

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Petition for Rulemaking Regarding)	RM No. 11592
700 MHz Band Mobile Equipment)	
Design and Procurement Practices)	

REPLY COMMENTS OF THE PUBLIC INTEREST SPECTRUM COALITION

The Public Interest Spectrum Coalition¹ (“PISC”) hereby submits these Comments in response to the Federal Communications Commission’s public notice² seeking comment on the Petition for Rulemaking filed by the 700 MHz Block A Good Faith Purchasers Alliance (“Alliance”).³ PISC urges the Commission to grant the Petition, which advances the public interest, the stated goals of the Commission, and public safety.

I. The Petition Advances the Public Interest

In the Petition, the Alliance requests that the Commission “adopt rules that prohibit restrictive equipment arrangements.”⁴ Specifically the Alliance is concerned that recent decisions by 3GPP, the wireless industry standards setting body, will lead to the

¹ PISC consists, for purposes of the present submission, of the following organizations: Consumer Federation of America, Consumers Union, Media Access Project, New America Foundation, and Public Knowledge.

² *Wireless Telecommunications Bureau Seeks Comment on Petition for Rulemaking Regarding 700 MHz Band Mobile Equipment Design and Procurement Practices*, RM-11592, DA 10-278, Public Notice (Feb. 18, 2010).

³ *700 MHz Block A Good Faith Purchasers Alliance Petition for Rulemaking Regarding the Need for 700 MHz Mobile Equipment to be Capable of Operating on All Paired Commercial 700 MHz Frequency Blocks*, RM-11592 (Sept. 29, 2009) (“Petition”).

⁴ *Petition* at 1.

balkanization of the 700 MHz band and the inability of devices to move freely within that band.

Balkanization will damage the public interest in a number of ways. Balkanization reduces customer choice of devices. If manufacturers develop different chipsets for different frequencies in the 700 MHz band, consumers will be forced to purchase carrier- and band-specific devices. Although a manufacturer may develop an attractive device that functions in part of the 700 MHz band, consumers relying on service providers operating in other parts of the 700 MHz band will be unable to use the device. Instead, consumers may be forced to use a more limited set of devices designed for a specific block of the 700 MHz band.

Attractive products developed with one chipset may never become available to users of other blocks. Manufacturers will logically focus first on the most popular blocks – and on the carriers with the greatest market power – when developing and releasing new products. Users on other blocks will find themselves relegated to second class status, unable to access new products until months or years after they were first introduced to market – if at all. This will have an especially negative impact on consumers who choose smaller wireless providers, as they will never be able to access the newest and most attractive devices.⁵ As choice of device becomes more and more important to consumers when making decisions between service providers,⁶ this forced balkanization will in turn limit competition and create artificial barriers to market entry.

⁵ See *Petition* at 6-7; See also *Comments of Blooston Rural Carriers*, RM-11592 (Mar. 31, 2010).

⁶ Thirty-eight percent of respondents to a recent Consumer Reports survey said they made decisions about their wireless carriers because it was required to get the phone they wanted. See “*Best Cell Phone Service.*” Consumer Reports, January 2010: pg 25.

This segmentation creates consumer lock-in to specific carriers and specific spectrum blocks. A consumer satisfied with her 700 MHz device, but unsatisfied with her 700 MHz carrier, will be forced to choose between keeping the device she loves on the carrier she hates, or moving to a carrier she loves with a less attractive device. If a consumer does decide to move to a new carrier and is lucky enough to find a version of her preferred device on that carrier, she may be forced to re-purchase a functionally identical device with a slightly different chipset in order to use it. This type of lock-in reduces competition in the mobile space by significantly increasing the cost of moving from one carrier to another, and wastes money by forcing consumers to re-purchase devices.

Balkanization also increases the long-term costs of chipset production. Servicing the 700 MHz band with multiple, mutually incompatible chipsets prevents most of those chipsets from reaching the true economies of scale that drive down prices. While some specific chipsets attached to single blocks and single carriers may reach large-scale production, many blocks will likely languish with high cost chipsets that remain niche products. This further disadvantages smaller carriers or innovators intent on creating new services in underutilized blocks. It also artificially constraints to limited blocks the market for even the most popular chipsets.

