Google Inc.
1001 Pennsylvania Ave. NW
Suite 600 South
Washington, DC 20004

Main 202 742-6520
Fax 650 618-1806
www.google.com

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Ex Parte via Electronic Filing

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
TW-A325
Washington, D.C. 20554

Re: Ex Parte Filing; Service Rules for the 690-746, 747-762, and 777-792 MHz Bands (WC Docket No. 06-150; WC Docket No. 06-129; PS Docket No. 06-229; WT Docket No. 96-86)

Dear Ms. Dortch:

Google Inc. ("Google"), by its attorney, respectfully submits this ex parte letter in the above-referenced dockets, and requests that it be made part of the public record for those proceedings. This letter explains that independent wireless platforms offer the most promising -- if not tenuous -- opportunity to meet the Commission's primary policy objective of furthering broadband deployment and competition. However, to facilitate new market entry, the FCC must include open platforms as part of the applicable licensing requirements for paired commercial blocks in the Upper 700 MHz Band. In particular, as a means of stimulating both "first order" and "second order" broadband competition, the Commission should extend to all CMRS-type[1] spectrum licensees the obligation to provide (1) open applications, (2) open devices, (3) open services, and (4) open access.

A. Independent Wireless Platforms Offer the Most Promising – And Problematic – Opportunity for Broadband Deployment and Competition

The Commission long has held the view that one of its most critical public policy goals is to enhance the opportunities for broadband deployment and competition.[2] To

[1] Throughout this letter, we distinguish between CMRS-type services (two-way communications services such as mobile voice and wireless Internet), and one-way services such as broadcast audio and video.

[2] *See, e.g.,* Statement of Chairman Kevin J. Martin, *In the Matter of Development of Nationwide Broadband Data*, *et al,* WC Docket No. 07-38, *et al*, Notice of Proposed Rulemaking, FCC 07-17, released April 16, 2007, at 49 (Promoting broadband deployment and penetration is one of his highest priorities); Prepared Testimony of Kevin J. Martin, Chairman, FCC, U.S. Senate Committee on Commerce, Science and Transportation, Subcommittee on Telecommunications and the Internet, Hearing on Oversight of the Federal Communications Commission, March 14, 2007, at 3 (Broadband deployment and penetration is a critical link to economic growth).

that end, the 700 MHz auction may well be the FCC's most important wireless-related action for many years, because it could lead to the introduction of new facilities-based providers of broadband services, wielding new business models. Chairman Martin has articulated the critical issues at stake in this proceeding:

> The most important step we can take to provide affordable broadband to all Americans is to facilitate the deployment of a third "pipe" into the home. We need a real third broadband competitor….The upcoming auction presents the single most important opportunity for us to achieve this goal. Depending on how we structure the upcoming auction, we will either enable the emergence of a third broadband pipe – one that would be available to rural as well as urban American – or we will miss our biggest opportunity. Such a status quo outcome certainly would not sit well with consumer groups that have been strongly urging us to adopt rules that facilitate the ability of a "third pipe" to develop.[3]

Further, Chairman Martin has observed that Google and other members of the Coalition for 4G in America are "the only parties that have promised to try to provide a national, wireless broadband alternative."[4]

As Chairman Martin recognizes, the actual method of providing a broadband alternative is through a "real third broadband competitor." This means that the would-be new entrants should not be aligned with either an incumbent wireline carrier or incumbent wireless carrier. Those carriers, quite rationally, seek to extend and protect their legacy business models, and in particular not take any actions that would jeopardize existing and future revenue streams. For this reason, the appropriate public policy stance is not simply to facilitate an additional spectrum-based broadband platform, but rather to facilitate <u>independent</u> broadband platforms.[5]

