Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Public Safety and Homeland Security	)	
Bureau Seeks Comment on Increasing	)	PS Docket No. 10-168
Public Safety Interoperability By	)	
Promoting Competition for Public	)	
Safety Communications Technologies	)	

COMMENTS OF THE COALITION FOR 4G IN AMERICA

The Coalition for 4G in America (the "Coalition") hereby submits its comments in response to the Public Notice issued by the Federal Communications Commission ("FCC" or "Commission") in the above referenced matter on August 19, 2010.[1/] Competition among equipment providers to any telecommunications service -- including public safety services -- is critical to ensure that users have access to the most feature-rich and lowest cost equipment. The lack of competition in the public safety communications marketplace has hampered the development of critical features of public safety equipment, including interoperability, and has kept equipment costs high. The Commission should rectify this problem by promoting public safety broadband through incentive-based, commercially viable public-private partnerships that do not favor a single provider. The Commission should also require that all commercial devices that operate in the paired 700 MHz blocks should be required to support communications in all paired 700 MHz broadband blocks, including the public safety broadband block. These steps will permit public safety users to have many choices of fully-featured interoperable equipment at reasonable cost.

1/ *Public Safety and Homeland Security Bureau Seeks Comment on Increasing Public Safety Interoperability by Promoting Competition for Public Safety Communications Technologies*, Public Notice, PS Docket No. 10-168, (Rel. August 19, 2010) ("*Public Notice*").

I. INTRODUCTION AND SUMMARY

The Coalition -- comprising national, regional, and rural mobile broadband providers -- is firmly committed to providing consumers with competitive, innovative wireless broadband services and assisting public safety entities in gaining access to next-generation, ubiquitous, interoperable wireless broadband communications. As Chairman Genachowski said recently in response to a Congressional inquiry, a key to providing public safety entities with lower cost equipment and devices, additional capacity and increased redundancy and efficiency is to leverage commercial deployment for consumers in the 700 MHz band.[2/] Accordingly, the Commission should address the current lack of competition in the public safety marketplace by proceeding with the National Broadband Plan's recommendation to implement an incentive-based public-private partnership for public safety broadband networks.[3/]

II. DISCUSSION

A. Current Public Safety Spectrum Policy Limits Manufacturer Entry and Produces High Equipment Prices

Current efforts at public safety interoperability have failed to serve public safety entities and the American public, resulting in a system in which public safety agencies have little choice

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2/ Letter from Julius Genachowski, Chairman, Federal Communications Commission, to Henry A. Waxman, Chairman, U.S. House of Representatives Committee on Energy and Commerce, Joe Barton, Ranking Member, U.S. House of Representatives Committee on Energy and Commerce, Rick Boucher, Chairman, U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Communications, Technology and the Internet, Cliff Stearns, Ranking Member, U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Communications, Technology and the Internet (July 20, 2010) ("*Chairman Genachowski Letter*").

3/ *Connecting America: The National Broadband Plan*, The Federal Communications Commission (March 2010), at 86, *available at* http://download.broadband.gov/plan/national-broadband-plan.pdf ("The FCC should auction the Upper 700 MHz D Block for commercial use with limited technical requirements that would ensure technical compatibility between the D Block and the adjacent public safety broadband spectrum block and would enable, but not obligate, the licensee to enter into a spectrum-sharing partnership with the neighboring Public Safety Broadband Licensee").

in equipment, pay significantly more than consumers of commercial systems and lack interoperability. Current public safety spectrum policy contributes to this result. It is:

> …like shipping [public safety agencies] the materials and the letting them contract with Ford or Toyota to build for them a custom-tailored car. Most public safety agencies will contract with communications services firms like Motorola to build their custom system. This is inefficient because it inhibits economies of scale from being achieved. While Ford can build thousands of one car model cheaply, if it had to design and build only 300 squad cars, those cars would no doubt be much more expensive.[4/]

This lack of economies of scale has driven public safety equipment costs higher than comparable commercial equipment. As the Congressional Research Service found, the "latest radios developed for public safety by DHS, the multi-band radios, are estimated to cost between $4,000 and $6,000" and the "current narrowband radios being used for 700 MHz networks typically start at $3,000."[5/]

The comparatively small size of the public safety market inhibits entry by multiple manufacturers. This lack of competition further enforces higher-than-market prices.[6/] It is estimated that Motorola has an 80 percent share of the public safety device market.[7/] It is little

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4/ Jerry Brito, *Sending Out an S.O.S.: Public Safety Communications Interoperability as a Collective Action Problem*, 59 FED. COMM. L.J. 457, 472-473 (2006-2007).

5/ Linda K. Moore, *Public Safety Communications and Spectrum Resources: Policy Issues for Congress*, Congressional Research Service, Sept. 1, 2010, at 12; *See also Chairman Genachowski Letter* ("while a state-of-the-art consumer cellular device typically costs a few hundred dollars, a typical land mobile radio for public safety communications may cost as much as $5,000").

6/ *Chairman Genachowski Letter* (noting that the high cost of public safety radios "is at least partly because public safety is unable to capture the benefits of competition and economies of scale associated with equipment and devices that are manufactured for the commercial marketplace").