Finally, allowing the dominant carriers to segment the 700 MHz band could preemptively undermine a decision by the Commission in its pending FNPRM on data roaming.⁷ As the Commission noted, the goal of roaming is to “foster investment and

⁷ *In the Matter of Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, WT Docket No. 05-265,

innovation in the use of spectrum and the development and deployment of data network facilities and services, competition for mobile broadband business by multiple providers, and consumer benefit from the availability of advanced and innovative mobile services with seamless nationwide coverage.”⁸ Balkanizing the 700 MHz band would undermine each of those goals, making it harder to innovate, harder for multiple providers to compete, and harder to build the seamless nationwide coverage that will benefit consumers. Indeed, the restrictive equipment arrangements at issue here are in effect, if not by intent, an indirect means by which the two dominant carriers – which acquired 80 percent of the 700 MHz spectrum in 2008 – will be able to prevent smaller and particularly non-national competitors from offering comparable 4G products.

II. The Petition Advances the Commission’s Stated Goals for the 700 MHz C Block

When it issued its Second Report and Order for the 700 MHz band, the Commission described a number of goals it hoped to achieve with C block openness conditions.⁹ Unifying the 700 MHz into a single class will advance these goals. In contrast, balkanization of the 700 MHz band will undermine many of them.

FCC 10-59, Order on Reconsideration and Second Notice of Proposed Rulemaking (April 21, 2010).

⁸ *Id.* at 60.

⁹ *In the Matter of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules; Implementing a National wide, Broadband, Interoperable Public Safety Network in the 700 MHz Band;*

The Commission expressed concern “that certain practices in the wireless industry may constrain consumer access to wireless broadband networks.”¹⁰ The Commission was also concerned that “wireless service providers appear to have required that equipment manufacturers disable certain capabilities in mobile devices.”¹¹ Limiting consumer access to different blocks by forcing them to purchase block-specific devices directly constrains consumer access to networks. A device that could be designed to move freely between multiple blocks within the 700 MHz band will instead be limited to one, or even a subset of one, band. This practice has the same practical effect in the marketplace as the device “locking” and “blocking” tactics that the Commission sought to avoid with the C Block openness conditions in particular.

The Commission recognized that the 700 MHz band provided “a window of opportunity to have a significant effect on the next phase of mobile wireless technological innovation, and on the evolution of market and institutional arrangements.”¹² This is why it took the “measured step to encourage additional innovation and consumer choice” of imposing rules on the C Block.¹³

This “measured step” during the “window of opportunity” will be for naught if each block is stratified by chipset. Any dream of the C Block openness rules pushing

Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission’s Part 1 Anti-Collusion Rule, WT Docket Nos. 06-150, 01-309, 03-264, 06-169, 96-86, 07-166; CC Docket No. 94-102; PS Docket No. 06-229, Second Report and Order, FCC 07-132 at ¶ 195-206 (Aug. 10, 2007) (“Order”).

¹⁰ *Order* at 198.

¹¹ *Id.* at 199 (although this paragraph primarily discusses access to Wi-Fi networks, the capability to jump from block to block as needed could provide many advantages to consumers).

¹² *Id.* at 201.

¹³ *Id.*

“providers in other 700 MHz Band blocks and other bands”¹⁴ to “offer similar choices”¹⁵ to those in the C Block will be greatly diminished if those other providers must first convince manufacturers to incorporate a different chipset into popular C Block devices. Moreover, given the tremendous leverage of the two dominant carriers over device makers, absent regulatory intervention that decision will quite likely be dictated by the anti-competitive self-interest of the carriers.

