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Microsoft

8 January 2021

Via ECFS
Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Petition for Rulemaking to Permit MVDDS Use of the 12.2-12.7 GHz Band for Two-Way Mobile Broadband Service*, RM-11768

Dear Ms. Dortch:

On Wednesday, 6 January, the undersigned, Michael Daum, and Stephen Kitay – all from Microsoft Corporation – met via telephone conference call with Umair Javed, Legal Advisor to Commissioner Jessica Rosenworcel and, separately, with William Davenport, Chief of Staff and Senior Legal Advisor for Commissioner Geoffrey Starks to express Microsoft's opposition to issuance of a Notice of Proposed Rulemaking in the above-captioned proceeding that would consider changes to existing uses of the 12.2 – 12.7 GHz band (12 GHz band).

The Microsoft participants shared that Microsoft's interest in this proceeding is multi-fold: facilitating the increased intersection of satellite services with the cloud and preserving the increased opportunity for providing enhanced quality satellite-based broadband connectivity while realizing the benefits that 5G technology promises.

They noted that Microsoft cares deeply about the substantial benefits that 5G promises to deliver and is focused on bringing the efficiencies of the cloud to the wireless network to drive opportunities and reduce costs. However, there is a growing intersection between satellite services and the cloud that is creating unprecedented opportunity, including public safety applications. Moreover, satellite-based broadband is an additional tool to provide broadband connectivity for Americans in unserved and underserved areas. Realizing greater 5G benefits can and should be accomplished in alternative ways without jeopardizing the benefits that derive from satellite space-to-earth operations in the 12 GHz band.

Microsoft recently announced, through its Azure Space division, an expansion of its work with satellite companies including with SES and a new collaboration with SpaceX.[1] Mr. Kitay shared that Microsoft plans to include delivery of satellite connectivity between field-deployed assets and cloud resources across the country and the globe to both the public and private sector via SpaceX's Starlink satellite network, which operates in the 12 GHz band. The collaboration includes connecting Starlink's high speed, low-latency satellite broadband with Azure's new

[1] Announcement available at <https://news.microsoft.com/transform/azure-space-partners-bring-deep-expertise-to-new-venture/>.

Modular Datacenter. The Modular Datacenter[2] is a self-contained mobile data center that can be transported to the field in even the most rugged conditions; it can act as critical infrastructure where temperature, humidity, and surfaces pose a challenge. It offers satellite connectivity on either a primary or secondary basis using 12 GHz frequencies. Scenarios for use range from mobile command centers, humanitarian assistance during times of natural disaster, military mission needs, mineral exploration, and other use cases requiring high intensity, secure computing on Azure. Satellite connectivity allows customers and consumers to benefit from cloud resources that enable artificial intelligence and data analytics in the most challenging of situations.

The Microsoft participants expressed concern over the likelihood for harmful interference to Starlink user terminals that would result from mobile service operations in the 12 GHz Band. Modular Datacenter users may deploy nationwide and the location of the user terminal in many cases will not be known until shortly prior to its operation, for example in the case of their use for emergency public safety responses, or may not be disclosable at all in some cases due to national security concerns, rendering sharing efforts untenable.

Microsoft understands, based on press accounts, that most of the questions in the pending item are neutral and primarily seek to collect information in a manner more fitting to a Notice of Inquiry than to a Notice of Proposed Rulemaking. At best, the petition and the record around it present a nascent, unformed proposal that is not yet ready for consideration by a Notice of Proposed Rulemaking. Microsoft does not believe that spectrum sharing between Non-Geostationary Satellite Orbit (NGSO) satellite service and mobile service is achievable in this band. However, if the Commission wishes to explore the matter further, the state of the record suggests that the better vehicle for doing so would be through a Notice of Inquiry, not a Notice of Proposed Rulemaking.

For the foregoing reasons, Microsoft respectfully urges the Commission to refrain from adopting a Notice of Proposed Rulemaking at this time in the above-referenced proceeding. Pursuant to the Commission's rules, I have filed a copy of this notice electronically in the above-referenced dockets. Please contact me if you require any additional information.

Respectfully submitted,

/s/ Paula Boyd
Paula Boyd
Senior Director, U.S. Government and Regulatory Affairs

cc: William Davenport
Umair Javed

[2] Further information about Microsoft's Modular Datacenter and its satellite connectivity can be found at <https://azure.microsoft.com/en-us/blog/introducing-the-microsoft-azure-modular-datacenter/>.