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ONE HUNDRED ELEVENTH CONGRESS
Congress of the United States
House of Representatives
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June 14, 2010

MEMORANDUM

To: Members and Staff of the Subcommittee on Communications, Technology, and the Internet

Fr: Committee on Energy and Commerce Democratic Staff

Re: Legislative Hearing on a Bipartisan Staff Discussion Draft to Provide Funding for the Construction and Maintenance of a Nationwide, Interoperable Public Safety Broadband Network, and for Other Purposes, and on H.R. 4829, the "Next Generation 911 Preservation Act of 2010."

On Thursday, June 17, 2010, at 10:00 a.m., in room 2322 of the Rayburn House Office Building, the Subcommittee on Communications, Technology, and the Internet will hear testimony regarding a discussion draft of legislation that would provide funding for constructing and maintaining an interoperable public safety broadband network, and for other purposes, and on H.R. 4829, the "Next Generation 911 Preservation Act of 2010.

I. H.R. ___, THE PUBLIC SAFETY BROADBAND ACT OF 2010

A. Background

In its report to Congress, the National Commission on Terrorist Attacks Upon the United States (more commonly known as the 9/11 Commission) identified the need for a nationwide, wireless interoperable public safety broadband network, noting that "the inability to communicate [among multiple agencies and multiple jurisdictions] was a critical element" at all three attack sites.[1] Four years after the 9/11 Commission's recommendation, in an independent report that studied the impact of Hurricane Katrina on communications networks, an independent panel also concluded that first responders were hindered in their response efforts by a lack of

[1] National Commission on Terrorist Attacks Upon the United States, *The 9/11 Commission Report*, at p. 397 (2004), (online at www.9-11commission.gov/report/911Report.pdf).

interoperability.[2] Since the 9/11 terrorist attacks and Hurricane Katrina, billions in federal funding has been allocated to promote interoperability between public safety agencies throughout the United States.[3] To date, however, the country remains without a nationwide, wireless interoperable public safety broadband network and significant challenges to achieving interoperability remain.[4]

On March 16, 2010, the Federal Communications Commission (FCC) released *Connecting America: The National Broadband Plan*, (NBP) which put forth a proposal to construct a nationwide, interoperable public safety broadband network.[5] The proposal recommended by the NBP addresses funding, interoperability, as well as the ongoing spectrum needs of public safety.

More specifically, to fund the network, the NBP recommends establishing a grant program to assist in paying for the construction of an interoperable broadband network on 10MHz of the 24 MHz that Congress allocated to public safety in 1997.[6] The NBP estimates that the capital costs to construct a network will be approximately $6.5 billion over ten years, with the bulk of the funding needed in the first five years.[7] As the FCC noted in a cost model released soon after the NPB, this estimate assumes a build-out performed in conjunction with wireless providers as these companies construct commercial networks in the 700 MHz band.[8]

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[2] Federal Communications Commission, *Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks: Report and Recommendations to the Federal Communications Commission*, at p. 25-26 (June 12, 2006) (online at www.fcc.gov/pshs/docs/advisory/hkip/karrp.pdf).

[3] *See* General Accounting Office, *First Responders: Much Work Remains to Improve Communications Interoperability* (April 2007) (GAO-07-301) (online at www.gao.gov/new.items/d07301.pdf); *Homeland Security's Billion-Dollar Bet on Better Communications: Interoperability Money Aids Motorola and Other Contractors, but Are First Responders Better Off?* (Feb. 16, 2010) (online at www.publicintegrity.org/investigations /homeland_security/ articles/entry/1925/).

[4] GAO-07-301, at p. 42.

[5] Federal Communications Commission, *National Broadband Plan*, at p. 314 (2010) (online at download.broadband.gov/plan/national-broadband-plan.pdf).

[6] National Broadband Plan, at p. 315 and p. 318. In 1997, Congress allocated 24 MHz of spectrum to public safety from spectrum being freed up from broadcasters as part of the digital television transition. The FCC allocated one 14 MHz block of spectrum for a narrowband voice network, while another 10 MHz block of spectrum was allocated for a broadband network.

[7] *Id*., at p. 318.

[8] Federal Communications Commission, *A Broadband Network Cost Model*, OBI Technical Paper No. 2 at 3 (2010) (online at www.fcc.gov/pshs/docs/ps-bb-cost-model.pdf). The cost model notes that a public-safety only network would cost more than double the amount of a combined network, $15.7 billion to construct. *Id*., at p. 4.

