

**Written Testimony of
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Committee on Energy and Commerce
Subcommittee on Communications and Technology
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**Hearing on
“Oversight of FirstNet and the Advancement of Public Safety Wireless Communications”**

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I. Introduction

Chairman Walden, Ranking Member Eshoo, and Members of the Subcommittee, thank you for inviting me to testify on behalf of the First Responder Network Authority (FirstNet). It is a pleasure to return to the Subcommittee and address you on FirstNet’s progress since the last time I testified. The goal of building a nationwide, interoperable public safety wireless network remains as critical and important as ever. I remain confident that we will fulfill the goals Congress has asked us to achieve.

When I appeared before this Subcommittee in March, I gave my commitment that we would do everything possible to build this network quickly and to the best of our ability. A little more than six months later, I can report steady progress toward our mission to provide cutting-edge communications technologies that will protect not only our nation’s first responders but the citizens that they have sworn to protect.

This year we have seen extensive organizational development at FirstNet, given the fact that until only several months ago, the entire organization was comprised of a Board with help from Department of Commerce staff. Board members had to fulfill dual roles – their traditional Board positions as well as management roles. The Board members reached out to the 56 states

and territories, assisting negotiations with the seven Broadband Technology Opportunities Program (BTOP) public safety grant recipients, and developing policies and practices for self-governance. This proved to be a valuable experience as we were able to learn firsthand what requirements public safety needed from the network that we will build.

The Board members and now the management team have conducted an impressive amount of outreach with our available resources. FirstNet Board members and executives have spoken at more than 85 conferences, meetings, trade shows and other events since the start of 2013. These speaking engagements have reached a broad cross section of stakeholder groups and associations, including those representing the public safety community, federal, state and local governments and tribal leaders, as well as industry.

FirstNet has been kindly invited to speak at the majority of the major public safety and communication groups' annual conferences and we have attended those as well as engaged with organizations including the Association of Public Safety Communications Officials, the National Sheriffs' Association, the International Association of Chiefs of Police, Major City Chiefs, the International Association of Fire Chiefs, the Fraternal Order of Police, the National Governors Association, the U.S. Conference of Mayors, the National Association of State Chief Information Officers, SAFECOM, the Telecommunications Industry Association and the Competitive Carriers Association. These interactions provided us an important opportunity for two-way interaction with the public safety community. We were able to educate our audience about the network, who we are and what we plan to do, while these groups told us about their unique requirements, constraints, as well as the requirements that the network has to provide to them.

The FirstNet team has visited the state of New Jersey to observe the damage that Superstorm Sandy brought to that part of the country. We toured the disaster site in Moore,

Oklahoma, where a devastating tornado destroyed the town this past May. On that same trip we met with Oklahoma Governor Mary Fallin to discuss how FirstNet would help in similar disaster situations. These visits illustrated the fact that an incident commander needs to have the capabilities to observe disaster areas so that he or she knows where to allocate resources. FirstNet will be able to provide the network that will allow the incident commander to have such capabilities.

We visited Boston in the aftermath of the Marathon bombings and met with senior public safety officials including now retired Boston Police Commissioner Edward Davis, on how the public safety communications systems fared during that tragedy. We took away valuable insight that will be incorporated into our state outreach and consultation. These significant events will impact how the network will be designed as we have to take into account all manners of disasters, both natural and acts of terrorism.

We have hired the majority of our senior management, including a General Manager, Deputy General Manager, Chief Financial Officer, Chief Counsel, Chief of Staff and Chief Administrative Officer. These individuals have extensive experience in their respective fields of public safety, management, wireless networks and finance. I am particularly encouraged by these hires as they will provide leadership and expertise to the organization. I have the utmost confidence in these people and am sure that they will carry out their jobs with distinction. It is worth taking away from these past eight months that we have had a productive Board with members that have made personal and financial sacrifices to join our team, and now the senior management is coming into place ready to take the reins and operational responsibility.

