

**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
)	

COMMENTS OF MOTOROLA, INC.

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SUMMARY

Motorola applauds the Commission for pursuing a creative Public/Private Partnership approach to meeting the wireless broadband needs of public safety. However, Motorola is concerned that the competing requirements of developing a commercially viable broadband network that also meets the unique operational and coverage needs of public safety may be an insurmountable goal absent government funding. Motorola believes that further direction, legislative action, and funding are needed from Congress to ensure that first responders have the necessary resources to deploy a broadband video and data network. Otherwise, the FCC will be forced to enact solutions that will likely fail to meet the needs of both public safety and commercial operators.

Absent supplemental funding, Motorola believes that the only way the partnership is likely to succeed is to relax the D-block operational and build out requirements to ones much more closely aligned with those that apply to other commercial licenses. Elimination of the public safety specifications and requirements, however, would fail to meet the primary goal of providing a public safety grade network.

Should the Commission continue to promote a Public/Private Partnership through the auction of the D-Block license, Motorola urges the FCC to avoid placing any restrictions on the eligibility to acquire the D-Block spectrum. Potentially eliminating bidders with the existing resources and infrastructure to be in a position to absorb the required investment costs and offer the expertise to make the Public/Private Partnership a success is inconsistent with the primary goal of deploying a viable public safety broadband network.

In addition, the most effective means of deploying a public safety broadband network to meet the various needs across multiple agencies and jurisdictions and to mitigate risks for commercial operators is to do so on a regional basis under a national framework, as opposed to a

national basis only. To ensure true nationwide interoperability, it is important to have the framework for the network developed and overseen at the national level, and the Public Safety Spectrum Trust (“PSST”) should continue in this role as the national public safety broadband licensee. Congress should provide the PSST with the funding necessary to properly discharge its duties. One possible approach would be to fund the PSST’s operational expenses through a sustained multi-year renewable grant from the Department of Homeland Security.

Motorola notes that sufficient funding must be made available to relocate mission critical narrowband voice communications that are currently in the 700 MHz band. Under existing rules, narrowband systems currently operating in the 700 MHz band must be relocated by February 17, 2009, to conform to the revised band plan adopted in the FCC’s Second Report and Order in this proceeding. This date should be extended as it was based on the assumption that the D-Block auction would have been completed by now. Likewise, Motorola strongly recommends that the Commission extend the August 30, 2007, cut-off date for narrowband deployments. Rather, the Commission should continue to assure public safety that the build out of existing implementations will not be disrupted as the continuity of critical communications is of the utmost importance. This will require providing adequate time for the relocation to be accomplished after the necessary funding becomes available.

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Motorola, Inc. (“Motorola”) respectfully submits these comments in response to the Second Further Notice of Proposed Rulemaking issued by the Federal Communications Commission (“FCC” or “Commission”) in the above-captioned proceedings.¹ The Second Further Notice seeks comment on changes to the rules governing the Public/Private Partnership intended as a commercial solution for providing public safety with a nationwide interoperable broadband data network.

Motorola fully supports the goal of providing public safety with the communications tools necessary to perform its mission as effectively and cost efficiently as possible and believes that the creation of a Public/Private Partnership is an innovative attempt to achieve that goal. However, as evidenced by the lack of bidder interest in the D-block during Auction 73, the most critical challenge to implementing a successful partnership is to develop a structure that allows for the deployment of a commercially viable network that is capable of competing on cost of

¹ See *Service Rules for the 698-746, 747-762 and 777-792 Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, WT Docket No. 06-150, PS Docket No. 06-229, FCC 08-128 (2008) (“*Second Further Notice*”).

service in a vibrant, competitive environment while offering the unique operational and coverage features required by public safety users.

While Motorola applauds the FCC for pursuing a creative approach to meeting the needs of public safety, it fears that the goal of developing a commercially viable broadband network that also meets the needs of public safety most likely presents insurmountable hurdles absent direct government funding. Motorola believes that further support and appropriations by Congress are needed to ensure that first responders have the necessary resources to deploy a broadband video and data network. Otherwise, the FCC will be forced to enact solutions that will likely fail to meet the needs of both public safety and commercial operators.

I. INTRODUCTION.

There is no higher priority for government than ensuring the safety and welfare of its citizens. In the case of the FCC, this obligation is most often implemented through the adoption of policies and rules that help ensure that public safety agencies have the communications tools necessary to perform their mission critical activities.

