April 13, 2015

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: Notice of Oral *Ex Parte* Presentation
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:

On April 9, 2015, Michael Calabrese of New America's Open Technology Institute (OTI) met with Travis Litman, legal advisor to Commissioner Jessica Rosenworcel, concerning the above-referenced proceeding. Representatives of Microsoft and of the National Cable & Telecommunications Association also attended this meeting.

The OTI representative expressed strong support for the Commission's proposal to create a Citizens' Broadband Radio Service (CBRS) at 3.5 GHz. OTI believes the Commission has done an admirable job in striking a reasonable balance between competing interests, implementing in a practical manner the three-tier dynamic spectrum sharing framework outlined by the President's Council of Advisors on Science and Technology (PCAST) less than three years ago.

Calabrese described OTI's concern about reports that companies, including Qualcomm and Verizon, are testing pre-certification versions of LTE-U technology that could be used by licensed services to dominate GAA in an anti-competitive manner. OTI suggested there is a strong need for preemptive "rules of the road" concerning the shared nature of the GAA bands in order to avoid another Section 333 Wi-Fi blocking controversy down the road. Mobile carriers will have both the ability and strong incentives to aggregate GAA spectrum as a free adjunct to their licensed networks, initially as one-way Supplemental Down Link channels, both lowering their costs for licensed spectrum while for the first time being able to charge consumers for the use of unlicensed spectrum.

OTI and Public Knowledge have raised particular concerns with regard efforts to place the control channel for LTE use of unlicensed spectrum – including, potentially, the General Authorized Access portion of the 3.5 GHz band – in a licensed frequency, giving carriers an advantage over unlicensed

users.[1] Calabrese emphasized that it is contrary to the Commission's goals in adopting a three-tier band – and to the PCAST's admonition that dynamic spectrum sharing should include opportunistic access by a diversity of providers and the public – if the Commission in this Order essentially permits an expensive carrier license to be the gateway to preferred use and even dominance of the GAA spectrum.

Moreover, based on our understanding, individual carriers will have the option to configure their LTE-U equipment to dominate GAA bands. Even if LTE-U technology can in theory share GAA (or other unlicensed bands) with 802.11 Wi-Fi technologies, carriers will have the option to introduce just enough latency to frustrate consumer use of real-time applications, such as FaceTime video calling. Carriers would have powerful incentives to use LTE-U to deter mobile market entry by "Wi-Fi First" providers, such as wireline ISPs, a development that would also undermine intensive use of this breakthrough small cell band and harm a far wider range of small cell users, including community networks as well as individual business and household users.

Calabrese stated that merely requiring equipment to have the "capability" of operating in a two-way mode on the band does not go far enough. He suggested that the Commission consider requiring that at least on the open and shared GAA portions of the band, operators and devices should be required to operate across the 3.5 GHz band ***on a standalone basis and without being dependent on a control channel anchored in licensed spectrum outside the band***. Otherwise, the Commission would be making the purchase of an expensive cellular license the price of favored use of what should be the public and fairly-shared GAA portion of the band.

OTI has no objections to the use of LTE or any other technology on GAA or other unlicensed bands, provided that a general standard of coexistence ensures these bands remain part of the public commons equally open and useful to everyone. If mobile carriers want to control spectrum and aggregate it into licensed networks, they should go to auction and use licensed spectrum. Requiring that GAA spectrum is shared fairly and not controlled from outside the band could be a technologically neutral requirement, leaving industry and individual companies the ability to decide exactly how to implement coexistence.

Calabrese suggested that at a very minimum, the Commission should use the Further Notice it will release with this Order to seek further comment – as well as technical data – on appropriate and neutral coexistence rules that will ensure GAA spectrum serves its intended purpose as opportunistic, open and fairly shared public spectrum.

Respectfully submitted,

/s/ *Michael Calabrese*
Director, Wireless Future Project
Open Technology Institute
1899 L Street, NW - 4th Floor
Washington, DC 20036

cc: Travis Litman
Priscilla Delgado Algeris

[1] *See, e.g., Ex Parte* Letter of Michael Calabrese and Harold Feld to Marlene H. Dortch, Federal Communications Commission, GN Docket No. 12-354 (March 16, 2015).