We have reached agreements on spectrum leases with two BTOP public safety project grantees – the Los Angeles Regional Interoperable Communications System Authority (LA-

RICS) and the State of New Mexico – and look forward to these early mover projects serving as valuable pilots for the nationwide network. We will be able to use these projects as learning models for the rest of the network. The lessons we will learn I'm sure will prove invaluable as the design of the network begins to take shape.

We have adopted an operating budget, which sets out the priorities and goals for the current fiscal year and will form the foundation upon which we will design and deploy the network.

We have been listening to state, local and tribal public safety stakeholders through a series of regional meetings and other sessions, and will be expanding our consultation and outreach significantly in the next year. This will allow us to work toward developing state plans for all 56 states and territories.

We have also been listening to industry – vendors, carriers and technology firms. We have publicly released and received responses from 11 Requests for Information (RFIs). More than 300 detailed responses were submitted and we are carefully reviewing them as we refine plans for building this network.

And of course, we are listening most intently to public safety. Through our Public Safety Advisory Committee (PSAC), we have a direct link to the public safety community and we are leveraging this to better understand the needs and wants of our nation's first responders.

It has been a challenging year given the task before us, but I feel that we have made significant progress in a positive direction and we will be using 2014 to build upon this initial success. Let me describe how we envision this.

II. Charting a Path Forward

Congress tasked FirstNet to achieve a highly complex and extremely technical mission. It is, therefore, prudent that we take a thoughtful, calculated approach in the design of the network to meet public safety's needs. We need to balance the adoption of an analytical, measured approach against providing the benefits of the network to public safety as quickly as possible.

The key to achieving this balance is to take the responsibilities assigned to us by the legislation and to break them down into manageable tasks that we can tackle, solve, and move forward on. We have to simplify our mission. One method to achieving this is to identify mission areas that we can focus on:

- The basic: To build a nationwide broadband network dedicated to public safety;
- The technical: The network must be secure and fully interoperable while providing priority for public safety;
- The administrative: We must establish a solid business foundation to ensure FirstNet becomes self-sustaining as quickly as possible;
- The fiscal: We must be judicious with taxpayer funds.

We cannot do everything at once. We simply don't have the resources or personnel. Just like an incident commander we must allocate our resources where they will do the most good. Therefore, in our planning we identified priorities in six key areas that we will focus on during fiscal year 2014 (FY14). These are: the business foundation, partnerships, mandates, BTOP's public safety projects, mobile network solutions, and devices.

Each of these issue areas comes with its own unique set of challenges. It is up to us to identify effective and efficient solutions, potentially through a variety of methods, drawing on the input and expertise we are seeking from federal, state, local and tribal public safety entities, as well as vendors and carriers.

We have to ensure that we bring on board the technical competence to build a public safety network that will fulfill all of public safety's needs. We have to be able to attract those people who know how to build networks and incorporate their skill sets with the needs of our nation's first responders.

Network Partnerships

FirstNet will leverage its nationwide scope and assets to enter into partnerships that help reduce network deployment and operating costs and to support the build-out of the network. This is critical to stretching the \$2 to \$7 billion Congress has made available to FirstNet so that we can meet the requirements of public safety as quickly and affordably as possible.

During FY 2014 our priority will be to explore and validate a wide array of partnership opportunities that will help us achieve our mission. The FirstNet management and technical team is pouring over the responses to our RFIs and will conduct market research on potential partners, to help FirstNet develop requirements and criteria for future partnership agreements, prior to issuing formal RFP's.

Requests for Information (RFIs)

It is worth noting that in June of this year, FirstNet published 10 RFIs that covered a variety of topics. These topics can be broken down into two areas. First, Radio Access Network (RAN) RFIs which included: network partnering and RAN provision, antenna systems,

microwave backhaul equipment, mobile network solutions, and satellites. Secondly, Core RFIs that covered: enhanced packet core (EPC), transmission/transport, data center, network management center/operations management center (NMC/OMC), and network service platforms.

Between June and the closing date which was August 31, we received 285 responses to these RFIs. In my opinion this was an amazing result that illustrates how the private sector is interested in the opportunities that FirstNet will provide to public safety in the future. FirstNet is currently working our way through all of these responses in an effort to better define our partnership strategy and begin to develop detailed requests for proposals (RFPs).

