

**Exhibit
T-Mobile License LLC
FCC Form 442
Application for New License**

DESCRIPTION OF RESEARCH PROJECT

T-Mobile License LLC (“T-Mobile”) hereby submits the attached application for a new experimental license authorizing test operations in and around T-Mobile’s own facilities in Bellevue, Washington. T-Mobile, including the MetroPCS brand, offers nationwide wireless voice, text, and data services to approximately 63 million subscribers. T-Mobile continues to lead growth in the wireless industry, with 2.1 million net additions in the fourth quarter of 2015. Additionally, the footprint for T-Mobile’s 4G Long-Term Evolution (“LTE”) network – the Nation’s fastest 4G LTE network – more than doubled during 2015, expanding its reach to 304 million Americans. As part of its efforts to be an industry leader and continue improving and increasing the capacity of its networks, T-Mobile wishes to conduct tests of 5G technology in the millimeter wave bands, which may play an important role in meeting the increasing demand for data-intensive applications.

The proposed operations involve tests at four locations. First, T-Mobile will conduct indoor tests within the controlled environment of its Bellevue lab facilities. Those tests will help T-Mobile better understand the characteristics of millimeter wave transmissions for indoor 5G communications. Second, T-Mobile will conduct tests at its Bellevue headquarters and at two other outdoor locations nearby. Those tests will provide information on signal propagation between buildings and other critical data informing the broader design of 5G systems. Tests at each location will utilize fixed transmitters and mobile end-user equipment operating within a maximum radius of 2 kilometers of the fixed devices. In each case, T-Mobile will test signal strength, transmission and reception characteristics and other parameters that will be useful as it contemplates how it may incorporate millimeter wave spectrum in its network to support 5G operations. Because the tests will be conducted using very low power transmitters in controlled environments and based on the current limited use of these bands, the tests will be performed in a manner without causing harmful interference to licensees in the band. The proposed operations will therefore further advance T-Mobile’s understanding of 5G technology and operations in the millimeter wave bands, and will ultimately allow T-Mobile to deploy next-generation 5G mobile services.

Based on the foregoing, T-Mobile requests that the Commission process the application promptly to accelerate T-Mobile’s 5G research efforts.