

**WRITTEN STATEMENT**

**of**

**MR. JOSEPH R. HANLEY, VICE PRESIDENT - TECHNOLOGY PLANNING  
AND SERVICES, TELEPHONE AND DATA SYSTEMS, INC.**

**before the**

**HOUSE SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY,  
AND THE INTERNET**

**September 24, 2009**

## **INTRODUCTION**

Good morning Chairman Boucher, Chairman Waxman, Ranking Member Barton, Ranking Member Stearns and members of the Subcommittee. Thank you for the opportunity to appear before you today on a matter of great importance to our country. My name is Joe Hanley and I am Vice President - Technology Planning and Services for Telephone and Data Systems, Inc., which is the parent company of United States Cellular Corporation.

My testimony addresses why and how to create a nationwide interoperable broadband network supporting shared use by the public safety community as well as commercial customers. A public/private partnership approach will help meet both public safety and commercial broadband goals for the spectrum in the 700 MHz Public Safety Broadband Licensee (“PSBL”) and D Blocks. Properly designed, this approach involves manageable roles for government, public safety agencies and commercial operators, and the lowest possible burden on taxpayers.

U.S. Cellular is prepared to play a significant role by constructing and operating regional parts of a shared wireless broadband network meeting the needs of public safety.

Shared use of these spectrum blocks will serve the public interest. A shared network will benefit public safety agencies through economies in building and funding network infrastructure and operations, while providing added capacity in emergencies. Commercial operators will efficiently use the D Block as well as available capacity in the PSBL spectrum, while ensuring that capacity, coverage and quality are available to public safety, especially in emergencies. Moreover, future competition in broadband services depends on making this spectrum available to consumers through a variety of commercial operators, and the shared network will make that happen.

There are two potential paths to this shared network, one involving legislation and the other achievable by the Federal Communications Commission (“FCC”) through new rules within the existing statutory framework. Our vision can be realized by either path. The unacceptable course is one of inaction that continues to leave this valuable spectrum idle. Whichever approach is chosen, the federal government should expeditiously proceed with adopting a process for the selection of commercial operators and creation of the shared network.

## **UNITED STATES CELLULAR CORPORATION**

U.S. Cellular is the sixth largest mobile operator in the U.S., serving over 6.2 million customers in rural, suburban, and urban markets in twenty-six states. We provide award-winning call quality, as recognized in eight consecutive J.D. Power awards for highest call quality in the North Central Region. U.S. Cellular operates as part of a national interoperable network today. We offer national service plans through roaming arrangements with other carriers, we coordinate call handoffs with many neighboring carriers, and our engineers contribute to industry standards bodies.

U.S. Cellular's networks serve public safety needs as well as uses by residential and business customers. Hundreds of state and local public safety agencies subscribe to our services, we have deployed E911 service to over 1,000 PSAPs, and we participate in the Wireless AMBER Alerts Initiative.

Our commitment to meeting customers' needs includes the on-going deployment of cell towers and advanced technologies to provide voice and broadband services to many previously unserved and underserved areas. Like other wireless carriers, U.S. Cellular seeks additional spectrum to facilitate its deployment of fourth-generation broadband services.

## **PUBLIC POLICY GOALS AND OVERVIEW OF OPTIONS**

This hearing aims to examine potential options for creating a national interoperable broadband network supporting uses by the public safety community. U.S. Cellular believes that there continue to be two fundamental goals for the spectrum in the 700 MHz PSBL and D Blocks. Both goals are essential to the public interest.

One goal is to provide national interoperable broadband services for public safety uses. These services are critical and must be made available throughout the nation, not just for a few select communities. These services should be provided at the lowest possible cost to taxpayers and resource-constrained public safety agencies by leveraging commercial operators' existing networks, financing capabilities, and interest in shared use of the spectrum.

The second goal is to expand competitive broadband services for consumers nationwide. As Congress recognized in funding the Broadband Initiatives Program and the Broadband

Technology Opportunities Program as parts of the American Recovery and Reinvestment Act of 2009, broadband services provide critical infrastructure for economic growth, with additional benefits for environmental, health care, educational, energy and other policy goals. However, spectrum -- the lifeblood of broadband services and wireless competition -- has become highly concentrated in the hands of the few dominant carriers, and more spectrum must be made available to ensure competition and consumer choice. This 700 MHz spectrum is highly desirable for consumer broadband services, which will spur job creation and advance the lives of Americans in many ways.

