

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

In the Matter of)
)
Promoting Investment in the 3550-3700 MHz) GN Docket No. 17-258
Band)

REPLY COMMENTS OF CENTURYLINK¹

CenturyLink, Inc. (CenturyLink) submits these reply comments in response to the Federal Communications Commission’s (Commission) request for comment regarding several changes that the Commission proposes to its rules governing Priority Access Licenses (PALs) that will be issued in the 3550-3700 MHz band (3.5 GHz Band).² CenturyLink supports several of the Commission’s proposed changes, but there is one proposed change that the Commission should not make – the Commission should leave the geographic license area for PALs at census tract. Additionally, it is not necessary for the Commission to lengthen the current three-year license term, but the Commission should authorize license renewal. CenturyLink otherwise supports the Commission permitting partitioning and disaggregation of PALs in secondary market transactions with rules to ensure fair, timely, and equitable use of unused spectrum, eliminating the limit on the number of PALs that may be auctioned for an area and permitting a single PAL in an area, retaining flexibility for Spectrum Access Systems (SAS) Administrators to assign frequencies to a PAL and prioritize contiguous spectrum assignment, and allowing wider bandwidth channels with power reduction.

¹ This filing is made on behalf of CenturyLink, Inc. and its subsidiary entities that provide communication services using fixed microwave facilities.

² *In the Matter of Promoting Investment in the 3550-3700 MHz Band*, GN Docket No. 17-258, Notice of Proposed Rulemaking, 32 FCC Rcd 8071, FCC 17-134 (rel. Oct. 24, 2017) (NPRM); 82 Fed. Reg. 56193 (Nov. 28, 2017).

In August 2015 CenturyLink accepted Connect America Fund Phase II (CAF II) model-support for price cap carriers to deploy broadband service to over one million locations in rural areas in 33 states by 2021.³ To accomplish this CenturyLink is deploying fiber further out into its wireline network. But, like other price cap carriers that accepted CAF II model support it is also exploring more cost-effective ways to get higher-speed broadband to remote locations where deploying fiber to the premises is still uneconomic even with CAF support. Possible approaches include fixed wireless solutions using spectrum in the 3.5 GHz Band. Given the potential for use of this spectrum to enable higher-speed broadband in more rural areas of the country the Commission should ensure that its proposed rules for this spectrum do not inhibit, but instead promote, such use in those areas. Thus, CenturyLink appreciates the opportunity to comment on the Commission's proposed changes to its rules governing PALs in this spectrum band.

I. THE COMMISSION SHOULD KEEP THE PAL GEOGRAPHIC LICENSE AREA AS CENSUS TRACT

Under the Commission's current rules, the PAL geographic license area is one census tract. The Commission is now proposing to increase the size of the geographic license area with both Partial Economic Areas (PEAs) and counties under consideration. The Commission should keep the PAL geographic license area at census tract.

Use of PEAs as the geographic license area for PALs will inhibit higher-speed broadband deployment in rural areas. CenturyLink agrees with the many commenters that advocate that

³ *In the Matter of Connect America Fund*, WC Docket No. 10-90, Letter from Maxine Moreau, CenturyLink, to Marlene H. Dortch, FCC, Re: CenturyLink Acceptance and Declination of Connect America Phase II Support (Aug. 26, 2015).

PEAs are too large to encourage broadband deployment in rural areas.⁴ CenturyLink also agrees with those who argue that secondary market transactions with PEAs will not ameliorate the absence of smaller geographic licenses in the first instance.⁵ CenturyLink appreciates that PAL administration at the census block level may be greater than at the county or PEA level. But, as the Commission has noted, some have already stated that managing over 70,000 licenses as an SAS Administrator should not be overly burdensome in light of today's technology.⁶ The many benefits of PALs at the census tract level will outweigh the burdens of administration of a larger number of licenses.

Use of counties as the geographic license area for PALs will also make deployment of higher-speed broadband in rural areas more difficult. At first blush, moving the PAL geographic license area to a county seems a reasonable alternative. Arguably a county geographic area could be a reasonable balance for preserving the ability for smaller providers to participate in the auction while reducing the burdens in administering the PALs.⁷ On closer examination of the likely impact of different PAL geographic areas, however, it is evident that even PALs at the county level would likely make broadband deployment to targeted rural areas potentially uneconomic and thus unlikely to be effective for enhancing broadband deployment in rural

⁴ See, e.g., Comments of Frontier Communications Corporation, *et al.*, filed herein, at 6-7 (Dec. 28, 2017); Comments of Sacred Wind Communications, Inc., filed in GN Docket No. 17-258, RMs-11788, 11789, at 5-6 (Dec. 28, 2017).

⁵ See, e.g., Comments of Frontier, *et al.*, at 8-9; Comments of Sacred Wind, at 6; Comments of Google LLC, filed herein, at 18-21 (Dec. 28, 2017); Comments of Wireless Internet Service Providers Association, filed in GN Docket No. 17-258, RMs-11788, 11789, at 43-45 (Dec. 28, 2017).

