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
	)	
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	

SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: May 14, 2008 **Released: May 14, 2008**

By the Commission: Chairman Martin and Commissioners Copps, Adelstein, Tate, and McDowell issuing separate statements.

Comment Date: [30 days after publication in the Federal Register]
Reply Comment Date: [45 days after publication in the Federal Register]

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Heading Paragraph #

I. INTRODUCTION

1. In the *Second Report and Order*, we adopted rules for the establishment of a mandatory public/private partnership ("the 700 MHz Public/Private Partnership") in the upper portions of the 698-806 MHz band ("700 MHz Band") as the means for promoting the rapid construction and deployment of a nationwide, interoperable broadband public safety network that would serve public safety and homeland security needs.[1] Specifically, we required that the winning bidder of the commercial license in the Upper 700 MHz D Block (758-763/788-793 MHz) ("D Block") enter into the 700 MHz Public/Private Partnership with the nationwide licensee of the public safety broadband spectrum (763-768/793-798 MHz) ("Public Safety Broadband Licensee") to enable construction of this interoperable broadband network, which would span both the commercial D Block and public safety spectrum. As essential components of this partnership, the D Block licensee would be chiefly responsible for the construction and operation of a state-of-the-art shared wireless broadband network that would be used by public safety users as well as commercial users. In exchange for taking on these responsibilities, the D Block licensee would gain access to the public safety broadband spectrum for use by its commercial customers on a

[1] *See* 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 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, Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule, WT Docket No. 07-166, *Second Report and Order*, 22 FCC Rcd 15289 (2007) (*Second Report and Order*) *recon. pending*.

secondary preemptible basis. In turn, public safety users, through the Public Safety Broadband Licensee, would benefit from obtaining access to a state-of-the-art broadband network on their 700 MHz spectrum that would incorporate their unique requirements, which would not otherwise be possible given the limited availability of public funding.[2] In Auction 73, the recently concluded auction of commercial 700 MHz licenses, bidding for the D Block license did not meet the applicable reserve price of $1.33 billion and, pursuant to the Commission's rules, there was no winning bid for that license.[3] In the *D Block Post-Auction Order* released shortly after the close of Auction 73, we determined not to re-offer the D Block license immediately in order to "provide additional time to consider options with respect to the D Block spectrum."[4] Accordingly, in this Second Further Notice of Proposed Rulemaking ("Second Further Notice"), we revisit our decisions concerning the 700 MHz Public/Private Partnership – considering revisions to this partnership as well as alternative rules we should adopt in the event the D Block licensee is no longer required to enter into a mandatory public/private partnership.

2. First, we consider clarifications and revisions to the public safety component of the 700 MHz Public/Private Partnership that would better promote our public interest goals.[5] More specifically, we seek comment on whether, under Section 337 of the Communications Act of 1934, as amended ("Act"),[6] and Section 90.523 of the Commission's rules,[7] only entities that are providing public safety services, as defined in the Act, are eligible to use the public safety spectrum portion of the shared network established under the 700 MHz Public/Private Partnership, and whether such entities should be required to subscribe to the network. We also seek comment on whether to clarify the requirement that the Public Safety Broadband Licensee be a non-profit organization and specify that entities associated with the public safety component of the 700 MHz Public/Private Partnership, apart from outside advisors or counsel with no debt or equity relationship to the Public Safety Broadband Licensee, may not be for-profit entities. We seek comment on these and other clarifications or changes to the structure of the Public Safety Broadband Licensee and the criteria adopted in the *Second Report and Order*.

3. In addition, we seek comment on possible modifications to the various rules governing the D Block licensee and the Public Safety Broadband Licensee within the framework of the 700 MHz Public/Private Partnership (as revised or clarified). First, we seek comment on whether it remains in the public interest to require a public/private partnership between the nationwide D Block licensee and the Public Safety Broadband Licensee for the purpose of creating a nationwide, interoperable broadband network for both commercial and public safety network services. Next, to ensure a thorough consideration of the Commission's options in the event that we do continue to require a public/private partnership between these licensees, we seek comment on a broad set of possible revisions to the 700

[2] *Id*, at 15295 ¶ 13, 15431 ¶ 396.

[3] The auction of these 700 MHz licenses, designated Auction 73, began on January 24, 2008, and concluded March 18, 2008. *See* http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=73.

[4] Auction of the D Block License in the 758-763 and 788-793 MHz Bands, AU Docket No. 07-157, *Order*, FCC 08-91, ¶ 3 (rel. Mar. 20, 2008) (*D Block Post-Auction Order*). In the *Second Report and Order*, the Commission decided that, if the reserve price for the D Block was not satisfied in the initial auction results, the Commission might either re-offer the license on the same terms in an immediate second auction, or re-evaluate the license conditions. *See Second Report and Order*, 22 FCC Rcd at 15404 ¶ 314.

[5] We use the term "700 MHz Public/Private Partnership" to refer specifically to a mandatory public/private partnership between the D Block licensee and the Public Safety Broadband Licensee, along the general lines initially set forth in the *Second Report and Order*.

[6] 47 U.S.C. § 337.

[7] 47 C.F.R. § 90.523.

MHz Public/Private Partnership, including revisions regarding the respective obligations of the D Block licensee and the Public Safety Broadband Licensee. In particular, we seek comment on the following issues: (1) the technical requirements of the shared wireless broadband network to be constructed by the D Block licensee, (2) the rules governing public safety priority access to the D Block spectrum during emergencies; (3) the D Block performance requirements and license term; (4) the respective roles and responsibilities of the D Block licensee and Public Safety Broadband Licensee in connection with the 700 MHz Public/Private Partnership and the shared wireless broadband network, including whether the Public Safety Broadband Licensee may assume responsibilities akin to a "mobile virtual network operator"[8]; (5) the various fees associated with the shared network; (6) the process for negotiating and establishing the Network Sharing Agreement, including the consequences of a failure to reach agreement; (7) certain auction-related issues, including whether to restrict who may participate in the new auction of the D Block license, how to determine any reserve price for such an auction, whether to adopt an exception to the impermissible material relationship rule for the determination of designated entity eligibility with respect to arrangements for the lease or resale (including wholesale) of the spectrum capacity of the D Block license, and whether we should modify the auction default payment rules with respect to the D Block winning bidder; and (8) relocation of the public safety narrowband operations. Finally, we seek comment on other revisions or clarifications that may be appropriate with regard to the 700 MHz Public/Private Partnership, including whether to license the D Block and public safety broadband spectrum on a nationwide or adopt a regional geographic service area basis such as Regional Economic Area Grouping (REAG).[9]

4. In addition to considering possible revisions to the 700 MHz Public/Private Partnership, we consider our options if the D Block is licensed without this 700 MHz Public/Private Partnership condition. We note that there are several circumstances where such options might be relevant. First, we might determine that we should not re-auction the D Block with the 700 MHz Public/Private Partnership condition, and instead immediately conduct an auction to license the D Block without such a condition. In addition, we might conclude that, even if we should retain the 700 MHz Public/Private Partnership condition in the next D Block auction, the condition should be removed if the next D Block auction fails to produce a winning bidder, or the winning bidder defaults or fails to negotiate a successful Network Sharing Agreement with the Public Safety Broadband Licensee. Therefore, for any circumstances where we determine that the 700 MHz Public/Private Partnership condition on the D Block should not be retained, we seek comment on revisions to the rules that would be appropriate with respect to the D Block license as well as revisions with regard to the Public Safety Broadband License that would ensure the development and deployment of a nationwide interoperable broadband network for public safety users.

5. Finally, we note that, in adopting the *Second Report and Order*, we took an innovative approach to addressing a vitally important problem: promoting interoperability, on a nationwide basis, for public safety communications. We intended that the mandatory public/private partnership model between two nationwide licensees – the commercial D Block licensee and the non-profit Public Safety Broadband Licensee – would facilitate access for public safety to a robust, advanced communications infrastructure and produce economies of scale inherent in a nationwide footprint. Importantly, we also found that this approach was the best means available to address the issue of funding for construction of a

[8] A mobile virtual network operator is a non-facility-based mobile service provider that resells service to the public for profit. *See* Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993, WT Docket No. 05-71, *Tenth Report*, 20 FCC Rcd 15908, 15920 ¶ 27 (2005).

[9] As licensing the D Block on a REAG basis would result in issuing multiple D Block licenses, references herein to "the" D Block license and licensee should be understood to incorporate reference to any of multiple D Block licenses or licensees and vice versa, as appropriate.

public safety communications infrastructure, which has proven a significant impediment to date. At the same time, however, we anticipated that the partnership would involve a balance between the commercial partner's obligation to construct a shared network infrastructure and the commercial partner's secondary access to the 700 MHz public safety broadband spectrum. By partnering these two spectrum assets, we intended to promote spectrum efficiency and innovation. Thus, we aimed to have the 700 MHz Public/Private Partnership between the D Block licensee and the Public Safety Broadband Licensee be complementary, and we designed this framework to strike the appropriate balance such that the maximum benefits accrued to both parties.

6. Although the initial sale of the D Block license did not result in a winning bidder, these goals remain. In reexamining our approach to the D Block following Auction 73, we continue to proceed with these objectives in mind. Accordingly, we initiate this Second Further Notice with the following principles and goals:

- To identify concerns in the existing structure of the 700 MHz Public/Private Partnership to inform our decision making going forward;
- To promote wireless innovation and broadband network penetration while meeting the communications needs of the first responder community in a commercially viable manner;
- To facilitate public safety access to a nationwide, interoperable broadband network in a timely manner;
- To identify funding opportunities for the public safety community to realize the promise of a broadband communications infrastructure with a nationwide level of interoperability; and
- To maximize the commercial and public safety benefits of this unique piece of 700 MHz spectrum.

