

## **Exhibit**

Applicant seeks a six (6) month Special Temporary Authority (STA) to demonstrate the functionality and capabilities of the fifth generation wireless communication systems “5G systems” using experimental equipment operating in the 28 GHz spectrum band.

The industry standards organization, 3<sup>rd</sup> Generation Partnership Project (“3GPP”), is developing 5G standards, which are expected for release beginning in 2018. 5G systems will utilize advanced antenna technologies with beamforming and multiple in multiple out (“MIMO”) technology, as well as more efficient coding and modulation schemes. These technologies are expected to result in higher spectral efficiencies, reduce latency to 1-5 milliseconds, and enable gigabyte per-second (Gbps) mobile and fixed broadband services, significantly faster than today’s average 4G speeds using long term evolution (“LTE) connections.

The applicant’s 5G demonstrations will involve communications between fixed (FX) base stations placed indoors in a room or open space located inside a building at 1501 Gaylord Trail, Grapevine, TX 76051. The building has concrete walls and windows with coated glass as shown below. The 5G wireless link will be established between the base station and mobile user equipment (“UE”) located in the same room or space as the base station, at a distance of about 10 meters from the base station. The base station and UE will be operated at 3meters and 2 meters, respectively, above the floor the floor level in the building. The base station will have connectivity to an ISP providing Gbps Internet access for the purposes of 5G demonstrations using various applications and web servers. The UEs can provide services to various devices through Wi-Fi access points connected to the UE through Ethernet cable.

The demonstrations using this STA will provide valuable information to potential users whose feedback on the perceived performance of services provided through these 5G systems will also enable future standards and system optimizations.

