



# Public-Private Partnership for a Public Safety Network: Governance and Policy

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## Summary

This report summarizes salient points of Federal Communications Commission (FCC) actions regarding the creation of a public-private partnership to build and manage a national communications network for public safety use. The Communications Act of 1934, as amended, empowers the FCC to set rules for auctions and to take steps to ensure the safety of the public. The FCC has used this authority to design a governance structure that would allow a Public Safety Broadband Licensee (PSBL) to share spectrum rights with a commercial enterprise and to collaborate in the construction and management of a shared network. As currently proposed by the FCC, a public-private partnership would build a shared network on spectrum capacity assigned to two separate license-holders. In the FCC plan, the PSBL would hold a national license of 10MHz in the 700 MHz band and a commercial partner would hold an adjacent license for 10 MHz, nationwide, designated as the D Block. The two licensees and the network would operate according to requirements set out by the FCC as part of its rulemaking for the auction of frequencies within the 700 MHz band. These frequencies are being vacated by television broadcasters in their switch to digital technologies.

In an auction that ended on March 18, 2008, the one bid for the D Block was well below the reserve price set for that license. The FCC therefore did not assign the license but has proceeded to review its rules regarding licensing, structuring a partnership, setting service requirements, and other rules and obligations established prior to the commencement of Auction 73. It has prepared a further notice of proposed rule-making that seeks comments on identified options that might be pursued in disposing of the D Block. The FCC's current proposals for the creation of a nationwide, interoperable public safety broadband network depend on the successful sale of the D Block to a commercial entity willing to invest in a public-private network partnership. The FCC auction requirements do not reference Congress's requirements for the Department of Homeland Security to provide a national communications capability (P.L. 109-295, Title VI, Subtitle D).

Some of the proposals from the FCC or frequently mentioned by industry experts are reviewed in this report. Some of the possible solutions can be achieved exclusively through the rule-making process but several that address how best to salvage plans for a nationwide, broadband network for public safety would require the assistance of Congress through legislation. A bill that would provide financial assistance to the Public Safety Broadband Licensee through grants made by the FCC has been introduced. The Public Safety Broadband Authorization Act of 2008 (H.R. 6055, Harman) would establish conditions for the operations of the PSBL and would provide \$1 million in both FY2009 and FY2010 for expenses. An additional \$2 million would be authorized for used by the FCC "to promote the establishment of a nationwide, interoperable broadband public safety communications network." The Reliable, Effective, and Sustained Procurement of New Devices for Emergency Responders (RESPONDER) Act of 2008 (S. 3465, Wicker) would create a First Responders Interoperable Device Availability Trust Fund to provide grants to purchase interoperable radios for the new public safety network.

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## Introduction

This discussion of governance for a public-private partnership is based on preparations undertaken by the Federal Communications Commission (FCC) to auction 62 MHz<sup>1</sup> of radio frequencies in the 700 MHz band of radio spectrum in conformance with requirements in the Deficit Reduction Act.<sup>2</sup> The FCC issued rules, in a *Second Report and Order*,<sup>3</sup> concerning the allocation of this spectrum, the auction, the final disposition of spectrum assigned for public safety use, and the creation of a public-private partnership to build and operate a network for public safety users, with agreements for sharing spectrum. Responding to a requirement in the Balanced Budget Act of 1997, the FCC had previously set aside 24 MHz in the same bandwidth for public safety users.<sup>4</sup> In the *Second Report and Order*, it proposed to set aside 10 MHz from the public safety frequency bands to be paired with 10 MHz of auctionable spectrum to create a shared network of 20 MHz for a nationwide broadband network.

The decision to create a shared network was centered on two conclusions, endorsed by the FCC and the majority of stakeholders: (1) that a network with national coverage would meet public safety needs for robust communications capabilities, information, and interoperability; and (2) that sharing spectrum and network facilities with commercial users would benefit public safety by providing new sources of funding,<sup>5</sup> economies of scale in building the needed network, and access to additional spectrum in times of large-scale emergencies, among other benefits.

## Public-Private Partnership: The Auction

As structured by the FCC, two adjacent spectrum license-holders would collaborate so that their combined spectrum capacity would be adequate to support a broadband network. In anticipation of obtaining a commercial partner, the FCC assigned a national license for 10 MHz to a not-for-profit corporation formed to represent public safety interests. This public safety license was created from the 24 MHz originally assigned to public safety through regional, state, and local negotiations for spectrum assignments. It is administered by a Public Safety Broadband Licensee (PSBL), chosen by the FCC. From the frequencies intended for commercial use, the FCC designated 10 MHz to be paired with public safety's 10 MHz to create a shared network. This license was to be sold to a commercial enterprise as part of the auction of licenses at 700 MHz, Auction 73. The commercial license, known as the D Block, attracted only one bidder at the

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<sup>1</sup> Spectrum allocations are assigned within bands that are divided into bandwidths or channels based on assigned frequencies. Electromagnetic radio waves are usually identified by frequency, measured in cycles per second, or hertz. Standard abbreviations for measuring frequencies include kHz—kilohertz or thousands of hertz; MHz—megahertz, or millions of hertz; and GHz—gigahertz, or billions of hertz. The 700 MHz band plan (698 MHz to 806 MHz) refers to those channels that are assigned to technologies that transmit signals at speeds within or near 700 million cycles per second.

<sup>2</sup> P.L. 109-171, Sec. 3003 (a) (2).

<sup>3</sup> FCC, *Second Report and Order*, July 31, 2007, WT Docket No. 96-86. The full notice was released August 10, 2007; the Public Notice for comment on proposed auction rules was released August 17, 2007 (AU Docket # 07-157).

<sup>4</sup> As required by Title III of the Balanced Budget Act of 1997 (P.L. 105-33).

<sup>5</sup> Cyren Call Communications Corporation, in ex parte comments filed with the FCC on June 4, 2007, set the cumulative capital expenditure for building a public-private network at \$18 billion, of which roughly a third of the cost would be for enhancements for public safety use. An estimate from Northrop-Grumman Corporation places the cost at \$30 billion, when service applications are included. (Statement by Mark S. Adams, Chief Architect Networks and Communications at WCA 2007, Washington, DC, June 14, 2007.) These estimates do not include the cost of radios.

auction, which concluded March 18, 2008. Qualcomm, Inc. placed an opening bid of \$472 million but there were no other bidders; consequently, the reserve price of \$1.3 billion set by the FCC was not met. In an Order adopted and released on March 20, 2008, the FCC directed the Wireless Telecommunications Bureau not to proceed with the re-auction of the D Block because it is “in the public interest to provide additional time to consider all options ...”<sup>6</sup>

The FCC therefore initiated a review of its rules regarding licensing, structuring a partnership, setting service requirements, and other rules and obligations established prior to the commencement of Auction 73. It prepared a further notice of proposed rule-making that sought comments on identified options that might be pursued in disposing of the D Block.<sup>7</sup> From these comments, the FCC prepared a *Third Further Notice of Proposed Rulemaking* that lays out new auction rules for the D Block.<sup>8</sup> For the most part, the new rules represent modifications of the rules prepared for Auction 73. A single, nationwide license has been maintained for the Public Safety Broadband Licensee but the commercial license will be offered as either a national license or in smaller licenses covering 58 regions.<sup>9</sup> A number of public safety associations and officials have asked that the PSBL allow local public safety networks to operate on and manage access to the public safety spectrum. The national licensee would assure common standards and interoperability across all systems while allowing local networks to negotiate sharing arrangements and services that met their specific needs.<sup>10</sup>

## **Congressional Policy and the Public-Private Partnership**

From the perspective of Congressional policy, one of the key issues that has emerged from the discussions of the auction is how best to combine public and private spectrum license ownership with the important goal of a national capability for public safety communications support. The FCC and the Office of Emergency Communications at the Department of Homeland Security (DHS) are pursuing separate paths for developing this communications response.<sup>11</sup> According to testimony, neither agency has undertaken to incorporate each other’s goals in their specific planning.<sup>12</sup>

Another major policy consideration for Congress is the identification of funding solutions for various parts of the program. As discussed below, the FCC has proposed to resolve these needs through levies on the commercial partner or requirements for performance. Public sector funding

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<sup>6</sup> FCC, *Order*, AU Docket No. 07-157, March 20, 2008 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-91A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-91A1.pdf).