Notably, the FCC's cost model suggests that failure to coordinate efforts with commercial providers would drastically increase both construction and operational costs of the network – potentially increasing the cost total to more than $47.5 billion for a separate public safety network.[9]

The NBP also recommends establishing a fund for ongoing maintenance and operational costs associated with the nationwide network.[10] The plan estimates these costs would escalate over the ten-year network construction period, starting at less than $200 million per year in the first year of construction and escalating to approximately $1.3 billion per year by the end of the ten-year construction period.[11] The NBP suggests additional cost savings through such measures as federal infrastructure sharing and leveraging state and local tower sites.[12]

In addition to funding, the NBP recommends steps that can be taken to ensure that the coordination necessary for interoperability is achieved.[13] In this regard, the plan emphasizes that "past efforts to create a public safety narrowband interoperable voice network have failed."[14] This failure was due, in part, to a lack of coordination resulting in public safety radios that "lacked basic interoperability."[15] To avoid a similar result in the broadband network and to achieve advanced interoperability, the NBP recommends the creation of an Emergency Response Interoperability Center (ERIC) to develop common rules for interoperability and operating procedures.[16] The primary function of ERIC will be to ensure that applications, devices and networks all work together so that first responders nationwide can communicate with one another seamlessly.[17] On April 22, 2010, the FCC issued an order establishing ERIC within the Public Safety and Homeland Security Bureau (PSHSB).[18]

Regarding spectrum, the NBP finds that 10 MHz of public safety broadband spectrum is sufficient to meet public safety's capacity needs.[19] To prepare for unanticipated capacity needs

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[9] A Broadband Network Cost Model at 6.

[10] National Broadband Plan, at p. 318.

[11] Federal Communications Commission, *A Broadband Network Cost Model*, at p. 4.

[12] *Id*. at p. 319.

[13] *Id*. at p. 315.

[14] *Id*.

[15] *Id*.

[16] *Id.* at p. 317.

[17] *Id.* at p. 315.

[18] Federal Communications Commission, *Establishment of an Emergency Response Interoperability Center*, FCC 10-67, GN Docket No. 09-51, PS Docket No. 06-229 (April 23, 2010) (online at hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-67A1.pdf).

[19] At the first subcommittee hearing on the National Broadband Plan, all five FCC commissioners agreed that the plan put forth in the NPB is sufficient to address public safety spectrum capacity needs. *See* Oversight of the Federal Communications

and build greater resiliency and redundancy, however, the NBP recommends allowing public safety access to the 700 MHz D Block, scheduled to be auctioned to a commercial provider. The winning commercial bidder for the D Block will be required to offer public safety entities roaming and priority access services for a fee.[20] The NBP further recommends that the FCC require the D Block licensee to operate on a common air interface with public safety to ensure interoperability between the public safety and the D Block licensee's network.[21]

Soon after the NPB was released, the Chair and Vice Chair of the 9/11 Commission issued a statement reiterating that the lack of interoperable communications capability was still "a problem of the highest order." They further stated that "we have made little progress" in achieving that goal until the release of the proposal in the NBP, which "offers a clear roadmap for finally reaching that goal."[22]

The bipartisan staff discussion draft of the Public Safety Broadband Act of 2010 implements many of the recommendations put forth in the NBP by providing for interoperability as well as the funding, construction and maintenance of a nationwide, wireless interoperable public safety broadband network.

B. Overview of The Bipartisan Staff Discussion Draft of H.R. ___, The Public Safety Broadband Act of 2010

The bipartisan discussion draft consists of three titles. Title I directs the FCC to take all actions necessary to ensure the deployment of a nationwide public safety interoperable broadband network. Title II establishes funds in the Treasury of the Unites States for the construction, maintenance, and operation of a public safety interoperable broadband network. Title III directs the FCC to auction specified spectrum and requires the agency and the Comptroller of the United States to submit to Congress specific reports relating to the public safety broadband network.

C. Section-by-Section Summary

Section 1. Short Title. This Act is entitled the "Public Safety Broadband Act of 2010."

Section 2. Definitions. Sets forth the bill's definitions of terms relating to a nationwide, wireless interoperable public safety broadband network broadband network.

Commission: The National Broadband Plan, Hearing Transcript at 117-121 (online at energycommerce.house.gov/Press_111/ 20100325/ transcript.03.25.2010.cti.pdf).