As I explain in this testimony, the goal of meeting public safety needs is advanced by continuing to pursue shared commercial uses. Congress should not view the issue as an irreconcilable choice between helping public safety or facilitating broadband services for residential and business users. These goals are highly complementary. Shared networks and shared uses of the spectrum mean lower costs and greater access to advanced technologies and applications for all users. In fact, the existence of a commercial base of users may be essential to driving the necessary volumes of handsets and other devices that can support this spectrum. As commercial use of this spectrum rises, the prices for public safety handsets and public safety services decline.

Among the potential paths to creating this network is adoption of legislation along the lines of a proposal by eight public safety organizations. Such legislation, enhanced by necessary modifications, would re-allocate the D Block to the PSBL and direct the PSBL to employ an open, fair process to select regional commercial partners for network construction and shared use of the 20 MHz of spectrum.

Alternatively, the FCC could use its existing authority to re-auction the D Block under rules which promote a successful auction. In order for an auction to succeed, these rules must include regional licenses, clear technical and build-out standards, pricing and capacity terms for public safety uses, and an opportunity for the PSBL to acquire licenses that fail to attract a commercial bidder. Waivers could be granted for a limited number of early builds of public safety systems and we would support the FCC doing so with appropriate safeguards to assure interoperability and facilitate eventual integration into the nationwide network.

With or without legislation, the federal government should move forward with a strong sense of urgency to adopt a process to select commercial operators and create the shared network. The goals, both public safety and commercial, that drive this initiative are too important to permit further delay.

## **OPTION OF LEGISLATION FOR THE SHARED NETWORK BASED ON THE PROPOSAL OF EIGHT PUBLIC SAFETY ORGANIZATIONS**

Since the failure of the D Block auction, various legislative options have been discussed as ways to address the broadband wireless needs of the public safety community. In particular, on May 28, 2009 eight public safety organizations<sup>1</sup> reached a consensus to petition Congress to reallocate the D Block for public safety use and create a single 20 MHz nationwide block of 700 MHz spectrum to be licensed to the PSBL. In the past few days a legislative proposal has been circulated, reflecting this effort.

Many features of this legislative proposal are sound and can provide a basis for moving forward, provided they are modified and enhanced to ensure a full partnership between commercial carriers and public safety, with a fair opportunity for participation by non-national carriers. Specifically, U.S. Cellular supports four key aspects of this proposal, based on the text of the legislative proposal as well as our understanding of its intent as articulated by PSST and others in the group since the announcement of May 28.<sup>2</sup>

Positive Features of the Proposal. First, public safety and commercial customers would share use of this spectrum. As discussed earlier, shared use benefits the public safety community as well as commercial broadband users. According to the PSST, “the PSST has never sought exclusive or full-time use of the full 20 MHz” of this spectrum and “most of the D Block spectrum would not be used by public safety entities on a daily basis.”<sup>3</sup> On the other hand,

---

<sup>1</sup> Association of Public-Safety Communication Officials, International Association of Chiefs of Police, International Association of Fire Chiefs, Major Cities Chiefs Association, Major County Sheriffs’ Association, Metropolitan Fire Chiefs Association, National Emergency Management Association, and the National Sheriffs’ Association.

<sup>2</sup> Letter filed by the Public Safety Spectrum Trust Corporation in FCC Docket Nos. PS 06-229 and WT 06-150 (June 29, 2009).

<sup>3</sup> Id. at 2.

during significant emergencies public safety entities would need more than 10 MHz and this proposal could accommodate those conditions.

Second, under the proposal as we understand it, the PSBL would utilize commercial operators in a public/private partnership approach to construct and operate the nationwide interoperable broadband network. This proposal correctly seeks to leverage the commercial operators' financing capabilities, operating efficiencies and advanced technologies. The resulting savings will promote rapid build-out, greater coverage, and lower costs for both public safety and commercial users. According to the PSST, "one of the most important benefits of the public-private partnership is that the D Block licensee(s) will provide many different types of resources – not just financial – that are necessary to build out the public safety broadband network . . . . The PSST anticipates that these carriers would be able to provide commercial services using a portion of the spectrum."<sup>4</sup>

Next, the PSST and others have recognized the benefits of partnering with carriers on a regional basis and creating opportunities for smaller and rural carriers. The PSST stated: "the PSST (and, in some areas, local public safety entities) would team with various carriers to accomplish the build-out of the public safety network."<sup>5</sup> Auction 73 mistakenly offered the D Block as a nationwide license. Regional public/private partnerships would attract many smaller carriers that could build on their existing network infrastructure and operations in an area. These regional carriers would be more responsive to the varying needs of public safety agencies. Additionally, with multiple operators building area networks, network deployment will be faster, more extensive and more reliable than under a nationwide or mega-region approach.

Fourth, the PSST's public statements clearly envision a competitive bidding process for the selection of commercial carriers in the regional public/private partnerships.<sup>6</sup> U.S. Cellular believes that the process of selecting commercial operators on a region-by-region basis must be

---

<sup>4</sup> Id. at 2-3.