In its comments in this proceeding, Google explained its overall support for auction rules and spectrum band plans that will enhance the opportunity for new broadband entrants to bid effectively and successfully in the upcoming 700 MHz auction. To that end, Google remains keenly interested in participating in the auction. Whether we ultimately bid, and do so successfully, we are also considering various post-auction business arrangements, such as joint partnerships and anchor tenancy. At the same time, it has become clear that good regulatory intentions alone will not be enough. As Google has observed previously, a wireless platform based on available 700 MHz spectrum alone may not be sufficient to create a robust broadband platform equipped to compete head-on with the entrenched broadband incumbents and their next-generation wireline networks.[6] Furthermore, we explained that:

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[3] Statement of Chairman Kevin Martin, *In the Matter of Service Rules for the 698-746, 747-762, and 777-792 MHz Bands, et al,* WT Docket No. 06-150 *et al*, <u>Report and Order and Further Notice of Proposed Rulemaking</u>, FCC 07-72, released April 27, 2007.

[4] *Id*.

[5] Comments of Google Inc., WC Docket No. 07-52, filed June 15, 2007, at 13-14.

[6] Comments of Google Inc., WT Docket No. 06-150, *et al*., filed May 23, 2007, at 4-6 ("Google Initial Comments").

> From a would-be new entrant's perspective, the considerable risks, delays, and expense should not be underestimated. First and foremost, any winning bidder in the auction eventually will be compelled to take on the high-capacity fiber networks of 2011 and beyond, not the lower-capacity copper and coax networks of 2007. Whether any single entity bidding in the upcoming auction can assemble the amount of spectrum necessary to meet the bandwidth needs of a robust broadband platform is still unknown. In addition, a nationwide footprint is essential for any new entrant to attempt to become a national player, with customers in all areas of the country. Aside from the considerable investment required for the auction itself, a successful bidder must actually construct and operate physical networks. Those costs are especially high for new entrants lacking existing towers and rights of way, not to mention traffic backhaul facilities.[7]

Thus, we urged the Commission not to rely on a status quo approach to the upcoming auction. Rather, the agency must do what is necessary to bring about robust forms of multimodal broadband competition.

B. Further Analysis Suggests That in Most Scenarios Incumbents Will Outbid Would-Be New Entrants for Large Spectrum Blocks

In its initial comments, Google expressed strong support for key components of the Frontline proposal. In particular, we continue to agree that the Commission should adopt a separate spectrum block premised on having a nationwide licensee engage in a partnership with the public safety community to build and operate a nationwide public safety network. In addition, Frontline's proposed wholesale/open access license requirement, applied to some portion of the available commercial spectrum, would ensure that at least some service providers would operate in an open manner.[8]

As a member of the Coalition for 4G in America, Google also has endorsed the creation of a 22 MHz Block of paired spectrum in the Upper 700 MHz band, provided on a REAG basis. Our abiding rationale for supporting this band plan has been the sincere belief that it provides the optimal way to facilitate new market entry.[9] Newly-available information now suggests that a 22 MHz REAG Block, by itself, likely will not be sufficient to achieve that objective.

Since filing its comments some six weeks ago, Google has undertaken further internal analyses, including meeting with auction experts and conducting extensive game theory scenarios, to determine whether and how it makes sense to participate – and do so successfully – in the upcoming auction. Our analysis has confirmed the view that incumbent wireless carriers are likely to prevail in a spectrum auction when they compete

[7] Google Initial Comments at 5-6.
[8] Google Initial Comments at 8.
[9] Google Initial Comments at 7.

head-on with a potential new entrant like Google. This especially appears to be the case when incumbents and would-be new entrants are bidding for large, unencumbered blocks of spectrum, such as the 22 MHz REAG Block proposed by the Coalition for 4G in America.

Simply put, large incumbents have significant built-in advantages that are very difficult to overcome. While some argue that Google could simply choose to outbid any single entity in the auction, the notion of "deep pockets" alone is not the correct measure in this particular instance. Instead, the decisive factors include other significant economic and operational barriers to entry, and the relative value and usefulness of spectrum to the bidders. In particular, Verizon and AT&T are well-established, vertically-integrated incumbent providers of wireless and wireline services. By contrast, Google is a Web-based software applications company, not a service provider, with little pertinent experience in the wireless market and no legacy business models to protect. The incumbent carriers have an embedded national network of towers, backhaul, customers, retail outlets, and advertising. The incumbents also have far more ready cash flow at hand, and the willingness to spend it in furtherance of existing business plans. Consequently, the spectrum simply has more economic value and overall usefulness to incumbents like Verizon or AT&T, than to a would-be new entrant like Google.

