

**T-Mobile License, LLC**  
**Application for Experimental Authorization**  
**Special Temporary Authority**

**DESCRIPTION OF REQUEST**

By the associated application, and pursuant to Section 5.54 of the FCC's rules,<sup>1/</sup> T-Mobile License, LLC requests special temporary authority ("STA") from April 11, 2022 to September 1, 2022 for its affiliate, T-Mobile USA, Inc. ("T-Mobile"), to operate on spectrum in the 6110-6190 MHz portion of the 5925-7125 MHz ("6 GHz") band in and around the Alexandria and Falls Church, Virginia areas. Grant of the STA will permit T-Mobile to experiment and conduct Wi-Fi performance testing using 6 GHz spectrum without causing harmful interference to incumbent operations.

**A. Purpose of Operation and Need for Experimental License**

T-Mobile has a long history of utilizing unlicensed spectrum and Wi-Fi as an essential component of its network. T-Mobile has used unlicensed spectrum for network offload and was one of the first carriers to offer customers cutting-edge technologies like nationwide Voice over LTE and next-generation Wi-Fi calling.<sup>2/</sup> T-Mobile recently launched its 5G Home Internet service, which is currently available to more than 30 million households nationwide.<sup>3/</sup> T-Mobile's 5G Home Internet service utilizes a 5G Gateway device that converts next-generation 5G signals to Wi-Fi and provides a Wi-Fi signal accessible by all the devices in a customer's home.

T-Mobile seeks an STA to evaluate additional Wi-Fi 6 capabilities and performance utilizing 6 GHz spectrum. Grant of an STA will enable T-Mobile to test and optimize its network to ensure that any future use of the spectrum by T-Mobile for its Wi-Fi 6 services does not cause harmful interference to incumbents while the Commission continues its process for authorizing Automated Frequency Coordination systems to manage interference in the 6 GHz band.<sup>4/</sup> And it will allow T-Mobile to more promptly expand and enhance its Home Internet service, which is more important now than ever to meet the skyrocketing demand for broadband services created by the pandemic.

**B. Restrictions on Operation**

T-Mobile's operations pursuant to the STA will be limited in time and geographic scope in each market. As the attached application indicates, T-Mobile proposes to utilize a single fixed access point in two areas – specifically, the Southern Towers Apartments in Alexandria, Virginia, and the Cavalier Club Apartments in Falls Church, Virginia. The fixed access point device will operate at the coordinates listed in T-Mobile's application, and user devices will operate within 1

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<sup>1/</sup> See 47 C.F.R. § 5.54; see also *id.* § 5.61.

<sup>2/</sup> See T-Mobile, Wi-Fi Calling from T-Mobile, <https://www.t-mobile.com/support/coverage/wi-fi-calling-from-t-mobile> (last visited Mar. 24, 2022).

<sup>3/</sup> See T-Mobile, Home Internet, <https://www.t-mobile.com/isp> (last visited Mar. 24, 2022).

<sup>4/</sup> See *The Commission Begins the Process for Authorizing 6 GHz Band Automated Frequency Coordination Systems*, Public Notice, FCC 21-100 (rel. Sept. 28, 2021).

kilometers (or less than a mile) of each fixed station. Each fixed station will operate with a maximum power of 1 watt effective radiated power (“ERP”), which is well below the ERP of other operators that have recently been granted STAs to operate in the 6 GHz band.<sup>5/</sup> T-Mobile will actively work with equipment manufacturers during the STA period to test equipment. T-Mobile will also conduct its operations consistent with the Commission’s equipment marketing and importation rules.<sup>6/</sup>

### **C. Protection Against Causing Interference**

T-Mobile recognizes that experimental authorizations are issued on a secondary basis only and that grant of the application will provide it with no additional rights to permanently operate on the spectrum covered by the STA. T-Mobile will coordinate its experimental operations with any incumbent Fixed Microwave and Fixed Satellite Service licensees in the proposed areas in order to avoid any potential disruptions.<sup>7/</sup> And it will operate consistent with the rules established for unlicensed operations in the 6 GHz band.<sup>8/</sup> T-Mobile will immediately cease transmissions if any of those users experience harmful interference.

T-Mobile has established a point of contact identified below with “kill switch” authority should any interference occur to primary licensed service:

Chris Wieczorek  
T-Mobile USA, Inc.  
601 Pennsylvania Ave., NW  
Washington, DC 20004  
202-654-5913  
[chris.wieczorek@t-mobile.com](mailto:chris.wieczorek@t-mobile.com)

Should there be any questions regarding this application, the Commission is asked to contact Mr. Wieczorek.

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<sup>5/</sup> See, e.g., FCC Experimental Authorization of Net Ops Communications, LLC (Call Sign WT9XEP) (authorizing an ERP of 2.43 W across the 5925-6425 MHz band); FCC Experimental Authorization of Resound Networks, LLC (Call Sign WS9XSK) (authorizing an ERP of 4 W across the 5925-7125 MHz band).

<sup>6/</sup> See 47 C.F.R. § 2.803. The Commission recently revised its equipment marketing and importation rules, but those rules are not yet effective. See *Allowing Earlier Equipment Marketing and Importation Opportunities*, Report and Order, FCC 21-72 (rel. June 17, 2021). If those rules become effective prior to testing, T-Mobile will comply with the new requirements.

<sup>7/</sup> See *Wireless Telecommunications and Public Safety and Homeland Security Bureaus Remind 6 GHz Licensees of the Importance of Maintaining Accurate Information in the Universal Licensing System*, Public Notice, DA 22-236 (rel. Mar. 8, 2022) (reminding incumbent fixed microwave operators in the 6 GHz band to update their information in the FCC’s Universal Licensing System to ensure that they are protected from harmful interference).

<sup>8/</sup> See *Unlicensed Use of the 6 GHz Band*, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3852 (2020).