7. We invite comment broadly on these principles and goals, as well as the specific subjects discussed herein. While today's item raises a number of specific questions, it should not be seen as providing any limitation on the public safety issues that we seek comment upon. We are interested in any and all perspectives from interested parties on how the Commission can develop rules and procedures that will achieve the multiple goals enumerated above. Finally, before ultimately adopting final rules in response to this Second Further Notice, we plan to present for public comment, in a subsequent Further Notice of Proposed Rulemaking, a detailed proposal regarding the specific proposed rules.[10]

II. BACKGROUND

8. In the *Second Report and Order*, released August 10, 2007, we adopted a band plan and service rules affecting the upper portions of the 700 MHz Band in order to promote the creation of a nationwide, interoperable broadband public safety network through the establishment of the 700 MHz Public/Private Partnership. Specifically, with regard to the public safety spectrum in the 700 MHz Band, we designated the lower half of this spectrum (the 763-768 MHz and 793-798 MHz bands) for public safety broadband communications, and we consolidated existing narrowband allocations to the upper half

[10] In this subsequent Further Notice of Proposed Rulemaking, we plan to seek comment on an expedited basis, with comments due fourteen days after publication in the Federal Register, and reply comments due twenty-one days after such publication.

of the spectrum (the 769-775 MHz and 799-805 MHz bands).[11] We also created a single nationwide license for the public safety broadband spectrum, and we specified the criteria, selection process, and responsibilities of the licensee assigned this spectrum, the Public Safety Broadband Licensee.[12] We required, for example, that no commercial interest may be held in the Public Safety Broadband Licensee, that no commercial interest may participate in the management of the licensee, and that the licensee must be a non-profit organization.[13] With regard to the commercial spectrum in the 700 MHz Band, we designated one block – the D Block (the 758-763 MHz and 788-793 MHz bands) located adjacent to the public safety broadband spectrum block – for use as part of the 700 MHz Public/Private Partnership. As set forth in the *Second Report and Order*, we required the D Block licensee, working with the Public Safety Broadband Licensee in a public/private partnership, to construct and operate a nationwide network shared by both commercial and public safety users.[14]

9. *The 700 MHz Public/Private Partnership.* In the *Second Report and Order*, we determined that promoting commercial investment in the build-out of a shared network infrastructure for both commercial and public safety users through the 700 MHz Public/Private Partnership would address "the most significant obstacle to constructing a public safety network – the limited availability of public funding."[15] We concluded that providing for a shared infrastructure using the D Block and the public safety broadband spectrum would help achieve significant cost efficiencies. We noted that this would allow public safety agencies "to take advantage of commercial, off-the-shelf technology and otherwise benefit from commercial carriers' investments in research and development of advanced wireless technologies."[16] We also stated that this approach could benefit the public safety community by providing it with access to an additional 10 megahertz of broadband spectrum during emergencies, when it is needed most. Most importantly, it was our view that this particular public/private partnership approach would provide all of these benefits on a nationwide basis and thus provide the most practical means of speeding deployment of a nationwide, interoperable, broadband network for public safety service that is designed to meet their needs in times of crisis. At the same time, we pointed out that the 700 MHz Public/Private Partnership would provide the D Block licensee with rights to operate commercial services in the 10 megahertz of public safety broadband spectrum on a secondary, preemptible basis, which would both help to defray the costs of build-out and ensure that the spectrum is used efficiently.[17]

10. We established various features of the 700 MHz Public/Private Partnership. First, we set forth the essential components of this partnership.[18] In particular, we specified certain parameters for the shared wireless broadband network, including features relating to the technology platform, signal coverage, robustness and reliability, capacity, security, operational capabilities and control, and certain equipment specifications.[19] With regard to the spectrum shared by the common network, we required that

[11] *See Second Report and Order*, 22 FCC Rcd at 15406 ¶ 322. We also created an internal guard band in the 768-769 MHz and 798-799 MHz bands located between the broadband and narrowband allocations. *Id.*

[12] *See id.*

[13] *See id.* at 15421 ¶ 373.

[14] *Id.* at 15428 ¶ 386.

[15] *Id.* at 15431¶ 396.

[16] *Id.* (citing Sprint Nextel *700 MHz Further Notice* Comments at 7-8).

[17] *Id.*

[18] *Id.* at 15432 ¶ 399.

[19] *Id.* at 15432 ¶ 399, 15433-44 ¶¶ 403-06.

the Public Safety Broadband Licensee lease the public safety broadband spectrum for commercial use by the D Block licensee on a secondary, preemptible basis and provided that the public safety entities would have priority access to the D Block spectrum during emergencies.[20] We also established certain minimal performance requirements relating to construction and build-out of the shared 700 MHz Public/Private Partnership network.[21]

11. Next, we established that the terms of the 700 MHz Public/Private Partnership would be governed both by Commission rules and by a Network Sharing Agreement ("NSA") to be negotiated by the winning bidder for the D Block license and the Public Safety Broadband Licensee.[22] Throughout the *Second Report and Order* we identified certain elements that the parties were required to address in the NSA. These included, for instance, the details of certain mandatory network specifications established in the order and a detailed build-out schedule as jointly agreed upon by the Public Safety Broadband Licensee and the D Block licensee.[23] We also determined that the NSA should include, among other things, specification of all service fees that public safety entities would pay with respect to access and use of the shared network, both in terms of fees applicable for normal network service and fees for priority access to the D Block spectrum in an emergency.[24]

12. We established rules governing the establishment of the NSA to ensure timely completion of the negotiations and to resolve any disputes that may arise.[25] Among other rules, we required the winning bidder of the D Block license and the Public Safety Broadband Licensee to negotiate in good faith, and we provided that the D Block license application would not be granted until the parties obtained Commission approval of the agreement, executed, and then filed the NSA with the Commission.[26] We also required the negotiations to begin by a date certain and conclude within six months. Further, we specified rules to govern in the event of a negotiation dispute. Specifically, we provided that if, at the end of the six month negotiation period, or on their own motion at any time, the Chiefs of the Public Safety and Homeland Security Bureau ("PSHSB") and the Wireless Telecommunications Bureau ("WTB") found that negotiations had reached an impasse, they could take a variety of actions to resolve any disputes, including but not limited to issuing a decision on the disputed issues and requiring the submission of a draft agreement consistent with their decision.[27]

13. *Narrowband Relocation.* In the *Second Report and Order*, we found that, in order to maximize the benefits of the 700 MHz Public/Private Partnership to deploy a nationwide, interoperable broadband communications network, the current 700 MHz narrowband public safety operations must be consolidated and cleared no later than the DTV transition date.[28] To effectuate the consolidation of the narrowband channels, we required the D Block licensee to pay the costs of relocating narrowband radios to the newly consolidated portion of the band and capped the disbursement amount for such relocation

[20] *Id.* at 15432 ¶ 399, 15434-43 ¶¶ 407-31.

[21] *Id.* at 15432 ¶ 399, 15443-46 ¶¶ 432-43.

[22] *Id.* at 15432 ¶¶ 399-400, 15447-49 ¶¶ 444-54.

[23] *Id.* at 15448-49 ¶¶ 448-53.

[24] *Id.* at 15448-49 ¶¶ 450-52.

[25] *Id.* at 15448 ¶ 447.

[26] *Id.* at 15448 ¶ 447.

[27] *Id.* at 15465 ¶ 508.

[28] *Id.* at 15410 ¶ 332.

costs at $10 million.[29] We also cautioned that any narrowband equipment deployed in the 764-770 MHz and 794-800 MHz bands (channels 63 and 68), or in the 775-776 MHz and 805-806 MHz bands (the upper one megahertz of channels 64 and 69), more than 30 days following the adoption date of the *Second Report and Order* would be ineligible for relocation funding.[30] In addition, we prohibited authorization of any new narrowband operations in that spectrum, as of 30 days following the adoption date of the *Second Report and Order*.[31]

14. *Rules for an Auction to License the D Block.* In addition to adopting service rules for the 700 MHz commercial spectrum, including the D Block, we also made several determinations regarding the auction of the 700 MHz commercial licenses. In particular, we concluded that block-specific aggregate reserve prices should be established for each commercial license block – the A, B, C, D, and E Blocks – to be auctioned in Auction 73, and directed WTB to adopt and publicly disclose those reserve prices prior to the auction, pursuant to its existing delegated authority and consistent with our directions.[32] For the D Block, we concluded that WTB should consider certain factors in setting the D Block reserve price, including the 700 MHz Public/Private Partnership conditions, which might suggest a reserve price of $1.33 billion. We provided that, in the event that bids for the D Block license did not meet the reserve price, we would leave open the possibility of offering the license on the same terms or re-evaluating the D Block license conditions.[33]

15. In an effort to encourage the widest range of potentially qualified applicants to participate in bidding for the D Block license, in the *Second Report and Order*, we enabled eligible applicants for this license to seek designated entity bidding credits for small businesses as a means to create incentives for investors to provide innovative small businesses with the capital necessary to compete for the D Block license at auction.[34] We subsequently decided to waive, on our own motion, the application of our "impermissible material relationship" rule[35] for purposes of determining an applicant's or licensee's designated entity eligibility solely with respect to arrangements for lease or resale (including wholesale) of the spectrum capacity of the D Block license.[36] Given the unique characteristics of the regulations governing the D Block license, we concluded that a waiver of the impermissible material relationship rule served the public interest.[37]

16. *Petitions for Reconsideration.* Ten parties filed petitions for reconsideration seeking review of various aspects of the *Second Report and Order*.[38] Three of the petitions sought reconsideration

[29] *Id.* at 15412 ¶ 341.