7/ Cecilia Kang, *FCC, public safety groups at odds over control of nationwide wireless network*, WASHINGTON POST, June 9, 2010, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2010/06/08/AR2010060805253.html.

surprise that a market dominated by a single provider has resulted in equipment costs that far exceed those available for customers of commercial communications system.[8/]

The Commission asks if there are barriers to additional manufacturers supplying network equipment to the public safety community for narrowband and broadband communications.[9/] An important barrier is the size of the public safety market. If public safety entities could purchase equipment that was manufactured with greater economies of scale, additional manufacturers would likely enter the marketplace. The Commission can remove this barrier to competition by requiring, as envisioned by the National Broadband Plan, that public safety entities operate equipment developed for use with commercial networks in connection with public/private partnerships. By allowing public safety users to take advantage of economies of scale, more manufacturers would enter the market, prices would fall and equipment would become more feature-rich.[10/]

B. Current Interoperability Attempts Have Been Unsuccessful

Current public safety spectrum policy has failed to produce interoperable equipment. The public safety community's efforts to date -- the so-called "Project 25" or P25 standard -- have been less than successful at achieving interoperability. The P25 process was initiated approximately 20 years ago.[11/] Yet, there remain problems with P25 that "are hampering

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8/ *See, e.g.*, N. GREGORY MANKIW, ESSENTIALS OF ECONOMICS 287 (South-Western Cengage Learning 2009) (noting that where a firm has no close competitors in a market, it has the market power to influence the market price of its product and charge prices which exceed marginal costs).

9/ *Public Notice* at 1.

10/ Indeed, as Chairman Genachowski observed, even with such requirements as ruggedizing, equipment costs would still be lower than they are now.

11/ *Interoperability in Public Safety Communications Equipment: Hearing Before the H. Comm. on Science and Technology Subcomm. on Technology and Innovation*, 111th Cong. at 3 (2010) (statement of Dereck Orr, Program Manager, Public Safety Communications Systems National Institute of Standards and Technology, United States Department of Commerce) ("*Orr Testimony*"); *Chairman Genachowski Letter*.

progress toward seamless interoperability and open competition."[12/] As Chairman Genachowski observed: "[t]his fact is almost without parallel in the standards environment and one that many experts would not associate with successful, leading edge products."[13/] Indeed, interoperability -- one of the significant goals of the P25 process -- could not be achieved without intervention from the Federal government:

> …it was discovered through testing that much of the equipment advertised as P25-compliant was unable to interoperate with P25 equipment manufactured by other companies and, in some cases, even with earlier P25 equipment manufactured by the same company. In response, Congress authorized [the Department of Homeland Security's Office for Interoperability and Compatibility] to establish the P25 Compliance Assessment Program (CAP), in coordination with NIST.[14/]

Criticism of the P25[15/] makes clear that without leveraging commercial networks for public safety, "many of the issues that helped shape the current dysfunctional public safety radio networks threaten the creation of a uniform standard for wireless broadband communications."[16]

The Commission asks about the limits of Project 25 in promoting interoperability.[17/] As Chairman Genachowski noted, Project 25 relies on the use of proprietary solutions.[18/] Proprietary solutions limit manufacturer entry which, as noted above, drives up costs and reduces innovation, including interoperability. As the Congressional Research Service aptly summarized

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12/ *Id.*

13/ *Chairman Genachowski Letter*.

14/ *Interoperability in Public Safety Communications Equipment: Hearing Before the H. Comm. on Science and Technology Subcomm. on Technology and Innovation*, 111th Cong. at 3 (2010) (statement of David G. Boyd, Ph.D., Director, Command, Control and Interoperability Division Science and Technology Directorate Department of Homeland Security).

15/ *Orr Testimony* at 9.

16 Edward Wyatt, *9 Years After 9/11 Public Safety Radio Not Ready*, NEW YORK TIMES, Sept. 6, 2010.

17/ *Public Notice* at 2.

18/ *Chairman Genachowski Letter.*

Chairman Genachowski's communication with Congress, "the general conclusions …were that proprietary technologies had hampered the effective development of public safety radios and curtailed interoperability."[19/]

C. To Ensure Manufacturer Entry and Interoperability, Public Safety Systems Must Operate on the Same Platform as Commercial Systems

In order to foster interoperability, the Commission must ensure that the public safety marketplace is characterized by multiple vendors all using open, non-proprietary standards that are also used to produce commercial equipment. To increase competition in the marketplace for commercial communications systems, interoperability should be a given among systems using a common air interface, particularly in the 700 MHz spectrum. The Commission asks how additional competition in the public safety marketplace would improve interoperability.[20/] Additional competition in the public safety market would allow it to emulate the commercial market where interoperability among most spectrum, except the 700 MHz spectrum, exists today. Commercial systems using the same air interface are interoperable, low cost, feature rich and use multiple frequency bands -- all characteristics that public safety radios fail to exhibit. Indeed, in the time that public safety has attempted to make P25 infrastructure widely deployed, the development and sophistication of handsets available on commercial systems has been dramatic. Only a few years ago handsets principally offered voice communications. Today, they offer a variety of voice, video and other data services and have become fully featured communications tools. In the same period, development of public safety communications capabilities -- including interoperability -- has been nearly stagnant.

19/ Linda K. Moore, *Public Safety Communications and Spectrum Resources: Policy Issues for Congress*, Congressional Research Service, Sept. 1, 2010, at 8.

20/ *Public Notice* at 2.

The Commission asks what steps it should take as it moves forward with plans for a 700 MHz broadband network.[21/] The answer is clear. The Commission should foster the public/private partnerships envisioned by the National Broadband Plan and require interoperability throughout the band, so that public safety broadband systems can share the same air interface as, roam onto and secure priority access to, commercial networks. By pursuing that plan, the Commission will ensure that public safety entities can take advantage of the economies of scale and feature-rich qualities – including interoperability – of commercial systems.

21/ *Public Notice* at 2.

III. CONCLUSION

The Coalition for 4G in America hereby submits the foregoing comments and asks the Commission to introduce additional competition and interoperability to the public safety communications marketplace by requiring the public safety 700 MHz broadband network to operate on the same technological platform as, and in public/private partnerships with, commercial systems.

Respectfully submitted,

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