⁶ NPRM, 32 FCC Rcd at 8079-80 ¶ 21.

⁷ *Id.* at 8080 ¶ 22.

areas.⁸ Instead, the best opportunity for higher-speed broadband deployment in rural areas is to offer PALs at the smaller geographic area of census tract as originally adopted by the Commission.

Thus, to encourage such deployment, the Commission should insure that at least some of the seven PALs available in a geographic area are available at the census tract level. In turn, a hybrid approach to have some PALs available at the census tract level and others available at the county level could be a viable approach. If the Commission adopts a hybrid approach for PAL geographic license areas, CenturyLink recommends that the Commission have at least four PALs available at the census tract level. With the spectral efficiency of currently available technology, 40 MHz is the minimum spectrum necessary to deliver a cost-effective coverage footprint in rural areas. Keeping 40 MHz of spectrum for PALs at the census tract level will also enable rural areas to benefit from leveraged advancements in technology and support higher orders of spatial processing and Multi User multiple input/multiple-output (MIMO), while keeping investment in vertical infrastructure manageable. If, however, a hybrid approach of using more than one geographic license area size would significantly increase the complexity of an auction and delay commercial use of the band, then the Commission should revert to offering all PALs on a census tract basis. The Commission needs to move forward with a PAL auction and enabling full use of this spectrum. And, as others have suggested, the Commission should consider affording a preference for providers who sufficiently demonstrate that they intend to use

⁸ *See, e.g.*, Comments of WISPA at 25-31. This is also well-evidenced in the numerous comments filed by smaller wireless internet service providers serving rural areas describing how the problematic mismatch between large PEAs and the rural areas they serve would greatly inhibit if not altogether preclude their ability to participate in PAL auctions to obtain PAL spectrum to provide higher-speed broadband in their service areas.

the PALs on which they are bidding to provide service to meet CAF obligations.⁹ Affording such a preference for census tract PALs could be a significant tool in advancing the Commission's objective to enable higher-speed broadband service in rural areas.

Under any circumstances, the Commission should not make PEAs the exclusive geographic license area for PALs. If the Commission insists on moving to PEAs for all PAL license areas it will severely limit – if not altogether foreclose – innovative uses of this spectrum to alleviate the digital divide between rural and urban areas.

II. THE COMMISSION SHOULD KEEP THE PAL LICENSE TERM AT THREE YEARS BUT AUTHORIZE LICENSE RENEWAL

Under the Commission's current rules, PALs have three-year license terms and there is no allowance for renewal. For the first application window an applicant can get two consecutive three-year licenses for a given PAL, but in subsequent application windows only a single three-year license is permitted. The Commission is now proposing to make the PAL license term ten years and authorize a renewal process.

On balance, CenturyLink supports retaining the PAL license term as three years but permitting renewal for a nominal fee. CenturyLink has concerns that a longer term and renewal will make PAL licenses more expensive and thus harder for smaller carriers to acquire. At the same time, a three-year license term without the possibility of renewal may not be a sufficient incentive to invest in and develop products and services that will effectively and efficiently use this spectrum. Thus, the Commission should retain the three-year license term to help keep the cost of the license in check, but also permit renewal to encourage capital investment by creating a more reliable mechanism for recovering that investment longer term. The importance of the

⁹ See, e.g., Comments of Alaska Communications, filed herein, at 15-16 (Dec. 28, 2017).

length of the license term is reduced when renewal is available since it increases the likelihood that a license can be retained indefinitely. Yet, this may also be tempered by the nature of any performance requirements imposed to retain the license.

As to performance requirements, the Commission must determine what performance requirements are warranted to demonstrate that the PALs are being used effectively so as to justify renewal. If the Commission allows sufficient opportunity for general authorized access (GAA) use of PAL-licensed spectrum that is not being used, then performance requirements for PAL renewal could be more relaxed. If, however, the Commission prohibits GAA use of fallow PAL-licensed spectrum, then PAL renewal performance requirements should ensure that licensed spectrum is being used and not just warehoused. CenturyLink agrees with those who have commented that performance requirements for licenses being used to achieve CAF objectives should only have license performance requirements that align with the CAF performance obligations.¹⁰

The Commission should not react to licenses in lieu of renewal. Eliminating the current licensee's opportunity to retain its license without interference not only deters investment in obtaining these licenses in the first instance, but also undermines continued investment in products and services that depend on an awarded license. The more burdensome the process is to obtain and maintain the licenses, the more it will deter investment in the licenses in the first place. And, mandatory periodic auctions in lieu of streamlined renewals is likely to be much more administratively burdensome for the Commission and licensees without clear benefit.

Additionally, the Commission should ensure that SAS coordinators controlling access to spectrum are able to allocate more spectrum to GAA use in the absence of PAL licensees. This

¹⁰ See, e.g., Comments of Alaska Communications, at 4.

will enhance service opportunities by affording lower spectrum costs in rural areas where there are likely to be fewer PAL licensees and infrastructure costs are high. It should also enable more equitable and distributed allocation of spectrum for GAA use with lower risk of interference in these areas.