<sup>7</sup> FCC, *Second Further Notice of Proposed Rulemaking*, released May 14, 2008, PS Docket No. 06-229 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-128A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-128A1.pdf).

<sup>8</sup> FCC, *Third Further Notice of Proposed Rulemaking*, released September 25, 2008, PS Docket No 06-229 at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-230A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-08-230A1.pdf).

<sup>9</sup> FCC News, “FCC Moves a Step Closer to Solving Nation’s Communications Challenges Currently Faced By America’s First Responders,” September 25, 2008 at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/DOC-285630A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/DOC-285630A1.pdf).

<sup>10</sup> This point-of-view was described in testimony by Deputy Chief Charles Dowd, City of New York Police Department, at a hearing of the House Committee on Homeland Security, Subcommittee on Emergency Communications, Preparedness, and Response, on September 16, 2008: “Interoperability in the Next Administration: Assessing the Derailed 700 MHz D Block Public Safety Auction.” (Hearing, September 16, 2008.)

<sup>11</sup> For a discussion of the activities of the Office of Emergency Communications, see CRS Report RL33747, *Emergency Communications Legislation: Implications for the 110<sup>th</sup> Congress*, by (name redacted).

<sup>12</sup> Oral and written testimony given at the Hearing, September 16, 2008.

is another possibility that may receive renewed interest in the current economic situation. An economic stimulus program that includes funding for improvements to critical infrastructure could include a component for public safety networks. By temporarily assuming the role of the commercial partner, the federal government could preserve the principle of the shared network, assure the construction of the network, and sell the ongoing business to the private sector.

## **Public-Private Partnership: Key Assumptions**

It was noted above that there is general agreement that sharing spectrum and network facilities with commercial users would benefit public safety by providing new sources of funding, economies of scale in building the needed network, and access to additional spectrum in times of large-scale emergencies. These benefits are generally accepted as concrete and desirable and, although there is much discussion about how to achieve the goal of sharing resources between the public and private sectors, the consensus remains that this is the goal. For the purpose of analysis, this report further assumes three needs that must be met for an effective solution. These are

- Sufficient spectrum for a broadband network. The amount of spectrum needed to operate a nationwide broadband network, with the coverage required by public safety, is at least 20 MHz, according to most experts.
- Source of funds. A source of funds needs to be identified to meet unavoidable costs to public safety associated with the creation of a single, national public safety license. These costs include the costs of rebanding as part of the new allocation plan for 700 MHz set forth by the FCC, and the costs of spectrum license administration and frequency coordination—tasks usually managed through state or local agencies.
- Management structure. The key elements for a public-private partnership as set forth by the FCC are: 1) a Public Safety Broadband Licensee; 2) a public-private partnership; and 3) a Network Sharing Agreement, required in order to build and manage a network shared by commercial users and emergency personnel.

There is also a frequently mentioned assumption that is not associated with a particular solution.

- Commercial partner(s) will use the shared network for consumer services and therefore incentives are required to build out a network that meets the higher standards required for public safety.

This assumption ignores the projections for significant demand from the business sector for mobile access to data and the requirements of many businesses for security and reliability equal to or greater than those of public safety.

## **Public-Private Partnership: The Debate and Options**

Since the conclusion of the auction, there has been a vigorous public debate about why the D Block license was not successfully auctioned and what steps might be taken going forward to assign the license.<sup>13</sup> Some of the reasons why the D Block failed to attract a winning bid have

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<sup>13</sup> The FCC's Office of Inspector General issued a report that covered some of the reasons cited for non-participation: "D Block Investigation," April 25, 2008 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-281791A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-281791A1.pdf). (continued...)



been circulated through the media and presented at congressional hearings.<sup>14</sup> Discussion of possible flaws in the structure of the auction, and how some rules may have discouraged potential bidders, is only part of the debate. The debate also encompasses other solutions to meet the goal of proving an interoperable public safety broadband network. Principle points under consideration can be categorized as

- Modify the auction rules to eliminate FCC requirements that might have discouraged potential bidders and keep the structure of the public-private partnership intact. *This course assumes that the business case for the public-private partnership is sound and changing auction rules, without changing the structure of the partnership, will be sufficient to attract a bidder.*
- Eliminate the network sharing requirement, while empowering public safety to negotiate independently for public-private partnerships or other sharing agreements, and auction the D Block license without the public safety requirements. *This course assumes that there is both a structure and adequate spectrum capacity to enable different entities to collaborate successfully in constructing a nationwide capability for public safety interoperability.*
- Use federal funds to build a public safety network. *This course is usually predicated on using proceeds from the auction of 700 MHz frequencies and assumes that there are sufficient funds and a management structure to achieve the goal. This course notably requires congressional action to authorize expenditures.*
- Choose a different organizational structure for managing a public safety network that shares resources and infrastructure with commercial and other spectrum-license holders. *This course requires congressional action to authorize expenditures and may further require legislation to provide the organizational structure.*

These solutions are not mutually exclusive and several proposals combine different elements. In its *Second Further Notice of Proposed Rulemaking*,<sup>15</sup> the FCC seeks comments on a wide range of options and solutions that it has identified. Most of these would fall within one of the categories summarized below.

## **Modify the Auction Rules**

At a hearing on April 15, 2008, all five FCC commissioners affirmed their support for re-auctioning the D Block under rules that would produce a winning bidder and provide a commercial partner for public safety.<sup>16</sup> Their remarks also indicated the intention of the FCC to

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(...continued)

Viewed April 28, 2008.

<sup>14</sup> A hearing on the outcome of the auction, with emphasis on the D Block, was held by the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet on April 15, 2008: "Oversight of the Federal Communications Commission - The 700 MHz Auction." Hearings and comments by members of Congress before the auction occurred also raised concerns about possible problems with auction rules.

<sup>15</sup> FCC, *Second Further Notice of Proposed Rulemaking*, Released May 14, 2008, PS Docket No. 06-229 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-128A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-128A1.pdf).

<sup>16</sup> Oral and written testimony, "Oversight of the Federal Communications Commission - The 700 MHz Auction," April (continued...)



maintain and increase its oversight role in supervising the public-private partnership. The rule changes for the auction could be modifications of requirements for the D-Block winning bidder—such as lowering the reserve price or eliminating the financial penalty for failure to negotiate a completed Network Sharing Agreement—or they could include, for example, changes in the network sharing agreement or the terms applicable to the Public Safety Broadband Licensee (PSBL).

### **Alter or Eliminate the Network Sharing Agreement**

Another course of action that has been proposed is to re-auction the D Block without encumbrances. These encumbrances include provisions that require paying up to \$10 million to cover rebanding costs in the 700 MHz band; expensive build-out requirements; and the network sharing agreement. Some proposals would eliminate the network sharing agreement entirely, offering the D Block as a commercial license under terms similar to the other blocks of licenses assigned through Auction 73.<sup>17</sup> It has been suggested by some that the network sharing agreement will be reworked to accommodate the strongest potential bidders.<sup>18</sup>

### **Use Federal Funds to Build a Public Safety Network**

In conjunction with recommendations to re-auction the D Block without encumbrances, many are suggesting that surplus funds from Auction 73 and possibly other auctions be used to build a public safety network. In oral testimony, FCC Chairman Kevin J. Martin referred to the Public Safety Interoperability Implementation Act (H.R. 3116, Representative Stupak), which would use spectrum license auction proceeds to fund public safety communications, as an example of a mechanism to provide funding.<sup>19</sup> FCC Chairman Kevin J. Martin<sup>20</sup> and Commissioner Michael J. Copps<sup>21</sup> testified that they preferred a solution that used federal funds to meet public safety needs for a nationwide, interoperable network. Absent financial support from the federal government for a public safety network, they testified, the FCC has sought to craft a solution that would use private sector funds to build the needed network.<sup>22</sup> Recommendations for using spectrum

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15, 2008.

