

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Competitive Bidding Procedures and Certain)	AU Docket No. 17-182
Program Requirements for the Connect)	WC Docket No. 10-90
America Fund Phase II Auction (Auction 903))	

To: The Commission

REPLY COMMENTS OF MICROSOFT CORPORATION

Microsoft Corporation (“Microsoft”) hereby submits its Reply Comments in response to certain of the Comments filed in response to the Commission’s Public Notice in the above-captioned proceeding.¹ As it noted in its Comments, Microsoft shares the Commission’s commitment to closing the rural broadband gap. As evidenced in its 2017 white paper setting forth a blueprint for connecting rural America,² Microsoft’s vision aligns closely with the Commission’s Connect America Fund (“CAF”) Phase II auction goals.

Microsoft reiterates its support for the use of both licensed and unlicensed spectrum bands for “last mile” service to meet the CAF Phase II obligations. In its Comments, Microsoft urged the Commission to add Television White Spaces (“TVWS” or “TV White Spaces”) spectrum to the list of suitable spectrum bands, set forth in Appendix B to the *Auction Public*

¹ *Comment Sought on Competitive Bidding Procedures and Certain Program Requirements for the Connect America Fund Phase II Auction (Auction 903)*, Public Notice, FCC 17-101, rel. Aug. 4, 2017 (“*Auction Public Notice*”). Comments were filed on September 18, 2017.

² See, *A Rural Broadband Strategy, Connecting Rural America to New Opportunities*, Microsoft, May 2017, <https://msblob.blob.core.windows.net/ncmedia/2017/07/Rural-Broadband-Strategy-Microsoft-Whitepaper-FINAL-7-10-17.pdf>.

Notice.³ In these Reply Comments, Microsoft supports the broader proposals set forth by the Wireless Internet Service Providers Association (“WISPA”) to make the eligibility rules truly technology neutral by allowing a broad range of wireless bands and technologies that can be used alone or in combination with other wireless and wireline technologies. Access to a broader range of technologies will offer service providers important options for the provision of broadband service to rural and remote areas in the most technologically and cost-effective manner, thereby increasing the potential impact of the CAF Phase II auction.

I. The Record Supports The Use Of Unlicensed Spectrum

In Appendix B to the *Auction Public Notice*, the Commission identifies “the spectrum bands that could be used for the last mile to meet Phase II obligations....”⁴ The Commission lists a total of 19 spectrum bands and/or services, including three unlicensed bands. The Commission asks whether there are “other spectrum bands than can offer sufficient uplink or downlink bandwidth – individually or in combination – to meet the various performance tier and latency combination qualifications.”⁵

No commenter objected to the use of TV White Spaces spectrum, or other unlicensed spectrum, to meet the eligibility requirements for participation in the CAF Phase II auction. WISPA asked the Commission to add seven spectrum bands (four unlicensed and three licensed), including specifically TV White Spaces.⁶ Space Exploration Technologies Corp. (“SpaceX”) asked the Commission to “clarify that the spectrum chart in Appendix B will only be

³ See generally, Comments of Microsoft Corporation (filed Sept. 8, 2017)

⁴ *Auction Public Notice* at ¶ 40 and Appendix B.

⁵ *Id.* at ¶ 40.

⁶ See generally, WISPA Comments at 14 – 19 (filed Sept. 8, 2017).

used as a non-mandatory guide for spectrum that can be used by applicants, but not an exclusive list.”⁷ Likewise, WISPA asked the Commission to clarify “that Appendix B is not exhaustive and that an applicant can propose to use other spectrum bands if it can demonstrate that it can satisfy the public interest obligations.”⁸ Microsoft agrees that the Commission should clarify that Appendix B is not an exhaustive list of permissible spectrum bands, and that an applicant should be able to use other spectrum bands if it can demonstrate that those bands can satisfy the performance requirements. In all events, Microsoft supports the addition to Appendix B of the seven spectrum bands identified by WISPA.

II. The Record Supports The Use Of New Technologies

Several commenters asked the Commission to clarify that applicants not be restricted to current technologies. For example, WISPA asked the Commission to clarify that applicants should not be limited to specifying performance and latency combinations “that they or similar providers are currently offering.”⁹ WISPA states that:

[T]he Commission should not automatically preclude bidders that may have the capacity, if not the direct experience, from deploying broadband in a novel manner. For example, a particular fixed wireless provider may have not yet deployed updated technology but should have the ability to propose such technology in its application.¹⁰

Similarly, ADTRAN, Inc. (“ADTRAN”) stated that “given the rapid pace of broadband technology developments, it makes no sense to restrict applicants to currently offered technology.”¹¹

⁷ SpaceX Comments at 10 (filed Sept. 8, 2017).

⁸ WISPA Comments at 17.

⁹ WISPA Comments at 18.

¹⁰ *Id.*

¹¹ ADTRAN Comments at 2. ITTA – The Voice of America’s Broadband Providers (“ITTA”) appears to be the only commenter requesting that the Commission limit applicants “to bidding on performance tier and latency combinations that they or similar providers are offering.” ITTA Comments at 6.

Microsoft agrees with WISPA and ADTRAN that eligibility for CAF Phase II funding should not be limited to technologies that are currently offered.

III. Applicants Should Have The Flexibility To Use Multiple Technologies

Microsoft agrees with WISPA that:

an applicant can propose to use more than one spectrum resource for last-mile, backhaul, and other parts of the network, and can combine wireline, wireless, and satellite resources in its application.¹²

As Microsoft noted in its Comments, TV White Spaces spectrum offers operators a stand-alone solution or a critical piece of a hybrid solution to serving rural areas. For example, an operator may determine that the best way to provide broadband would be to deploy fiber or higher frequency wireless links in rural areas with higher population densities, while deploying TV White Spaces links to serve outlying areas with lower population densities. In all events, applicants should be given the flexibility to combine the most appropriate, and cost effective, set of technologies to meet or exceed the Commission's performance requirements.

IV. Conclusion

For the reasons set forth above, Microsoft urges the Commission to make the eligibility rules technology neutral by allowing a broad range of wireless bands and technologies that can be used alone or in combination with other wireless and wireline technologies. Access to a broader range of technologies will offer service providers important options for the provision of

¹² WISPA Comments at 15 – 16.

broadband service to rural and remote areas in the most technologically and cost-effective manner, thereby increasing the potential impact of the CAF Phase II auction.

Respectfully submitted,

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