C. The Only Way to Guarantee New Broadband Platforms Is Through Open Platforms

In determining the appropriate auction rules and band plans for the upcoming auction, the Commission should not ignore or downplay the inherent advantages of incumbency, including the rational determination to protect a legacy business model and foreclose potential competitors. Nor should the FCC simply rely on the mere possibility that intermodal competition will develop as a result of providing commercial spectrum for auction. Instead, the Commission should take concrete steps to ensure that the 700 MHz band plans and service rules will maximize consumer welfare by bringing in new forms of broadband competition. In Google's view, this objective still can be met in conjunction with adopting a 22 MHZ REAG Block in the Upper 700 MHz Band.

In particular, the Commission's service rules should facilitate the emergence of two types of competition. So-called "first order" (or network layer) competition would be provided by facilities-based market entrants, while "second order" (or applications and content layers) competition would be derived from numerous Web-based entities that subsequently utilize a licensee's spectrum in novel ways. Both forms of competition can be enabled through the very same mechanism: tailored requirements that a meaningful amount of available commercial spectrum be licensed for "open" broadband platforms. In an environment that fosters open platforms, new facilities-based entrants will be enticed to bid, and do so successfully. New entrants have no legacy business models to promote or protect, and typically are more willing to embrace wholesale arrangements and partnerships. Access to open platforms also allows multi-layer activities from myriad entities, such as software applications providers, content providers, device makers, Web-based entities, simple resellers, and mobile virtual network operators

(MVNOs). Together, these two forms of competition will maximize consumer choice, disseminate innovative offerings, and spur broadband deployment and uptake in every corner of the nation.

Conversely, without the introduction of open broadband platforms, Google's auction analysis strongly suggests that incumbents almost invariably will succeed in procuring the larger commercial spectrum blocks. As rational economic actors, those incumbents then will proceed in a manner that precludes alternative business models and arrangements. Thus, both first order and second order competition will be thwarted under auction rules that do not include various forms of open platforms.

D. The Commission Must Adopt Tailored Open Platform Service Requirements for All Commercial CMRS-Type Spectrum In The Upper 700 MHz Bands

Open platforms in the communications environment actually can take several different forms, each introducing varying degrees of "openness" into the larger system based on where and how the platform is placed within the modular layers of the network. For purposes of simplification, we will use the following terminology to discuss the four types of platforms that should be mandated for commercial spectrum (and in particular a 22 MHz REAG Block) in this proceeding: open applications, open devices, open services, and open networks. Each of these platforms will attract new entrants, such as Google, which embrace the ethos of openness, flexibility, innovation, and user choice. These platforms also will become readily available for numerous other entities to utilize to provide their own novel offerings. [10]

Because the current spectrum licensing system strongly favors the incumbents and their relatively narrow business models, the FCC has a truly unique opportunity to both facilitate "first order" competition from new entrants that welcome openness, and fully enable "second order" competition from innovative business models. However, in order for Google at least to seriously consider entering this space, more is needed than simple statements of principle. The Commission must adopt sufficiently detailed service rules governing open platforms in order to attract new entrants and level the proverbial playing field. These rules must spell out separate mandates for open applications, open devices, open services, and open networks.