In 1996, Congress and the FCC addressed this requirement by mandating the reallocation of television broadcast spectrum on channels 60-69 in order to create a new public safety allocation in the 700 MHz band from a portion of those channels. Ultimately, the FCC viewed these actions as necessary to “help meet the need of public safety to ensure interoperable communications among various public safety organizations, provide for growth of existing systems, and accommodate new types of services that will strengthen and enhance public safety.”²

² *Reallocation of Television Channels 60-69, the 746-806 Band*, Notice of Proposed Rulemaking, ET Docket No. 97-157, FCC 97-421 (1998).

As a result of this reallocation and other FCC policies, much progress has been made toward providing interoperability solutions for mission critical voice and low speed data communications based on the national voluntary consensus standard for public safety applications known as Project 25 (“P25”). P25 interoperable networks form the foundation of first responder communications and will continue to play a critical role into the foreseeable future. Even though the 700 MHz spectrum remains largely encumbered with broadcast operations until February 17, 2009, there has been significant deployment of narrowband public safety equipment in areas where television broadcast stations are not precluding early deployment. Indeed, some 45 public safety agencies recently provided the Commission with information about existing 700 MHz narrowband systems that require new frequencies to comply with the FCC’s revised 700 MHz public safety band plan.³

Unfortunately the same progress cannot be demonstrated for networks capable of providing first responders with access to the higher speed data, graphics, and video applications in a real-time mobile environment that they desperately need to respond as effectively and safely as possible. Some 12 years have passed since Congress and the FCC initiated the public safety 700 MHz allocation, but the nation has not yet witnessed the expected benefits with regard to advanced data and video services that the public safety community had indicated were a key requirement.⁴

³ Most of the information submitted by existing 700 MHz public safety operators were submitted in PS Docket No. 06-229 and WT Docket No. 96-86. *See e.g.*, State of North Carolina, PS Docket No. 06-229, October 22, 2007, City of Phoenix, PS Docket No. 06-229, October 17, 2007; State of Colorado, PS Docket No. 06-229, October 22, 2007.

⁴ In 1996, the Public Safety Wireless Advisory Committee (“PSWAC”) advised the FCC and NTIA that: “Public Safety agencies have not been able to implement advanced features to aid in their mission. A wide variety of technologies — both existing and under development — hold substantial promise to reduce danger to Public Safety personnel and to achieve greater efficiencies in the performance of their duties. Broadband data systems, for example, offer

Two critical components necessary for providing state of the art broadband capabilities are spectrum and money. While Congress and the FCC have taken critical steps to provide the necessary spectrum, the second critical component – money – remains elusive. The Commission attempted to take on the funding challenge of providing a nationwide broadband interoperable network for public safety by adopting the Public/Private Partnership structure as detailed in its Second Report and Order in this proceeding.⁵ The partnership has the laudable and attractive goal of providing state of the art broadband service to public safety on a purpose built network that fully meets public safety’s requirements for enhanced reliability and coverage. Unfortunately the commercial realities of trying to provide these public safety enhancements solely through a commercially viable network appear to be greater than many anticipated. The 700 MHz spectrum becomes fully available in only eight months but we appear far from having a real funding source identified that will enable deployment of the public safety broadband data and video services that our first responders need.

Motorola believes that the initial auction of the Upper 700 MHz D-Block was not successful because commercial entities could not absorb the additional costs of building a commercial system designed to public safety specifications while still being able to charge commercially competitive rates. The cost issue is compounded by the fact that there are only

(Continued . . .)

greater access to databases and information that can save lives and contribute to keeping criminals “off the street.” Video systems promise better surveillance capabilities, increased use of robotics in toxic and hazardous environments, and better monitoring and tracking of both personnel and equipment.” *See Final Report of the Public Safety Wireless Advisory Committee to the Federal Communications Commission, Reed E. Hundt, Chairman, and the National Telecommunications and Information Administration, Larry Irving, Assistant Secretary of Commerce for Communications and Information* (September 1996). As discussed above, the situation described by PSWAC has not changed significantly over the past 12 years.

⁵ *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, Second Report and Order, 22 FCC Rcd 15289, ¶¶ 391-559 (2007).*

about 2 million first responders – an insufficient number to amortize the high costs associated with hardening the network and constructing infrastructure covering over 99.3 percent of the U.S. population. The increased costs of meeting these requirements for a user base with a relatively small number of subscribers makes it difficult, if not impossible, to build a network that is viable based on market competitive service rates.

