chose to adopt [PEAs].”<sup>15</sup> Notably, the Commission “opted to license the 39 GHz band by PEA despite its propagation characteristics,”<sup>16</sup> which are inferior to those of the 3.5 GHz band.<sup>17</sup> Google attempts to downplay the significance of the Commission’s decision to license the 37 GHz and 39 GHz bands on the basis of PEAs, noting that the Commission will license the 28 GHz band on the basis of counties, rather than the larger Basic Trading Areas (“BTAs”).<sup>18</sup> Not only did Google ignore the fact that, in contrast to the more than 74,000 census tracts, there are approximately 3,150 counties in the United States, it failed to mention the reasons unique to the 28 GHz band that the Commission noted in discussing its decision to license this band on the basis of counties. For instance, the Commission distinguished its decision to license the 37 GHz and 39 GHz bands on the basis of PEAs, explaining that, because the 28 GHz band currently is licensed on the basis BTAs, it “cannot readily be reformed into either EAs or PEAs.”<sup>19</sup> The Commission further explained that a “practical advantage” of licensing the 28 GHz band on the basis of counties is that the Commission would have needed “to negotiate a new licensing agreement with Rand McNally to use BTAs...”<sup>20</sup>

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<sup>14</sup> See Qualcomm Comments at 6 (“The FCC should revise its licensing rules for this band to better match the rules that apply to other licensed bands ... for this mid-band spectrum will serve a critical role in mobile providers’ ability to provide users a seamless 5G experience.”).

<sup>15</sup> Verizon Comments at 8 (internal citation omitted).

<sup>16</sup> *Id.*

<sup>17</sup> Comments of the Telecommunications Industry Association, p. 3 (“TIA Comments”) (“[S]ignals would normally propagate much further in the 3.5 GHz bands.”).

<sup>18</sup> See Google Comments at 23.

<sup>19</sup> *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 8014, 8046-47 (2016).

<sup>20</sup> *Id.* at 8029-30.



Some commenters opposed to the use of PEAs also alleged that census tract-level licensing is appropriate here because the 3.5 GHz band primarily will be used to deploy small cell networks.<sup>21</sup> However, as CTIA and other commenters noted, “[r]apid technological development since the Commission adopted the *3.5 GHz Order* two years ago has evolved current thinking about the 3 GHz band, with a shift in focus from a novel small cell play to an important mid-band opportunity for 5G.”<sup>22</sup> Accordingly, the Commission should not base any future decisions regarding the proper license area size for the 3.5 GHz band on the premise that this spectrum will be used primarily for small cells.

Nevertheless, if the Commission does decide to authorize PALs on the basis of PEAs, USCC, like other commenters, urges the Commission to permit the partitioning and disaggregation of PALs in order to facilitate access to licensed spectrum by highly-localized service providers that hope to use the 3.5 GHz band to deploy small cells or other micro-targeted services.<sup>23</sup> Allowing PALs to be partitioned and disaggregated also would facilitate efficient spectrum use in the 3.5 GHz band by helping to ensure that PAL spectrum will not law fallow,<sup>24</sup> as well as allow market forces to determine “when and if smaller license areas are desirable, without requiring the Commission to administer an auction of as many as 518,000 licenses.”<sup>25</sup>

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<sup>21</sup> See, e.g., Starry Comments at 4 (“This is a small cell band, and small cell use is localized by design.”).

<sup>22</sup> Comments of CTIA, pp. 3-4 (“CTIA Comments”); see Ericsson Comments at 2 (“[S]ince the Commission first adopted rules for the 3.5 GHz band in 2015, the band has become increasingly important for development and deployment of 5G services...”); Verizon Comments at 8; Nokia Comments at 4.