1. Open applications

The first type of open platform gives end users the ability to download and utilize software applications, applications, and services. This "open applications" component also can be stated in the negative: the wireless service provider shall not block or

[10] A separate but related concept is the real-time dynamic auction proposal Google recently submitted to the record. Letter from Richard S. Whitt, Esq., Google Inc., to Marlene H. Dortch, Secretary, FCC, filed on May 21, 2007 ("Google Ex Parte Letter"). At its heart, the proposal seeks sufficient flexibility for licensees to adopt innovative new pricing models, which comports with the overall desire to facilitate more innovative and efficient uses of spectrum. Google separately endorses allowing licensed or unlicensed secondary uses for otherwise unused spectrum.

otherwise inhibit the ability of end users to download and utilize applications. The FCC's Carterphone principles serve as the genesis for this "no blocking" mandate, which Skype recently brought to bear in its FCC petition.[11] Further, the Commission's own broadband connectivity principles include a prohibition on blocking the ability of consumers to utilize lawful applications of their choosing.[12]

As Skype has made clear, there is a growing list of discriminatory and anticompetitive practices occurring in the wireless world, whereby users are denied the opportunity to use desired applications.[13] Google has asked the Commission to carefully monitor this troubling situation with regard to existing licensees, and take action when it becomes apparent that market forces alone are not sufficient to protect the interests of end users.[14] With regard to the 700 MHz auction, however, the Commission has a unique opportunity now to inject much-needed "first degree" and "second degree" competition into the wireless market. Among other deleterious effects, these carrier practices are stifling innovation in the domestic wireless space, by robbing entrepreneurs of incentives to build creative new applications and content.

Including as a license condition an outright prohibition on blocking applications would help prevent such harmful practices. Thus, Google proposes that ***all commercial licensees seeking to provide a CMRS-type commercial service using 700 MHz spectrum must not block, impair, impede, or otherwise unreasonably limit the ability of end users to download and utilize software applications.***

2. Open devices

A second type of open platform is the ability of end users to utilize a handheld communications device with whatever wireless network is desired. This "open devices" component also can be stated in the negative: the wireless service provider shall not lock individual handsets to specific wireless networks. Again, the bedrock Carterphone principles underpin this mandate, with support from the FCC's broadband connectivity principles.[15] The Commission is dealing with a parallel issue as well in the cable set-top box context.[16]

Consumers deserve the ability to select and use devices free from undue network restrictions. An open devices environment improves consumer choice -- and facilitates full competition -- by allowing users then to utilize the device of their choosing, on the network of their choosing. New entrants also are encouraged in the handheld devices

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[11] Skype Petition to Confirm a Consumer's Right to Use Internet Communications Software and Attach Devices To Wireless Networks, RM-11361, filed February 20, 2007 ("Skype Petition").
[12] *In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, et al*, CC Docket No. 02-33, FCC 05-151, Policy Statement, released Sept. 23, 2005.
[13] Skype Petition at 13-29.
[14] Comments of VON Coalition, RM-11361, filed April 30, 2007.
[15] *In the Matter of Use of the Carterphone Devices in Message Toll Telephone Service*, 13 F.C.C. 2d 420 (1968).
[16] *See, e.g.*, Letter from Open Internet Coalition to the FCC Requesting Opening the Market for Set-Top Boxes, CS Docket No. 98-120, dated June 13, 2007.

market. Consumers would face far less "lock-in" to a particular network, and concomitantly reduced switching costs. Regardless of the specific auction outcomes, reduced lock-in and switching costs would benefit competition and consumer welfare. If the Commission is interested in stimulating competition and innovation in the broadband arena, the auction service rules should stimulate these important elements.

As with open applications, the Commission should include as a license condition a prohibition on automatically locking handsets to networks. Thus, Google proposes that ***all commercial licensees seeking to provide a CMRS-type commercial service using 700 MHz spectrum must allow end users to utilize lawful handsets in conjunction with their CMRS service.***

3. Open services

In addition to no "blocking" of applications and no "locking" of devices, a third type of open platform ensures that a third party service provider is able to acquire wireless service on a wholesale basis, at commercially reasonable rates, terms and conditions. The closest analogue here is to Section 251(c)(2) of the Communications Act, which imposes the duty "not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications service."