[20] National Broadband Plan, at p. 316.

[21] *Id*.

[22] Federal Communications Commission, *Blogband*, statement of Former 9/11 Commission Chair Thomas H. Kean and Former 9/11 Commission Vice Chair Lee H. Hamilton on the Federal Communication Commission's Approach to Interoperable Communications Capabilities for Public Safety (online at blog.broadband.gov/?authorId=10313).

Title I–Achieving Interoperability

Section 101. Management. Authorizes the FCC to take all actions necessary to ensure the deployment of a nationwide, wireless interoperable public safety broadband network in the 700MHz band; directs the Commission to establish an appropriate standard, or set of standards, to ensure nationwide interoperability.

Section 102. Advisory Board. Directs the FCC to establish an advisory board to counsel the Commission on both the implementation of and improvements to a nationwide, wireless interoperable public safety broadband network broadband network.

Section 103. Flexibility and Sharing. Directs the FCC to permit public safety entities to use the narrowband spectrum in a flexible manner, including for broadband; directs the agency to permit public safety entities to allow other entities to access the public safety spectrum on a secondary basis through written agreements and with the approval of the Commission.

Title II–Funding

Section 201. Establishment of Funds. Establishes two funds in the Treasury of the United States: one for the construction of a public safety interoperable broadband network, and the other for the reimbursement of maintenance and operational expenses associated with the network. To ensure that funds are available immediately, NTIA is authorized to borrow up to $2 billion beginning in October 2010. Additionally, there is an authorization for appropriations to cover any shortfall in funding received from the auctions listed in section 301.

Section 202. Public Safety Interoperable Broadband Network Construction. Directs the Assistant Secretary of Commerce for Communications and Information (hereinafter "Assistant Secretary"), in consultation with the FCC and the Secretary of Homeland Security, to establish a grant program to assist public safety entities in the construction of a nationwide, wireless interoperable public safety broadband network in the 700 MHz band. Funding would be available for construction of new public safety or commercial infrastructure and for improvement to existing commercial or public safety infrastructure. The federal share of the grant would be up to 80%, with in-kind contributions allowed to fund the non-federal share.

Section 203. Public Safety Interoperable Broadband Maintenance and Operation. Directs the FCC to administer a program to reimburse public safety entities for up to 50 percent of maintenance and operational expenses associated with the nationwide, wireless interoperable public safety broadband network. The agency is directed to conduct a rulemaking to determine eligible expenses for reimbursement within one year after the date of enactment.

Title III–Miscellaneous

Section 301. Auction of Spectrum. Directs the Assistant Secretary to identify a minimum of 25 MHz of contiguous spectrum between 1675 MHz and 1710 MHz for immediate reallocation and directs the FCC to complete an auction of this spectrum and spectrum between

the frequencies of 2155 MHz and 2180 MHz. In addition, there is an extension of the agency's auction authority until 2020.

Section 302. FCC Report on Spectrum Needs. Directs the FCC to submit to Congress a report every five years on the spectrum held by pubic safety entities or dedicated to the public safety interoperable broadband network and recommend whether more spectrum should be made available to meet the needs of public safety entities.

Section 303. GAO Report on Satellite Broadband. Directs the Government Accountability Office to report to Congress on the current and future capabilities of fixed and mobile satellite broadband to assist public safety entities during an emergency.

Section 304. Access to GSA Schedules. Directs the Administrator of General Services to establish rules under which public safety entities may access the rates offered to the General Services Administration (GSA) for communications services and devices.

Section 305. Federal Infrastructure Sharing. Directs the Administrator of General Services to establish rules to allow public safety agencies access to federal infrastructure to construct and maintain a nationwide, wireless interoperable public safety broadband network broadband network.

II. H.R. 4829, THE NEXT GENERATION 9-1-1 PRESERVATION ACT OF 2010

A. **Background**

The Next Generation 911 Preservation Act of 2010, introduced by Reps. Eshoo and Shimkus, would facilitate the migration from the current generation of emergency communications systems to IP-based emergency services known as Next Generation 911 (NG9-1-1). An NG911 system integrates support for multimedia communications (such as text, e-mail, and video) into the existing E911 system. This would permit, for example, a public safety answering point (PSAP) to conduct a 911 emergency call in sign language via video or receive automatic crash notification (ACN) from vehicles equipped with ACN technology.[23]

Congress first acted to improve the emergency 911 system in response to several reports on the outdated state of emergency services.[24] In what came to be known as the Hatfield Report, which was submitted to the FCC, the former head of the FCC's Office of Engineering and Technology, Dale N. Hatfield, pointed out the critical nature of location information in responding to 911 calls, the "seriously antiquated" condition of the 911 infrastructure, and the

[23] Department of Transportation, *Next Generation 9-1-1 (NG9-1-1) System Initiative: Transition Plan* 5 (Feb. 2, 2009) (online at www.its.dot.gov/ng911/pdf/NG911_Transition_PlanFinal.pdf).