[30] *Id.* at 15412 ¶ 339.

[31] *Id.*

[32] *See id.* at 15400 ¶ 301.

[33] *See id.* at 15404 ¶ 314.

[34] 47 C.F.R. § 27.502.

[35] 47 C.F.R. § 1.2110(b)(3)(iv)(A).

[36] *See generally* Waiver of Section 1.2110(b)(3)(iv)(A) of the Commission's Rules For the Upper 700 MHz Band D Block License, *Order*, 22 FCC Rcd 20354 (2007) (*D Block Waiver Order*) *recon. pending.*

[37] *Id.* at 20354 ¶ 1.

[38] AT&T Inc. Petition for Reconsideration and Clarification, WT Docket No. 06-150; PS Docket No. 06-229 (filed Sept. 24, 2007); Blooston Rural Carriers Petition for Partial Reconsideration and/or Clarification (filed Sept. 24, 2007); Petition for Reconsideration of the Ad Hoc Public Interest Spectrum Coalition (filed Sept. 24, 2007); Cyren (continued....)

of the rules governing the 700 MHz Public/Private Partnership specifically,[39] and two petitioners sought reconsideration of the aggregate reserve prices set for the commercial license blocks, including the D Block.[40] These petitioners presented related arguments in the pre-auction process.[41] After considering the arguments, WTB established reserve prices consistent with the direction of the *Second Report and Order*.[42] Two other parties filed petitions seeking reconsideration of some or all of the requirements regarding public safety narrowband relocation, and also filed requests for waiver of some of these requirements.[43] All of the petitions remain pending.

17. *Auction 73.* The auction of 700 MHz Band licenses, designated Auction 73, commenced on January 24, 2008, and closed on March 18, 2008.[44] While the bids for licenses associated with the other 700 MHz Band blocks (the A, B, C, and E Blocks) exceeded the applicable reserve prices, bids for the D Block license did not meet the reserve price and there was no winning bid for that license.[45]

18. *D Block Post-Auction Order.* On March 20, 2008, we determined that we would not proceed immediately to re-auction the D Block license.[46] We made this decision in order to provide additional time to consider our various options with respect to the D Block spectrum.[47]

(Continued from previous page)
Call Communications Corporation Petition for Reconsideration and for Clarification (filed Sept. 24, 2007); Frontline Wireless, LLC Petition for Reconsideration (filed Sept. 24, 2007); Pierce Transit Petition for Reconsideration (filed Sept. 24, 2007); Rural Telecommunications Group, Inc. Petition for Reconsideration (filed Sept. 24, 2007); Commonwealth of Virginia Petition for Reconsideration (filed Sept. 24, 2007); NTCH, Inc. Petition for Partial Reconsideration (filed Sept. 21, 2007); MetroPCS Communications, Inc. Petition for Clarification and Reconsideration (filed Sept. 20, 2007).

[39] *See* AT&T Petition for Reconsideration; Cyren Call Petition for Reconsideration; Frontline Petition for Reconsideration. The Frontline September 20, 2007 Request also seeks changes to the rules governing the 700 MHz Public/Private Partnership. *See* Request to Further Safeguard Public Safety Service by Frontline Wireless, WT Docket No. 06-150 (filed Sept. 20, 2007) (Frontline September 20, 2007 Request).

[40] *See* Frontline Petition for Reconsideration; MetroPCS Petition for Reconsideration.

[41] *See* Auction of 700 MHz Band Licenses Scheduled for January 24, 2008; Notice and Filing Requirements, Minimum Opening Bids, and other Procedures for Auctions 73 and 76, *Public Notice,* 22 FCC Rcd 18141, 18194-95 ¶¶ 197-90 (2007) (*Auction 73/76 Procedures Public Notice*).

[42] *See id.* at 18193-96 ¶¶ 194-200.

[43] *See* Commonwealth of Virginia Petitions for Reconsideration; Pierce Transit Petition for Reconsideration. Pierce Transit and Virginia have been granted limited waiver relief. *See* Implementation of a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, PS Docket No. 06-229, WT Docket No. 96-86, *Order*, 22 FCC Rcd 20290 (2007); Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Request for Waiver of Pierce Transit, PS Docket No. 06-229, WT Docket No. 96-86, *Order*, 23 FCC Rcd 433 (PSHSB 2008).

[44] *See* http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=73.

[45] *See id.*; *see also* "Auction of 700 MHz Band Licenses Closes," *Public Notice*, DA 08-595 (rel. Mar. 20, 2008) (*700 MHz Auction Closing Public Notice.*

[46] *See D Block Post-Auction Order* at ¶ 5.

[47] *See id.* at ¶ 5.

19. *Inspector General's Report.* On April 25, 2008, the Office of Inspector General (OIG) issued a report on its investigation relating to allegations relating to whether certain statements made by an advisor to the Public Safety Broadband Licensee to potential bidders for the D Block license in Auction 73, particularly those regarding the spectrum lease payments that the Public Safety Broadband Licensee would request from the D Block licensee for use of public safety spectrum, had the effect of deterring various companies from bidding on the D Block.[48] The OIG determined that the statements in question were "not the only factor in the companies' decision not to bid on the D Block." Rather, it concluded that "the uncertainties and risks associated with the D Block, including, but not limited to, the negotiation framework with [the Public Safety Broadband Licensee], the potential for default payment if negotiations failed, and the costs of the build-out and the operations of the network, taken together, deterred each of the companies from bidding on the D Block."[49]

III. DISCUSSION

20. In this Second Further Notice, we revisit our decisions concerning the public safety broadband spectrum, the 700 MHz Public/Private Partnership, and the shared wireless broadband network it is intended to create, as we move toward a new auction to license the D Block spectrum in the near future.[50]

21. First, in reevaluating the 700 MHz Public/Private Partnership in light of the results of Auction 73, we find it appropriate to consider clarifications and revisions to the public safety component of the partnership that would better promote our public interest goals. More specifically, in section A, we seek comment on our proposed clarifications regarding the entities that are eligible to use the public safety spectrum in the shared wireless broadband network as public safety users rather than as commercial users. We also seek comment on possible clarifications of or changes to the rules governing the structure and criteria of the Public Safety Broadband Licensee,[51] including whether to clarify further the requirement that the Public Safety Broadband Licensee must be a non-profit organization.

22. In section B, we seek comment on possible changes to the rules requiring and governing the 700 MHz Public/Private Partnership. As noted above, we seek comment on whether the 700 MHz Public/Private Partnership between the D Block licensee and the Public Safety Broadband Licensee, with appropriate revisions and clarifications, would best serve the public interest in ensuring the development of a nationwide, interoperable broadband network for public safety users. We therefore explore a variety of possible revisions to the 700 MHz Public/Private Partnership to provide greater assurance to potential bidders for the D Block license that the shared wireless broadband network will be commercially viable and to help ensure that this partnership will be successful in making a nationwide, interoperable, broadband network available to public safety users. We also seek comment on issues related to the negotiation of the Network Sharing Agreement. In addition, we request comment on select issues relating to auctioning the D Block license, including eligibility to participate in the auction, a reserve price, and potential default payments. Finally, we seek comment on issues relating to narrowband relocation and on

[48] *See Office of Inspector General Report*, from Kent R. Nilsson, Inspector General, to Chairman Kevin J. Martin (OIG rel. Apr. 25, 2008) (*OIG Report*).

[49] *OIG Report* at 2.

[50] As noted above, before ultimately adopting final rules in response to this Second Further Notice, we plan to present for public comment, in a subsequent Further Notice of Proposed Rulemaking, a detailed proposal regarding the specific proposed rules.

[51] *See* 47 U.S.C. § 316 (permitting the Commission to modify any license if, in the judgment of the Commission, such action will promote the public interest, convenience, or necessity).

whether to continue to license the D Block on a nationwide basis or adopt a regional geographic service area basis such as REAGs.

23. Finally, in section C, we examine our options in the event we decide not to condition the D Block on the establishment of the 700 MHz Public/Private Partnership with the Public Safety Broadband Licensee, either immediately in the next auction or if the next auction fails to produce a winning bidder. First, we seek comment on various revisions that might be appropriate with respect to the D Block spectrum. Then we invite comment on what additional revisions might be appropriate with regard to the Public Safety Broadband License in order to ensure the development and deployment of a nationwide interoperable broadband network for public safety users.

A. The Public Safety Broadband License

1. Eligible Users of the Public Safety Spectrum in the Shared Network

24. Background. To meet anticipated public safety and homeland security needs, we proposed a comprehensive plan in the *Second Report and Order* to promote the rapid deployment of a nationwide, interoperable, broadband public safety network. This plan was based on taking "a centralized and national approach to maximize public safety access to interoperable, broadband spectrum in the 700 MHz Band."[52] In particular, we required that a single, nationwide public safety broadband license be assigned to the Public Safety Broadband Licensee. That licensee would be responsible for negotiating a Network Sharing Agreement with the winning bidder of the D Block licensee, pursuant to which the D Block licensee would construct and operate a shared, nationwide 700 MHz interoperable broadband network that serves the public safety entities seeking access to the network, and the D Block licensee would, in turn, gain access to the 700 MHz public safety broadband spectrum for use by its commercial users on a secondary preemptible basis.[53]

25. The eligibility rules for the 700 MHz public safety band, including both the narrowband and broadband segments, are contained in Section 90.523 of our rules.[54] By linking eligibility to the provision of statutorily-defined "public safety services," Section 90.523 attempts to ensure compliance with the statutory mandate of Section 337(a)(1) of the Communications Act, which requires the Commission to allocate 24 megahertz of spectrum between 746 MHz and 806 MHz for "public safety services."[55] The statutory definition of "public safety services," which is set forth in Section 337(f) of the Act, provides as follows:

> (f) Definitions
>
> For purposes of this section:
>
> (1) Public safety services
>
> The term "public safety services" means services -
>
> (A) the sole or principal purpose of which is to protect the safety of life, health, or property;
>
> (B) that are provided -
>
> (i) by State or local government entities; or

[52] *See Second Report and Order*, 22 FCC Rcd at 15419 ¶ 365.

