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April 15, 2014

Via ECFS

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

Re: Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band – GN Docket No. 12-354

Dear Ms. Dortch:

This afternoon, Dean Brenner, Durga Malladi, and the undersigned from QUALCOMM Incorporated ("Qualcomm") spoke via telephone with Brendan Carr, legal advisor to Commissioner Ajit Pai about issues raised in the above-referenced proceeding. During the teleconference, Qualcomm responded to Mr. Carr's questions about the technical feasibility of reducing the exclusion zones originally identified in the NTIA Fast Track Report. Qualcomm explained that reducing the exclusion zones in the NTIA Fast Track Report, which cover 60% of the U.S. population, is critically important to the success of the 3.5 GHz band because the band would not be commercially viable if the spectrum were not available in areas where such a large portion of the U.S. population lives. *See, e.g.*, Qualcomm February 20, 2013 Comments at iii.

Qualcomm also explained that, in filings made more than a year ago, it closely reviewed the technical basis for the exclusion zones in the NTIA Fast Track Report and provided the FCC with unchallenged technical analyses showing how the exclusion zones can be reduced by an order of magnitude by deploying small cells that operate with much lower transmit power than typical cellular macrocells, which were assumed in the Fast Track Report.

Qualcomm provided Mr. Carr with copies of the comments it filed in this proceeding and specifically pointed to the lengthy technical appendix to its February 20, 2013 Comments. Qualcomm's analysis considered the impact of ground-based, airborne, and shipborne radar systems on small cell deployments in the coastal area of San Diego and showed that the exclusion zone can be less than 10 miles inland for the case of a small cell attempting to co-exist with radar systems.

Qualcomm also discussed the benefits of using Authorized Shared Access ("ASA") in this band, reiterating the main points made in its earlier comments in this proceeding. ASA is a two-tier spectrum sharing framework that allows commercial licensees to operate within the interstices of the underutilized 3.5 GHz band where and when government users are not operating, and to quickly vacate the spectrum when incumbents need to operate. ASA thus prevents interference to and from incumbent government users and enables coast-to-coast mobile broadband operations via licensed small cells where and when the spectrum is available.

By providing a secure interface between federal users and ASA rights holders, the ASA framework will protect sensitive information, such as when and where incumbent federal users are operating. ASA is a binary system that can be deployed quickly and reliably where, at any particular location and point in time, a specific channel in the spectrum will be used either by the federal incumbent or a single ASA rights holder.

Moreover, the implementation of ASA is completely transparent to the end user device. From the end user device's perspective, operating on 3.5 GHz under ASA is no different from operating on any other band; operation is allowed when the network is informed that the band is available. Thus, operation within the ASA framework does not require any changes to the device or the underlying cellular technology.

Respectfully submitted,

John W. Kuzin

John W. Kuzin
Senior Director, Government Affairs – Regulatory

cc: Brendan Carr