Core Network

By law, FirstNet must deploy a secure and resilient nationwide core network that will connect to the RANs of all 56 states and territories.

Think of the core as the central nervous system of FirstNet's network. The core will incorporate security of the highest standards, operational and business support capabilities, and an applications platform that will support the use of applications throughout the network.

We have a lot of work ahead of us to make this happen, and FirstNet is focused on executing our tasks efficiently and effectively.

State Consultation and Plans

The law also requires FirstNet to present each state and territory with a specific plan for the buildout of the network in that state, based upon the totality of consultations and input we have received.

FirstNet's state plans will explain how FirstNet will work. It will identify full service and support functionalities, device procurement and network services fees, and a description of the roles and responsibilities between FirstNet and that particular state.

Importantly, coupled with this plan must also be an understanding of the implications for a state that opts to build, operate and maintain its own radio access network, which will be connected to the FirstNet core network. The decision of a state to accept, or "opt-in," to FirstNet's proposed plan for that state, or to not accept, and "opt-out" of that plan will be a major one.

It is the goal of FirstNet to develop an environment of "opt-in" throughout the country. We believe that there are substantial advantages which inure to the benefit of all states when each added state "opts-in" to the network, including advantages in cost and timing of building the nationwide interoperable network that will meet the demands of public safety. That is the philosophy that we will take with us as we conduct our consultation with the states.

Indeed, conducting state outreach and consultation is one of FirstNet's top priorities in FY14.

Integration of BTOP Projects

One of the keys to launching a successful network is attracting and developing early interest and we are very pleased to have heard from a number of states and that are eager to work with FirstNet.

By leveraging this interest, including BTOP public safety grant recipients, FirstNet will be able to establish market deployments of the nationwide network that will demonstrate the benefits and capabilities of the network to public safety jurisdictions across the country.

The opportunities that these BTOP projects provide to FirstNet are highly valuable. They will allow FirstNet to test and trial public safety requirements, such as priority access, local control and customization, and emerging Long Term Evolution (LTE) technologies.

One accomplishment in our first year has been to sign Spectrum Manager Lease Agreements (SMLA) with the State of New Mexico and LA-RICS, which received BTOP public safety grants. These lease agreements provide these projects with use of FirstNet's exclusively-licensed 700 MHz spectrum, which they need in order to become operational. These agreements will enable FirstNet to learn key lessons to inform us of what works and what doesn't for the nationwide network. For example:

- Our partnership with LA-RICS will test priority access to the network depending on the nature of the incident.
- In New Mexico, we will focus on spectrum management and network use issues along the U.S.-Mexico border, shared use of a network among state and Federal users, and the use of a remotely-located network core.

We have learned valuable lessons from our discussions with each of the BTOP grantees, especially the need to address every state's unique requirements as we conduct outreach and design the network.

Mobile Network Solutions

Building enough towers to cover the entire geographic area of the United States is both cost-prohibitive and impracticable. We will therefore need to think creatively to provide the coverage that public safety needs in order to carry out its mission. One method of providing coverage in hard to access areas of the country is through mobile network solutions. FirstNet

will need to leverage deployable infrastructure to supplement terrestrial coverage and provide critical communications during incidents when network coverage is unavailable.

Through the use of mobile network solutions, satellites and microwave backhaul, we will be able to extend the geographic reach of the network to serve those jurisdictions that require coverage in challenging geographic areas.

In the coming year, FirstNet will explore a variety of deployable infrastructures. We will work with suppliers to test and trial leading technologies. FirstNet is very excited about the prospects that mobile network solutions will offer to the network. It is clear that mobile network assets will provide FirstNet users with wide-ranging capabilities, and through interaction with states, public safety users, and commercial vendors, we will develop our understanding of how these capabilities can be put to use for the benefit of FirstNet's customers.

Wireless Devices

FirstNet will ensure that public safety has access to a portfolio of broadband LTE devices, built to open standards that meet their communications and information technology requirements, as required by statute. FirstNet must leverage its nationwide purchasing power to encourage industry to introduce new technologies to public safety. We are not in the business of replacing today's Land Mobile Radios. Instead, we intend to augment first responders' current capabilities by leveraging new technologies, based on widely shared standards.

