

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands)	WT Docket No. 06-150
)	
Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems)	CC Docket No. 94-102
)	
Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones)	WT Docket No. 01-309
)	
Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services)	WT Docket No. 03-264
)	
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules)	WT Docket No. 06-169
)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band)	PS Docket No. 06-229
)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010)	WT Docket No. 96-86

FURTHER COMMENTS OF VERIZON WIRELESS

Two weeks ago Google Inc. (“*Google*”) filed an ex parte that purports to detail “several important service rules proposals for which the Commission should seek immediate comment.”¹

¹ Letter from Richard S. Whitt, Esq., Washington Telecom and Media Counsel, Google Inc., to Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, dated May 21, 2007 (“*Google Ex Parte*”) at 1.

Verizon Wireless hereby responds to the Commission's request for comments on the Google *ex parte*.²

Although Google's *ex parte* is unclear in many respects, it seems to be asking for three things: first, for the Commission to confirm "[t]he existing rules governing the commercial bands of the 700 MHz spectrum appear already to allow licensees to employ these kinds of dynamic spectrum management techniques."³ Second, Google asks the Commission to take the radical and unprecedented step of mandating that some or all the 700 MHz spectrum be auctioned subject to a condition requiring the auction winners to permit unlicensed devices to use their spectrum and their proprietary networks. Third, Google asks the Commission to condition the use of the Lower 700 MHz E Block. Google's first request is unnecessary and superfluous to the issues under consideration in this proceeding. Google's second request should be rejected summarily under the Commission's prior rulings in the *Interference Temperature* and related proceedings. Google's third request should also be rejected in light of longstanding Commission policy to permit maximum licensee flexibility.

I. THE COMMISSION HAS ALREADY CONFIRMED THAT LICENSEES MAY ENTER DYNAMIC LEASING ARRANGEMENTS

Google's proposal that a licensee be permitted dynamic use of spectrum it has acquired at auction⁴ is unnecessary because the Commission has previously confirmed this right. Verizon Wireless supports the broadest flexibility within the law for auctioned licenses, thus allowing licensees maximum ability to respond to market conditions. Verizon Wireless previously has

² *Comment Sought On Google Proposals Regarding Service Rules For 700 MHz Band Spectrum*, Public Notice, DA 07-2197, WT Docket No. 06-150 (rel. May 24, 2007).

³ Google *Ex Parte* at 4.

⁴ Google *Ex Parte* at 4. ("Nonetheless, to eliminate any doubt, Google requests that the Commission declare that any successful bidder in the upcoming 700 MHz auction subsequently could institute such dynamic spectrum management practices.")

commented that “[t]he Commission should . . . give existing licensees the flexibility to reduce noise, lower the power of their own transmissions, collaborate with equipment vendors to develop new devices suitable for very-low-power operations, and engage in secondary-market transactions as appropriate to facilitate the shared use of licensed spectrum.”⁵ Furthermore, as early as 2003, Verizon Wireless requested clarification of a licensee’s ability to enter dynamic leases under the FCC’s then new secondary market rules.

The rules require, however, that the lessor and lessee define and report to the Commission both the geography and the frequencies that will be used. “Smart” or “opportunistic” technologies are agile and operate in geography or frequencies where spectrum is “unused” and by definition, “unused” mobile spectrum varies over time by location and frequency. To the extent a CMRS licensee wishes to lease its spectrum white spaces, it could not provide a static definition of the confines of a lease. In order to encourage this kind of arrangement between CMRS licensees and users of such devices, the Commission should consider revising its rules to permit more dynamic definitions of leased spectrum in some situations.⁶

In early 2004, citing Verizon Wireless’ request, the Commission clarified that its “spectrum leasing policies and rules permit parties to enter into a variety of dynamic forms of spectrum leasing arrangements that take advantage of the capabilities associated with advanced technologies. . . For example, one commenter specifically recommended that the Commission’s secondary markets policies and rules be expanded to accommodate “dynamic” spectrum leasing arrangements.”⁷ In the same Order, the Commission adopted rules permitting private commons,

⁵ See Comments of Verizon Wireless in Interference Temperature Docket, *Establishment of an Interference Temperature Metric to Quantify and Manage Interference and to Expand Available Unlicensed Operation in Certain Fixed, Mobile and Satellite Frequency Bands*, ET Docket 03-237 (“*Interference Temperature Docket*”) (filed Apr. 5, 2004)

⁶ See Comments of Verizon Wireless in *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, WT Docket 00-230 (filed Dec. 5, 2003) at 5.