<sup>17</sup> Among those urging this course in testimony were Coleman Bazilon [http://energycommerce.house.gov/cmte\\_mtgs/110-ti-hrg.041508.Bazelon-testimony.pdf](http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.041508.Bazelon-testimony.pdf) and Steven E. Zipperstein [http://energycommerce.house.gov/cmte\\_mtgs/110-ti-hrg.041508.Zipperstein-testimony.pdf](http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.041508.Zipperstein-testimony.pdf); “Oversight of the Federal Communications Commission - The 700 MHz Auction,” April 15, 2008.

<sup>18</sup> For example, Washington Telecom, Media & Tech Insider, by Blair Levin, Rebecca Arbogast, and David Kaut, April 18, 2008. “With competitors either struggling or less motivated to build a new network, AT&T and particularly Verizon appear to be in the best position to negotiate terms and bid on the spectrum.”

<sup>19</sup> “Oversight of the Federal Communications Commission - The 700 MHz Auction,” April 15, 2008. For background, see CRS Report RS21508, *Spectrum Management and Special Funds*, by (name redacted).

<sup>20</sup> Written and oral testimony [http://energycommerce.house.gov/cmte\\_mtgs/110-ti-hrg.041508.Martin-testimony.pdf](http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.041508.Martin-testimony.pdf); “Oversight of the Federal Communications Commission - The 700 MHz Auction,” April 15, 2008.

<sup>21</sup> Written and oral testimony [http://energycommerce.house.gov/cmte\\_mtgs/110-ti-hrg.041508.Copps-testimony.pdf](http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.041508.Copps-testimony.pdf); “Oversight of the Federal Communications Commission - The 700 MHz Auction,” April 15, 2008.

<sup>22</sup> For an overview of federal funding for public safety communications, see CRS Report RL33747, *Emergency Communications Legislation: Implications for the 110<sup>th</sup> Congress*, and CRS Report RL32594, *Public Safety Communications Policy*, both by (name redacted).

proceeds to fund a nationwide interoperable network have generally not provided details about how the funds would be distributed to build such a network.

## **Choose a Different Organizational Structure**

Some solutions envision a different structure for managing a shared network that would reduce—but not eliminate—the role of the Public Safety Broadband Licensee.

- Cooperative organization: multiple public safety partners. The obligation of the public-private partnership would be to build an interoperable backbone at 700 MHz that regional, state, and local networks could connect to in times of large-scale emergencies. This would require a smaller financial commitment from the commercial partner and a greater level of participation by state and local agencies that would build out and control access to their parts of the network<sup>23</sup> Network builders and operators would collaborate on solutions to provide interoperability. Appropriated funds for public safety might be distributed through existing grant programs.<sup>24</sup> The commercial network might be the dominant partner, working with hundreds of public safety collaborators, and would therefore probably take the lead in investment and technology decisions.
- Cooperative organization: multiple commercial partners. Instead of a single D Block partner, with a national license, licenses could be assigned to a hundred or more commercial partners with licenses for local markets and rural coverage. In this case, the public safety partner would take the lead in designing the network and choosing the technology and standards to which the commercial partners would be required to build. Conceivably, the FCC could fill the role of network designer, setting standards through rule-making.
- Federal agency. The network sharing agreement would place greater emphasis on the competitive position of the commercial partner. Federal funds, administered primarily through existing programs within the Department of Homeland Security, could be used to build parts of the interoperable backbone at 700 MHz customers. The federal government's role in structuring the agreement would be minimized and replaced by greater support and participation through funding. To assure the economic viability of the public safety network, the federal government might identify federal programs that could participate as network customers.<sup>25</sup>
- Federal corporation. While assuring the same broad-based participation of public safety agencies through a board of directors, a federally chartered corporation, federally chartered not-for-profit corporation, or some quasi-federal organization would be able to hire skilled professionals to operate the network. Funding could come from appropriations for that purpose, through empowerment to raise funds,

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<sup>23</sup> See, for example, testimony of Deputy Chief Charles F. Dowd [http://energycommerce.house.gov/cmte\\_mtg/110-ti-hrg.041508.Dowd-testimony.pdf](http://energycommerce.house.gov/cmte_mtg/110-ti-hrg.041508.Dowd-testimony.pdf); "Oversight of the Federal Communications Commission - The 700 MHz Auction," April 15, 2008.

<sup>24</sup> For information on existing programs, see CRS Report RS22596, *FY2008 Appropriations for State and Local Homeland Security*, by (name redacted).

<sup>25</sup> See, for example, written testimony submitted for the record by Karen P. Tandy, Senior Vice President, Motorola, Inc.; "Oversight of the Federal Communications Commission - The 700 MHz Auction," April 15, 2008.

or a combination of funding tools. The Public Safety Broadband License could remain with the not-for-profit corporation that currently holds the license, the Public Safety Spectrum Trust, or could be re-assigned. Laws governing corporate conduct and congressional oversight would replace the regulatory and oversight roles the FCC crafted through the mechanism of auction rules.<sup>26</sup>

- New public safety network. Although it is outside the power of the FCC to assign the D Block to public safety, with the assistance of Congress it would be possible to create a broadband network for public safety at 700 MHz using the existing Public Safety Broadband License and the D Block.

The above is indicative of the possibilities available to the FCC and to Congress. Without additional authority from Congress, the FCC is limited to directing the outcome almost exclusively through modifications to spectrum band plans, auction rules, service rules, and the network sharing agreement.

The FCC seeks opinions and information on a wide range of questions covering such topics as: provisions and eligibility for using the Public Safety Broadband License; revisions to the public-private partnership, negotiation of the Network Sharing Agreement; structuring the new auction of the D Block; relocation costs and deadlines for changes in 700 MHz frequency assignments; service rules for the D Block; and other opportunities for providing broadband wireless access for public safety.<sup>27</sup>

## **Fund Operating Expenses**

As envisioned by its advisor, Cyren Call Communications Corporation, the Public Safety Spectrum Trust would have borrowed \$197 million secured by projected revenue from its D Block partner in spectrum access fees.<sup>28</sup> This sum was for capital expenditures, such as building an overlay for network administration and customer care for public safety customers, and did not include operating costs. In addition to seeking comment on obligations of the D Block to build the entire shared network,<sup>29</sup> the FCC has sought opinions on other possible sources of funding for capital expenditures and for operating costs.<sup>30</sup>

## ***Existing Programs that Might Fund Operating Costs***

As possible sources of funds to cover operating costs of the Public Safety Broadband Licensee, the FCC has asked for comment on the feasibility of obtaining funding through two existing programs created by the government: the Universal Service Fund (USF) and the Telecommunications Development Fund (TDF).<sup>31</sup> The USF was originally designed to assure

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<sup>26</sup> Several CRS reports discuss federal government corporations and quasi-governmental organizations, including CRS Report RL30365, *Federal Government Corporations: An Overview*, and CRS Report RL30533, *The Quasi Government: Hybrid Organizations with Both Government and Private Sector Legal Characteristics*, both by (name red acted).

<sup>27</sup> FCC, *Second Further Notice of Proposed Rulemaking*, Released May 14, 2008, PS Docket No. 06-229 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-128A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-128A1.pdf).

<sup>28</sup> CRS meeting with Cyren Call executives, March 13, 2008.

<sup>29</sup> *Second Further Notice of Proposed Rulemaking*, paras. 106-116.

<sup>30</sup> *Op. Cit.*, paras. 39-45.