FirstNet will also leverage its nationwide scale and open standards to significantly reduce device price points. Public safety needs a wide array of devices, including rugged devices that can stand up to any condition and the cost of these devices needs to account for constrained state and local budgets.

Working with our PSAC, FirstNet will define user requirements for a portfolio of broadband device types that are required by public safety. We will also conduct extensive market research with providers of devices, and chipsets. The key point is that FirstNet will seek to ensure that wireless devices are available with the capabilities and at price points required by public safety.

It is clear that industry has been very interested in our device strategy. In May, we released an RFI on wireless devices, to which we received 54 responses. I think that this is a most encouraging sign and as we move forward, we will encourage competition to drive down costs to our end users.

The issue of cost is a key point in the success of the network. We have to provide devices that are both affordable and provide an excellent service. The question that we have to answer is: will public safety want, and will they ultimately buy the service that we will provide? While we don't yet have all the answers we are confident that we will be able to deliver on our future plans.

III. Consultation and Outreach

Consultation with federal, state, local and tribal public safety entities is integral to the success of FirstNet. Our objective is to develop long-standing relationships with public safety at every level, including law enforcement, fire services, 911 systems, and emergency medical services. We are working to build a sustainable process and model that our stakeholders can use to provide ongoing input in an environment of mutual trust. As we develop the mandated state plans, we want to ensure that the public safety community, public safety communications experts, State Chief Information Officers (CIOs), governor-appointed state points of contact (SPOCs), Statewide Interoperability Coordinators, and all additional relevant individuals and

groups become part of the consultation process and provide input into their state plan. This will not be a top down approach. Since all disasters and incidents occur at the local level, and because the nationwide network will be utilized by public safety personnel at the local level, we believe our consultation must follow a similar approach.

To that end, FirstNet is in the process of establishing ten regional offices throughout the country. Our intent is that the regions will mirror the ten FEMA regions and our plan is to hire permanent staff and locate them in each region. FirstNet is particularly eager to hire former or retired public safety personnel who already have deep-rooted relationships with first responders in their region so that we can take advantage of the local and regional knowledge base that already exists. These regional staff will provide the main link into FirstNet from the local communities. We envision outreach and consultation to be a joint effort, a partnership. We truly believe creating state plans together is the only way that we will be successful and we will follow this method throughout our consultation.

FirstNet also is engaging with our Federal partners, through the Emergency Communications Preparedness Center and individual agency outreach, to ensure that there is consistent dialogue and coordination at all levels of government.

While we are developing our regional teams and beginning to plan for outreach, FirstNet is also finalizing the formal consultation process that is to take place between FirstNet and state, regional, tribal, and local jurisdictions. This process will identify, plan and implement the most efficient and effective way to utilize and integrate the infrastructure, equipment, and other architecture associated with the network. Federal agencies also will play a role in the successful deployment of the public safety broadband network, and the Board is excited about working with

federal agencies to determine where and how federal assets and expertise can be leveraged for the benefit of the nationwide network and public safety first responders.

The tribal nations will need to be informed of the action that FirstNet is taking and so in an effort to begin this outreach, we convened a one-day workshop at the beginning of November. This workshop was designed to seek guidance from tribal representatives and Indian Country professionals on how to approach tribal outreach and education.

The PSAC is one of our most important resources as we execute our outreach efforts. This 41-member committee, which has representation from every aspect of public safety, is an important and direct link to public safety on a day-to-day basis. FirstNet senior management is in regular communication with the PSAC's five-person executive committee and we will seek the PSAC's input on important issues as we deploy the network.

IV. Conclusion

FirstNet is mandated to build our nation's first nationwide public safety wireless broadband network and this is what we at FirstNet are dedicated to accomplish. We expect a challenging year in 2014, however by following the path forward that I have laid out in my testimony I believe we are postured for success. But we cannot accomplish this without your support and assistance. I look forward to continuing to work with this Committee as our mission moves forward.

Thank you for your time and I would be pleased to answer any questions you may have.