<sup>23</sup> See Qualcomm Comments at 5 (“To the extent the Commission wants to encourage opportunities in smaller service areas, it should revise its 3.5 GHz rules to permit partitioning and disaggregation via secondary market transactions...”); Verizon Comments at 8-9 (“[T]o further facilitate micro-targeting, the Commission should ... allow for PAL partitioning and disaggregation...”); Ericsson Comments at 7 (“Partitioning and disaggregation will ensure that any unused PAL spectrum can be assigned on a market-oriented basis to other users who desire access to PALs on a smaller geographic basis...”).

<sup>24</sup> See Ericsson Comments at 7; AT&T Comments at 8.

<sup>25</sup> Verizon Comments at 9.

Finally, USCC strongly opposes the proposal by the Open Technology Institute at New America and Public Knowledge that, rather than adopt larger license areas, the Commission should allow some level of package bidding in the PAL auctions.<sup>26</sup> As USCC has previously detailed in several Commission proceedings, package bidding creates significant and unwarranted biases in favor of the largest bidders. For instance, package bidding greatly increases the likelihood that the largest bidders will tie up multiple licenses in large package bids to the exclusion of other bidders. Although the bids for individual licenses theoretically could defeat a package bid, for a variety of reasons this outcome is highly unlikely, including the fact that package bidding gives rise to the widely-acknowledged “threshold problem” (*i.e.*, restrained bidding by those seeking individual or a small number of licenses in the hope that bidders for other licenses in the same package will increase their bids sufficiently to defeat the package bid). Moreover, even if the valuations assigned to the individual licenses exceed the valuation the package bidder assigned to the same licenses in formulating its package bid amount, the package bid will almost always prevail because the individual bids typically relate to only a subset of the licenses included in the package. Package bidding, therefore, also can allow large bidders to acquire certain licenses at a discount. In turn, such discounts, coupled with decreased auction participation by smaller bidders as a result of package bidding’s well-known bias against these bidders, lead to lower auction revenues.

### **III. THE COMMISSION SHOULD INCREASE THE PAL TERM TO TEN YEARS AND ADOPT A RENEWAL EXPECTANCY**

USCC continues to support the requests of CTIA and T-Mobile that the Commission increase the PAL term to ten years and adopt a renewal expectancy, a position supported by

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<sup>26</sup> See Comments of Open Technology Institute at New America and Public Knowledge, p. 24.

various commenters.<sup>27</sup> As Verizon explained, the Commission’s current rules, which provide for an initial PAL term of no more than six years and subsequent terms of only three years, fail “to recognize the resources, time, and investments required for a successful network buildout...”<sup>28</sup> While the current PAL term generally is inadequate regardless of the spectrum band at issue,<sup>29</sup> it is particularly inappropriate here due to the complexity of the likely deployments in the 3.5 GHz band.<sup>30</sup> Given that it could take a licensee a significant portion of the current PAL term simply to deploy a CBR Service network, USCC agrees with AT&T that these “short license terms pose a risk that there will be insufficient time for licensees to recover their return on investment...”<sup>31</sup> Accordingly, as the Commission has found with respect to other bands with novel or challenging characteristics (*e.g.*, the AWS-1, AWS-3 and 600 MHz bands), a longer PAL term would serve the public interest.<sup>32</sup>

Moreover, the risks associated with short license terms are greatly amplified here due to the inability to renew a PAL. In particular, the current PAL term and lack of renewal rights

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<sup>27</sup> See Verizon Comments at 4; AT&T Comments at 3; Ericsson Comments at 6; Nokia Comments at 5; Qualcomm Comments at 6; 5G Americas Comments at 11; Comments in Support of Petition for Rulemaking, Boingo Wireless, Inc., p. 1 (“Boingo Comments”); EWA Comments at 1.

<sup>28</sup> Verizon Comments at 6.

<sup>29</sup> See Nokia Comments at 5 (“[I]t routinely takes two or more years from acquiring spectrum at auction to the first networks being deployed.”).

<sup>30</sup> See Nokia Comments at 5 (“[I]n contrast to historic, initial roll-outs of new frequency bands that could leverage existing macrocell sites, deployments in the 3.5 GHz band will require new sites with new power and backhaul services that are not shared with equipment operating in earlier frequency bands.”).