[24] Congressional Research Service, Linda K. Moore, *Emergency Communications: Broadband and the Future of 911*, (April 27, 2010) (citing ENHANCE 911 Services, Pub. L. No. 108-494, 118 STAT. 3986 (2004)).

need for a national 911 office.[25] The 9/11 Commission also recommended improving the integration and communication between 911 operators and emergency response teams.[26]

In 2004, Congress adopted legislation providing for better coordination of 911 and E911 services at federal, state and local levels and required that E911 fees collected on customers' telecommunications bills would only be used for enhancing emergency 911 services.[27] In 2008, Congress adopted the New and Emerging Technologies (NET) 911 Improvement Act of 2008, which, among other things, ensured that users of Voice over Internet Protocol (VoIP) services could access 911 services.[28]

B. Section-by-Section Summary of H.R. 4829

Section 1. Short Title. This Act is entitled the "Next Generation 911 Preservation Act of 2010."

Section 2. Findings. Sets forth the findings that, among other things, it is a national priority to foster the migration from the current generation of emergency communications systems to a next generation, IP-based emergency services model.

Section 3. Purposes of the Act. States that the act's purposes are to: Focus federal support for a successful migration from voice-centric to next-generation 911 and emergency communications services; ensure universal availability of such services; and ensure that all emergency response organizations have access to the technology underlying next generation emergency services.

Section 4. Coordination of 911 Implementation. Directs the Assistant Secretary of the National Telecommunications and Information Administration (NTIA) to create an improved 911 Implementation Coordination Office to facilitate coordination between Federal, State, and local entities involved in the implementation of 911 services; directs the Assistant Secretary to provide grants for the implementation and operation of E911 services, the migration to an IP-enabled emergency network, the adoption and operation of NG911 services and applications, the implementation of IP-enabled emergency services and applications enabled by NG911 services, and training in 911 services for public safety personnel.

Section 5. Requirements for Multi-Line Telephone Systems. Directs the GSA, in conjunction with the 911 Implementation Coordination Office, to issue a report to Congress

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[25] Dale N. Hatfield, *A Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services* (2002) (online at www.locatemodelcities.org/library/HatfieldReport.pdf).

[26] The 9/11 Commission Report, at p. 318.

[27] ENHANCE 911 Services, Pub. L. No. 108-494, § 103, 118 STAT. 3986 (2004).

[28] National E9-1-1 Implementation Coordination Office, *A National Plan for Migrating to IP-Enabled 9-1-1 Systems*, (September 2009) (online at www.911-inc.com/resources/policyandlegislation/).

identifying the 911 capabilities of multi-line telephone systems (MLTS) in use by all Federal agencies in all Federal buildings and properties; directs the FCC to issue a public notice seeking comment on the feasibility of requiring MLTS operators to provide a sufficiently precise indication of a 911 caller's location.

Section 6. GAO Study of State and Local Use of 911 Service Charges. Directs GAO to study the imposition of 911 fees and the use of 911 fee revenues.

IV. WITNESSES

The following witnesses have been invited to testify:

James Arden Barnett, Jr.
Rear Admiral (Ret.), USNR
Chief
Public Safety and Homeland Security Bureau
Federal Communications Commission

Charles F. Dowd
Deputy Chief
New York City Police Department
Communications Division

Jonathan Moore
Director of Fire and EMS Operations and GIS Services
International Association of Fire Fighters

Steve Zipperstein
General Counsel
Verizon Wireless

Joseph Hanley
Vice President - Technology Planning & Services
Telephone & Data Systems, Inc.

Brian Fontes
Chief Executive Officer
National Emergency Number Association

Dale Hatfield
Adjunct Professor
Interdisciplinary Telecommunications Program
University of Colorado at Boulder

Coleman D. Bazelon
Principal