Absent any supplemental funding, Motorola believes that the only way to reduce these costs and thus improve the commercial viability of the shared network is to relax the D-block requirements to ones much more closely aligned other commercial licensees. Elimination of the public safety specifications and requirements, however, would fail to meet a primary goal of providing a public safety grade network. Unfortunately, these options leave the FCC in a Catch 22 situation – it could lower the requirements for the D-Block licensee(s) to be able to build a commercially viable network but miss the target of a public safety network, or it could require the deployment of a public safety network, but miss the target of a network that can be built and is competitive and self sustaining from a cost perspective.

Motorola does not believe that minor tweaks of the service or auction rules will be sufficient to find the necessary balance between a commercially viable network and a public safety network. Instead, more radical changes are necessary or we risk further delay in getting critical services to public safety. Fundamentally, Motorola believes that additional direction and legislative action is needed from Congress. Funding for a public safety grade broadband network should come from the Federal Government and not be imposed as an added cost on a commercial service provider. While the commercial availability of any excess capacity of public safety's 10 megahertz of broadband spectrum would have significant value to a commercial operator, the value is not likely to be sufficient to overcome the added cost of the public safety

component, particularly given the uncertainty around how much of the public safety spectrum would be available to the D block winner after public safety needs are satisfied.⁶ Accordingly, Motorola believes that some – if not all – of the funding for a public safety grade broadband network must be borne by the Federal Government.

As the Commission contemplates changes to the 700 MHz rules to prepare for the reauction of the D-Block, it should explore all viable options that will speed the availability of advanced mobile data and video services to first responders. This should include discussions with Congress about the need for supplemental funding to enable a Public/Private Partnership to deploy a public safety grade broadband network that will speed the availability of advanced mobile data and video services to first responders, and is also economically viable.

II. PROVIDING PUBLIC SAFETY WITH INTEROPERABLE BROADBAND COMMUNICATIONS SHOULD BE A TOP NATIONAL PRIORITY.

Given the inherent challenges in the Public/Private Partnership as described above, the FCC, Congress and the wireless industries should take a fresh look at the core objectives and how best to meet them. At the heart of the matter is one overriding goal – provide public safety with interoperable broadband communications. While voice communications will continue to be the primary application for public safety agencies for the foreseeable future, as will the need for mission critical voice networks, there are clear and obvious benefits to providing first responders throughout the nation with access to data, imaging and video applications in a mobile environment. There is little need at this point to recite these benefits as there is no disagreement that public safety agencies would dramatically improve their readiness and performance if given

⁶ For example, a number of public safety related video applications could easily exhaust the excess capacity in the 10 megahertz public safety block rendering it of little value to the D-Block commercial use.

advanced communications capabilities. To adequately address public safety's requirements, the broadband data network should:

- Provide capacity to support high speed data and video tools to enhance prevention/response and supplement mission critical voice networks;
- Provide quality of service guarantees and priority to public safety users at all times, and preemption over commercial users operating in excess of 10 megahertz of spectrum capacity;
- Be based on a global standards-based broadband technology to provide maximum data rates, capacity and spectral efficiency while leveraging global volume and scale economies;
- Provide coverage designed to meet public safety requirements, including sparsely populated areas, urban canyons and in-building portable coverage as appropriate;
- Provide a network design that ensures first responders have reliable data/video service even during natural or man-made disasters;
- Provide interoperability among multiple levels of governments and jurisdictions, and;
- Support open access for public safety subscriber equipment and applications from multiple sources that meet public safety requirements.

Some of these factors can be provided over commercially available networks. Others, specifically coverage and improved reliability and availability during emergencies, require network enhancements.

III. THE PUBLIC/PRIVATE PARTNERSHIP WILL NOT BE SUCCESSFUL ABSENT A BALANCE BETWEEN PUBLIC SAFETY AND COMMERCIAL INTERESTS AND REQUIREMENTS.

The underlying assumption behind the public-private partnership is that it is possible to build a viable business case for a commercially competitive broadband network while also meeting public safety requirements. Despite the best efforts of all parties, it appears that this is not a realistic goal absent some level of supplemental funding from Government.