[53] *See id.* at 15419 ¶ 366.

[54] 47 C.F.R. § 90.523.

[55] 47 U.S.C. § 337(a)(1).

(ii) by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and

(C) that are not made commercially available to the public by the provider.[56]

26. The eligibility rules of Section 90.523 that apply to the narrowband licensees of the 700 MHz public safety band limit operations to the provision of public safety services, as defined in Section 337(f)(1). Thus, all such licensees are either state or local governmental entities[57] or authorized non-governmental organizations (NGOs),[58] which provide services that are not made commercially available to the public and are for the sole or principal purpose of protecting the safety of life, health, or property.[59]

27. With respect to the broadband licensee – *i.e.*, the Public Safety Broadband Licensee – the Commission crafted eligibility requirements that were also intended to limit operations to the statutorily-defined public safety services in order to ensure that the band remained allocated to such services, as required by Section 337(a)(1), and to focus the Public Safety Broadband Licensee exclusively upon the needs of public safety entities that stand to benefit from the interoperable broadband network.[60] Specifically, we required that the Public Safety Broadband Licensee satisfy the following eligibility criteria: (1) no commercial interest may be held in this licensee, and no commercial interest may participate in the management of the licensee, (2) the licensee must be a non-profit organization, (3) the licensee must be as broadly representative of the public safety radio user community as possible, including the various levels (*e.g.*, state, local, county) and types (*e.g.*, police, fire, rescue) of public safety entities, and (4) to ensure that the Public Safety Broadband Licensee is qualified to provide public safety services, an organization applying for the Public Safety Broadband License was required to submit written certifications from a total of at least ten geographically diverse state and local governmental entities, with at least one certification from a state government entity and one from a local government entity.[61] The written certifications from these state and local governmental entities were required to verify that: (1) they have authorized the applicant to use spectrum at 763-768 MHz and 793-798 MHz to provide the authorizing entity with public safety services; and (2) the authorizing entities' primary mission is the provision of public safety services.[62]

28. Discussion. As a preliminary matter, our review of the eligibility provisions that apply to the narrowband licensees and those that apply to the Public Safety Broadband Licensee have led us to identify two elements of the statutory definition of "public safety services" that the rules do not appear to apply explicitly enough to the Public Safety Broadband Licensee: (a) the Section 337(f)(1)(A) element that requires the "sole or principal purpose [of the services to be for the] protect[ion of] the safety of life, health, or property," and (2) the Section 337(f)(1)C) element that bars such services from being "made commercially available to the public by the provider."[63] In addition, there is some degree of ambiguity as to the applicability of the narrowband eligibility provisions in Sections 90.953(a)-(d) to the Public Safety

[56] 47 U.S.C. § 337(f).

[57] *See* 47 C.F.R. § 90.523(a).

[58] *See* 47 C.F.R. § 90.523(b).

[59] *See* 47 C.F.R. § 90.523(a) – (d).

[60] *Second Report and Order*, 22 FCC Rcd at 15421 ¶ 373.

[61] *See* 47 C.F.R. § 90.523(e).

[62] *See* 47 C.F.R. § 90.523(e)(i), (ii).

[63] 47 U.S.C. § 337(f)(1)(A), (C).

Broadband Licensee. Accordingly, we seek comment on whether to make minor amendments to Section 90.523 to (a) clarify that the services provided by the Public Safety Broadband Licensee must conform to all the elements of the Section 337(f)(1) definition of "public safety services," and (b) clearly delineate the differences and overlap in the respective eligibility requirements of the narrowband licensees and the Public Safety Broadband Licensee.

29. As discussed in more detail below, it would appear that, under Section 337 of the Act and in furtherance of the policies that have led to the creation of the Public Safety Broadband Licensee, the eligible users of the public safety broadband network that are represented by the Public Safety Broadband Licensee should be restricted to entities that would be eligible to hold licenses under Section 90.523. Thus, only entities providing public safety services, as defined in the Act, would be eligible to use the public safety spectrum of the shared network of the 700 MHz Public/Private Partnership on a priority basis, pursuant to the representation of the Public Safety Broadband Licensee. Accordingly, we also seek comment on whether all other users of the shared network, including critical infrastructure users, should consequently be treated as commercial users who would obtain access to spectrum only through commercial services provided solely by the D Block licensee.

30. *Eligible Users of the Public Safety Broadband Network.* As the licensee of the broadband portion of spectrum within the 700 MHz public safety band, the Public Safety Broadband Licensee occupies a somewhat unique position insofar as it will not use its licensed spectrum to serve its own communications needs. Rather, the Public Safety Broadband Licensee will ensure the provision of public safety service by providing spectrum access to others via the nationwide shared public/private network.[64] Thus, the question of whether the Public Safety Broadband Licensee's service qualifies as a "public safety service" under Section 337(f)(1) will turn (in part) on the nature of the spectrum use by the entities that it permits to gain access to the network. To the extent that these entities are public safety entities that use this access to provide themselves with communications services in furtherance of their mission to protect the safety of life, health or property, the Public Safety Broadband Licensee's services related to the public safety broadband spectrum would fall well within the Section 337(f)(1) definition of "public safety services" and would comport with the Commission's obligation under Section 337(a)(1) to allocate a certain amount of spectrum to such services.

31. We note that, pursuant to the statutory definition, a service can still be considered a "public safety service" even if its purpose is not solely for protecting the safety of life, health or property, so long as this remains its "principal" purpose.[65] Accordingly, the service provided by the Public Safety Broadband Licensee –providing public safety entities access to the spectrum for safety-of-life/health/property communications operations – could conceivably include the provision of spectrum access to public safety entities for uses that do not principally involve the protection of life, health or property, so long as it can be said that the principal purpose of the Public Safety Broadband Licensee's services is to protect the safety of life, health or property.

32. Taken to an extreme, this reasoning could even permit the Public Safety Broadband Licensee to provide spectrum access to small numbers of entities with no connection to public safety under the rationale that the bulk of the Public Safety Broadband Licensee's services would remain that of providing the public safety entities access to spectrum for use in safeguarding life, health or property. Moreover, the Public Safety Broadband Licensee could arguably leave entire pockets within its nationwide service area served only by such non-public safety entities, based on this same rationale that the small amount of non-public safety use – relative to the nature of the overall use across the country – does not alter the fact that the principal purpose of the service remains public safety. Such a result

[64] *See Second Report and Order*, 22 FCC Rcd at 15426 ¶ 383.

[65] *See* 47 U.S.C. § 337(f)(1)(A).

appears patently inconsistent with the spirit of Section 337(f)(1)(A), and we seek comment on whether, or to what degree, the Public Safety Broadband Licensee would be statutorily precluded by that subsection from representing and allowing any entity to use the network for services that are not principally for public safety purposes. We also seek comment on whether there are other grounds – specifically, the authorization requirement of Section 337(f)(1)(B)(ii) and policy reasons – for prohibiting the Public Safety Broadband Licensee from providing network access to non-public safety entities or from permitting public safety entities that it represents to use the network for services that do not have as their principal purpose the protection of the safety of life, heath or property. With respect to Section 337(f)(1)(B)(ii), we observe that, in order for the Public Safety Broadband Licensee's services to meet the public safety services definition, the Public Safety Broadband Licensee, as a nongovernmental organization, must receive authorization from "a governmental entity whose primary mission is the provision of [public safety] services." We believe it unlikely that the intended scope of the authorization from such governmental entity or entities would include providing spectrum access, even on an occasional or limited basis, to entities that provide no public safety services.[66] On the policy front, the finite amount of spectrum available to the public safety community – particularly for interoperability purposes – strongly argues against any provision of spectrum access by the Public Safety Broadband Licensee to entities the sole or principal purpose of which is not the protection of the safety of life, health, or property. For these reasons, we seek comment on whether the public interest would be served by prohibiting the Public Safety Broadband Licensee from providing an entity with access to the network if that entity fails to meet the eligibility requirements of Section 90.523 of our rules.

33. We seek comment on which types of public safety users can be expected to use the national public safety broadband network (rather than legacy or new local networks) and on what timeframes. Which public safety communication functions (e.g., voice, remote data access, video upload, video download, photo download) are likely to migrate to the new broadband network (in the short- and or long-term) and which will remain on existing networks? What factors will local jurisdictions weigh when making such decisions?

34. We seek comment on the extent to which the public safety broadband network will or should be interoperable with existing voice and data networks. How can the Commission encourage interoperability with legacy public safety systems and should interoperability with existing voice and data networks be a mandatory feature of the new broadband network? Can the use of multi-mode handsets (that support legacy networks and the new public safety broadband network) enhance interoperability? How can the Commission encourage or mandate the development and use of such handsets? How would any proposed policies in this regard affect the cost of handsets and network construction/operation? How does the use of 10 or 20 megahertz of shared spectrum affect the throughput of the broadband network and the functions it can support? What throughput can reasonably be expected on a network with this amount of spectrum? What functionalities can only be supported on a network with additional spectrum?