Simple resale traditionally has acted as the most efficient way for many entities to enter a particular communications market. For example, MCI never would have succeeded in building a facilities-based long distance competitor, were it unable to acquire service through the resale of AT&T's retail services. In the wireless market, resale serves a similar role, by giving smaller entities the opportunity to create viable businesses from reselling the services of a wireless carrier. This becomes all the more critical where only the largest wireless incumbents have assembled a true nationwide footprint. For a new entrant looking to extend its geographic reach – and for those looking to develop compelling applications, content, and devices to ride over those networks – a reasonable resale requirement is a must.[17]

As a result, the FCC should include an "open services" requirement as another platform for competition and innovation. Google proposes that ***all commercial licensees seeking to provide a CMRS-type commercial service using 700 MHz spectrum must provide wholesale service to requesting resellers, based on reasonably nondiscriminatory commercial terms and conditions.***

4. Open networks

A final type of open platform can be termed "open networks." This platform serves as the wireless analogue to the Commission's longstanding Computer Inquiry

[17] Roaming plays a similar role between two facilities-based carrier. Google urges the Commission to complete expeditiously its pending proceeding looking at concrete ways to reform roaming practices in the wireless industry. *In the Matter of Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers,* WT Docket No. 05-265, DA 05-3183, Order, released Dec. 14, 2005.

"open access" requirement, whereby local exchange carriers (LECs) must allow Internet service providers (ISPs) to interconnect with last-mile networks in order to provide an information service. The key distinction here is that facilities-based ISPs would be required to interconnect their own network facilities with the last-mile towers of the wireless providers. The ISPs then would purchase or lease discrete blocks of network capacity and provide a competing retail service.

The Public Interest Spectrum Coalition (PISC) has submitted a detailed engineering assessment of an "open access" broadband wireless network.[18] The PISC report demonstrates that open access is an operationally viable proposal. Open access facilitates facilities-based competition by allowing ISPs, CLECs, and others to build their networks to a wireless point of interconnection (POI). As a result, further first order competition is encouraged through an up-front license condition.

Thus, Google proposes that ***all commercial licensees seeking to provide a CMRS-type commercial service in the Upper 700 MHz spectrum must open their networks to interconnect with any third party, such as an ISP or CLEC, at any reasonable point in the wireless network.***

E. Open Platform Rules Must be Sufficiently Tailored and Enforceable

Google's auction analysis shows that adding the four open platform requirements to the terms of a spectrum license will permit new entrants a meaningful opportunity to participate in the auction, and actually win access to spectrum. The four open platforms collectively also will facilitate an explosion of innovative applications, content, services, and devices.

Should the Commission not adopt the four open platforms requirements listed above, we believe it is doubtful that even the most determined and committed new entrant will be able to outbid an equally determined and committed incumbent wireless carrier, or consequently pave the way for second order competition. Other possible measures, such as spectrum caps or new entrant bidding credits, may usefully limit incumbents or boost new entrants, respectively. However, a more market-friendly approach is to condition the licenses appropriately, and then let all comers bid as they see fit.

The requirements also should be sufficiently detailed to deter any attempts at circumvention. Again, if potential new entrants such as Google do not believe the service rules will adequately bind licensees, unfortunately the auction results likely will reflect the status quo once again. It would be most unfortunate for the Commission to appear to do the right thing in theory, but fail to carry through in reality.

[18] An Engineering Assessment of Select Technical Issues Raised in the 700 MHz Proceeding, Prepared for Free Press and Media Access Project, May 2007, *appended to* Letter from Harold Feld, Senior Vice President, Media Access Project, to Marlene Dortch, Secretary, FCC, dated June 19, 2007.

Finally, the Commission's rules should be readily enforced. Perhaps the optimal approach is to embed the four open platform mandates within the network build-out requirements, which in any event should be stringent enough to combat harmful warehousing practices by incumbents.[19] Non-compliance with these rules should be automatic grounds for loss of license. As Google mentioned in its comments, allowing unlicensed use of the spectrum in question also is a viable enforcement option.[20]

Should you have any questions, please do not hesitate to contact the undersigned.

Respectfully submitted,

Richard S. Whitt, Esq.
Washington Telecom and
Media Counsel
Google Inc.

[19] Google Initial Comments at 9.
[20] *Id*.