Public safety's need for very high system reliability and availability add significantly to the cost of building and operating the network. As previously stated, public safety systems must provide coverage in remote locations that are lightly populated and not typically served by

commercial networks. Public safety typically requires higher reliability coverage as well (95 percent versus 90 percent of the area, for example) and systems designed for public safety typically assume greater building penetration with higher standard deviations. All of these requirements impact the number and location of base sites. Public safety systems also must have high availability and reliability at all times, especially during emergencies. This involves network redundancies and back-up power capabilities not typically deployed in commercial networks. Also, the priority access and pre-emption capabilities required for public safety are unique and would add features to standard commercial systems. Accordingly, the cost of deploying a nationwide public safety-grade network is high – an entirely new public safety grade broadband network would cost tens of billions in capital expenditures over time if built as a “Greenfield Network” without the ability to leverage existing cell sites and backbone infrastructure.⁷ In addition, the operating expenses for such a network would far exceed that of typical commercial networks, especially when the need to support low density rural areas with redundant backhaul paths is considered.

⁷ Estimating the costs associated with building a public safety grade broadband network is heavily dependent on engineering assumptions concerning required system availability and RF coverage. Earlier in this proceeding, Verizon Wireless submitted data to the Commission stating that a “stand-alone” public safety broadband network occupying 12 megahertz of spectrum in the 700 MHz band would require some \$19 billion in initial capital expenditures. Verizon Wireless further estimated that the cost would be approximately \$13 billion if the network leveraged certain components of existing commercial infrastructure. The Commission should note that these estimates were based on providing coverage over 63.5% of the U.S. geography – significantly less than the initial requirements for the D-Block licensee. *See Verizon Wireless Ex Parte Presentation*, PS Docket No. 06-229, submitted April 4, 2007.

These added costs to serve a relatively small number of users will quickly overwhelm the economics of deploying a cost competitive commercial network.⁸ And, while much attention has been given to the additional build-out costs, operating expenses would be increased as well. Providing service in more sparsely populated areas can add significant costs considering that such cell sites provide relatively small additional revenues and often incur greater operating expenses in terms of power and backhaul requirements. In short, these significant build out and operating costs will dramatically affect the ability of the D-Block licensee(s) to compete effectively with other commercial services on price.

Motorola does not believe that the Public/Private Partnership will be successful if the incremental cost of deploying, operating and maintaining a fully public safety grade network remains solely on the shoulders of the commercial operator. The broadband wireless market is a highly competitive one and will be even more so as additional commercial systems are deployed in the AWS and 700 MHz bands.⁹ Any D-Block operator will have to compete in this competitive environment on broadband throughput performance and cost of service. While building a public safety grade network may justify a premium for some potential users, the premium and the numbers of users willing to pay it are unlikely to equal the significant extra costs of deploying, building, and maintaining the network. It is unlikely that public safety users will be willing or able to pay rates significantly above competitive commercial rates in order to sustain the public safety specific requirements. Under this business model, Motorola does not

⁸ It is estimated that the number of first responders eligible to use the 700 MHz public safety spectrum is approximately 2 million users. Even if the Public/Private Partnership were able to draw from a larger pool of users such as critical infrastructure industries and Federal government officials, the number would still pale in comparison to the size of the commercial market. Nationwide carriers are now providing service to more than 50 million subscribers each. *See, US Wireless 411*, UBS Investment Research, June 3, 2008 at Table 8.

⁹ *Id.* at 2248.

envision how the D-block operator(s) can recoup the extra costs for hardening the network and expanding the coverage to public safety specifications.

One logical response to this reality is to explore lessening the D-block requirements to those comparable to other commercial carriers in order to improve the commercial viability of the shared network. Regardless of what changes are made to the D-block requirements in an attempt to make the Public/Private Partnership a success, there are several core elements that cannot be eliminated for any network intended to provide service to public safety:

Quality of Service, Priority and Preemption: Public safety must have quality of service (“QoS”) guarantees for bearer services as well as priority and preemption rights over commercial communications for at least a portion of the network capacity. Without these conditions, the ability to access this network will be no different than any other commercial network.

The requirements for the application of preemption and priority access must be clearly defined in order to provide certainty to both a commercial operator and to public safety. While it would seem intuitively convenient to define preemption scenarios and protocols in terms of the spectrum blocks (*e.g.*, provide public safety eligible users with preemptive access on its own broadband spectrum at all times but only during emergencies on D-Block spectrum), such an arrangement makes little practical sense from a system perspective. The spectrum should be viewed as a whole across both blocks and necessary preemption rights determined and defined in terms of preferred access to a percentage of the aggregated spectrum’s capacity. This percentage may vary for routine operations and during emergencies and should be based on public safety input in this proceeding. Ideally, these percentages should be determined prior to the D Block re-auction to provide greater certainty for potential bidders. However, it would be preferable to provide some degree of flexibility for the D Block winner(s) and the Public Safety Broadband

Licensee (“PSBL”) to negotiate these percentages as actual usage patterns dictate without the need for a subsequent rulemaking proceeding. Motorola believes that at least 50 percent of the capacity available from the combined 10+10 megahertz of the PSBL and the D block winner(s) should be prioritized for public safety use.