<sup>31</sup> AT&T Comments at 4; see Boingo Comments at 1 (“[A] less than 10-year license term is not sufficient to ensure that licensees will be able to recover a return on investment...”; Ericsson Comments at 6 (“[S]ix years is still insufficient to ensure a return on investment.”); NCTA – The Internet & Television Association Comments on Petitions for Rulemaking, p. 11 (“NCTA Comments”) (“[T]he current three-year license terms, even with a six-year initial term, are insufficient to obtain adequate return on investment.”) (internal citation omitted).

<sup>32</sup> See Verizon Comments at 5 (“The Commission has [ ] found, as in the case of AWS-1, AWS-3, and 600 MHz licenses, that for bands with particularly novel or challenging characteristics, a longer initial term was in the public interest.”).

“creates the risk that PAL licensees will face stranded investments.”<sup>33</sup> As a result, “a number of potential bidders for PALs will simply stay away from this band,”<sup>34</sup> which will decrease investment in the 3.5 GHz band,<sup>35</sup> and potentially undermine the likelihood of success of the overall three-tiered sharing regime.<sup>36</sup> Notably, as Commissioner O’Rielly recently pointed out, the potential negative consequences of the current licensing framework are significant enough that even “companies that filed in opposition to the [CTIA and T-Mobile] petitions expressed that tweaks to the license terms and some level of renewal expectancy would be acceptable.”<sup>37</sup>

In contrast to the current PAL licensing scheme, the Commission’s “traditional ten-year license term with renewal expectancy has enabled licensed providers the needed certainty to invest, deploy, and innovate.”<sup>38</sup> Nevertheless, some commenters urged the Commission not to adopt a longer PAL term or renewal expectancy, claiming that these actions are unnecessary despite the harms discussed above that likely will arise from the current licensing scheme. For instance, the Dynamic Spectrum Alliance claimed that the ability of an incumbent licensee to bid

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<sup>33</sup> Ericsson Comments at 6.

<sup>34</sup> Nokia Comments at 5.

<sup>35</sup> See Verizon Comments at 6 (“Stakeholders are not likely to continue to shoulder [network buildout] costs if their investments may become stranded upon the premature expiration of a valuable license.”); AT&T Comments at 5 (“[T]he certainty associated with longer PAL license terms (along with a renewal expectancy) is vital for infrastructure investments.”); Boingo Comments at 1 (“[A] lack of a renewal expectation decreases the incentive to invest in infrastructure.”); TIA Comments at 2 (“[T]he current three-year PAL term with no renewal rights significantly undermines incentives for operators to invest in the band.”).

<sup>36</sup> See Ericsson Comments at 6.

<sup>37</sup> Remarks of FCC Commissioner Michael O’Rielly Before the CBRS Alliance, San Diego, CA, p. 2 (Aug. 1, 2017) (“O’Rielly CBRS Alliance Remarks”); see, e.g., Comments of Charter Communications, Inc., p. 3 (“Three years is an inordinately short period of time for a license.”); Comments of Motorola Solutions, Inc. in Response to Petitions for Rulemaking, p. 5 (“Motorola Solutions Comments”); NCTA Comments at 11; Comments of Southern Linc, p. 9; WISPA Comments at 20.