<sup>5</sup> Id. at 3.

<sup>6</sup> Id.

fair and open, not biased in favor of the dominant national wireless carriers. Smaller and rural carriers have infrastructure, operations and relationships with public safety entities in many communities; they would be attractive partners for building and operating the shared network in many areas

Improvements to the Legislative Proposal. These aspects of the proposal are encouraging. U.S. Cellular believes that a legislative solution based on the public safety proposal could be a useful catalyst and starting point. In certain areas, the proposal needs to be enhanced to assure more explicitly full, fair, and efficient commercial participation.

The proposal would replace the FCC auction with a selection process run by the PSBL and in some areas by local public safety entities. The PSST is a highly capable organization, but would have to develop procedures for partner selection without an institutional history of conducting competitive bidding for projects. Local entities employ a wide range of processes with varying degrees of openness, fairness, effectiveness and speed. FCC rules will have to establish the standards for the competitive selection process (or processes). The legislation should require that the FCC adopt rules for a fair process that creates opportunities for smaller and regional carriers to participate.

Regarding the terms for shared use of the network, any allocation of this spectrum to the PSBL should include standards for commercial uses of portions of this spectrum during non-emergency and emergency conditions. Properly designed, the shared network will balance and advance both public safety and commercial broadband services. However, Congress cannot risk leaving to the discretion of public safety entities whether they want to reserve all of this valuable spectrum and exclude commercial broadband services. There is too much underutilized spectrum and there are too many barriers to competitive broadband services, and allocating this spectrum to the PSBL should not add to these public harms. Any legislation must establish a framework for commercial participation that promotes long-term stability and operator commitment. In order to fully leverage the advantages of a shared network, operators must have confidence that the capacity made available under this partnership will be available on a long-term basis to support commercial operations.

Similarly, the legislation must address the definition of geographic areas for the partnerships. A national or mega-region partnership model would preclude the participation of smaller and rural carriers, impede creation of the shared network, and exacerbate the excessive concentration of spectrum that exists. On the other hand, municipality or county-sized partnerships would foster huge difficulties in covering rural areas (resulting in “haves” and “have nots”) and in creating a nationwide interoperable network. U.S. Cellular believes that a reasonable size for a partnership would be at the state level or for one of the 55 regions already established by the FCC to coordinate state and local public safety wireless communications.

Legislation addressing these and other issues could provide a workable path to a national interoperable broadband network supporting shared use by the public safety community as well as commercial customers. To serve the public’s needs, any such legislation must proceed expeditiously, all the way through selection of regional commercial operators and creation of the shared network. Delays would harm public safety users as well as commercial broadband users.

As Congress examines the public safety organizations’ proposal as well as other proposals, any legislation should explicitly address the points I discussed: (1) public safety and commercial customers share use of this spectrum; (2) use commercial operators to construct and operate the shared network; (3) assurances of long-term partnership that allows commercial operators to build the network’s commercial capacity into their business plans; (4) create opportunities for smaller and rural carriers through regional public/private partnerships; (5) fair, open, effective and speedy processes for selection of commercial operators; (6) standards for commercial uses of portions of this spectrum; and (7) reasonable geographic sizes for the public/private partnerships.

#### **OPTION OF FCC RE-AUCTION OF D BLOCK WITHIN THE EXISTING STATUTORY FRAMEWORK**

An alternative path exists within the current statutory framework to create a national interoperable broadband network for shared public safety and commercial uses. After adopting improved rules, the FCC could conduct a successful D Block auction that attracts commercial bidders and supports public safety’s interoperability, technical performance, reliability, coverage, capacity, and other requirements.

Auction 73 failed to attract serious bids to the D Block when it offered a national license and left for post-auction negotiation major aspects of the obligations and rights of the licensee. Since the failure of the D Block auction in March 2008, there has been substantial progress in developing solutions for its shortfalls. Through two rounds of comments and reply comments at the FCC, there was widespread agreement on many key points for designing a successful re-auction. As a highlight, public safety organizations, carriers of all sizes and equipment suppliers recognized benefits of regional licenses (not nationwide or mega-regions) to create a broadband network that covers the nation with interoperability.

Additional progress has come from the recent efforts by public safety organizations that endorsed fourth-generation LTE (long-term evolution) technology and developed a set of requirements for this network. Simultaneously, industry standards groups of carriers and equipment manufacturers are moving forward with specifications for LTE which address many issues in creating this national interoperable broadband network. Removing technical uncertainties makes the re-auction more attractive for commercial operators as well as future public safety users. Moving forward with an auction would give handset and chipset manufacturers greater business certainty to support development of band-specific solutions in their equipment.

