



# The Nationwide Public Safety Broadband Network FAQs for Policymakers

The Middle Class Tax Relief and Job Creation Act of 2012 (the Act), specifically Title VI entitled *Public Safety Communications and Electromagnetic Spectrum Auctions*, authorizes the deployment of the Nationwide Public Safety Broadband Network (NPSBN). The NPSBN will be a wireless, interoperable nationwide communications network that will allow the public safety community to securely and reliably gain and share information with their counterparts in other locations and agencies. The law also establishes the First Responder Network Authority (FirstNet) as an independent body that will govern the NPSBN; sets aside \$7 billion for network development, deployment, and operation; and assigns the use of the 700 MHz D Block to FirstNet for the public safety community. As envisioned, the network will incorporate open, commercial wireless technology standards.

## **NATIONWIDE NETWORK OVERVIEW**

**What is the purpose of the NPSBN?** As envisioned, the network will allow first responders to send and receive voice, video, and other information in real time; enable communications across agencies and jurisdictions; and improve the safety and effectiveness of operations by enhancing the way public safety personnel are notified about, gain information on, and respond to emergencies and natural disasters.

**What is the history of the NPSBN?** Following the terrorist attacks on September 11, 2001, the 9/11 Commission was established to review the incident and make recommendations to the President that would mitigate the possibility of such attacks occurring again. One of the 9/11 Commission's recommendations was the establishment of a nationwide, interoperable public safety communications network envisioned to resolve communications challenges faced by emergency responders. For the past decade, public safety worked with State and local government officials, the Federal government, and Members of Congress to amass support for the creation of the nationwide network. On February 22, 2012, President Obama signed the Act into law, of which Title VI includes provisions to fund and govern the NPSBN.

**What is FirstNet and what will it do?** FirstNet is an independent authority within the Department of Commerce's National Telecommunications and Information Administration (NTIA) that will develop and design the network architecture and gather network requirements. FirstNet will also develop a plan for network deployment for each State; and work with State, local, and tribal governments to create an interoperable, nationwide network; and hold the spectrum license for the NPSBN. FirstNet is led by a Board composed of 15 members including the Secretary of Homeland Security, the Attorney General, the Director of the Office of Management and Budget, and 12 experts—named by the Secretary of Commerce on August 20, 2012—each with experience in the public safety, technical, network, or financial fields. Per the Act, at least three Board members must represent the collective interests of States, local, tribes and territories. Additionally, at least three Board members must have served as public safety professionals.

**When will the NPSBN be deployed?** There is no defined timeline for the deployment of and transition to the NPSBN. FirstNet must first engage in a consultation process before crafting its nationwide network architecture, which will serve as the basis for

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requests for proposal (RFPs). FirstNet will provide each State with a proposed network build-out plan and State-specific funding allocation, as determined by NTIA.

**Will deployments vary across the country?** It is projected that deployments will vary by State based on existing infrastructure and geography; however, the way in which deployments will vary will not be known until FirstNet develops the plan for each State.

**What entities are included in the term “public safety”?** The Act defines a public safety entity as a provider of public safety services and defines public safety services and emergency response providers by the definitions included in the Communications Act of 1934 and the Homeland Security Act of 2002, respectively. Section 337(f) of the Communications Act defines public safety services as the sole or principal purpose of which is to “protect the safety of life, health, or property; that are provided by State or local government entities; or by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and that are not made commercially available to the public by the provider.” Section 2 of the Homeland Security Act of 2002 defines emergency response providers as including “Federal, State, and local governmental and nongovernmental emergency public safety, fire, law enforcement, emergency response, emergency medical (including hospital emergency facilities), and related personnel, agencies, and authorities.”

**What is the timeline for my State to opt-out of the NPSBN?** Within 90 days of a State receiving the FirstNet plan for the NPSBN, the governor of each State must decide whether to participate in the FirstNet recommended nationwide network build-out or opt-out and deploy a State-specific Radio Access Network (RAN) that connects to the nationwide network. If the governor elects to opt-out, the governor must develop and complete requests for proposals for the construction, maintenance, and operation of the RAN within 180 days of notifying FirstNet, NTIA, and the Federal Communications Commission (FCC) of its decision. The State must submit to the FCC an alternative plan for RAN construction and operation that meets the minimum technical interoperability requirements developed by the Technical Advisory Board for First Responder Interoperability and

interoperates with the NPSBN. The State must also apply for spectrum through the NTIA and pay user fees for the shared elements of the network core. The State may also apply to NTIA for a grant to build, its portion of the RAN. If the FCC disapproves the State’s plan, network build-out within the State will proceed under the FirstNet plan.