<sup>31</sup> *Op. Cit.*, para 43.

telecommunications services to rural communities; it is funded through assessments on telephone bills.<sup>32</sup> Although the FCC has some say in its management, it is likely that the existing statutes authorizing uses of the fund would have to be amended by Congress. The TDF is a not-for-profit venture capital company created with the passage of the Telecommunications Act of 1996 (Sec. 707) to provide capital—through loans, investments or other means—to small businesses in the telecommunications industry. Its primary source of capital is the interest accrued on deposits held by the FCC as part of spectrum auction procedures.<sup>33</sup>

## **The Public-Private Partnership: FCC Efforts**

This section provides an overview of steps taken by the FCC preceding Auction 73, establishing the key provisions that the FCC is reviewing and may change.

Since it initiated auctions in 1994, the FCC has consistently provided auction rules that allow it to establish financial requirements for potential bidders, to set aside licenses for specific classes of bidders, to provide economic incentives, and to use other tools for managing the auction process.<sup>34</sup>

In addition to setting up rules for the auctions it conducts, the FCC also establishes and enforces service rules for the use of licenses. Among the provisions of service rules for advanced wireless services there is typically a requirement that licenses be put to use within a specific number of years. Service rules can also be used to specify technologies, uses, or users. For Auction 73, the FCC expanded the scope of its service rules to include a plan that would mandate spectrum sharing between a public safety spectrum license holder and a commercial licensee. The commercial licensee would be obligated to build a network to satisfy public safety needs as well as those of its commercial customers.

## **Regulatory Governance Through Service Rules**

The FCC followed past procedures in the creation of service rules to establish the structure for a public-private partnership as part of its preparation for the auction of licenses in the 700 MHz band. In its review of background and discussion of its decisions, in the *Second Report and Order*, the FCC tried to anticipate the problems that might arise in building and operating a shared network and to preclude difficulties by providing a regulatory framework that sets and enforces rules and requirements. The regulatory framework for a public-private partnership comprises sets of binding requirements for organization, performance, and compliance for three interlocking components:

- Public Safety Broadband Licensee holding 10 MHz of spectrum at 700 MHz.

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<sup>32</sup> For a detailed discussion of the USF, see CRS Report RL33979, *Universal Service Fund: Background and Options for Reform*, by (name redacted).

<sup>33</sup> More information at <http://www.TDFund.com>. Additional information on TDF and other programs created by the Telecommunications Act are available in CRS Report RL30719, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs*, by (name redacted) and (name redacted).

<sup>34</sup> See CRS Report RL31764, *Spectrum Management: Auctions*, by (name redacted).

- Commercial partner, the winning bidder for the D Block, a national license for 10 MHz of spectrum at 700 MHz.
- Network Sharing Agreement (NSA) that the two licensees would be required to create in order to build and manage a shared network.

As elaborated in the rules, all three of these components must be tailored to meet guidelines set by the FCC. Contracts and other legal agreements would be approved by the FCC;<sup>35</sup> compliance would be subject to oversight;<sup>36</sup> and disputes would be resolved through the FCC, in accordance with the Communications Act of 1934, or through litigation.<sup>37</sup>

The following overview of the FCC's *Second Report and Order*, and subsequent orders, highlights issues for policy makers that regard public safety communications. This report is not an exhaustive study of all provisions that pertain to public safety nor does it cover the parts of the order dealing with the purely commercial licenses that were subsequently auctioned.<sup>38</sup>

## Public Safety Broadband License

Congress directed the FCC to allocate 24 MHz of spectrum within the 700 MHz band for public safety use as part of the transition from analog to digital television, which would free these airwaves.<sup>39</sup> The initial planning for public safety use of frequencies at 700 MHz began in 1997 and concluded with the submission of the final report of the Public Safety National Coordination Committee (NCC) in 2003. The NCC operated as a Federal Advisory Committee<sup>40</sup> to the FCC, developing technical and operational standards for the 700 MHz band and structuring the management of licenses through regional committees. The existing governance for these channels is made up of 55 Regional Planning Committees (RPCs), loosely coordinated through the efforts of the National Public Safety Telecommunications Council (NPSTC).<sup>41</sup>

The band plan originally intended to carry public safety radio traffic at 700 MHz has been revised to create two different licensing approaches. With the support of NPSTC<sup>42</sup> and others, the FCC negotiated modifications to the band plan that reflect changes in technology and public safety needs. One block of the revised band plan is designated for narrowband (primarily voice) applications and the other for broadband applications. Channels have been reassigned to support narrowband operations in 12 MHz of paired spectrum, at 769 - 775 MHz and 799 - 805MHz.<sup>43</sup>

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<sup>35</sup> As stipulated in the rules covering both of the licensees and the Network Sharing Agreement. See discussion in text of this report.

<sup>36</sup> FCC, *Second Report and Order*, released August 10, 2007, paragraph 523.

<sup>37</sup> *Ibid.*, paragraph 529. Possible recourse for failure to complete a Network Sharing Agreement are discussed in paragraphs 508 and 509.

<sup>38</sup> See CRS Report RL31764, *Spectrum Management: Auctions*, by (name redacted).

<sup>39</sup> The Balanced Budget Act of 1997, 47 U.S.C. § 309 (j) (14). For a discussion of the DTV transition see CRS Report RL34165, *The Transition to Digital Television: Is America Ready?*, by (name redacted).

<sup>40</sup> The role and organization of Federal Advisory Committees is addressed in CRS Report RL30260, *Federal Advisory Committees: A Primer*, by Wendy R. Ginsberg.

<sup>41</sup> See <http://www.npstc.org/index.jsp>. Viewed January 17, 2008.

<sup>42</sup> See, for example, NPSTC position paper on 700 MHz, released July 6, 2007, at <http://www.npstc.org/documents/NPSTC%20Public%20Safety%20700%20MHz%20Position%20Paper%2007052007.pdf>. Viewed January 17, 2008.

<sup>43</sup> *Second Report and Order*, paragraph 322.



These channels will be administered by states and localities through the existing regional committee structure. All RPCs with approved band plans are required by the FCC rule making to submit amended band plans.<sup>44</sup> The networks built on the narrowband frequencies will be financed through long-standing procedures that use a combination of local, state, and federal funds.

Spectrum is to be allocated for broadband communications (high speed data transmission, video, and voice) in 10 MHz of frequencies at 763 - 768 MHz and 793 - 798 MHz.<sup>45</sup> These frequencies are to be assigned to the Public Safety Broadband Licensee that would also be responsible for the administration of two guard bands, each covering one megahertz, at 768 - 769 MHz and 798 - 799 MHz.<sup>46</sup> Guard bands are created to act as buffers against interference from other operations on nearby frequencies.

In order to accommodate the new band plan, some public safety network operators will have to modify equipment already purchased for use on 700 MHz frequencies. Some of the cost of these changes would be covered by the commercial D Block licensee.<sup>47</sup> (Discussed below, in section on 700 MHz rebanding.)

## **Requirements for the Public Safety Broadband Licensee**

The public safety licensee would be obligated to meet a number of requirements. These requirements focus mainly on three areas: the formation of a not-for-profit corporation to hold the license; the responsibilities of this non-profit organization—including establishing standards and participating in the creation of the Network Sharing Agreement; and compliance. The cost of building the national network using the spectrum held by the broadband licensee would be shouldered by its commercial partner, although there could be system enhancements or other components funded by the public sector.

## **Selection and Establishment of the Public Safety Broadband Licensee**

The FCC selected the Public Safety Broadband Licensee, based on criteria such as not-for-profit corporate status; absence of commercial interests, either in the holding of the license or its management; and broad representation of public safety entities.<sup>48</sup> In anticipation of receiving the public safety license, a group of public safety associations formed the Public Safety Spectrum Trust Corporation (PSST). The Trust hired Cyren Call Communications Corporation to act as its advisor and liaison in negotiating with the D Block licensee. The PSST was subsequently awarded the nationwide Public Safety Broadband License.<sup>49</sup>

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<sup>44</sup> *Ibid.*, paragraph 346.

<sup>45</sup> *Ibid.*, paragraph 322.

<sup>46</sup> *Ibid.*, paragraph 322.

<sup>47</sup> *Ibid.*, paragraph 322.