<sup>38</sup> AT&T Comments at 6; see Verizon Comments at 6 (“A reasonable expectancy of renewal has been at the cornerstone of telecommunications policy since the early days of the Commission as a means of encouraging licensee investment...”); Nokia Comments at 5 (“[T]he Commission can encourage greater competition and more robust deployment by increasing the term of the licenses to 10 years.”); Qualcomm Comments at 7 (“A renewal expectancy ... will remove the uncertainty of having to regularly participate in auctions to retain access to PALs.”).

for the same PAL in subsequent auctions will “minimize the risk of losing its PAL license if it chooses to maintain it...”<sup>39</sup> This argument, however, assumes that incumbent licensees will always have sufficient means to retain their PALs if they so desire. Notably, those commenters who oppose a longer PAL term and a renewal expectancy uniformly also lament the alleged ability of large service providers to monopolize all of the PALs in a given license area. If true, under the current rules, smaller service providers that acquire PALs in the initial auction could lose their PAL rights if one or more large service providers subsequently decide to enter the smaller service provider’s market. In other words, smaller providers also would benefit from a longer PAL term and renewal expectancy, perhaps to a greater extent than the largest service providers.

Moreover, even if an incumbent licensee possesses the means to “spend what it takes” in order to retain its PAL, the price for that PAL in a subsequent auction could increase to a point where it would be economically unreasonable for the incumbent to continue bidding, especially if its particular business case for the PAL has a lower rate of return than the business case of bidders who seek PALs in that market for the first time in a subsequent auction. In addition, given that the Commission will not adopt specific PAL auction procedures until after the service rules for the 3.5 GHz band have been finalized, it is possible that a service provider with deep pockets may not even have the opportunity to “spend what it takes” in order to retain its PALs. For instance, commenters already have expressed support for a single round, sealed bid auction format, and have urged the Commission to permit package bidding. In either case, a deep-pocketed bidder may not even be able to determine the price point at which it would be assured a

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<sup>39</sup> Comments of the Dynamic Spectrum Alliance, p. 13 (“DSA Comments”).

PAL given that success in an auction utilizing either of those procedures depends at least in part on the confidential actions of other bidders.

Other commenters argued that a longer PAL term and renewal expectancy are unnecessary because a licensee that fails to retain its PAL in a subsequent auction could instead operate in that license area on a GAA basis.<sup>40</sup> As USCC previously explained, however, this argument rests on the false premise that a former licensee's operations could be adequately accommodated via access to the 3.5 GHz band on a GAA basis. Qualcomm similarly noted that the ability to operate on a GAA basis "does not provide the necessary certainty to justify significant investments in the band because GAA operations do not have interference protection..."<sup>41</sup> Also like USCC, Qualcomm further explained how, "in areas where demand for spectrum is high, there is no certainty that mobile licensees who invested in the band as PAL operators will have sufficient access to GAA spectrum."<sup>42</sup>

#### **IV. PALs SHOULD BE MADE AVAILABLE IN EVERY LICENSE AREA, REGARDLESS OF THE EXISTENCE OF MUTUAL EXCLUSIVITY**

Given that a variety of potential CBR Service operators require the quality of service guarantees that will only be available in the 3.5 GHz band via a PAL,<sup>43</sup> USCC again urges the

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<sup>40</sup> See RWA/NTCA Comments at 8 ("PAL holders that are not able to obtain exclusive PAL rights after a three-year term may use their equipment as a GAA user."); Starry Comments at 4 ("To suggest that a former PAL licensee is stuck with "stranded investment" in the event it loses an auction ignores the fact that it can keep operating on a GAA basis."); DSA Comments at 13.

<sup>41</sup> Qualcomm Comments at 7; see Ericsson Comments at 6. Notably, despite their claims that the GAA tier could adequately accommodate the operations of a former PAL licensee, both the Dynamic Spectrum Alliance and Starry recognized this fundamental difference between the PAL and GAA tiers in their comments. See DSA Comments at 13 ("[T]here may be applications where greater interference in the GAA spectrum degrades service..."); Starry Comments at 4 ("The biggest differentiating right between a PAL and GAA use is that a PAL licensee can exclude other users from its 10-megahertz channel.").

<sup>42</sup> Qualcomm Comments at 7; see Nokia Comments at 6 ("[T]here is no guarantee of availability of GAA spectrum featuring the amount of bandwidth and quality of service required.").