Use of Public Safety Specific Devices and Applications: To meet the variety of local needs, Public Safety must have the ability to deploy any specialized device or application, provided that it does not harm the network. Public Safety will have unique and varied requirements for equipment and applications and cannot be limited only to devices available to commercial users. Accordingly, the D-Block licensee(s) should not be allowed to limit the types of devices and services that can be used by public safety on the Public/Private network regardless of whether the operations are on the public safety broadband block or the D-Block. In a sense, given the specialized needs of a relatively small but critical user base, there should be open platform obligations with respect to public safety applications and devices.

IV. APPROACHES FOR PROVIDING A BROADBAND NETWORK FOR PUBLIC SAFETY

Assuming that Motorola is correct in its belief that major changes to the D-Block obligations are necessary if the Public/Private Partnership is to succeed, it would appear to leave the Commission with limited options, absent action from Congress.

For example, the Commission could require the D-Block licensee(s) to meet build out and other requirements that are similar to those of other commercial licensees in the 700 MHz band, except for the core requirements described above. Even though this would not yield a true “public safety grade” network, first responders could potentially benefit from some portion of the D-Block’s additional 10 megahertz of capacity during very high traffic times in larger metropolitan areas. At the same time, the D-Block licensee(s) would potentially receive some

benefit from access to the public safety's additional 10 megahertz of spectrum at times if all the capacity is not required for public safety. Such an approach may provide incremental benefits to public safety's needs, especially in urban and populated areas. However, providing priority access alone falls well short of the Commission's stated goal of providing a nationwide public safety grade broadband network. Motorola believes that we should do better.

Consistent with its efforts to combat threats abroad, the nation should commit the necessary funds to provide our domestic first responders with the tools necessary to adequately discharge their missions. To do otherwise means leaves the Commission forced to address this critical need by relying on a commercial service provider through the Public/Private Partnership rather than satisfying the needs of public safety directly through appropriate funding. As evidenced by the failure of the D-Block auction, however, the competing requirements of a commercially viable network set against the needs of a public safety grade network will mean that a combined approach serves neither purpose well.

The proper solution for fulfilling the promise to public safety is for Congress to take direct action expeditiously to enable the deployment of a nationwide public safety grade broadband network. Public safety communications are a central component of our ability to protect our citizens and the public safety broadband network is too critical to leave to the whims of the marketplace. By directly and adequately funding the creation of the public safety broadband network, Congress will ensure that the network meets the needs of public safety and is not hampered by commercial considerations.¹⁰ Unfortunately, Public Safety is being forced into compromises it should not have to make because such funding has not been made available.

¹⁰ *Second Further Notice* at ¶¶ 207-211.

There are several approaches that Congress could take to address the need of public safety.

Option 1: Maintain the Hybrid Public/Private Partnership Model and Provide Supplemental Government Funding for Public Safety Requirements:

The D-Block spectrum could be licensed to a commercial entity(s) with the core obligations of providing priority preemption, permitting public safety specific devices and applications and requiring that the D block licensee(s) work with the PSBL to deploy a public safety grade network. In conjunction, Congress must appropriate sufficient funding for the PSBL to pay the incremental costs of deploying a network that meets public safety grade service requirements. This would provide a network that fully meets the needs of public safety while still enabling a commercially viable business. In this case, the timing of build out to incorporate public safety grade hardening and coverage beyond normal commercial deployment could be controlled more closely by public safety. However, the schedule is totally dependent on the timing for supplemental Congressional funding to enable the incremental build out beyond commercial grade specifications or commercially viable areas.

Option 2: Dissolve the Public/Private Partnership Model and Facilitate Both a Commercial Network and a Public Safety Network:

The Commission could dissolve the proposed partnership and auction the D-Block spectrum for commercial purposes only with no public safety requirements. An auction of the D-Block spectrum on a nationwide or regional basis likely would result in several billions of dollars in proceeds. Congress could then designate these proceeds to be used for the creation of a public safety network that would be deployed in the public safety broadband block.¹¹ While the D-Block auction would raise significant capital for the public safety network deployment, the

¹¹ *Second Further Notice* at ¶ 212.

auction revenues alone would not be sufficient to deploy a public safety grade network. Congress would need to pass legislation to cover the balance of funding needed to build, operate, and maintain the nationwide public safety broadband network. One of the primary questions regarding this approach is whether public safety would have sufficient capacity during times of emergency since it would not have assured access to additional spectrum beyond the 5+5 megahertz of broadband spectrum licensed to the PSST. In addition, even if there were sufficient capacity, separate public safety and commercial networks would mean that neither licensee would be able to deploy any technology options that would be more efficient in a channel greater than 5 megahertz wide. Also, separate networks could result in duplicative deployment costs.