35. We also seek comment on issues arising from the possibility that in some areas a local jurisdiction may not elect to make use of the public safety broadband network. How extensive are such areas likely to be in the short- and long-term? Should the D Block licensee be permitted to use the entire 20 megahertz of shared spectrum for commercial service in such areas? Should the local jurisdiction receive compensation in these instances? Could such compensation discourage local jurisdictions to ever make use of the public safety broadband network? Would restriction of such compensation to use in purchasing public safety equipment such as radios for the public safety broadband network be an appropriate policy? What incentives can the Commission give the D Block licensee to encourage and facilitate use of the broadband network by local jurisdictions?

[66] 47 U.S.C. § 337(f)(1)(B)(ii).

36. *Potential Pool of Users of the Public Safety Broadband Network.* We seek comment on the number of public safety providers in the country that have no interoperable broadband network. What is the size of the potential pool of public safety providers that may work with the Public Safety Broadband Licensee? We also seek comment on the extent to which some public safety providers already have established interoperable broadband networks. We especially encourage comment from parties that may have an inventory or database that collects this information. Where have such networks been established, and under what types of arrangements? To what extent are current interoperable public safety systems able to obtain lower prices and/or superior quality for commercially available, off-the-shelf technologies? Have public safety and commercial operations been developed on shared/parallel systems, and if so, how have they addressed network security issues? We further seek comment on how previously developed systems have addressed issues such as network reliability, including hardening of the network, provisions for back up power, etc. How do such developed networks envision connecting to an interoperable, nationwide network? Finally, to the extent some public safety providers already have established interoperable broadband networks, might these providers have less incentive to participate with the Public Safety Broadband Licensee? If this is the case, how might the rules established in this proceeding help provide a nationwide, interoperable network?

37. *Mandatory Usage of the Public Safety Broadband Network.* While we seek comment above regarding what users of the network are eligible to receive service from the public safety spectrum, we also seek comment on whether such eligible public safety users should be required to subscribe to the network for service, at reasonable rates or be subject to some alternative obligation or condition promoting public safety network usage in order to provide greater certainty to the D Block licensee. For example, should we require the purchase of a minimum number of minutes and, if so, on whom and in what way would this obligation be imposed? We seek comment on whether any such obligation should be conditioned on the availability of government funding for access, for example, through interoperability grant money from the United States Department of Homeland Security, and whether we should require public safety users to pay for access with such money. We ask further questions below regarding whether and how we should regulate the fees charged to public safety users for network access. Would it be possible to ensure that small public safety providers pay a "Most Favored Nation" rate for broadband services, or for equipment? How should the Commission ensure that smaller public safety entities can participate in the network?

38. We note that the State of Arizona used a grant from the Department of Homeland Security ("DHS") to build a broadband network for both public safety and commercial purposes using WiFi technology.[67] This network serves a portion of the I-19 corridor running north of the Mexican border, a sparsely populated area that previously had little or no coverage for commercial or public safety communications.[68] We seek comment on this and similar programs, especially those instituted by State agencies, and by both large and small municipalities. What specifications (*e.g.*, reliability of service, network hardening, etc.) have been required for this and similar projects to promote broadband communications for public safety providers?[69] What lessons have been learned from these projects, and how might these lessons be applied to a variety of public safety providers, including those in very rural areas and those in urban areas? For example, do network congestion issues make sharing between

[67] *See* http://www.dhs.gov/xnews/releases/press_release_0515.shtm (last visited May 12, 2008).

[68] *See* http://gita.state.az.us/tech_news/2006/7_19_06.htm (last visited May 12, 2008).

[69] We note, however, that use of Part 15 devices may not be appropriate for mission-critical public safety communications, in light of the requirement for Part 15 devices to accept interference from other Part 15 devices and from licensed operations. *See, e.g.*, Continental Airlines Petition for Declaratory Ruling Regarding the Over-the-Air Reception Devices (OTARD) Rules, ET Docket No. 05-247, *Memorandum Opinion and Order*, 21 FCC Rcd 13201, 13214 (2006).

commercial and public safety users more of a challenge in urban areas, and are such concerns lessened in rural areas?

2. Provisions Regarding the Public Safety Broadband Licensee

a. Non-Profit Status

39. Background. Among other criteria for eligibility to hold the Public Safety Broadband License that we established in the *Second Report and Order*, we provided that no commercial interest may be held in the Public Safety Broadband Licensee, that no commercial interest may participate in the management of the licensee, and that the licensee must be a non-profit organization.[70] We indicated, however, that, as part of its administration of public safety access to the shared wireless broadband network, the Public Safety Broadband Licensee might assess "usage fees to recoup its expenses and related frequency coordination duties."[71]

40. Discussion. With respect to the requirements that the Public Safety Broadband Licensee must be a non-profit organization, we seek comment on whether to clarify this non-profit requirement by specifying that the Public Safety Broadband Licensee and all of its members (in whatever form they may hold their legal or beneficial interests in the Public Safety Broadband Licensee) must be non-profit entities. We further seek comment on whether to clarify that the Public Safety Broadband Licensee may not obtain debt or equity financing from any source, whether debt or equity, unless such source is also a non-profit entity. We also seek comment more generally on whether the Commission should restrict the Public Safety Broadband Licensee's business relationships pre- and post-auction with commercial entities, and if so, what relationships should and should not be permitted.

41. We do anticipate that the Public Safety Broadband Licensee may contract with attorneys, engineers, accountants, and other similar advisors or service providers to fulfill its responsibilities to represent the interests of the public safety community, as required by the Commission. Under the approach on which we seek comment above, capital or operational funding mechanisms for the Public Safety Broadband Licensee involving private equity firms or other commercial or financial entities would not be permitted, unless they are non-profit entities and are controlled, if at all, by non-profit entities, in order to ensure that the financial considerations of the Public Safety Broadband Licensee remain aligned with serving the public safety community, and that no "for-profit" incentives inadvertently influence the Public Safety Broadband Licensee's priorities. We seek comment on these restrictions. In particular, are the restrictions on financing warranted to ensure that the Public Safety Broadband Licensee is not unduly influenced by for-profit motives or outside commercial influences in carrying out its official functions within the 700 MHz Public/Private Partnership? If so, in what ways might we allow necessary financing while still ensuring the independence of the Public Safety Broadband Licensee? Specifically, should we allow working capital financing from commercial banks and, if so, should we restrict the assets of the Public Safety Broadband Licensee that can be pledged as security for such a loan? Are there other types of loans or alternative funding sources that we should allow the Public Safety Broadband Licensee to employ? How can the Commission establish incentive-compatible rules for the Public Safety Broadband Licensee and parties with which it may have a relationship, such as advisors, contractors, and investors?

42. More generally, we seek comment on the best way to fund Public Safety Broadband Licensee operations. For example, should the D Block licensee or license winner be required to pay the Public Safety Broadband Licensee's administrative costs? If so, should we limit the D Block licensee's maximum obligations in this regard, and what would be a reasonable cap or limitation on expenses? Assuming government-allocated funding were available, would this be the best solution for funding the

[70] *See Second Report and Order*, 22 FCC Rcd at 15421 ¶ 421.

[71] *Id.* at 15426 ¶ 383.

Public Safety Broadband Licensee? In addition, we seek comment on the extent to which we can adopt incentive-compatible rules for the Public Safety Broadband Licensee and the public safety providers it represents. What set of rules would encourage most or all public safety providers to collaborate with the Public Safety Broadband Licensee to establish a nationwide, interoperable broadband network? Under what circumstances might some public safety providers choose not to participate in a relationship with the Public Safety Broadband Licensee?[72]

43. We seek comment on whether the Commission has legal authority to use the Universal Service Fund to support the Public Safety Broadband Licensee's operational expenses.[73] If the Commission has legal authority to do so, should it exercise this authority? What degree of support would be appropriate? Similarly, can the Commission facilitate funding of the Public Safety Broadband Licensee's operational expenses through entities such as the Telecommunications Development Fund?[74]

44. We also seek comment on how any excess revenue generated by the fees or other sources of financing obtained by the Public Safety Broadband Licensee from non-profit entities should be used. First, we seek comment on whether any excess revenues should be permitted at all. If we do allow any excess revenue generation, should we limit this amount? How should we determine what that amount should be? Should we allow the Public Safety Broadband Licensee to hold a certain amount of excess income as a reserve against possible future budget shortfalls or should we require that excess income be used for the direct benefit of the public safety users of the network, such as for the purchase of handheld devices? Should we further specify what would be a "direct benefit" or permissible use of such funds? In this regard, we note that the quarterly financial accounting we required in the *Second Report and Order* will enable the Commission to continually monitor the finances of the Public Safety Broadband Licensee.[75]

45. Finally, we seek comment on whether the Public Safety Broadband Licensee may legitimately incur certain reasonable and customary expenses incurred by a business, consistent with the constitution of the Public Safety Broadband Licensee and the nature of its obligations as established by the Commission.

b. Other Essential Components

46. Background. In the *Second Report and Order*, we instituted certain minimum criteria that the Public Safety Broadband Licensee must meet in order to ensure that it "focuses exclusively on the needs of public safety entities that stand to benefit from the interoperable broadband network."[76] To that end, we established certain criteria for the Public Safety Broadband Licensee eligibility, including a requirement that the Public Safety Broadband Licensee must be broadly representative of the public safety community.[77] Further, we required that the Public Safety Broadband Licensee be governed by a voting board consisting of eleven members, one each from the nine organizations representative of public safety, and two at-large members selected by the Public Safety and Homeland Security Bureau and the Wireless Telecommunications Bureau, jointly on delegated authority.[78] On reconsideration, we revised

[72] *See Second Report and Order*, 22 FCC Rcd at 15454 ¶ 470.