III. THE COMMISSION SHOULD PERMIT PARTITIONING AND DISAGGREGATION OF PALS IN SECONDARY MARKET TRANSACTIONS

Under the Commission's current rules partitioning and disaggregation of PALs is prohibited. Now, however, the Commission is proposing to allow partitioning and disaggregation of PALs in secondary market transactions. If the Commission awards PALs for PEAs or counties, the Commission should allow partitioning and disaggregation of PALs in secondary market transactions. And, the Commission should also put rules in place to ensure that unused spectrum is made available in a timely manner and at a fair price. At a minimum, this will be necessary to encourage full and effective use of PAL licensed spectrum in these large geographic areas, although as noted earlier this approach is a poor substitute for retaining the PAL geographic license areas as census tract in the first instance. If the Commission awards PALs for census tracts, partitioning and disaggregation may be less necessary. Nevertheless, having that flexibility may still be valuable in certain circumstances.

IV. THE COMMISSION SHOULD ELIMINATE THE LIMIT ON THE NUMBER OF PALS THAT MAY BE AUCTIONED FOR AN AREA AND SHOULD PERMIT A SINGLE PAL IN AN AREA

The Commission's current rules limit the number of PALs available in an area such that when there are two or more applicants for PALs in a given census tract, the Commission will make available one fewer PAL than the total number of PALs for which all applicants have applied in the license area, up to a maximum of seven PALs. Also, in non-rural areas if there is only a single applicant for PALs in a license area, the FCC will not have an auction for the area

and there will only be GAA access to the spectrum in that area until the next competitive bidding period. The Commission now proposes to eliminate these rules, such that up to seven PALs would always be available for an area and PALs could be assigned when there is only one applicant for an area. CenturyLink supports both proposed modifications. In rural areas, the opportunity to be a solo PAL licensee may be critical for protecting and maintaining fixed wireless broadband service that would meet CAF II obligations using this spectrum. GAA power reductions that were enforced due to co-existence with one or more operators in the area would put service using GAA spectrum at risk and thus less likely to be sufficient for meeting CAF II requirements.

V. THE COMMISSION SHOULD RETAIN FLEXIBILITY FOR SAS ADMINISTRATORS TO ASSIGN FREQUENCIES TO A PAL AND ENCOURAGE CONTIGUOUS SPECTRUM ASSIGNMENT

Under current Commission rules PAL applicants do not bid on specific spectrum blocks; instead SAS Administrators assign frequencies based on the amount of spectrum a PAL licensee is authorized to use in a license area. Licenses may request a particular channel or frequency range from the SAS Administrator, but assignment is not guaranteed. The Commission seeks comment on whether applicants should be permitted to bid on specific spectrum blocks. CenturyLink views that bidding on specific channel assignments is not warranted. Allowing bidding on specific channel assignments will make the auction process more complex without corresponding benefits. Instead, more flexibility for the SAS Administrator to assign frequencies for an area in the first instance is preferable. But, once a frequency is assigned for a geographic area the PAL licensee should be able to keep that frequency for the duration of the license term. SAS Administrators should try to assign contiguous spectrum in a geographic area and in

adjacent areas to PALs of the same licensee whenever possible, as this is likely to be the most effective configuration for a PAL licensee's use of its authorized spectrum.

VI. THE COMMISSION SHOULD ALLOW WIDER BANDWIDTH CHANNELS WITH POWER REDUCTION

The Commission's current emission limits for PALs were designed to accommodate 10 and 20 megahertz channels. The Commission proposes to relax the emission mask so that it is scalable to accommodate wider bandwidth channels. CenturyLink supports making changes to allow wider bandwidth channels with power reduction. Such a change should encourage innovation and investment in this spectrum as new and emerging technologies may make use of wider bandwidth channels to deliver higher data rates more efficiently.

VII. CONCLUSION

For the above-stated reasons, CenturyLink urges the Commission to retain the PAL geographic license area as census tract. If the Commission adopts different sized PAL geographic license areas the Commission should ensure that at least four PALs are available at the census tract level. The Commission should retain the license term of three years, but authorize renewal for a nominal fee. Particularly if the Commission adopts any PALs at the PEA or county level it should permit partitioning and disaggregation of PALs in secondary market transactions with rules in place to ensure fair, timely and equitable use of unused spectrum. The Commission should also eliminate the limit on the number of PALs that may be auctioned for an area and permit a single PAL in an area, retain flexibility for SAS Administrators to assign frequencies to a PAL and encourage contiguous spectrum assignment, and allow wider bandwidth channels with power reduction. Finally, the Commission should move forward with

these changes as quickly as possible so that the Commission can complete the framework for spectrum use in the 3.5 GHz band and commercial service in the 3.5 GHz band can proceed.

Respectfully submitted,

CENTURYLINK

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