<sup>48</sup> *Ibid.*, paragraph 373.

<sup>49</sup> FCC, *Order*, November 19, 2007, PS Docket No. 06-299.

## Board of Directors

Representation on the Board of the Directors of the Public Safety Broadband Licensee is to consist of members from named organizations representing public safety. In the *Second Report and Order*, the FCC provided a list of 11 organizations designated to appoint board members and allowed for two at-large members, creating a board of 13 members.<sup>50</sup> In a later *Order on Reconsideration*,<sup>51</sup> the FCC changed the composition of the board, adding three representatives from named organizations, eliminating one representative, and increasing the number of at-large members from two to four.<sup>52</sup> Four at-large members were subsequently selected jointly by the FCC bureau for Public Safety and Homeland Security and for Wireless Telecommunications.<sup>53</sup> The FCC chose to eliminate National Public Safety Telecommunications Council (NPSTC) as a named member of the board because of the overlap of its membership with the composition of the associations that were given permanent status on the board.<sup>54</sup>

## Oversight

As part of the FCC's oversight, PSST, as selected licensee, would be required to file quarterly financial reports with the FCC, with copies to the chiefs of the Public Safety and Homeland Security Bureau and the Wireless Telecommunications Bureau.<sup>55</sup> This requirement would take affect after the NSA had been negotiated. The licensee must meet criteria for its articles of incorporation and bylaws, as specified in the *Second Report and Order* rules.<sup>56</sup> The FCC has judged that it is appropriate for it to provide, as needed, "extensive" oversight to ensure that these corporate governance stipulations would be met.<sup>57</sup>

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<sup>50</sup> *Second Report and Order*, paragraph 374.

<sup>51</sup> FCC, *Order on Reconsideration*, September 24, 2007, WT Docket No. 96-86.

<sup>52</sup> Current list of 15 members provides for a board consists of representatives for: the Association of Public-Safety Communications Officials - International (APCO), the National Emergency Number Association (NENA), the International Association of Fire Chiefs (IAFC), the International Association of Chiefs of Police (IACP), the International City/County Management Association (ICMA); the National Governors Association (NGA); the National Association of State EMS Officials (NASEMSO); the Forestry Conservation Communications Association (FCCA); the American Association of State Highway and Transportation Officials (AASHTO); and the International Municipal Signal Association (IMSA), the American Hospital Association (AHA), the National Fraternal Order of Police (NFOP), the National Association of State 9-1-1 Administrators (NASNA), the National Emergency Management Association (NEMA) and the National Sheriffs' Association (NSA).

<sup>53</sup> FCC, *Public Notice*, "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," November 9, 2007, DA 07-4593.

<sup>54</sup> *Order on Reconsideration*, paragraph 5. NPSTC membership includes a governing board with representation from these associations that are to be represented on the board of the public safety licensee organization: AASHTO, APCO, FCCA, IACP, and IMSA. The board is advised by liaison organizations that include, the FCC, the NTIA, FEMA, DHS offices of Emergency Communications and of Interoperability and Compatibility, SAFECOM (also from DHS), the departments of Agriculture, Interior, and Justice, and the Telecommunications Industry Association (TIA). For more information on membership and organizational structure, see <http://www.npstc.org/orgchart.jsp>. Viewed January 17, 2008.

<sup>55</sup> *Second Report and Order*, paragraph 377.

<sup>56</sup> *Ibid.*, paragraph 375.

<sup>57</sup> *Ibid.*, paragraph 376.



## **Right to Revoke License**

The FCC considered a number of options to assure that the public safety license holder would receive the level of services needed for a robust emergency communications network. Suggestions that the public safety licensee be able to request the reassignment or re-auction of the D Block license, if cooperation and progress was deemed unsatisfactory, were rejected.<sup>58</sup> The FCC has reserved for itself the right to re-assign the commercial license, if necessary, under circumstances detailed in the rule making.<sup>59</sup> It also has asserted its authority to revoke the license awarded to the Public Safety Broadband Licensee if it fails to meet its obligations under the Network Sharing Agreement or otherwise does not comply with FCC rules and regulations.<sup>60</sup>

## **Duration of License**

Unless revoked, the public safety license would be valid for ten years, effective February 17, 2009, the scheduled date on which analog television broadcasts on the 700 MHz band must end. The license would be renewable.<sup>61</sup>

## **Obligations of the Public Safety Licensee**

The selected public safety licensee, having met the initial requirements for qualification, would have additional tasks set for it by the FCC. General responsibilities would include:<sup>62</sup>

- Negotiate a Network Sharing Agreement with its commercial partner, the qualifying, winning bidder for the D Block.
- Administer access to the network for public safety users, including assessment of usage fees.
- Represent the interests of its public safety constituents that utilize the network.
- Negotiate purchase agreements with vendors that provide savings through economies of scale, or other benefits. This responsibility does not limit the licensee's right to determine and approve equipment specifications.
- Approve, in consultation with D Block licensee, the equipment and applications that may be used on the network. The licensee has the sole authority to determine the acceptability of equipment or applications. State and local entities must seek approval from the licensee before linking their systems or equipment to the broadband network.
- Coordinate stations accessing narrowband and broadband frequencies.
- Oversee and implement the relocation of some users required by rebanding of parts of the 700 MHz band.

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<sup>58</sup> *Second Report and Order*, paragraph 509.

<sup>59</sup> *Ibid.*, paragraphs 509 and 523 - 526.

<sup>60</sup> *Ibid.*, paragraph 527.

<sup>61</sup> *Ibid.*, paragraph 385.

<sup>62</sup> *Ibid.*, paragraph 383.

- Decide, at its sole discretion, whether or not to allow federal public safety agencies access to the broadband network.
- Review requests for construction or use of wideband networks in areas that will not be served by the new broadband network. (Wideband refers to enhanced narrowband systems that allow for some data transmissions in addition to voice communications.)
- Facilitate negotiations to build network sites on public land owned by states or localities.

## **The Commercial Partner**

The intended commercial partner in the public-private partnership would be the winning bidder for Block D. The FCC ruled that eligible bidders for Block D in Auction 73 that qualified as small businesses under existing FCC rules would be entitled to a bidding credit (a reduction in the amount due on the winning bid) of 15% for companies with average attributable gross revenues of \$40 million in the past three years and 25% for companies with average annual earnings of no more than \$15 million.<sup>63</sup> Many start-up companies could have qualified as designated entities under this designation.

### **D Block License**

The D Block designates frequencies at 758 - 763 MHz and 788 - 793 MHz, a total of 10 MHz. In Auction 73 it was offered as a single, nationwide license.<sup>64</sup>

### **Minimum Bids**

The FCC directed the Wireless Telecommunications Bureau to set reserve prices for each block of licenses to be auctioned.<sup>65</sup> It suggested that the reserve price for the D Block be set at \$1.33 billion. Based on winning bids for a previous auction, the D Block had a presumed value of \$1.7 billion but the FCC rules recommended that the amount be discounted to reflect the additional service rules and requirements for the D Block license holder.<sup>66</sup>

### **Assignment of License: Network Sharing Agreement**

The winning bidder would not be assigned the D Block license until it had met specific requirements established by the FCC such as completion of a Network Sharing Agreement with the Public Safety Broadband Licensee.<sup>67</sup> The negotiations for the NSA were to begin on the date

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<sup>63</sup> *Ibid.*, paragraph 536.

<sup>64</sup> *Ibid.*, paragraph 65.

<sup>65</sup> *Ibid.*, paragraph 304. The Wireless Telecommunications Bureau subsequently set the reserve price for Block D at \$1.33 billion in a notice released October 5, 2007: "Auction of 700 MHz Band Licenses Scheduled for January 24, 2008," DA-074171, AU Docket No. 07-157.

<sup>66</sup> *Ibid.*, paragraph 305.