Option 3: Dissolve the Public/Private Partnership and Reallocate the D-Block Spectrum from Commercial to Public Safety Use:

Assuming public safety's broadband needs grow and additional capacity beyond the existing 5 + 5 megahertz is needed, Congress could reallocate the D-Block spectrum for use by public safety in conjunction with the already allocated public safety broadband block and pass legislation to provide the necessary funding to deploy and operate a nationwide broadband public safety network. Public safety could then apply for funding to deploy interoperable networks on a regional basis pursuant to a national framework, as local and regional public safety needs demand. Under either approach, however, Congress would need to ensure public safety will have direct, immediate access to the funds they need to deploy public safety grade broadband networks when and where they need them most. This approach provides additional spectrum for public safety but creates a larger funding challenge while removing valuable spectrum from commercial access.

* * * * *

Whatever it decides to do with the D-Block, Congress should provide the PSST with the funding necessary to properly discharge its duties. The PSST is a non-profit organization comprised primarily of voluntary public safety communications experts who, in total, represent the wide range of public safety disciplines. It is Motorola's understanding that the PSST receives no funding from the parent public safety organizations these experts represent. Regardless of how the broadband network is ultimately built, the PSST is a valuable resource that provides a consistent and unified national voice for public safety communications activities with broad representation from across the breadth of the public safety community. The PSST has done an admirable job in driving and pursuing options and a framework for a nationwide broadband public safety network. The Commission should reaffirm the PSST's role to set a national framework, including standards and requirements for interoperability, that will serve as the cornerstone for any deployment. Its existence and continued operation should be supported and funded by the Federal government. One possible approach would be to fund the PSST's operational expenses through a sustained multi-year renewable grant from the Department of Homeland Security.

V. THE NATIONWIDE PUBLIC SAFETY NETWORK IS BEST DEPLOYED ON A REGIONAL AND LOCAL LEVEL PURSUANT TO NATIONAL INTEROPERABILITY STANDARDS.

Regardless of whether the Commission continues to pursue a public-private partnership or Congress chooses to consider new legislation under which funding will be made directly available to public safety agencies, Motorola believes the most effective means of deploying a public safety broadband network to meet the variety of needs across multiple agencies and

jurisdictions is to do so on a regional basis under a national framework as opposed to a national basis only.¹²

In the proceeding leading up to the establishment of the Public/Private Partnership, virtually all public safety agencies emphasized the need for local control over deployment of the network.¹³ Local entities are most familiar with their day to day coverage and usage requirements and are best positioned to effectively deploy in their own area pursuant to a national framework that would ensure the goal of nationwide interoperability could be met. Local public safety entities also have a long history of deploying their own communications networks and infrastructure and, with the proper support, would be well qualified to deploy the public safety broadband network.

Over the past several years, a number of regional networks serving multiple local and state agencies have been deployed that also take account of local needs, and the operational benefits, governance and "business plan" of regional networks has already been proven a success. For example, the State of Michigan's interoperable digital network has grown to support the communications requirements of more than a thousand governmental entities operating in excess of 40,000 radios over a 57,000 square mile area.¹⁴ Accordingly, Regional deployment is also likely to lead to more effective deployments as each region will deploy according to their own specific needs, environment, and urgency. Deployments in multiple

¹² *Second Further Notice* at ¶ 211.

¹³ *See e.g.*, Comments of APCO, PS Docket No. 06-229, 6 (filed Feb. 26, 2007); Letter from John W. Johnson, Region 39 RPC Chairman, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 06-229, at 2 (filed Feb. 26, 2007).

¹⁴ Comments On FCC Notice Of Proposed Rulemaking By The State Of Michigan, WT Docket No. 02-55, Dec. 3, 2007, at 1. There are numerous other examples of regional or statewide public safety networks that have been planned and deployed by state and regional authorities.

regions could occur simultaneously, thus creating a nationwide network designed to serve local needs relatively quickly.

