

Date: November 3, 2014

Subject: Public and Redacted Version of Request for Confidential Treatment and Complementary Exhibits

FCC File Number: 0970-EX-ST-2014

To Whom It May Concern:

Google Inc. ("Google"), pursuant to 5 U.S.C. § 552 and Sections 0.457 and 0.459 of the Commission's Rules, 47 C.F.R. §§ 0.457, 0.459, hereby requests that certain information complementary to its above-referenced application for Special Temporary Authority ("STA Application") be treated as confidential and not subject to public inspection. The designated information constitutes confidential and proprietary information that, if subject to public disclosure, would cause significant commercial, economic, and competitive harm. As described below, Google's request satisfies the standards for grant of such requests set forth in Sections 0.457 and 0.459 of the Commission's Rules.

In accordance with Section 0.459(b) and in support of this request, Google provides the following information:

**1. Identification of the Information for Which Confidential Treatment is Sought:**

Google's request for confidential treatment is limited to the following information that has been redacted from the STA Application and complementary exhibits. Google does not seek to withhold from public inspection information necessary for interference mitigation, including applicant name, contact information, test location, frequency, output power, effective radiated power, emission characteristics and modulation.

**Exhibit A - STA Application Justification:**

Google requests confidential treatment of the following underlined text from Exhibit A that contains confidential and proprietary information regarding the proposed tests/experiments:

Google Inc. ("Google"), pursuant to Section 5.61 of the Federal Communications Commission's ("FCC's" or "Commission's") Rules, 47 C.F.R. § 5.61, hereby requests Special Temporary Authority ("STA") to conduct demonstrations of an experimental transmitter. The STA is sought for a period of 180 days beginning on December 3, 2014. Consistent with the standards set forth in Rule 5.61, Google outlines below its need for the requested STA and the reasons that the STA should be granted expeditiously.

[REDACTED].

Testing under this STA will be limited to [REDACTED]. The equipment will transmit at frequencies between 5725 MHz and 5825 MHz. [REDACTED]. The equipment will be used with [REDACTED], which has a maximum gain of 30 dBi. Beamwidth will be at most 4.9 degrees horizontal and 4.8 degrees vertical.

Grant of this STA will not adversely impact any authorized user of RF spectrum for the reasons stated below. Google's equipment will follow the FCC's rules for unlicensed operation in the 5.8 GHz band<sup>1</sup> in all aspects but one: the equivalent isotropically radiated power ("EIRP") of the radio will exceed that permitted by the rules.<sup>2</sup> There is no likelihood of interference to other operations in the band, however, because (1) the FCC-certified radio will use spread spectrum methods and (2) [REDACTED]. [REDACTED]. The strength of Google's signal will be only -33 dBm once it has traveled 200 meters in free space. This power level is well below the maximum power level specified for unlicensed devices in this band under the FCC's rules.<sup>3</sup>

The proposed experimental operations in the 5.8 GHz band accordingly will be conducted without harmful interference to other authorized users. For these reasons, Google requests approval of this application.

**Exhibit B - Technical Information:**

Google requests confidential treatment of the following underlined text from Exhibit B that contains confidential and proprietary information regarding the proposed tests/experiments:

Applicant Name: Google Inc.  
Applicant FRN: 0016069502

**Legal Contact Details**

Name of Contact:	Aparna Sridhar
Contact Details:	Counsel 25 Massachusetts Avenue NW, Ninth Floor Washington DC 20001

<sup>1</sup> See 47 C.F.R., Part 15.

<sup>2</sup> See 47 C.F.R. § 15.247.

<sup>3</sup> See *id.* § 15.247(e).

**Technical Contact Details**

Name of Contact:	Charles Hall
Contact Details:	1600 Amphitheatre Parkway Mountain View, CA 94043 Phone: 856-553-5056 Email: charleshall@google.com

**Transmitter Equipment and Station Details**

<b>Equipment Manuf / PN:</b>	[REDACTED]
<b>Number:</b>	[REDACTED]
<b>Area of Operation</b>	Operation will be confined to the area delimited by a 26.19 km radius around: <ul style="list-style-type: none"> <li>• 35:4:21 N 105:57:53 W</li> </ul>

<b>Frequency Range / Tolerance</b>	<b>Low</b>	<b>High</b>
[REDACTED]	5725 MHz	5825 MHz

Radio	Modulation	Emission Designator	Bandwidth	Power Out	EIRP
[REDACTED]	Digital	5M00GXW	5 MHz	1 W	30 dBW
[REDACTED]	Digital	10M0GXW	10 MHz	1 W	30 dBW
[REDACTED]	Digital	20M0GXW	20 MHz	1 W	30 dBW
[REDACTED]	Digital	40M0GXW	40 MHz	1 W	30 dBW

<b>Antenna Details</b>	
<b>Type</b>	[REDACTED]
<b>Quantity</b>	[REDACTED]
<b>Gain</b>	30 dBi
<b>Beam Width at Half-Power Point</b>	4.8 degrees vertical; 4.9 degrees horizontal
<b>Orientation in Horizontal Plane</b>	0-360 degrees
<b>Orientation in Vertical Plane</b>	5-90 degrees above the ground plane

**2. Identification of the Commission proceeding in which the information was submitted or a description of the circumstances giving rise to the submission.**

The above-referenced Exhibits were submitted to the Commission in support of the STA Application. These Exhibits were filed with the Office of Engineering and Technology on November 3, 2014. For additional information, please see File No. 0970-EX-ST-2014.

