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January 18, 2018

EX PARTE NOTICE VIA ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

RE: *Notice of Ex Parte Communication; Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees; WT Docket No. 10-153; Requests of Aviat Networks and CBF Networks, Inc. D/B/A Fastback Networks for Waiver of Certain Antenna Requirements in The 71-76 and 81-86 GHz Bands, WT Docket No. 15-244*

Dear Ms. Dortch:

On January 16, 2018, T-Mobile USA, Inc. ("T-Mobile") met with staff of the Federal Communications Commission to discuss the antenna standard rules for the 70 GHz and 80 GHz bands. Present were John Hunter and Todd Gibson (via phone) of T-Mobile, Rami Lerner and Jenn Ryan of Ceragon Networks (via phone), Peter Young of Comsearch (via phone), and Ira Keltz of DLA Piper LLP (Engineering Advisor to T-Mobile). Attending from the Commission were John Schauble, Peter Daronco, Brian Wondrack, and Stephen Buenzow (via phone) of the Wireless Telecommunications Bureau.

Since the conclusion of the incentive auction, T-Mobile has been rapidly expanding and strengthening its LTE network and laying the groundwork for a nationwide 5G network using its 600 MHz spectrum. Critical to the success of these efforts is access to gigabit backhaul. While the millimeter wave bands are evolving and rules are being adopted and contemplated for mobile operations throughout those bands, T-Mobile finds that the 70 GHz and 80 GHz bands ("E-Band"), with its light licensing approach and ten gigahertz of available spectrum, is ideally suited to providing rapid access to these essential links which will provide high speed connections between access

points and T-Mobile's core network. High speed backhaul is essential to ensuring that customers continue to enjoy a high quality of service even as they consume more and more data for business, communications, and entertainment purposes.

T-Mobile discussed its support for the Commission moving forward on the Fixed Wireless Communications Coalition's ("FWCC") proposals for more flexible antenna standards in the E-Band.¹ In lieu of expeditious action in the Wireless Backhaul Proceeding, T-Mobile noted that the Commission could grant similar relief in the near-term consistent with the Aviat Networks and Fastback Networks waiver request in WT Docket No. 15-244.²

As verified through extensive testing by T-Mobile along with its partner Ceragon Networks, the E-Band antenna rules are not well suited to supporting the extensive antenna deployments needed for expanding existing LTE networks and the coming 5G networks. T-Mobile asserted that antenna physics preclude using small unobtrusive flat panel antennas demanded by landlords and local zoning boards because they are unable to meet the stringent cross-polarization standards set forth in the rules. T-Mobile stated that modest relief in this regard, consistent with that requested by FWCC and Aviat/Fastback along with the stringent coordination procedures already in place, would allow deployment of these antennas without causing any additional interference or precluding other users from accessing the band.

T-Mobile also noted that the co-polarization and cross-polarization standards could be met if it were permitted to use a small flat panel antenna in a 45° tilted polarization configuration, but the rules are ambiguous as to whether such a configuration is permitted.³ T-Mobile also expressed its support for the other proposals espoused in FWCC's comments. Notably, its support for easing the antenna standards by creating Category A and Category B standards as exists for most other microwave bands and basing those standards on the ETSI Class 2 and Class 3 antenna specifications.

¹ Filed in response to the Notice of Inquiry in the Wireless Backhaul Proceeding (WT Docket No. 10-153) ("Wireless Backhaul Proceeding"). See Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licensees, WT Docket No. 10-153, *Notice of Proposed Rulemaking and Notice of Inquiry*, 25 FCC Rcd 11246 (2010) at ¶¶ 59-68.

² See Wireless Telecommunications Bureau Seeks Comment on Requests of Aviat Networks and CBF Networks, Inc. D/B/A Fastback Networks for Waiver Of Certain Antenna Requirements in the 71-76 and 81-86 GHz Bands, WT Docket No. 15-244, DA 15-1166 *Public Notice*, 30 FCC Rcd 10961 (2015).

³ See 47 C.F.R. § 101.117.

Pursuant to Section 1.1206(b)(2) of the Commission's rules, the attached has been filed electronically with the Commission. Please direct any questions regarding this filing to the undersigned.

Respectfully submitted,

/s/ John Hunter

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