<sup>67</sup> *Ibid.*, paragraphs 314 and 448.

that the winning bidder files its long form application (post-auction, the long form provides additional information pertaining to each license won at auction). The FCC required that, within six months from that date, the NSA was to be completed by the negotiating parties and approved by the FCC.<sup>68</sup> The FCC also required a separate agreement that would grant the Public Safety Broadband Licensee 1) right of first refusal if network assets are to be sold and 2) the option to purchase the network assets at fair market value if the D Block license is cancelled or terminated.<sup>69</sup>

### **Timetable for Negotiations**

Under the auction rules as they currently stand, the winning bidder for the D Block would be required to file a report with the FCC, within ten days of the commencement of negotiations for the NSA, certifying that good faith negotiations have begun and are being actively pursued. A timetable of at least the first 30 days of negotiation meetings would be provided at that time. After three months, both licensees would begin to provide detailed monthly reports on negotiations. The FCC could demand additional reports as needed. Two members of the FCC staff would be present as neutral observers at all stages of the negotiation.<sup>70</sup>

### **Assignment of License: Corporate Structure**

Another requirement for receiving the D Block license would be the formation of separate legal entities, one to hold the D Block license, one to own the network assets, and one to serve as an operating company. The operating company would enter into agreements to lease spectrum rights from the company owning the D Block and to lease secondary rights to the public safety spectrum.<sup>71</sup> These companies must be “bankruptcy remote,” as attested to by bankruptcy counsel retained by the D Block license winner.<sup>72</sup> A typical corporate structure that would be bankruptcy remote could consist of a holding company and subsidiary companies with the assets of each company protected from the possible insolvency of any other company in the group. Other specific-purpose companies might also be included within the corporate structure. All must be approved by the FCC.

The commercial partner in the public-private partnership would therefore be a corporate structure comprised of quasi-independent companies, each with a designated function. These entities and any leasing or other commercial agreements created to implement the partnership would be “subject to the Communications Act, as amended, and the Commission’s rules and regulations.”<sup>73</sup> The parties to this corporate structure and its various components, as required or authorized by the FCC, would have the responsibility to build out the shared network, as specified in the Network Sharing Agreement and the FCC rule making.<sup>74</sup>

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<sup>68</sup> Measures to be taken if the agreement is not completed within six months are outlined in the *Second Report and Order*, especially paragraphs 504 and 508.

<sup>69</sup> *Second Report and Order*, paragraph 525.

<sup>70</sup> *Ibid.*, paragraphs 506 and 507.

<sup>71</sup> *Ibid.*, paragraph 520.

<sup>72</sup> *Ibid.*, paragraph 518.

<sup>73</sup> *Ibid.*, paragraph 518.

<sup>74</sup> *Ibid.*, paragraph 519.

## **Cancellation of License**

Failure to meet the obligations of the NSA, network build out deadlines, or other rules established by the FCC could lead to the revocation of all or part of the D Block license and its reassignment by the FCC.<sup>75</sup> Cancellation would be treated as a default on the part of the license-holder, which would be obligated to pay a penalty, set at 10% of the auction price, if successfully auctioned in Auction 73.<sup>76</sup>

## **Duration of License**

Unless revoked, the D Block license would be valid for ten years, effective February 17, 2009, the scheduled date on which analog television broadcasts on the 700 MHz band must end. As long as the licensee complies with the rules established by the FCC, it would be eligible to apply for license renewal.<sup>77</sup>

## **Network Build Out and Performance Levels**

The commercial corporation formed as required by the FCC would be fully responsible for building the public safety network, using spectrum held by the public safety licensee and the D Block license holder.<sup>78</sup> This build out would conform to FCC requirements and to specific requirements negotiated with the public safety licensee in the Network Sharing Agreement.<sup>79</sup> Modifications to these requirements could be permitted, subject to approval of all parties concerned, including the FCC.<sup>80</sup>

## **Build Out Benchmarks**

The FCC established benchmarks for a population-based build out. The first benchmark would be four years from February 2009, by which time the network should reach 75% of the population to be served by the national D Block license. By the end of seven years (2016), 95% of the population, nationwide, could have coverage. At the end of ten years (2019), 99.3% of the population would be covered. Population measurements would be based on currently available U.S. Census data.<sup>81</sup>

To assure the FCC's minimum standards for coverage would be met, it required the NSA to include a build-out schedule for major highways, interstates, and incorporated communities with

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<sup>75</sup> *Ibid.*, paragraph 522.

<sup>76</sup> FCC, Public Notice, "Revised Procedures for Auctions 73 and 76: Additional Default Payment for D Block Set at Ten Percent of Winning Bid Amount; Disputed Issues in the Negotiation of Network Sharing Agreement," November 2, 2007, DA 07-4514 at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-07-4514A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-07-4514A1.pdf).

<sup>77</sup> *Ibid.*, paragraphs 457-459.

<sup>78</sup> *Ibid.*, paragraph 366.

<sup>79</sup> *Ibid.*, paragraph 438.

<sup>80</sup> *Ibid.*, paragraphs 386 and 443.

<sup>81</sup> *Ibid.*, paragraph 437.

a population over 3,000.<sup>82</sup> To monitor progress in build outs to specific areas, the FCC further required an estimated cost for each area.<sup>83</sup>

The D Block licensee would have the responsibility of confirming to the FCC that the benchmarks have been met. Failure to meet benchmark deadlines could lead to cancellation of the license.<sup>84</sup>

## **Performance Guarantees**

To bolster coverage in rural areas, the D Block licensee would be required to offer at least one handset that included an integrated satellite solution for public safety use.<sup>85</sup> The D Block licensee would also have to provide sufficient robustness in signal carriage to assure that population coverage requirements were met, as well as the coverage and availability requirements established in the NSA. The NSA would establish requirements for service to public safety users and for network performance and reliability. The D Block licensee would be prohibited by the FCC from discontinuing or degrading service to its public safety customers unless the change has either been requested by the network users or approved by the FCC.<sup>86</sup>

## **Network Sharing Agreement**

The Network Sharing Agreement (NSA) was created to be the keystone of the public-private partnership; its rules are to be the contractual mortar uniting the two licensees. Adherence to the agreement had been set as a regulatory condition for both the commercial and the public safety licensees.<sup>87</sup> The FCC would review the NSA and must approve all of its components.<sup>88</sup> Although the FCC would allow the two parties leeway in negotiating the agreement, it has set various requirements, such as network coverage requirements noted above, that must be included in the NSA. In particular the FCC included minimum standards for the network as part of the *Second Report and Order*.<sup>89</sup>

## **FCC Network Requirements**

To assure that the network meets the needs of public safety, the FCC established a list of requirements that it wanted addressed through the NSA. These are:

- Specifications for a platform that provides broadband mobile voice, video, and data and includes current and evolving technologies that have features for public safety users, as well as commercial uses.

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<sup>82</sup> *Ibid.*, paragraph 440.

<sup>83</sup> *Ibid.*, paragraph 453.

<sup>84</sup> *Ibid.*, paragraph 443.

<sup>85</sup> *Ibid.*, paragraph 438.

<sup>86</sup> *Ibid.*, paragraph 521.

<sup>87</sup> *Ibid.*, paragraph 448.

<sup>88</sup> *Ibid.*, paragraph 364.

<sup>89</sup> *Ibid.*, paragraph 405.