Along with U.S. Cellular's interest in bidding for D Block regional licenses under a public/private partnership, we believe that there will be many other serious bidders in a properly-designed auction. Most commercial operators have a strong need for more spectrum in some markets in order to deploy fourth-generation broadband services. (In contrast, the two dominant national carriers have accumulated huge amounts of spectrum through mergers and auctions (in several important cases taking advantage of auction rules strongly in their favor involving mega-regional licenses and package bidding).) The 700 MHz D Block has excellent propagation characteristics, and many carriers have expressed their interest in regional licenses in this band.

To help make the auction successful, the FCC's rules could provide a role for the PSBL similar to what was proposed by the eight public safety organizations. The auction would require commercial licensees to satisfy the minimum bid and the technical, coverage, shared capacity, and other requirements for each region of the shared network. Most licenses should

attract commercial bidders. For any license that remains unsold after the stages of the auction for commercial bidders, the PSBL could submit a bid with no monetary payment to the U.S. Treasury but with its commitment to use its best efforts to create the shared network in those regions. The PSBL would then proceed with a competitive selection of commercial operators for the public/private partnership in those regions.

The FCC could grant a limited number of waivers to public safety entities for test-bed early builds in the PSBL band using LTE technology. Properly selected based on technical and financial qualifications, a few waivers for demonstration networks could help meet the needs of the public safety community and develop useful experience with technologies and services. However, early builds of too many individual public safety systems could increase the difficulty of achieving a nationwide interoperable system – especially in deploying services to high-cost rural areas – and could impair the efficiencies of shared networks and shared use of the PSBL and D Blocks.

One difference between the legislative proposal of the eight public safety organizations and FCC re-auction of the D Block is in revenues coming to the U.S. Treasury. The re-auction would raise revenues to the U.S. Treasury; the most recent proposal from the FCC would establish minimum opening bids at \$750 million for D Block licenses. Carriers have been urging the FCC to make more spectrum available for them to bid at auctions. In contrast, the competitive selection process under the legislative proposal would not result in any payments to the U.S. Treasury. While such revenues should not be a decisive factor in creating this shared network supporting the public safety community, Congress may give some weight to this distinction.

The FCC should not wait for legislation, but should instead take a “parallel path” approach. The FCC should promptly issue a further notice of proposed rulemaking with the aim of adopting new rules for a successful auction of D Block licenses. If legislation changes the framework, the process of creating the network would benefit from these efforts and the FCC could readily adapt its rules.

## **MINIMIZING THE BURDEN ON TAXPAYERS**

In creating a nationwide interoperable broadband network supporting the public safety community, the U.S. should minimize the burden on taxpayers. This large project must leverage the existing wireless infrastructure and operating efficiencies of commercial operators. Moreover, by expeditiously moving forward with the selection of regional commercial operators, construction and operation of the shared network would fit with and take advantage of the efforts of carriers to deploy fourth-generation broadband systems.

The shared network approach and competitive selection of regional commercial operators should in all or almost all areas finance the network and allow discounted, reasonably-priced services for the public safety community. Shared commercial uses of this spectrum for broadband services will direct the private sector's operational capabilities, financial capacity and efficiencies to the benefit of the public safety community. This approach will minimize the burden on taxpayers of broadband public safety services. Yet, there may be a few areas and some public safety entities requiring targeted government financing to build, operate and use this network.

Conducting the FCC re-auction of the D Block or competitive selection of commercial operators by the PSBL would identify the areas in which the private sector commits to deploy the shared network satisfying public safety requirements. Congress should allow this market-based approach also to identify any areas requiring targeted government funding, and then make the necessary appropriations. Again, the selection of commercial operators accessing such targeted funding should proceed without delay.

## **CONCLUSION**

Creating a national interoperable broadband network for use by the public safety community should be achieved through a shared public/commercial network and regional public/private partnerships. The shared network will promote the two goals of meeting public safety needs and expanding commercial broadband services, all at the lowest possible burden on taxpayers. There are two potential paths to this shared network, one requiring legislation based on a proposal by public safety organizations and the other achievable by the FCC through new

rules within the existing statutory framework. Both are workable paths and vastly superior to simply doing nothing.

U.S. Cellular is prepared to play a significant role by constructing and operating regional parts of a shared wireless broadband network meeting the needs of public safety. Many commercial operators want and need additional spectrum for broadband services, and reasonable rules and geographic scope for regions of the shared network would attract bids. The federal government should expeditiously proceed with adopting a process for the selection of commercial operators and creation of the shared network.

Thank you for the opportunity to provide this testimony.