In addition, if the Commission continues to pursue the public private partnership model, a regional approach would help mitigate risks faced by potential auction winners. In the current economic environment in which capital is generally more difficult to obtain, it could be easier for a given operator to take on the task of deploying in a region rather than nationwide.

These local and regional deployments, however, must be carried out pursuant to a national framework. To ensure true nationwide interoperability, it is important to have the framework for the network developed and overseen at the national level, and the PSST should continue in this role as the national public safety broadband licensee. The interoperable nature of the public safety broadband network is central to the success of the network and its effectiveness as a tool in a national crisis. As in the current national license model, each regional or local deployment should be made in accordance with the PSST's guidelines and national interoperability requirements.

VI. IF THE COMMISSION MAINTAINS THE PUBLIC/PRIVATE PARTNERSHIP APPROACH, IT SHOULD NOT JEOPARDIZE ITS SUCCESS BY ADOPTING INAPPROPRIATE AND UNNECESSARY AUCTION RULES.

If the FCC maintains the Public/Private Partnership approach for the D-Block, it should not exclude or disfavor any qualified potential D-Block licensee(s) by imposing unnecessary eligibility limitations.¹⁵ The significant investment required to develop and deploy a public safety grade broadband network will present great challenges to any D-Block licensee. Unnecessarily excluding current spectrum holders will put the entire effort in jeopardy. Potentially eliminating bidders with the existing resources and infrastructure to be in a position

¹⁵ *Second Further Notice* at ¶ 155.

to absorb the required investment costs and offer the expertise to make the Public/Private Partnership a success serves no purpose toward the primary goal of deploying a viable public safety broadband network.¹⁶ New entrants without wireless business experience, while potentially bringing competition and business flexibility to the market, face a tremendous uphill battle to enter the auction with the financial and qualified operational resources necessary to deploy, operate and maintain a nationwide network that meets the needs of public safety. In addition, new entrants may have no existing sites under their control, a problem which could significantly increase the cost and time to deploy the network. It is essential that D-Block bidders be judged by their ability to serve the needs of public safety and to create a viable nationwide network. Prospective bidders should not be excluded for unrelated considerations that have no bearing on the primary goal of deploying a public safety broadband network. Accordingly, Motorola urges the Commission to organize the D-Block auction so that the bidders with the greatest ability to serve the public safety community become the D-Block licensee(s), regardless of their prior experience or holdings in the wireless markets.¹⁷

VII. THE FCC SHOULD ADOPT RULES THAT PROVIDE FOR THE EFFICIENT RELOCATION OF EXISTING 700 MHZ PUBLIC SAFETY NARROWBAND SYSTEMS AT NO FINANCIAL COST TO PUBLIC SAFETY LICENSEES.

Sufficient funding must be made available to relocate mission critical narrowband voice communications that are currently in the 700 MHz band. Under existing rules, narrowband systems currently operating in the 700 MHz band must be relocated by February 17, 2009 to conform to the revised band plan adopted in the Second Report and Order. However, as evidenced by the certifications and waiver requests submitted by approximately 45 different

¹⁶ *Second Further Notice* at ¶ 157.

¹⁷ *Second Further Notice* at ¶ 158.

public safety agencies, current relocation fund limits are not adequate.¹⁸ Without adequate funding, these critical communications systems cannot be moved.

In order to ensure adequate funding is made available, the Commission must obtain accurate estimates of how much the relocation of existing narrowband systems will cost, as previously recommended.¹⁹ The costs of relocation vary widely. A complete and accurate estimate of relocation costs can only be created by soliciting information directly from individual public safety agencies as relocation costs will vary by equipment and by agency.²⁰ In order to facilitate this data gathering, the FCC should require public safety agencies seeking reimbursement to provide detailed cost information to the PSBL or the FCC directly within 90 days from the date of a Commission Public Notice that would start this process.²¹ Cost information should include the expected types and quantity of equipment that need to be relocated, any related equipment replacement or modification cost, the costs of labor to perform the relocation, a statement-of-work and a schedule to perform relocation, agency specific cost

¹⁸ See, e.g., Harris County Technology Information Center, Request for Waiver of Commission Rules, WT Docket No. 06-150 (filed Oct. 17, 2007); County of Bingham, Request for Waiver of Commission Rules, WT Docket No. 06-150 (filed Oct. 17, 2007); City of Stamford (CT), Request for Waiver of Commission Rules, WT Docket No. 06-150 (filed Sept. 24, 2007).

¹⁹ See, e.g., Comments Of Motorola, Inc. in Support of the Petitions for Reconsideration of the Commonwealth of Virginia and of Pierce Transit, WT Docket No. 06-150, 4-5 (filed Oct. 17, 2007).