- Specifications that assure communications interoperability across agencies, jurisdictions, and geographic areas.
- Sufficient signal coverage to meet public safety standards, such as service reliability of 99.7% or better.
- Sufficient robustness to meet reliability and performance standards of public safety, including features such as hardening of transmission facilities and antenna towers to withstand harsh weather and disaster conditions and back-up power to maintain operations for “an extended period of time.”
- Sufficient capacity to meet the needs of public safety during emergency situations and periods of heavy usage without degrading service, for example by blocking calls or slowing transmissions. The FCC’s expectation is that the network would use spectrum efficient technologies to achieve this.
- State-of-the-art security and encryption technologies.
- Automatic prioritization of public safety communications over commercial uses in real time, and prioritization of public safety communications by type, with the highest priorities going to safety of life and property, and to homeland security.
- Capabilities consistent with current and evolving operational needs of public safety for specific features, such as push-to-talk, that meet the specifications of the Public Safety Broadband Licensee.
- Operational control of the public safety network by the Public Safety Broadband Licensee “to the extent necessary to ensure public safety requirements are met.”
- Right of the Public Safety Broadband Licensee 1) to determine and approve the specifications of public safety equipment that is used on the network and 2) to purchase its own subscriber equipment from any vendor.
- Provision, by the D Block Licensee, of at least one integrated handset for public safety use that works on 700 MHz and satellite frequencies.<sup>90</sup>
- Adoption of a common standard for nationwide broadband interoperability that must be used by all public safety users that participate in the network.<sup>91</sup>

## **Other Obligations and Stipulations**

Guidelines and obligations were stipulated by the FCC in its rule making. Both licensees must agree to act in good faith in their negotiations to create the Network Sharing Agreement.<sup>92</sup> Other components of the NSA covered by FCC rules include the establishment of a fee structure and the duration of the agreement.

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<sup>90</sup> This and preceding bullet points are covered in *Second Report and Order*, paragraph 405.

<sup>91</sup> *Ibid.*, paragraph 364.

<sup>92</sup> *Ibid.*, paragraph 447.

## **Fees**

The FCC ruled that all service fees must be specified in the NSA. These fees would include fees for normal network service and for priority access to commercial spectrum capacity in times of emergency. The FCC opined that the two licensees should be left to negotiate “reasonable rates” in good faith, and provided examples of what it considered to be reasonable. These included expectations that the fee structure would have “financial incentives for the commercial licensee” based on the number of subscribers from the public safety sector and that priority access fees would be structured to protect public safety participants from unforeseen or unbudgeted payment obligations.<sup>93</sup> Other guidelines for a reasonable pricing structure would include affordable rates that are priced in line with comparable commercial services, but at lower rates for public safety.<sup>94</sup> The FCC’s stated expectation was that the D Block licensee, when negotiating fees with its public safety partner, would provide terms that best serve the public safety goals established in the *Second Report and Order*. The FCC reiterated some of the tools available to it to ensure that NSA disputes would be resolved, which it can apply to assure that the fees charged meet its expectations of what is reasonable.<sup>95</sup>

## **Duration of Agreement**

The NSA would be in effect for a term not to exceed ten years, beginning February 17, 2009. This term corresponds to the duration of the D Block license. The NSA may be renewed along with the D Block license. The FCC would decide whether to renew or modify the NSA at the same time that it considers renewal of the D Block license.<sup>96</sup>

## **Modification of the Agreement**

Modifications to the NSA or other agreements that are part of the public-private partnership structure must be approved by the FCC Commissioners, in case of major changes, or by the Chiefs of the Wireless Bureau and the Public Safety and Homeland Security. Approval must be received in advance of any action, after both licensee partners have agreed to the modifications.<sup>97</sup>

## **Rules for Managing Spectrum**

Under the current rules, the Public Safety Broadband Licensee is authorized by the FCC to lease access to the frequencies covered by its license exclusively to the D Block licensee, on a secondary, unconditionally preemptible basis.<sup>98</sup> This means that the D Block network commercial users would be able to transmit on available frequencies in the public safety band only when there is no demand from the primary, public safety users, and that any demand from public safety is to be immediately met by terminating the commercial traffic and yielding to the public safety user.

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<sup>93</sup> *Ibid.*, paragraph 450.

<sup>94</sup> *Ibid.*, paragraph 451.

<sup>95</sup> *Ibid.*, paragraph 452.

<sup>96</sup> *Ibid.*, paragraph 449.

<sup>97</sup> *Ibid.*, paragraph 454.

<sup>98</sup> *Ibid.*, paragraph 414.



This privilege of secondary access would be accorded to the D Block licensee as part of the interlocking agreements that constitute the public-private partnership.<sup>99</sup> For example, the Public Safety Broadband Licensee would be required to lease spectrum to the D Block licensee, and the D Block licensee would be required to build a network for public safety use.<sup>100</sup> The FCC has required a spectrum manager leasing arrangement for the full term of the ten-year license. This form of lease would place the responsibility for compliance fully on the lessee, the D Block license holder.<sup>101</sup> As part of its spectrum management obligations, the D Block licensee would be required to assure that public safety users would not experience harmful interference, interruption, or degradation of service due to commercial operations in the public safety spectrum band. One prerequisite for this level of assurance would be a requirement by the FCC that the network be designed to assign priority to first responders automatically, with immediate preemption or exclusion from access to the network by commercial users.<sup>102</sup>

In return for allowing commercial usage of its bandwidth, public safety would have the right to real time access, on an emergency basis, of the spectrum licensed to the D Block.<sup>103</sup> The obligation to provide this priority access was one of the service rules attached to the D Block license for Auction 73. The definition of what constitutes an emergency would be part of the NSA. In situations not covered by the NSA, where an agreement between the two licensees about what constitutes an emergency cannot be reached, the public safety licensee could appeal to the FCC to declare that an emergency exists that requires access to D Block frequencies.<sup>104</sup>

## **Rebanding Public Safety Spectrum at 700 MHz**

In order to accommodate both narrowband and broadband networks for public safety, the FCC revised the original band plan for the 24 MHz allocated to public safety.<sup>105</sup> In addition to opening the way for a shared spectrum agreement between the public safety community and the private sector, the FCC resolved other spectrum management issues that are not discussed in this summarizing report. Among the FCC decisions of consequence to the operation of public safety networks in the 700 MHz band are:

- Move some networks already in the preliminary stages of build out, requiring a certain number of technical adjustments to equipment and software.
- Require the D Block licensee to pay for the costs of these adjustments.
- Cap at \$10 million the amount of allowable reimbursement to public safety network operators by the D Block licensee.

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<sup>99</sup> *Ibid.*, paragraph 416.

<sup>100</sup> *Ibid.*, paragraph 415.

<sup>101</sup> *Ibid.*, paragraph 417.

<sup>102</sup> *Ibid.*, paragraph 418.

<sup>103</sup> *Ibid.*, paragraph 426.

<sup>104</sup> *Ibid.*, paragraph 427.

<sup>105</sup> *Ibid.*, paragraphs 325 - 326.

- Prohibit new operations of narrowband systems on 700 MHz public safety networks that will be relocated as a consequence of the rebanding.
- Limit building and use of wideband networks.

## **Relocating Public Safety Networks**

The new band plan for public safety in the 700 MHz band has created two separate sets of paired spectrum blocks. One set of paired frequencies will be used for narrowband communications, the other set has been designated for the new, broadband network to be built by the public-private partnership. Because parts of the 700 MHz band intended for public safety use are not encumbered by broadcasters, some states have begun to build narrowband networks that use the 700 MHz capacity. Base stations and radios will have to be modified if they have already been programmed to operate on frequencies that are being reassigned to the broadband network. The FCC has required that these frequencies be vacated by February 17, 2009, or as soon after that date as possible, so that they will be immediately available for broadband use.<sup>106</sup>

## **Costs Associated With the Relocation**

As part of the rule making process, Motorola, Inc., a leading provider of public safety equipment, provided the FCC with a cost estimate for a rebanding plan proposed by the NPSTC.<sup>107</sup> The NPSTC plan would have covered equipment already installed, on order, or planned. Motorola set the cost of the retuning at \$9.45 million, which amount would cover all installations projected to be in place by July 2008.<sup>108</sup> The FCC decided that the D Block licensee would be obligated to cover the costs of rebanding<sup>109</sup> but took several measures to control the cost. A cap of \$10 million in reimbursements was established. To assure that costs stayed below that threshold, the FCC ruled that only systems and radios in operation as of 30 days after the adoption of the *Second Report and Order* would be covered. The cut-off date, therefore, was August 30, 2007. By limiting the number of base stations and radios that would have to be reprogrammed, the FCC figured that the estimated cost would be around \$6 million, based on a pro-rating of the cost assumptions presented by Motorola. The FCC reasoned that this would provide leeway, if costs had been under-estimated, to assure that the total cost remained under the \$10 million cap.<sup>110</sup>

## **Freeze on New Operations**

To further control costs for relocation expenses, the FCC prohibited new operations on affected narrowband frequencies after August 30, 2007.<sup>111</sup>

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<sup>106</sup> *Ibid.*, paragraph 332.

