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BY ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TW-A325
Washington, DC 20554

REDACTED – FOR PUBLIC INSPECTION

Re: Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197

Dear Ms. Dortch:

Please find attached a copy of Highly Confidential Information submitted in the above-referenced docket. At the request of the Commission staff, T-Mobile US, Inc. ("T-Mobile") is submitting:

- The spreadsheets containing the calculations underlying paragraphs 19, 20 and 25 of the Declaration of Neville R. Ray, Executive Vice President and Chief Technology Officer of T-Mobile, Appendix B to Description of the Transaction, Public Interest Statement, and Related Declarations, WT Docket No. 18-197 (June 18, 2018).

- A description of how the company generated the T-Mobile standalone and New T-Mobile 5G coverage maps included in the Public Interest Statement (attached) and associated MapInfo files.

The spreadsheets and MapInfo files are Highly Confidential Information being submitted in electronic format. T-Mobile would be pleased to walk the FCC staff through this information or answer any questions regarding it.

The filing contains information that is "Highly Confidential" pursuant to the Protective Order filed in WT Docket No. 18-197.[1] Accordingly, pursuant to the procedures set forth in the Protective Order, a copy of the filing is being provided to the Secretary's Office.[2] In addition,

[1] *In the Matter of Applications of T-Mobile US, Inc. and Sprint Corporation Consolidated Applications for Consent to Transfer Control of Licenses and Authorizations*, Protective Order, WT Docket No. 18-197, DA 18-624 (Jun. 15, 2018)("Protective Order").

[2] Protective Order at ¶13.

two copies of the Highly Confidential Filing are being delivered to Kathy Harris, Wireless Telecommunications Bureau.[3] A copy of the Redacted Highly Confidential Filing is being filed electronically through the Commission's Electronic Comment Filing System.[4]

Should any questions arise regarding this filing, please do not hesitate to contact the undersigned counsel for T-Mobile.

Respectfully submitted,

/s/ Nancy J. Victory

Nancy J. Victory

Enclosure

cc: David Lawrence
Kathy Harris
Linda Ray
Kate Matraves
Jim Bird
David Krech

[3] *Id.*

[4] *Id.*

Overview of PIS Map Development:

The coverage of T-Mobile and New T-Mobile 5G networks was computed using unique site lists extracted from each respective Network Model and combined with the following baseline parameters:

1. T-Mobile Standalone Network: Planned T-Mobile 5G network site list using 600 MHz as the coverage foundation. Additional mid-band AWS/PCS 5G overlay sites were selected and their coverage shown separately in accordance with the T-Mobile standalone spectrum re-farm plan.

2. New T-Mobile Network: Planned New T-Mobile 5G network site list based on the T-Mobile anchor network with select Sprint retain sites integrated into the combined network. 600 MHz was used as the coverage foundation. AWS/PCS along with significant 2.5 GHz overlays created a dense mid-band capacity coverage layer made available by 2.5 GHz's massive spectrum depth.

Propagation maps for low-band 600 MHz and mid-band (AWS, PCS, 2.5 GHz) layers were generated using the above site lists imported into T-Mobile's RF propagation tool.[1] T-Mobile's RF propagation tool was used to compute 600 MHz, AWS/PCS, and 2.5 GHz propagation arrays[2] representing signal strength for each network scenario. These arrays were imported into the Pitney Bowes MapInfo GIS software platform. Coverage maps presented in the PIS are based on outdoor 5G coverage threshold with low-band 600 MHz coverage in the background and mid-band AWS/PCS/2.5 GHz coverage in the foreground. As part of this submission, relevant MapInfo coverage maps were exported, for each network scenario, to the ArcGIS Shapefile format.

[1] T-Mobile utilizes a commercially available RF propagation prediction tool, Asset v9.0, supplied by TEOCO, a Fairfax, Virginia based company. This tool utilizes the Myriad propagation algorithms to compute path loss.

[2] While the benefits of mmWave equipped sites are modeled into the capacity and performance calculations of the Network Model, they are not factored in to coverage maps due to their diminutive coverage contribution when presented on a national scale.

REDACTED HIGHLY CONFIDENTIAL INFORMATION