

THE KONKURRENZ GROUP

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REDACTED FOR PUBLIC INSPECTION

May 7, 2019

BY ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, D.C. 20554

RE: Consolidated 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:

In response to Commissioner Stark's request during the meeting between CWA and Commissioner Starks and William Davenport on May 3, 2019, CWA provides the attached Highly Confidential coverage maps of T-Mobile projected 5G coverage in Pennsylvania and Kansas in 2024. The attached maps were created under Dr. Andrew Afflerbach's supervision from the GIS shapefile data provided by T-Mobile in response to Specification 21f. They are essentially close-up views of Figure 10 in T-Mobile's Public Interest Statement (PIS). The only additions beyond the T-Mobile data are the state boundaries and cities.

A Highly Confidential version of this filing has been filed with the Commission and will be made available pursuant to the terms of the Protective Order. Please contact me with any questions.

Sincerely,



Allen P. Grunes
Counsel to Communications Workers of America

Attachment

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The coverage maps provided are the T-Mobile model for the predicted 5G service by the merged company in 2024. They are essentially close up-views of Figure 10 from T-Mobile's Public Interest Statement (PIS), p. 46, shown as Figure 1 below. They are composed entirely of GIS shapefile data provided by T-Mobile in Specification 21f of the PIS, the only additions beyond the T-Mobile data are the state boundaries and cities.

Figure 1 T-Mobile Model of 2024 Coverage—U.S.



The different colors indicate coverage by different spectrum types. The red areas are served both by mid-band and low-band spectrum. The pink areas are served only by low-band spectrum. The beige areas are not served by either.

The mid-band spectrum provides a much higher-speed service, typically hundreds of Mbps. However, it is more easily blocked by terrain or foliage. The range of a mid-band signal is usually just a few miles from the antenna.

The low-band spectrum is a lower-speed service, typically tens of Mbps. The signal is better able to penetrate terrain or foliage. The range of the signal can be as far as 18 miles from the antenna.

Each state has a different level of service. What the maps have in common, is that they show the service long after the merger is complete, after the technologies of the two companies has integrated, and the projected fiber and antenna builds are finished.

Typically (but not always) the metropolitan areas and interstate corridors have mid-band service. The low-band service is more widely available. More rugged and remote areas often have no service.

There are also commonalities by part of the country, with the Boston-Richmond corridor well served, and the plains states and Appalachian areas and the deep South less well served.

[COVERAGE MAPS REDACTED]