<sup>43</sup> See AT&T Comments at 5 ("[C]onsumers have come to expect a high level of performance and reliability from their wireless services."); Nokia Comments at 8 ("Applicants for PALs are seeking guaranteed spectrum with

Commission to amend its rules to permit the assignment of PALs in every license area, including those license areas for which there is only one PAL applicant.<sup>44</sup> In addition to being consistent with the Commission's traditional licensing approach,<sup>45</sup> such action would advance the Commission's goal that "PALs should be available for applications that require greater certainty as to interference protection."<sup>46</sup> Such action also has overwhelming record support, including in response to the Petitions for Rulemaking filed by CTIA and T-Mobile.<sup>47</sup>

USCC also continues to urge the Commission to repeal the "N-1 policy" in Section 96.29(c) of its rules, pursuant to which one less PAL will be made available in a license area than the total number of PALs in that license area for which applicants have applied. Instead, the number of PALs made available in a given license area should be equal to the number of PALs for which applicants have applied, up to a maximum of seven PALs.

As USCC previously explained, with the elimination of the mutual exclusivity requirement and N-1 policy, the best approach would be to offer seven PALs in every license area via an ascending clock auction format, regardless of the number of PAL applicants for any

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interference protection from GAA users."); DSA Comments at 9 ("[S]ome types of investment are benefited by the certainty of access to spectrum under a PAL structure.").

<sup>44</sup> See Ericsson Comments at 7 ("Modifying this rule would ensure that parties seeking interference protection and certainty regarding access to 3.5 GHz spectrum can obtain PALs, even if no other applicants apply for PALs in a given area.").

<sup>45</sup> See *Implementation of Section 309(j) of the Communications Act - Competitive Bidding*, Second Report and Order, 9 FCC Rcd 2348, 2376 (1994) (explaining that, in the absence of mutually-exclusive applications, the Commission generally will process any applications pursuant to its normal procedures); 5G Americas Comments at 12 ("For decades, ... Commission policy has allowed an entity to apply for a spectrum license, even if mutual exclusivity does not exist.").

<sup>46</sup> *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959, 4002 (2015) ("3.5 GHz Order").

<sup>47</sup> See USCC Comments at 8, n. 34 (providing examples of past record support); AT&T Comments at 9 ("[T]he total number of PALs available at auction [should] always cover 70 MHz, regardless of the number of applications filed."); Nokia Comments at 8 (urging the Commission to allow "all qualified bidders to obtain PALs regardless of the number of competing bids"); 5G Americas Comments at 12; Ericsson Comments at 7; Motorola Solutions Comments at 4, n. 2.

license area. Under this approach, the PALs in each license area would be subject to a minimum opening bid, as well as the existing spectrum aggregation limit of four PALs. If the aggregate demand in a license area does not exceed seven PALs, the applicant(s) would receive the number of PALs for which they applied, subject to the payment of the minimum opening bid for those PALs. To the extent that aggregate demand is less than seven PALs for a given license area, the Commission would assign the number of PALs for which there was demand, again subject to the payment of the minimum opening bid for those PALs, and the remaining spectrum in that license area would be made available on a GAA basis.

A lack of competing applicants in no way diminishes a given entity's need for exclusive-use spectrum, so it should have no bearing on the ability of an otherwise qualified applicant to acquire the PAL(s) it requires to provide service to the public. In other words, as Nokia explained, it "would not serve the public interest to deny the benefits of a PAL to a qualified applicant ... simply because there was not enough demand by others to compete for PAL rights."<sup>48</sup> Accordingly, as Commissioner O'Rielly noted in a recent speech, "entities in a geographic area who want licenses and priority should be able to obtain one regardless of the interest level of others."<sup>49</sup>

Notably, the Commission's primary reason for adopting the mutual exclusivity requirement fails to justify depriving the public of new services that require guaranteed access to interference-free spectrum. Specifically, according to the Commission, it adopted the mutual exclusivity requirement in large part based on its belief that a "first come, first served giveaway" licensing mechanism would not "ensure the most efficient and intensive use of the spectrum."<sup>50</sup>

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<sup>48</sup> Nokia Comments at 8.

