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REDACTED FOR PUBLIC INSPECTION

October 25, 2017

Via Hand Delivery

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

Re: Proposal of Google for Certification as an ESC Operator; Request for Supplemental Information (GN Docket 15-319)

Dear Ms. Dortch:

Attached please find an original and eight copies of Google's response to the Commission's Request for Supplemental Information dated October 3, 2017, regarding Google's proposal seeking certification to operate as an Environmental Sensing Capability (ESC) operator in the 3550-3700 MHz Band (3.5 GHz Band).

Google requests confidential treatment of its responses in order to protect its evolving business and technology strategies. The information Google seeks to keep confidential includes ESC control, sensing, and communications information; disclosure of such sensitive information could result in substantial competitive harm to Google. Consistent with 47 C.F.R. § 0.459, Google requests notification if release of confidential information is requested pursuant to the Freedom of Information Act or otherwise.

Should you have any questions regarding this matter, please contact the undersigned.

Respectfully submitted,

Stephanie Selmer
Corporate Counsel

cc: Robert Pavlak
Paul Powell
Becky Schwartz



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October 25, 2017

Neşe Guendelsberger
Senior Deputy Bureau Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 Twelfth Street SW
Washington, DC 20554

Re: Proposal of Google for Certification as an ESC Operator; Request for Supplemental Information (GN Docket 15-319)

Dear Mr. Guendelsberger:

This letter responds to your Request for Supplemental Information of October 3, 2017, regarding Google's proposal seeking certification to operate as an Environmental Sensing Capability (ESC) operator in the 3550-3700 MHz Band (3.5 GHz Band).¹ Below, please find Google's response to the questions posed by the Commission:

- 1. How will the ESC process sensor data? Please include information on sensor technology, frequency range, instantaneous bandwidth, technical description of the sensor, detection decision process, receiver sensitivity, received signal threshold, detection probability, and receiver resiliency to front-end saturations and burn-out. Please include a description of how the ESC will account for the impacts of nearby CBSDs on the system noise floor.**

[REDACTED]

- 2. What approach will the ESC employ (e.g. hardware upgrades, firmware updates) to detect new federal radar waveforms that may be deployed in the future? Please include the likely timeframe for implementation of these approaches.**

[REDACTED]

¹ Application of Google Inc. for Certification to Provide Spectrum Access System and Environmental Sensing Capability Services in GN Docket No. 15-319 (filed May 16, 2016).

3. How will the ESC determine and communicate the points or areas to be protected once radar operation is detected by the sensors? Please indicate if and how the solution aligns with any operational security requirements communicated by NTIA or DoD.

[REDACTED]. Each DPA is monitored and activated in accordance with requirement R2-ESC-10 of the Wireless Innovation Forum's CBRS Operational and Functional Requirements.²

The communications security described here satisfies the requirements of 47 C.F.R. §§ 96.61 and 96.67.

* * * * *

Please contact me should you have any questions about these responses to your inquiry.

Respectfully submitted,



Stephanie Selmer
Corporate Counsel

cc: Robert Pavlak
Paul Powell
Becky Schwartz

² Wireless Innovation Forum, *Requirements for Commercial Operation in the U.S. 3550-3700 MHz Citizens Broadband Radio Service Band; Working Document WINNF-TS-0112 Version V1.3.0*, at 61 (Sept. 2017), <https://workspace.winnforum.org/higherlogic/ws/public/download/4743/WINNF-TS-0112-V1.3.0%20CBRS%20Operational%20and%20Functional%20Requirements.pdf>.