⁷ *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, Second Report And Order, Order On Reconsideration, and Second Further Notice Of Proposed Rulemaking, WT Docket No. 00-230, 19 FCC Rcd. 17503 (2004) (“*Secondary Markets Second Report And Order*”), ¶ 88.

which seems to be what Google is proposing in its “per-device registration” example. “The private commons option provides a cooperative mechanism for licensees (or lessees) to make licensed spectrum available to users employing these advanced technologies in a manner similar to that by which unlicensed users gain access to spectrum to suit their particular needs, and to do so without the necessity of entering into individual spectrum leasing arrangements under our existing rules.”⁸

Google’s real-time auction proposal does not appear fundamentally different from the Commission’s secondary markets policies—which Verizon Wireless supports—and is strikingly similar to “bandwidth exchange” proposals that the Commission reviewed in the context of the secondary markets proceeding.⁹ Verizon Wireless does not oppose a licensee’s use of dynamic market mechanisms, but we do oppose Google’s misplaced requests for action in this 700 MHz docket.

II. THE COMMISSION SHOULD REJECT GOOGLE’S 11TH HOUR ATTEMPTS TO CONDITION 700 MHZ SPECTRUM.

To the extent Google seeks an order mandating secondary or involuntary unlicensed use of licensed spectrum, the Commission should reject such relief. Verizon Wireless has repeatedly made clear that such an approach would harm consumers and the economy.¹⁰ An involuntary per device registration proposal appears functionally similar to approaches to unlicensed use the

⁸ *Id.*, ¶ 92.

⁹ *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, Report and Order and Further Notice Of Proposed Rulemaking, WT Docket No. 00-230, 18 FCC Rcd. 20604 (2003), ¶219; Secondary Markets Second Report And Order, ¶¶112-115.

¹⁰ *See, e.g.*, Comments of Verizon Wireless in Interference Temperature Docket (indicating that involuntary use of licensed spectrum is not only technically unsound, but cannot be supported by economic analysis). Verizon Wireless requests that these comments, including the Declaration of Dr. Charles L. Jackson regarding Limits to the Interference Temperature Concept (“*Jackson Declaration*”) be incorporated in this record.

Commission considered and rejected in both the “interference temperature” and “cognitive radio” proceedings. Indeed, the Commission terminated the interference temperature rulemaking, noting that “[c]ommenting parties generally argued that the interference temperature approach is not a workable concept and would result in increased interference in the frequency bands where it would be used,”¹¹ less than three weeks before Google filed its *ex parte*. The record from these proceedings, including economic and engineering studies, made clear that not only is such a concept technically unworkable,¹² but that it is precisely this type of “command and control policy” that distorts innovation and investment.¹³ Google provides no evidence for the Commission to conclude that it should reopen these proceedings or revisit the economic and technical studies.

Google not only appears to propose that the Commission permit involuntary use of a licensee’s spectrum without its consent, but is also suggests that the Commission should consider whether “it would be in the public interest to mandate [the use of such techniques] for some, or

¹¹ *Establishment of an Interference Temperature Metric to Quantify and Manage Interference and to Expand Available Unlicensed Operation in Certain Fixed, Mobile and Satellite Frequency Bands*, Order, ET Docket No. 03-237, FCC 07-78 (rel. May 4, 2007) at 1.

¹² Jackson Declaration at 13-17; *see also* Reply Comments of V-Comm, L.L.C. in *Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies*, ET Docket No. 03-108 (filed June 1, 2004). V-Comm’s paper showed that the proposals in the Commission’s Cognitive Radio docket to permit involuntary sharing of licensed spectrum, which included much more detail than what Google provides here, were not well thought out, were not based upon detailed analysis or practical considerations, and did not consider the significant technical difficulties involved with such proposals. Verizon Wireless requests that the V-Comm Cognitive Radio Reply Comments be incorporated in this record.