<sup>49</sup> O'Rielly CBRS Alliance Remarks at 3.

<sup>50</sup> *3.5 GHz Order*, 30 FCC Rcd at 4003-04.



In the same order, however, the Commission completely undermined this justification for the mutual exclusivity requirement. Specifically, the Commission explained how its decision to provide GAA users access to PAL spectrum on an opportunistic basis will “ensure that the band will be in consistent and productive use.”<sup>51</sup>

Under USCC’s proposed auction approach in the absence of the mutual exclusivity requirement, any unsold PAL frequencies will be made available solely to GAA users, and GAA users also will continue to have opportunistic access to licensed frequencies that are not being used by the licensee. In other words, as AT&T explained, the “spectrum will not lie fallow if there is demand for it” by either a PAL licensee or GAA user.<sup>52</sup> Thus, even without the mutual exclusivity requirement, the Commission would continue to “ensure that the spectrum will be put to a use for which [it has] identified a clear public interest need, including by those who have filed PAL applications as well as others.”<sup>53</sup>

In addition to withholding the quality of service guarantees that will only be available in the 3.5 GHz band via PALs, the current N-1 policy could strand the investments of existing licensees by “phasing out PALs with each subsequent auction.”<sup>54</sup> Pursuant to the N-1 policy, the Commission will offer one less PAL for a given license area in the subsequent auction absent increased demand for PALs in that license area, which requires either that an existing licensee applies for one or more additional PALs or another party applies for PALs in that license area for the first time. In the absence of such an increase in demand, which AT&T noted “is by no means

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<sup>51</sup> *Id.* at 3983.

<sup>52</sup> AT&T Comments at 11.

<sup>53</sup> *3.5 GHz Order*, 30 FCC Rcd at 4004.

<sup>54</sup> Ericsson Comments at 7-8.

a guarantee,”<sup>55</sup> the incumbent licensees in a given license area could not simply retain their existing PALs because the Commission would make one less PAL available for that license area in the subsequent auction. Simply put, it is bad public policy to make licensees’ ability to retain their licenses “contingent on the actions of third parties whose behavior is entirely outside licensees’ control.”<sup>56</sup> USCC therefore joins 5G Americas and other commenters in urging the Commission revise its rules “to provide that the total number of PALs in a geographic area for which applicants have applied for renewal be made available.”<sup>57</sup>

Of course, by adopting a license renewal expectancy, the Commission would remove the risk that the N-1 policy would gradually phase out all of the PALs in certain license areas. USCC also again notes that the adoption of PEA-based license areas, a ten-year PAL term, and a renewal expectancy would make PALs far more attractive to potential bidders. In turn, demand for PALs would increase, and mutual exclusivity would become more likely. Even in that situation, however, USCC believes the Commission should eliminate the mutual exclusivity requirement and N-1 policy because these rules likely still would, on occasion, have the effect of withholding a PAL from an otherwise qualified applicant for reasons beyond the applicant’s control.

## **V. CONCLUSION**

For the reasons set forth above, the Commission should grant the petitions filed CTIA and T-Mobile and initiate a further rulemaking in this proceeding with the goal of eliminating, or at least significantly reducing, the complexity and uncertainty inherent in the current CBR

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<sup>55</sup> AT&T Comments at 10.

<sup>56</sup> *Id.*

<sup>57</sup> 5G Americas Comments at 12; *see* Ericsson Comments at 3 (“At the time of relicensing, if there is sufficient interest, at a minimum [the Commission should] make available at auction the number of currently licensed PALs for each geographic area to ensure that PAL licensees can continue to receive needed interference protection.”).

Service rules. A failure to address these issues will lead to far less interest in CBR Service operations, and thus, significantly decreased investment in the 3.5 GHz band.

Respectfully submitted,

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