

October 1, 2018

**Ex Parte**

Marlene Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

*Re:* ET Docket No. 16-56, ET Docket No. 14-165, MB Docket No. 15-146, RM-11745, GN Docket No. 12-268

Dear Ms. Dortch:

On September 27, a group of rural broadband providers serving customers in twenty-five states including Colorado, Idaho, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming<sup>1</sup> joined Microsoft in meetings with Jay Schwarz, Legal Advisor for Chairman Pai; Erin McGrath, Legal Advisor for Commissioner O’Rielly; Umair Javed, Legal Advisor for Commissioner Rosenworcel; and Julius Knapp, Ira Keltz, Paul Murray, and Hugh Van Tuyl of the Office of Engineering and Technology (“OET”).

In these meetings, the group provided an update to the Commission on the Airband Initiative. Through this initiative, Microsoft and rural ISPs across the country are working together to bring broadband access to two million previously unserved Americans by 2022, using TV White Spaces technology. We are well on our way to achieving this goal with projects in 18 states projected to cover 750,000 rural, unserved Americans with broadband. The group explained that White Spaces technologies are uniquely valuable for bringing broadband connectivity to rural areas because they operate on the only low-frequency band available to rural ISPs. White Spaces technologies therefore make it possible to cover rural areas that would be technically impossible or economically infeasible for providers to reach using any other technology.

The group stated that the FCC can support these and other efforts to use White Spaces technologies to expand connectivity by resolving long-pending petitions for reconsideration, concluding its proceeding regarding White Spaces database accuracy, and improving technical rules. In doing so, they requested that the Commission affirm the Commission’s decision to open frequencies in the broadcast and 600 MHz band for White Spaces technologies and:

1. Allow greater antenna heights, height over average terrain, gain, and transmit power for fixed White Spaces deployments, to allow improved rural coverage;

---

<sup>1</sup> A full list of meeting participants is attached to this letter.

2. Replace the existing “push” notification rule, which almost all parties agree is unworkable, with an alternative approach that protects microphones used for electronic newsgathering by establishing two fast-polling channels in every market; and
3. Affirm the FCC’s decision on the size of channel 37 exclusion zones for wireless medical telemetry sites and move forward with permitting White Space operations in channel 37 as soon as possible.

Furthermore, in the meeting with OET, the group asked the FCC to affirm its geolocation rules for fixed devices, and not require automatic geolocation for such devices. The record before the Commission establishes that eliminating the professional installation option for fixed devices is unnecessary, would increase costs, and would limit broadband expansion, as discussed more fully in Microsoft’s Reply Comments on this topic.<sup>2</sup> Additionally, the group discussed that the lack of z-axis accuracy in commercial GPS would have a substantial negative impact on rural broadband if ISPs must establish height through automatic geolocation. Temporal variability in z-axis results would prevent rural providers from establishing reliable lists of available channels. In cases where commercial geolocation technology overestimates antenna height, an automated geolocation requirement will also result in significantly fewer available channels, due to the incorrect application of larger separation distances that apply at increased antenna heights. Professional installation would allow ISPs to set an accurate and stable height for their facilities, and thereby provide an accurate and stable channel list.

The group also requested that the Commission consider rule changes to support the use of White Space frequencies for narrowband IoT and on moving vehicles in geo-fenced areas. Pursuant to the FCC’s rules, I have filed a copy of this notice electronically in the above-referenced docket. If you require any additional information, please contact the undersigned.

Sincerely,



Paul Margie  
*Counsel to Microsoft Corporation*

cc: meeting participants

---

<sup>2</sup> Reply Comments of Microsoft Corporation, In the Matter of Amendment of Part 15 of the Commission’s Rules for Unlicensed White Space Devices, Et Docket No. 16-56, RM-11745 (June 6, 2016).

## **Meeting Participants**

Bob Nichols, Declaration Networks

Dan Spray, Precision Technology, Inc.<sup>3</sup>

Jeff Kohler, Rise Broadband

Kyle Quillen, Agile Networks

Andy Metcalfe, Native Network

Jenny Rickel, Native Network

Adi Nativ, Radwin<sup>4</sup>

Michael Houston, Adaptrum

Jim Gilbert, Allband

Ryan Guerra, Skylark

Paul Garnett, Senior Director, Microsoft Airband Initiative, Microsoft<sup>4</sup>

Vickie Robinson, Director, Microsoft Airband Initiative, Microsoft<sup>3</sup>

Melissa Sassi, Senior Project Manager, Microsoft Airband Initiative, Microsoft

Paula Boyd, Senior Director, US Government Affairs, Microsoft<sup>4</sup>

Paul Caritj, Harris, Wiltshire & Grannis, LLP

Paul Margie, Harris, Wiltshire & Grannis, LLP

---

<sup>3</sup> Did not participate in the meeting with OET.

<sup>4</sup> Did not participate in the meeting with Jay Schwarz.