



April 29, 2016

Via Electronic Filing

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

Re: Notice of Ex Parte Communication: Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37; Amendment of Part 74 of the Commission's Rules for Low Power Auxiliary Stations in the Repurposed 600 MHz Band and 600 MHz Duplex Gap; ET Docket No. 14-165; Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268

Dear Ms. Dortch:

On April 28, 2016, Alan Norman, Andy Lee, and I spoke with Geraldine Matisse, Matthew Hussey, Paul Murray, and Hugh Van Tuyl of the Office of Engineering and Technology regarding pending petitions for reconsideration of the Commission's "push notification" requirement for unlicensed devices operating in television white spaces (TVWS).

Consistent with Google's pending petition for reconsideration filed on December 23, 2015, and the supporting reply filed on March 10, 2016, we explained that the Commission's current database "push notification" rule is unworkable, and requiring fast polling on all white space channels would be equally unreasonable. Either approach would have to be implemented by directing devices to query a database no less often than the Commission-specified interval. Requests to databases, however, require devices to power on their radios when they are not otherwise in use. While a small amount of additional traffic might not drastically affect battery life when the device is already transmitting data, requiring a device to activate its radio frequently, when it otherwise could remain in a low-power mode, would have a significant adverse effect.

The Commission should instead identify two channels as "fast-polling" channels. The simplest manner of establishing this rule would be to require fast polling on the two lowest available UHF channels in a given location. The rule should require the TVWS devices operating on those channels to contact the database every 20 minutes while

retaining the proven daily re-check requirement for all other channels.

This proposal would not require the Commission to identify specific channels in particular markets. Rather, it could be implemented with a general rule by which TVWS and wireless microphone operators can identify these channels for themselves. If the Commission requires fast polling on the two lowest UHF channels in any given place at any given time, then databases and devices could be programmed to identify those channels (subject, of course, to a reasonable phase-in period for compliant TVWS hardware). This algorithm-based approach is how the two current reserved channels (the first available channels above and below Channel 37) are chosen today.

The Commission historically has made two clear channels available on short notice to wireless microphones—the two channels reserved full-time for wireless microphones. Thus, Google's proposal would leave wireless microphone operators no worse off than before, which is a very favorable outcome for them in an era of increasingly intensive use of lower-frequency spectrum. And licensed wireless microphone users additionally will have access to a dedicated 4 MHz channel in the duplex gap, as well as the ability to reserve additional channels in advance of predictable events like games and concerts.

This notice is being filed in the above-referenced dockets for inclusion in the public record. Please contact me should you have any questions.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Austin C. Schlick".

Austin C. Schlick
Director, Communications Law
Google Inc.

cc: *Via electronic mail*
Meeting participants