The Commission also hoped that granting open access to the entire C Block would “provide sufficient potential market penetration to attract investment and achieve economies of scale in the equipment marketplace.”¹⁶ Fragmenting the 700 MHz chipset market directly undermines that goal. With a unified chipset, device manufacturers will be able to develop a single device to work with the entire 700 MHz block. This will allow them to rapidly achieve economies of scale and access a wide array of potential purchasers. Creating a C Block specific chipset (or even further subdividing the C Block into upper and lower classes) immediately limits the scalability of any new device. Manufacturers will have to hope that the C Block alone (or the Upper C Block alone) creates a robust enough market to support its entrance. This is a much less attractive proposition to innovators than a market consisting of the entire 700 MHz band.

III. The Petition Advances the Public Safety Goals Described in the National Broadband Plan

¹⁴ *Id.* at 205.

¹⁵ *Id.*

¹⁶ *Id.* at 204.

The Commission's own National Broadband Plan discusses the Public Safety value of granting the public safety community access to a unified 700 MHz class.¹⁷ It touts "an incentive-based partnership model that addresses not just the D block, but commercial wireless spectrum more broadly [to] provide enhanced flexibility and the benefits of economies of scale."¹⁸ This partnership would "give public safety users the ability to roam on commercial networks in 700 MHz."¹⁹ Public safety interoperability with commercial areas of the 700 MHz band should also be paired with incentives to "develop commercial devices that can operate across 3GPP Band 14 in its entirety."²⁰

The value of these actions is that they "reduce costs and should provide options for the public safety community to leverage commercial networks, private networks, or both."²¹ Interoperability gives the public safety community the ability to roam across the 700 MHz band, allowing it to operate "both in areas where public safety broadband wireless networks are unavailable and where there is currently an operating public safety network but more capacity is required to respond to an emergency."²² This is why the National Broadband Plan exhorts the Commission to "explore other ways to encourage the development of public safety devices that transmit across the entire broadband portion of the 700 MHz band."²³ Giving commercial devices the ability to access the designated public safety blocks immediately expands the number of low cost, off the shelf devices available to the public safety community.

¹⁷ See *Connecting America: The National Broadband Plan*, Federal Communications Commission, 315-16 (March 2010) ("National Broadband Plan").

¹⁸ *National Broadband Plan* at 315.

¹⁹ *Id.* at 316.

²⁰ *Id.*

²¹ *Id.* at 315.

²² *Id.* at 316.

²³ *Id.*

Universal 700 MHz access reduces capacity restraints during an emergency and reduces costs for device deployment.²⁴ Multiple-band devices eliminate the need to purchase multiple sets of band-specific devices, thus saving money and reducing the chances of incompatibility during emergencies.²⁵ There is little doubt that the public safety community would benefit from such devices both in cost savings and in access to bandwidth in emergencies.

The Petition would increase the number of devices available to the public safety community while decreasing the costs of such devices. Instead of requiring the public safety community to obtain specially designed and manufactured devices to fit its needs, granting the Petition would allow the public safety community to use generally available devices. Every device with a single 700 MHz band chipset would be capable of accessing public safety networks, as well as commercial networks where appropriate.

IV. Conclusion

A single 700 MHz chipset fosters the greatest possible choice and freedom for consumers. It could allow them to move freely between wireless carriers without having to abandon or repurchase devices. A single chipset could also foster innovation, guaranteeing developers the largest possible market for their devices without forcing them to design to a number of different technical standards. It could also facilitate data roaming and avoid the practical preemption of the Commission's decision on this critical

²⁴ See *Comments of the Public Safety Spectrum Trust Corporation*, RM-11592 (Mar. 31, 2010) ("PSST Comments"); See also *Comments of National Fraternal Order of Police*, RM-11592 (Mar. 31, 2010).

²⁵ See *PSST Comments* at 8-9.

competition policy. Finally, a single chipset could foster rapid and efficient communication within the public safety community, while at the same time driving down the cost of devices.

Balkanization of the 700 MHz band works against the public interest, the goals of the Commission, the goals of the National Broadband Plan, and the goals of the public safety community.

For the above-stated reasons, the Commission should grant the Petition to ensure the rapid, competitive, and innovative development of the 700 MHz band.

Respectfully Submitted on Behalf of PISC,

/s/

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