²⁰ Although Motorola previously provided an estimate of relocation costs associated with specific equipment it emphasized that there were no assurances as to the accuracy of the estimate because of a large number of unknowns. Accordingly, Motorola stressed the need to obtain information from the licensees and to provide reimbursement for the actual amount required rather than an estimated amount. It is evident now that the relocation costs will exceed Motorola's original estimate. No single manufacturer is in a position to provide a definitive estimate of relocation costs. The information necessary for relocation costs can only be obtained from the licensees.

²¹ We do not believe it is necessary for the Commission to wait for full decisions in response to the *Second Further Notice* to issue such a public notice. The previous Commission decision envisioned determining the cost of relocation prior to the start of the D-Block auction.

information including consultant and attorney fees, and an estimated contingency amount. Because the estimates would be developed some months prior to actual availability of funding and execution of relocation, agencies would need to base these estimates on cost quotes that extend for sufficient time to cover the likely time period when the relocation would be performed. We note that the information regarding number of units contained in the certifications and waiver requests already on file may be reusable in these responses to help lessen the additional work agencies must perform to develop these cost estimates. The estimates can then be accumulated for all agencies and an appropriate cap determined, including a reasonable amount for unaccounted inventory and other contingencies, prior to the start of a second D-Block auction.

If the Commission proceeds with a Public/Private Partnership, once the D-Block is successfully auctioned and appropriate Network Sharing Agreements are executed, the D-Block licensee(s) should be required to deposit the reimbursement funds into a trust fund administered by the PSBL. Each individual public safety agency would execute relocation contracts with the respective parties involved in their relocation efforts including provisions to have payments made to the respective contracted parties from the trust fund administered by the PSBL. The PSBL should be afforded discretion to assess the soundness of the cost estimates and negotiate terms directly with equipment and technology vendors. The PSBL would issue payment to the contracting parties upon submittal of the authorizing documentation (milestone acceptance certifications and milestone payment invoices) akin to the process for payment of a letter of credit. A provision also must be established to allow for the payment of change orders to account for contingency work.

If Congress acts to provide funding and the Public/Private Partnership is not pursued, the funds appropriated by Congress should include monies sufficient to cover relocation costs.

Further, Motorola strongly recommends that the Commission extend the August 30, 2007 cut off date for narrowband deployments because of the hardship created for public safety agencies in the midst of network deployments. The Commission should continue to assure public safety that the build out of existing implementations will not be disrupted as the continuity of critical communications is of the utmost importance.²² Public safety entities are legitimately concerned about their ongoing deployment efforts as the Commission has not, to date, approved any waivers filed for continued narrowband build out.²³ While new deployments should only be licensed for the new band plan frequencies, current deployments should be allowed to continue pending the completion of their eventual relocation to avoid disrupting ongoing public safety operations.

Finally, given the delay in the availability of funding for the narrowband relocations caused by the failure of the D-Block auction, Motorola recommends extending the February 17, 2009 deadline originally set for completion of all narrowband relocations as that date is no longer realistic. Instead, we believe that a new deadline should be established based upon relocation schedules submitted by the public safety agencies as part of their relocation cost estimates and the timing for actual availability of funding to support the relocations. Sufficient time must also be included for the public safety agencies and the PSBL to establish the necessary

²² See, e.g., *Second Report and Order* at ¶ 55 (noting the need to minimize disruption to incumbent public safety operations in the 700 MHz band).

²³ While the Commission did address the deployment issue in response to the petition for Reconsideration filed by the Commonwealth of Virginia, many other agencies submitted waiver requests for similar relief and have received no written response according to public records in the dockets.

contracts required to execute each agency's relocation (which is in addition to the time required to perform the actual relocation work).

VIII. CONCLUSION.

The availability of 700 MHz spectrum for wireless broadband networks is a tremendous opportunity to advance the communications capabilities of first responders into the 21st century. The nation's best efforts for designing and funding a public safety broadband network should be applied so that the digital television transition provides the maximum benefits for the American people. While the Public/Private Partnership model that would be created through the auction of the D-Block spectrum is a creative approach that works within the confines of existing law, it is highly likely that supplemental funding will be needed from Congress to meet the needs of public safety and the commercial partners. Motorola is hopeful that legislative action can be rapidly addressed so that the FCC is freed of the constraints currently imposed that lead to compromises public safety should not have to accept.

Respectfully Submitted,

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