[73] *See, e.g.*, 47 U.S.C. § 254(c)(1), (h).

[74] *See, e.g.*, 47 U.S.C § 614.

[75] *Second Report and Order*, 22 FCC Rcd at 15425 ¶ 377.

[76] *Id.* at 15421-22 ¶ 373.

[77] *Id.* at 15421-25 ¶¶ 373-375.

[78] The nine organizations included: the Association of Public Safety Communications Officials (APCO); the National Emergency Number Association (NENA); the International Association of Chiefs of Police (IACP); the (continued....)

and expanded the voting board, and increased the at-large membership to four.[79]

47. In the *Second Report and Order*, we further required that certain procedural safeguards be incorporated into the articles of incorporation and bylaws of the Public Safety Broadband Licensee.[80] For example, in the *Second Report and Order* we specified that the term of the Public Safety Broadband Licensee officers would be two years, and that election would be by a two-thirds majority vote. A two-thirds majority was also required for certain other Public Safety Broadband Licensee decisions, including amending the articles of incorporation or bylaws. In addition, we recognized that Commission oversight in the affairs of the Public Safety Broadband Licensee would be necessary and appropriate in light of the nature of the public safety broadband spectrum licensed to the Public Safety Broadband Licensee as a national asset, and in furtherance of the Commission's role in ensuring the protection and efficient use of such asset for the benefit of the safety of the public.[81] Meaningful oversight in this respect requires a level of transparency, and to that end we required the Public Safety Broadband Licensee to submit certain reports to the Commission, including quarterly financial disclosures.[82]

48. Discussion. In light of the scope of the subjects discussed elsewhere herein addressing a number of aspects of the 700 MHz Public/Private Partnership between the D Block licensee and the Public Safety Broadband Licensee, we believe it appropriate to reexamine the structure of the Public Safety Broadband Licensee and the criteria adopted in the *Second Report and Order* to ensure they are most optimal for establishing and sustaining a partnership with a commercial entity, as well as efficiently and equitably conducting the business of the Public Safety Broadband Licensee. We seek comment on whether we should reevaluate any of these criteria, whether we should clarify or increase the Commission's oversight of the Public Safety Broadband Licensee, and, aside from retaining its nationwide scope, whether we should make other changes to the license or license eligibility criteria. We further seek comment on how the Commission can ensure an oversight role for Congress, both in the operations of the Public Safety Broadband Licensee and the 700 MHz Public/Private Partnership. Should Congress designate some of the Public Safety Broadband Licensee's board members?

49. *Articles of Incorporation and By-laws.* Specifically, with respect to the articles of incorporation and bylaws, we seek comment on the adequacy of the provisions specified. Should we require additional provisions, and if so, what should they be? Should we amend or eliminate any of the current requirements? Should we require a unanimous vote in certain instances? For example, should a

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International Association of Fire Chiefs (IAFC); the National Sheriffs' Association; the International City/County Management Association (ICMA); the National Governor's Association (NGA); the National Public Safety Telecommunications Council (NPSTC); and the National Association of State Emergency Medical Services Officials (NASEMSO). *Second Report and Order*, 22 FCC Rcd at 15422-23 ¶ 374.

[79] On reconsideration, we removed NPSTC and included the Forestry Conservation Communications Association (FCCA), the American Association of State Highway and Transportation Officials (AASHTO), and the International Municipal Signal Association (IMSA), and added two additional at-large positions. Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 96-86, *Order on Reconsideration*, 22 FCC Rcd 19935 (2007). The Chiefs of the Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau jointly appointed to the voting board the American Hospital Association (AHA), the National Fraternal Order of Police (NFOP), the National Association of State 9-1-1 Administrators (NASNA), and the National Emergency Management Association (NEMA). *See* "Public Safety and Homeland Security Bureau and Wireless Telecommunications Bureau Announce the Four At-Large Members of the Public Safety Broadband Licensee's Board of Directors," *Public Notice*, 22 FCC Rcd 19475 (2007).

[80] *Second Report and Order*, 22 FCC Rcd at 15423-26 ¶ 375.

[81] *Id.* at 15426 ¶ 376.

[82] *Id.* at 15426 ¶ 377.

unanimous vote be required for a major undertaking of the Public Safety Broadband Licensee? What would such an undertaking include? In the alternative, should we require a supermajority vote in such instances instead of a unanimous vote? In addition, should we provide for Commission review of decisions requiring a unanimous or supermajority vote, or should the Commission make certain decisions for the Public Safety Broadband Licensee if unanimity or supermajority is not achieved?

50. With respect to the voting board, we seek comment on the composition of the board, and its size. Should we include additional or fewer entities? If so, what qualifications should we require of such entities? We also seek comment on whether we should eliminate altogether the requirement of inclusion of specific voting board members. If we eliminate this requirement, how should we ensure that broad representation of the public safety community is adequately addressed? With respect to the leadership of the board, should we revise the terms of the officers? Should we require a unanimous vote for appointment of officers? Should we require a rotating chairmanship among the voting board members? Should the Commission appoint a chairperson if unanimous consent cannot be attained?

51. *Commission oversight.* We also seek comment on how the Commission can better exercise oversight over the activities of the Public Safety Broadband Licensee and the commercial partner. Is quarterly financial reporting adequate, or are additional disclosures by the Public Safety Broadband Licensee or commercial partner necessary? What additional measures, if any, should the Commission take to ensure the appropriate level of oversight. For example, should Commission approval of certain activities be required before the Public Safety Broadband Licensee may undertake them? For example, should Commission approval be required before the Public Safety Broadband Licensee enters into contracts of a particular duration or cumulative dollar amount? Should we require or reserve the right to have Commission staff attend meetings of the voting board?

52. *Role of State Governments.* We seek comment on whether providing a nationwide, interoperable broadband network might be more effectively and efficiently accomplished by allowing State governments (or other entities that have or plan interoperable networks for the benefit of public safety) to assume responsibility for coordinating the participation of the public safety providers in their jurisdictions. To the extent commenters believe the State governments should assume such a role, we seek comment on the proper relationship between the State governments and the Public Safety Broadband Licensee and on our authority to establish such a role for State governments. Should the Public Safety Broadband Licensee be authorized to choose a minimum standard for any public safety broadband operation, with the State governments given the responsibility to work with public safety providers to implement operations in their jurisdictions? Would such an approach allow State governments wanting higher-grade networks to implement separately these more-advanced systems, while those wanting networks at the minimum standard avoid what they may consider unnecessary expenses? Are State governments better situated to address implementation challenges that cross public safety jurisdictions (*e.g.*, coordinating use by sheriffs departments in neighboring counties) as well as intra-jurisdictional challenges (*e.g.*, coordinating use by the police versus fire departments)? On the other hand, if different jurisdictions chose different grades of networks, would there be a lack of economies of scale and thus higher equipment costs for all public safety users?

53. *Reissuance of the Public Safety Broadband License and selection process.* In light of the changes contemplated above and the corresponding changes contemplated with respect to the D Block, we seek comment on whether we should rescind the current 700 MHz Public Safety Broadband License and seek new applicants. If so, should we use the same procedures as before, *i.e.*, delegating authority to the Chief, Public Safety and Homeland Security Bureau to solicit applications, specifying any changed criteria that may be adopted following this Second Further Notice, and having the Commission select the licensee? Are there considerations other than those above or previously considered that should be taken into account in selecting the licensee? Recognizing the need to identify the licensee quickly to enable the effective development of the 700 MHz Public/Private Partnership, what mechanism should the Commission use to assign the license if there is more than one qualified applicant?

B. Possible Revisions/Clarifications Relating to the 700 MHz Public/Private Partnership

54. As a preliminary matter, we seek comment on whether the public interest would best be served by the development of a nationwide, interoperable wireless broadband network for both commercial and public safety services through the 700 MHz Public/Private Partnership between the D Block licensee and the Public Safety Broadband Licensee, and whether we should therefore continue to require that the D Block licensee and Public Safety Broadband Licensee enter into the 700 MHz Public/Private Partnership. Below, we consider in detail the Commission's options in the event that we continue this requirement. We seek comment on a broad set of possible revisions to the 700 MHz Public/Private Partnership, including revisions and/or clarifications with regard to the respective obligations of the D Block licensee and the Public Safety Broadband Licensee.

55. First, we address the terms of the 700 MHz Public/Private Partnership, including (1) what the D Block licensee is required to construct; and (2) the operational roles of the D Block licensee and Public Safety Broadband Licensee once the network is constructed. With regard to network construction requirements, we seek comment on (1) the technical specifications of the network; (2) whether to provide public safety users with access to D Block spectrum during emergencies and, if so, under what terms; and (3) the build-out obligations of the D Block licensee, and whether such obligations should be revised in conjunction with a modification to the D Block license term. Regarding operational roles, we seek comment on the respective roles and responsibilities of the D Block licensee and Public Safety Broadband Licensee with regard to the operation of the network, including the management of users on the network, and we seek comment regarding service or spectrum usage fees.