**3. Explanation of the degree to which the information is commercial or financial or contains a trade secret or is privileged.**

The information requested to be kept confidential has significant commercial value. The details of the STA Application tests/experiments may include trade secret information. The Commission has clarified that confidential treatment should be afforded to trade secrets.<sup>4</sup> Google's tests/experiments and proprietary wireless applications using particular radio frequency equipment represent a "secret commercially valuable plan" within the meaning of a trade secret as recognized by the Commission.

In addition, agreements entered into between Google and the parties that provided radio equipment for testing or will provide analysis of test results require that confidential information of the parties be held in strict confidence, and that such information not be disclosed to any third party (with limited exceptions not applicable to this request). The manufacturer name and model number constitute confidential trade secrets, technical information, and business information under the agreements.

**4. Explanation of the degree to which the information concerns a service that is competitive.**

The services and technologies that are the subject of this STA Application have not yet been fully developed but are expected to lead to material developments in markets subject to competition from multiple U.S. and non-U.S. third parties.

**5. Explanation of how disclosure of the information could result in substantial competitive harm.**

The technology under development is highly sensitive and confidential in nature. The release of such information would provide valuable insight into Google's technology

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<sup>4</sup> *Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, Report and Order, GC Docket No. 96-55, at para. 3, (released Aug. 4, 1998) (defining "trade secrets" for purpose of Commission rules on confidential treatment).

innovations and potential business plans and strategies. Public disclosure would jeopardize the value of the technology under examination by enabling others to utilize Google's information to develop similar products in a similar time frame.

**6. Identification of any measures taken by the requesting party to prevent unauthorized disclosure.**

Google has taken steps to keep confidential the information set forth in the confidential exhibits by limiting the number of people involved in the tests/experiments to only those on a "need to know" basis, and by requiring that all third parties involved in the preliminary analysis execute robust nondisclosure agreements.

**7. Identification of whether the information is available to the public and the extent of any previous disclosures of the information to any third parties.**

The information contained in the confidential exhibits is not available to the public, and has only been disclosed to third parties pursuant to the restrictive safeguards described above.

Google voluntarily provides the information to the Commission at this time with the expectation that it will be treated confidentially in accordance with the Commission's rules. *See Critical Mass Energy Project v. Nuclear Regulatory Comm'n*, 975 F.2d 871, 879 (D.C. Cir. 1992) (commercial information provided on a voluntary basis "is 'confidential' for the purpose of Freedom of Information Act (FOIA) Exemption 4 if it is of a kind that would customarily not be released to the public by the person from whom it was obtained.")

**8. Justification of the requested period of confidentiality.**

Google expects that confidential treatment will be necessary for the length of the proposed experiment and thereafter in order to protect its evolving business and technology strategies.

**9. Any other information that would be useful in assessing whether this request should be submitted.**

The information subject to this request for confidentiality should not be made available for public disclosure at any time. There is nothing material that public review of this information would add to the Commission's analysis of Google's request for an experimental authorization.

Moreover, public disclosure of the sensitive information in the confidential exhibits to the STA Application after the Commission has ruled on the Request for Confidentiality is not necessary for the Commission to fulfill its regulatory responsibilities.

Consistent with 47 C.F.R. § 0.459(d)(1), Google requests notification if release of the information subject to this request is requested pursuant to the FOIA or otherwise, so that Google may have an opportunity to oppose grant of any such request.

Sincerely yours,



Aparna Sridhar

**EXHIBIT A – SPECIAL TEMPORARY AUTHORITY JUSTIFICATION**

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<sup>2</sup> See 47 C.F.R. § 15.247.

<sup>3</sup> See *id.* § 15.247(e).

**EXHIBIT B - TECHNICAL INFORMATION**

Applicant Name: Google Inc.  
Applicant FRN: 0016069502

**Legal Contact Details**

Name of Contact:	Aparna Sridhar
Contact Details:	Counsel 25 Massachusetts Avenue NW, Ninth Floor Washington DC 20001

**Technical Contact Details**

Name of Contact:	Charles Hall
Contact Details:	1600 Amphitheatre Parkway Mountain View, CA 94043 Phone: 856-553-5056 Email: charleshall@google.com

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