¹³ *See* Report of Michael Katz, *Don’t Let Short-Term Reforms Interfere with Long-Term Policy Goals*, Attachment to Comments of CTIA in Interference Temperature Docket, at 6-9 (“Katz”) (government-imposed rules are not technologically neutral and will distort innovation and investment incentives); *see also* Comments of Thomas Hazlett and Matthew Spitzer in Interference Temperature Docket (filed Apr. 5, 2004) (“Hazlett and Spitzer”) (a regulatory transfer of spectrum access rights from licensed CMRS operators to unlicensed underlay rights would lead to a large decrease in social welfare). Verizon Wireless requests that Katz and Hazlett and Spitzer be incorporated in this record.

even all, of the commercial spectrum to be auctioned in the 700 MHz bands.”¹⁴ Just as Google provides no evidence that the Commission should reopen the Interference Temperature proceeding, it provides absolutely no evidence to buttress its claim that mandating such techniques in the 700 MHz band would be in the public interest. The conditions Google seeks threaten the entire model upon which the Commission has for the past decade auctioned spectrum and fostered the incredible growth of the U.S. wireless communications industry. Moreover, such conditions are completely unnecessary and contravene Google’s own claim that it is proposing policies to “maximize the efficient and innovative uses of radio spectrum, for the ultimate benefit of users.”¹⁵ As Verizon Wireless and others have shown in previous filings before the Commission,¹⁶ and as the Commission itself has repeatedly recognized,¹⁷ it is

¹⁴ Google *Ex Parte* at 4.

¹⁵ Google *Ex Parte* at 2.

¹⁶ See, e.g., Verizon Wireless Comments in Interference Temperature Docket (exclusive licensing with flexibility increases the value of spectrum, fosters the development of innovative equipment and services, provides certainty to the capital markets, and facilitates the creation of secondary markets – all to the benefit of U.S. consumers of wireless services); see gen. Hazlett and Spitzer (allowing flexible use of licensed spectrum controlled by numerous rivals provides an opportunity for social welfare maximization).

¹⁷ See, e.g., *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Eleventh Report, 21 FCC Rcd 10947, par. 60 (2006) (noting a trend towards greater licensee flexibility and that this increased flexibility has helped reduce entry barriers); *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, Report and Order, 17 FCC Rcd 1022, pars. 15, 19 (2002) (noting that a flexible use approach for licensing the lower 700 MHz Band is consistent with the Communications Act and serves the public interest); *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72, pars. 6, 10 (Apr. 27, 2007) (modifying the Commission's 700 MHz rules to provide licensees "greater operational flexibility" and noting that the Commission seeks "to establish rules and policies that provide licensees greater flexibility where possible"); *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Order on Reconsideration and Fifth Memorandum Opinion and Order and Third Memorandum Opinion and Order and Second Report and Order, 21 FCC Rcd 5606, par. 2 (2006) (adopting and modifying rules for the 2495-2690 MHz band that will "provide both incumbent licensees and

flexibility and lack of harmful restrictions on CMRS licensees that have led to significant innovation in the wireless marketplace, which in turn has resulted in massive increases in social value and consumer surplus.¹⁸

The Commission should also summarily dismiss Google's eleventh hour proposal to limit access to the Lower 700 MHz E Block.¹⁹ Google provides no rationale for the Commission to impose such limitations. Moreover, limitations on licenses, such as those Google proposes, impair licensee flexibility and would likely diminish, not enhance, innovation. Limiting use of the E block to interactive, two-way broadband internet-enabled applications would preclude exactly the kind of innovative one-way mobile television service that Qualcomm is currently offering in the adjacent D Block of the lower 700 MHz band. Restrictions on use cannot be reconciled with ensuring "a particular slice of spectrum ends up in the hands of the user who values it most at any particular time and place."²⁰

III. CONCLUSION

For the foregoing reasons, the Commission should reject Google's last minute effort to

potential new entrants in the 2495-2690 MHz band with greatly enhanced flexibility to encourage the efficient and effective use of spectrum domestically and internationally, and the growth and rapid deployment of innovative and efficient communications technologies and services").

¹⁸ Hazlett and Spitzer at 32-33; Katz at 3-5.

¹⁹ See *Google Ex Parte* at 4 ("Specifically, the E Block only should be (1) utilized for interactive, two-way broadband services, (2) connected to the public Internet, and (3) used to support innovative software-based applications, services, and devices.").

²⁰ *Google Ex Parte* at 4.

inject unfounded proposals into this proceeding. Instead, the Commission should act quickly on the service rules and move forward expeditiously with the 700 MHz auction.

Respectfully submitted,

VERIZON WIRELESS

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