56. Next, we address the procedures by which the winning bidder of the D Block license will enter into a Network Sharing Agreement (NSA) with the Public Safety Broadband Licensee that will further define and govern the 700 MHz Public/Private Partnership. Specifically, we seek comment on possible revisions to the rules relating to both the negotiation of the NSA and the dispute resolution procedures applicable in the event the parties are unable to reach agreement on NSA terms. In particular, we seek comment on whether, following a default due to the failure of a winning bidder for the D Block license to execute an NSA with the Public Safety Broadband Licensee, we either should offer the license to the party with the next highest bid, in descending order, or promptly auction alternative license(s) for the D Block spectrum without the 700 MHz Public/Private Partnership conditions and subject to alternative service rules.

57. We then seek comment on a number of issues related to the auction of the D Block license, including (1) whether to restrict who may participate in the new auction of the D Block license; (2) how to determine any reserve price for such an auction; (3) whether to adopt an exception to the impermissible material relationship rule for the determination of designated entity eligibility with respect to arrangements for the lease or resale (including wholesale) of the spectrum capacity of the D Block license; and (4) whether we should modify the auction default payment rules with respect to the D Block winning bidder. We also seek comment on the rules governing the relocation of public safety narrowband operations and the D Block license winner's obligations to fund that relocation, and on any other revisions that may be appropriate with regard to the 700 MHz Public/Private Partnership. Finally, we seek comment on other revisions or clarifications that may be appropriate with regard to the 700 MHz Public/Private Partnership, including whether to license the D Block and public safety broadband spectrum on a nationwide or REAG basis.

1. The 700 MHz Public/Private Partnership

a. Network/System Requirements

58. Assuming that we determinate that we should continue to require the 700 MHz Public/Private Partnership, in this section, we seek comment on whether to adopt changes to the requirements of the network that the D Block licensee is required to construct, and whether to modify the required schedule for that construction.[83] We seek comment on what changes will best serve the Commission's goal of making a broadband, interoperable network available on a nationwide basis to public safety entities, which requires providing sufficient assurances to bidders for the D Block license that the required shared network will be commercially viable. We also are seeking comment below on the costs to build and operate such a broadband, interoperable network, including the specific costs necessary to meet public safety needs and the additional costs of covering remote areas.

(i) Technical Requirements for the Shared Wireless Broadband Network

59. Background. In the *Second Report and Order*, we found that in order to ensure a successful public/private partnership between the D Block licensee and the Public Safety Broadband Licensee, with a shared nationwide interoperable broadband network infrastructure that meets the needs of public safety, we must adopt certain technical network requirements.[84] Accordingly, among other requirements, we mandated that the network incorporate the following technical specifications:

- Specifications for a broadband technology platform that provides mobile voice, video, and data capability that is seamlessly interoperable across agencies, jurisdictions, and geographic areas. The platform should also include current and evolving state-of-the-art technologies reasonably made available in the commercial marketplace with features beneficial to the public safety community (*e.g.*, increased bandwidth).
- Sufficient signal coverage to ensure reliable operation throughout the service area consistent with typical public safety communications systems (*i.e.*, 99.7 percent or better reliability).
- Sufficient robustness to meet the reliability and performance requirements of public safety. To meet this standard, network specifications must include features such as hardening of transmission facilities and antenna towers to withstand harsh weather and disaster conditions, and backup power sufficient to maintain operations for an extended period of time.
- Sufficient capacity to meet the needs of public safety, particularly during emergency and disaster situations, so that public safety applications are not degraded (*i.e.*, increased blockage rates and/or transmission times or reduced data speeds) during periods of heavy usage. In considering this requirement, we expect the network to employ spectrum efficient techniques, such as frequency reuse and sectorized or adaptive antennas.
- Security and encryption consistent with state-of-the-art technologies.[85]

60. We required that the parties determine more specifically what these technical specifications would be and implement them through the NSA. In addition, we required that the parties determine and implement other detailed specifications of the network that the D Block licensee would

[83] 47 C.F.R. §§ 27.1305, 27.14(m).

[84] *Second Report and Order*, 22 FCC Rcd at 15433 ¶ 405.

[85] *Id.*

construct.[86] We determined that allowing the parties to determine specific details, including the technologies that would be used, subject to approval by the Commission, would provide the parties with flexibility to evaluate the cost and performance of all available solutions while ensuring that the shared wireless broadband network has all the capabilities and attributes needed for a public safety broadband network.[87]

61. Discussion. We seek comment on whether we should clarify or modify any aspect of the technical network requirements adopted in the *Second Report and Order* or otherwise establish with more detail the technical requirements of the network. To guide the discussion that follows, and to enable more focused comment that better assists the Commission as we address these technical requirements, we attach as an appendix a possible technical framework ("Technical Appendix") that identifies in greater detail potential technical parameters for the shared wireless broadband network. We thus seek detailed comment on this Technical Appendix, as well as on the following discussion points.

62. Would clarifications in this regard provide appropriate additional certainty, prior to re-auction, regarding the obligations of the D Block licensee and the costs of the network that this licensee would be expected to construct? Would such specification enhance the abilities of the winning bidder of the D Block license and the Public Safety Broadband Licensee to negotiate the NSA? Would modifications provide greater assurance that the required network would be economically viable? Conversely, would greater specificity hinder the NSA negotiations or otherwise inadvertently impact the success of the 700 MHz Public/Private Partnership?

63. We seek comment on whether, as a general matter, maintaining parties' flexibility to negotiate most details of the network specifications would best serve the public interest goals of the partnership. We seek comment on what technical requirements should be specified in advance, rather than being left to be negotiated after the auction, and whether there are any critical aspects of the network, either in the existing requirements or beyond those already addressed, that it would be beneficial to specify or clarify in the rules in order to increase bidder certainty regarding the cost of the D Block obligations. In addition, are there network specifications that would be particularly difficult to negotiate in the absence of further clarification by the Commission?

64. Are any changes to requirements needed to reflect the practical differences between the architecture of traditional local wireless public safety systems and the architecture of nationwide commercial broadband network systems? If so, we seek comment on what requirements, modifications, or clarifications we should adopt. Conversely, we seek comment on whether to require national standardization in the implementation of these network requirements, and the extent to which national standardization will help the network to achieve efficiency and economies of scale and scope.

65. We also welcome comments on other specifications we required of the network. These included:

- A mechanism to automatically prioritize public safety communications over commercial uses on a real-time basis and to assign the highest priority to communications involving safety of life and property and homeland security consistent with the requirements adopted in the *Second Report and Order*;
- Operational capabilities consistent with features and requirements specified by the Public Safety Broadband Licensee that are typical of current and evolving state-of-the-art public

[86] *Id.* at 15434 ¶ 406.

[87] *Id.* at 15426 ¶ 383.

safety systems (such as connection to the PSTN, push-to-talk, one-to-one and one-to-many communications, etc.);

- Operational control of the network by the Public Safety Broadband Licensee to the extent necessary to ensure public safety requirements are met; and
- A requirement to make available at least one handset that would be suitable for public safety use and include an integrated satellite solution, rendering the handset capable of operating both on the 700 MHz public safety spectrum and on satellite frequencies.[88]

66. Commenters with proposals should provide detailed information regarding their proposed technical network specifications, and the extent to which such proposals are typical of current wireless public safety or commercial systems. For example, with regard to any particular network requirement, are there any established public safety standards in the broadband context? To what extent have these standards been implemented in commercial networks? Commenters should also discuss how such proposals will ensure that the goals of the 700 MHz Public/Private Partnership are met, in particular by enabling the creation of a viable commercial network that addresses the unique needs of the public safety community.

67. We seek comment on how the technical specifications of existing or anticipated future public safety networks differ from existing or anticipated commercial networks. Commenters are encouraged to be as specific as possible in answering these questions, providing detailed technical data where possible. How different are the technical specifications of existing or anticipated public safety networks from other public safety networks? How do the technical requirements of different public safety networks differ based upon factors such as intended user base and local morphology (e.g., urban vs. rural environments; fire, police, emergency medical service and other first responders; in-building vs. outdoor usage; high-speed vehicular vs. pedestrian public safety users, etc.)? How do these technical requirements differ based upon factors such as type of use (mission-critical voice and data versus non-mission-critical communications)? What purposes, if any, do public safety users make of commercial wireless networks today for mission-critical and/or non-mission-critical communications? How distinct in practice is the line between mission-critical and non-mission-critical communications? How do network construction and operation costs vary among different types of public safety networks and between public safety and commercial networks? To what extent can a commercial provider make use of publicly-owned or leased property, and how could use of such facilities affect the cost of constructing and operating a public safety broadband network?

68. We seek comment on the payment and funding models employed by public safety users when building and operating dedicated public safety networks (e.g., construction and operation by municipal employees, construction and operation by private subcontractors). Similarly, we seek comment on the payment and funding models employed by public safety users when they rely upon commercial wireless services. Are fees assessed based on usage, number of users, or other factors? What provisions are typically made for unanticipated demand for services and how are these reconciled with fixed budgets? Again, commenters are encouraged to be as specific as possible in answering these questions, providing specific cost data or concrete numerical estimates where possible.