<sup>107</sup> Letter from the National Public Safety Telecommunications Council, June 25, 2007, WT Docket No. 96-86.

<sup>108</sup> Letter filed by Motorola, Inc., June 29, 2007, WT Docket No. 96-86.

<sup>109</sup> *Second Report and Order*, paragraph 336.

<sup>110</sup> *Ibid.*, paragraph 341.

<sup>111</sup> *Ibid.*, paragraph 339.

## **Determining Reimbursement of Costs**

The FCC set out rules for calculating actual costs and reimbursements. As with the negotiation of the Network Sharing Agreement, the public safety licensee and the commercial D Block licensee would be obligated to reach an agreement that must be reviewed and approved by the FCC;<sup>112</sup> the two licensees must prepare a plan for relocation and an agreement on costs for rebanding. The licensees would be given 30 days to reach agreement on the plan.<sup>113</sup>

To receive reimbursement, displaced public safety network operators must meet a number of conditions. For example, they must provide information, accurate as of August 30, 2007, accompanied with a certification of accuracy. This information would cover:

- Total number of mobile narrowband mobile and portable handsets in operation on the affected frequencies.
- Total number of base stations serving the narrowband handsets.
- Contact information for each identified set of handsets and base stations.
- Geographical area of operation of mobile and portable units.
- The location of the base stations.

The D Block licensee would be responsible for reimbursing only the minimum cost for necessary changes to base stations, mobiles, and portables, and not for any unrelated improvements. Specifically, the FCC would not require the D Block licensee to assume responsibility for costs related to reassigning channels or other changes to the Regional Planning Committee plans.<sup>114</sup> The rule making does acknowledge the possibility that some reimbursement may be forthcoming for the Public Safety Broadband Licensee's cost related to the rebanding program.<sup>115</sup>

## **Paying Reimbursements**

The D Block licensee and the public safety licensee are expected to agree on the total costs (not, however, to exceed \$10 million) that would be reimbursed for changes necessitated by rebanding. This amount must be submitted to the FCC as part of the required relocation plan, with certification from the two license holders and the relevant equipment vendors that all parties agree to the negotiated prices and that no changes would be made.<sup>116</sup> The amount, once approved by the FCC, must be paid into a trust account established by the Public Safety Broadband Licensee, no later than the date of execution of the Network Sharing Agreement. The public safety licensee would have the responsibility of administering the account and making payments in accordance with the agreed reimbursement schedule. No payments can be made from the trust account, however, until the D Block license has been conferred to the winning bidder.<sup>117</sup> The

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<sup>112</sup> *Ibid.*, paragraph 340. The Chief of the FCC's Public Safety and Homeland Security Bureau is assigned the responsibility of reviewing and approving the rebanding plan.

<sup>113</sup> *Ibid.*, paragraphs 336 and 504.

<sup>114</sup> *Ibid.*, paragraph 338.

<sup>115</sup> *Ibid.*, paragraph 342.

<sup>116</sup> *Ibid.*, paragraph 342.

<sup>117</sup> *Ibid.*, paragraph 343.

winning bidder for the license would be the provisional winner until all requirements set by the FCC have been satisfied.

## Wideband Operations

The FCC has ruled that public safety network operators wishing to operate wideband systems (enhanced capacity for narrowband channels), must obtain a waiver. The waiver request must contain an application for authorization; a letter from the Public Safety Broadband Licensee confirming that the wideband operations would not be inconsistent with broadband deployment plans; agreed upon conditions of operation; a transition plan to the broadband network;<sup>118</sup> and certification that it would not seek reimbursement (from the D Block licensee) for costs incurred in a future transition to broadband operations.<sup>119</sup> Grants for waivers will only be given for wideband operations within the narrowband frequencies; except under rare circumstances, no wideband operations will be permitted in the broadband frequencies.<sup>120</sup> Devices used on the wideband network must be interoperable with the broadband network.<sup>121</sup> Licenses for operation granted for wideband operations will be valid for five years.<sup>122</sup>

## Congressional Oversight

In the *Second Report and Order*, the FCC assigned itself the role of champion and protector for public safety interests, nationwide emergency communications, and interoperable networks. Under the umbrella of the Communications Act, it would undertake to monitor and regulate the actions of the Public Safety Broadband Licensee and the companies formed to manage the obligations of the D Block license holder. Congressional oversight of the public-private partnership therefore would be placed squarely within the jurisdiction of the committees dealing with telecommunications.<sup>123</sup>

## Governance through Regulation

In extending the scope of its authority to write service rules for auctions,<sup>124</sup> the FCC has made a commitment to oversee and adjudicate the operation of a network that, when completed, could have an asset value in the tens of billions of dollars. A large part of that asset would be under the control of the Public Safety Broadband Licensee, governed by its Board of Directors in accordance with FCC regulations. Among the voting members of the board, as currently constituted, four have been appointed directly by the FCC. In its plans for oversight of the public-private partnership, the FCC has announced its intention of enforcing existing rules or creating

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<sup>118</sup> *Ibid.*, paragraph 491.

<sup>119</sup> *Ibid.*, paragraph 495.

<sup>120</sup> *Ibid.*, paragraph 492.

<sup>121</sup> *Ibid.*, paragraph 495.

<sup>122</sup> *Ibid.*, paragraph 496.

<sup>123</sup> Senate, Committee on Commerce, Science, and Transportation; House of Representatives, Committee on Energy and Commerce.

<sup>124</sup> The Balanced Budget Act of 1997 gives the FCC authority to conduct auctions, set performance requirements, and evaluate the qualifications of licensees [47 U.S.C. § 309 (j), especially, (3), (4) and (5)].

new rules as circumstances warrant in the future. Measures to enforce the rules include litigation, revocation of license, or other means that might be supported by a reading of the Communications Act.<sup>125</sup> The role of Congress, in accepting this arrangement, would be to provide guidance to the FCC commissioners through the various means available to it.

## **Proposed Legislation**

Two bills have been introduced in the 110<sup>th</sup> Congress that would provide solutions to specific problems raised in the debate over creating a shared network.

### **Proposed Legislation to Fund Operating Costs**

The Public Safety Broadband Authorization Act of 2008 (H.R. 6055, Harman) would provide \$1 million in both FY2009 and FY2010 for operating expenses of the Public Safety Broadband Licensee. The funds would be made available in the form of grants by the FCC, assuming specific conditions were met. Appropriations for an additional \$2 million would be authorized for used by the FCC “to promote the establishment of a nationwide, interoperable broadband public safety communications network.” The bill puts limits on the activities of the public safety licenseholder, reiterating some of the requirements suggested by the FC, such as not-for-profit status and no participation by a commercial entity in its management.

### **Proposed Legislation to Fund Radios**

The Reliable, Effective, and Sustained Procurement of New Devices for Emergency Responders (RESPONDER) Act of 2008 (S. 3465, Wicker) would create a First Responders Interoperable Device Availability Trust Fund to provide grants to purchase interoperable radios for the new public safety network proposed for some of the channels being released in the transition to digital TV. The network plan is linked to the auction of a remaining block of analog spectrum, known as the D Block. The RESPONDER Act would place the entire net proceeds of the D Block Auction in the Trust. Additional funds would come from a percentage of future auctions. Auction authority for the Federal Communication Commission would be extended to assure the continuation of revenue-producing auctions.

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<sup>125</sup> The FCC seems to presume private equity or hedge fund ownership of the D Block companies as it does not mention how it would use the Communications Act to protect the interests of shareholders in a publicly traded company.

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