69. We note that the Public Safety Spectrum Trust ("PSST"), after it was designated Public Safety Broadband Licensee by the Commission, released what it referred to as a Bidders Information Document ("BID"), which, it stated, was offered to provide "high-level information regarding the PSST's expectations of the D Block partner in building and operating the shared Public/Private network" and "to

[88] *Id.* at 15433-34 ¶ 405. We seek comment on the responsibilities of the D Block licensee with regard to the operation of the shared network elsewhere herein.

define and detail certain expectations that the PSST has for this partnership."[89] We emphasize that the BID has no formal legal role in the development of the nationwide, broadband public safety network under the existing rules and we express no view on the positions taken by the PSST as reflected in the BID. We take this opportunity, however, to seek comment on the impact of the BID on the previous auction, whether any particular aspects of the PSST's "expectations" were of particular concern to potential bidders or of particular importance to public safety entities, whether the release of the BID was helpful in clarifying costs, what role the BID played in pre-auction discussions and what formal role, if any, that a document similar to the BID such as a statement of requirements should play in establishing or clarifying the technical requirements of the nationwide, broadband public safety network under revised rules. We note, for example, that one commercial entity has suggested that the Public Safety Broadband Licensee should be required to release a statement of requirements before auction, and that the statement of requirements should constrain the elements that the Public Safety Broadband Licensee can require in the shared network.[90] We seek comment on this suggestion.

70. With these questions and issues in mind, we seek comment on whether the Commission should itself establish in a detailed and comprehensive fashion the technical obligations of the D Block licensee with regard to the network, and if so, what specifications it should adopt. For example, we seek comment on whether the attached Technical Framework could, following comment on its specific components, provide for establishing an appropriate set of requirements for the shared wireless broadband network. We also seek comment on a number of particular technical issues, as set forth below.

71. *Specification for broadband technology platform.* We seek comment on whether we should modify or further clarify any aspect of the broadband technology platform specifications provided in the *Second Report and Order*. Would clarifying that the D Block winning bidder has the right to make the final technical determinations with regard to the network platform serve the public interest? Should the Commission specify the precise public safety services and applications that must be carried or that need not be carried, beyond typical broadband applications (*e.g.*, Internet access, video, multimedia), such as cellular telephony, dispatch voice service, push-to-talk, etc., and if so, what should they be? Should we establish limits on the obligation to accommodate applications similar to those established in the C Block? For example, should we provide that there is no obligation to carry customized applications where accommodating such applications would require modifying network infrastructure or back-office systems?[91] What impact might any of these determinations have on the utility of the network for public safety purposes?

72. We ask commenters to provide detailed information regarding any proposed broadband platform solution. How can we establish a set of requirements that will meet public safety's needs while providing prospective bidders with sufficient certainty that it will be possible to construct a system that is economically viable? How can we best meet this objective without impeding flexibility regarding network design or inadvertently deterring potential bidders from participating in the auction?

73. *Reliability.* We seek comment on whether we should modify any aspect of the reliability standard established in the *Second Report and Order*. Should we eliminate the specific requirement of 99.7 percent network reliability and impose only the general requirement of "reliable operation

[89] *See* Letter from Harlin R. McEwen, Chairman, Public Safety Spectrum Trust to Prospective D Block Bidders (Nov. 30, 2007) (*available at* http://www.psst.org/documents/BID2_0.pdf) at 3. The PSST released an initial version of this document on November 15, 2007, and released version 2.0, the final version, on November 30, 2007. *See* http://www.psst.org/bidsummary.jsp.

[90] *See* AT&T Petition for Reconsideration at 4-5.

[91] *See Second Report and Order*, 22 FCC Rcd at 15371 n.502.

throughout the service area consistent with typical public safety communications," leaving the specific level of reliability to negotiations? Should we specify a different level of reliability, such as 95 percent reliability over 95 percent of a defined area?[92] Does the latter standard better reflect a typical level of reliability in public safety communications systems? Further, is the typical level of reliability in public safety systems a relevant factor for cellularized broadband systems? Are there any real-world examples of reliability based on cellularized broadband systems used by public safety?

74. We also seek comment on whether, in the event we continue to require a specific level of reliability, we should nevertheless expressly provide that the parties have flexibility to mutually agree to a different level in particular geographic areas. Are there specific provisions related to reliability that would create unreasonable challenges in establishing the network? If so, what limitations should we establish? Finally, we seek comment on how the reliability standard impacts the performance requirement, *e.g.*, might it effectively transform the population-based performance requirements into geographic benchmarks?

75. *Robustness and hardening.* We seek comment on whether to further specify or modify the requirements of the network regarding robustness and hardening. For example, should we further specify the particular environmental conditions (temperature range, wind, vibration, etc.) that the installations must be designed to withstand? Should we specify the minimal number of hours that base stations and network equipment must be capable of operating in the event of a power outage? Should we require an onsite power generator and a specific supply of fuel for each base station? Should we simply provide that the network must meet the same requirements regarding backup power applicable to commercial mobile radio service providers, given that these requirements were themselves established to meet homeland security and public safety goals?[93] Should we address whether and to what extent redundant infrastructure must be provided, such as provisions for overlapping cell sites that could provide backup coverage in an emergency, and if so, how would such provisions impact the viability of the system and its cost? Should we establish minimum obligations to have access to backup equipment and systems, such as cellular systems on wheels, or minimum timeframes for system restoration? Alternatively or additionally, should we establish ceilings on the extent of robustness and hardening that may be required of the D Block licensee?

76. We also seek comment on whether these requirements should be subject to variation. Should we specify circumstances in which the robustness and hardening obligations may vary, such as to account for local zoning restrictions, geography, or patterns of weather? Should we alternatively specify that the extent and circumstances of variation will be left to the parties to negotiate? Commenters advocating particular requirements relative to robustness and hardening should also explain how their proposals compare to the standards for current public safety wireless systems.

77. *Capacity, throughput, and quality of service.* As stated in the *Second Report and Order*, NPSTC contended that capacity is a key consideration, arguing that "the Commission should require a detailed capacity plan as one of the central elements in the negotiated agreement . . . ."[94] Should we further specify the minimum levels of capacity or throughput (*i.e.* data transmission rates), or ceilings on such levels, that the network must provide? If so, how should such levels be defined? Should they vary by geographic location, or other conditions? Should we establish other quality of service parameters,

[92] *See* Cyren Call Petition for Reconsideration at 8; Frontline Petition for Reconsideration at 23.

[93] *See, e.g.*, Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks, EB Docket No. 06-119, WC Docket No. 06-63, *Order on Reconsideration*, 22 FCC Rcd 18013 (2007).

[94] *Second Report and Order*, 22 FCC Rcd at 15433 ¶ 404 (quoting NPSTC *700 MHz Further Notice* Comments at 13).

such as resource reservation and session control mechanisms? What means should be made available by the D Block licensee to enable public safety to monitor the quality of service in an unobtrusive way and without the addition of significant cost to the network? Should the means be nationally standardized and/or be limited to those provided by the D Block licensee? Is there a need for a formal process to address future increases in demand?

78. As we have emphasized throughout this Second Further Notice, one of the key elements of the 700 MHz Public/Private Partnership is the D Block licensee's access to the public safety broadband spectrum on a secondary basis to defray the cost of building a nationwide network serving both commercial and public safety users. We thus invite comment as to whether there are any particular services or applications that might be too inefficient or far removed from typical public safety communications needs, or that may overburden or otherwise not be viable for a broadband network, such that they may frustrate this key element by excessively limiting or precluding the secondary access to this spectrum contemplated in the *Second Report and Order*. For example, would it be appropriate to prohibit or restrict use of the network for continuous or routine video surveillance from fixed locations as being an inefficient or inappropriate use of the capacity of the shared wireless broadband network?[95] Would such use create undue uncertainty concerning network availability for either the D Block licensee or for public safety users? If there are such concerns, how else should they be addressed? Are other frequencies available to public safety users more appropriate for fixed video applications? Could such networks be made interoperable with the public safety broadband network using 700 MHz spectrum? What are the relative costs of using alternative frequencies? What cost savings, if any, would there be to incorporating video into the 700 MHz network as compared to allowing individual jurisdictions to develop their own fixed video wireless networks? Should we set certain parameters to determine or predict capacity needs of public safety users? We could, for example, base the capacity needs on the levels of authority within the public safety community, the existence or absence of an "emergency" (further discussed below), or type, time, or location of communication. Are there any technical, operational, or cost-based means to monitor or regulate capacity needs of certain public safety entities? Should we require the Public Safety Broadband Licensee to forecast public safety use on a regular basis (monthly, quarterly), or otherwise provide the assistance needed for the D Block licensee to make such predictions? Commenters proposing any limits to address such capacity concerns should provide detailed information on how such limitations could be implemented without compromising public safety. Would payment obligations of public safety users for network use be sufficient incentive for users to voluntarily limit use? Would a rate-of-return or cost-plus pricing mechanism provide the appropriate incentives? Alternatively, should we vary the obligations of the D Block licensee, its right to recover costs from public safety, or other terms of the NSA, based on the extent to which the public safety broadband spectrum is available for commercial operations? Or is it sufficient to clarify that the parties may negotiate such variations?

79. *Security and encryption.* Should we provide greater specificity regarding what the D Block licensee must provide with regard to security and encryption, or establish an alternate requirement? Should we identify further what constitutes "state-of-the-art" security and encryption technology? Should we limit the requirement to technical network solutions or standards for security and encryption implemented on a nationwide basis? We seek comment on the costs and practical challenges of implementing such measures in the public/private network to be constructed by the D Block licensee, particularly in the event that we permit local variation in the security solutions and standards.

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[95] *See, e.g.*, "DC OCTO Wireless Broadband Network Wins Police Chiefs' Technology Award," http://newsroom.dc.gov/show.aspx/agency/octo/section/2/release/6342 (stating that the DC wireless broadband network is designed to provide, among other applications, "remote video surveillance"); *see also* http://govtsecurity.com/state_local_security/close_watch/ (stating, with regard to Baltimore, Maryland video surveillance system, that "[m]any of the city's surveillance cameras and all of its housing cameras are wireless" and that "[w]ireless camera signals from groups of cameras are brought back to a fiber node . . . .").