**A commercial vendor has offered to sell Long Term Evolution (LTE) infrastructure to my agency. Do I need to purchase this equipment now?** No, you do not need to purchase, and in some cases should not purchase, LTE infrastructure and devices from commercial vendors at this time. Because the network architecture has not been designed or deployed, it is impossible to know what infrastructure and devices each State, region, or jurisdiction may need. Any entity making such purchases now risks buying infrastructure and equipment that may not be interoperable with the future NPSBN.

## COMMUNICATIONS TECHNOLOGY

**What is the difference between Land Mobile Radio (LMR) and broadband networks, in particular LTE networks?**

LMR is a terrestrially-based wireless narrowband communications system commonly used by Federal, State, and local emergency responders, public works companies, and even the military to support voice and low-speed data communications. LTE is the next evolution of commercial broadband wireless communications technology, which was developed to address the demand for high-speed, data intensive communications, such as situational awareness, advanced analytics, database lookups, and video applications. LTE promises higher data transmission rates and capacity than the current 3rd generation (3G) commercial service offerings. Unlike LMR, LTE does not currently support mission critical public safety grade voice communications; priority access for public safety users; or have the push-to-talk, multi-broadcast, or the ability to talk device-to-device (known as “talk around”) capabilities required by the public safety community. Additionally, FirstNet’s deployment is likely to be a multi-year rollout, so coverage may not be ubiquitous from the outset.

**What is the difference between public safety and commercial networks?** Public safety voice and data networks are designed to provide emergency responders with dedicated communications networks. Public safety

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networks require higher degrees of robustness, resiliency, redundancy, and security than commonly found in commercial networks. Public safety networks are built to provide equal coverage across broad areas, handle one-to-many communications, and data distribution wherever the incident or event occurs. Commercial communications networks provide primarily one-to-one communications services to private consumers and are designed to generate the largest possible economic return for the commercial provider.

While current commercial solutions are used to augment public safety networks by providing non-mission critical services, many commercial mobile data solutions are not interoperable with public safety data systems. In addition, commercial mobile data have limited bandwidth and capacity, are not built to public safety standards, do not provide priority for first responders in the event of an emergency, and may become inaccessible during a significant emergency event.

**Will broadband replace LMR?** For the foreseeable future, broadband will supplement, but not replace LMR. At this time, the available broadband technologies do not adequately support voice communications capabilities as required by public safety personnel; therefore, it will be necessary to continue to invest in LMR networks as an integral part of first responder communications. Voice over LTE (VoLTE) standards are under development and emerging, and in time may provide standardized voice capabilities as an adjunct to public safety LMR services. These VoLTE services will be similar to telephony services and capabilities now offered on commercial 3G systems. While VoLTE is expected to support standardized voice traffic over LTE, the way in which critical LMR voice capabilities can be delivered in the NPSBN in the future will only be determined once the architecture is defined; technical standards are drafted and accepted; devices are built, tested, and certified; and the public safety community begins the migration to these new services and capabilities.

## GOVERNANCE

**Who is responsible for coordinating all the State and local assets and working with the FirstNet Board?** The Act requires each State to designate a single State officer or governmental body that will be the point of contact for consultations with FirstNet. States must also designate a single officer or governmental body

to coordinate the implementation of any grant funding the State receives under the State and Local Implementation Grant Program. These decisions will be made by each State's governor. Many States have a Statewide Interoperability Coordinator and a Statewide Interoperability Governing Body to implement the statewide plans for enhancing interoperable communications. These individuals and structures should be leveraged to support NPSBN implementation.

## FUNDING

**How will the network be funded?** The Act authorizes the creation of the Public Safety Trust Fund (PSTF), in which revenue collected from the spectrum auctions will be deposited, to fund FirstNet's activities as it designs, deploys, operates, and maintains the network. FirstNet also will collect user fees and fees from leasing its spectrum, and is also authorized to accept other financing, such as through grants and gifts.

**Will funding of the network raise taxes in my State?** Per the legislation, funding for the network will be generated by spectrum auctions through Fiscal Year 2022, not through tax revenue. Sustainment of the network is envisioned to come from user fees and potential leases of network assets to private sector providers for secondary use.

**Is grant funding available to develop a network in my State?** Will this funding pay for planning only, or also for equipment or services? While grant programs and funding have been identified, currently there is no structure to apply for and receive funding. In the future, NTIA will provide guidance regarding how to apply for funds from the State and Local Implementation Grant Program, define the scope of eligible grant activities, and prioritize grants for activities that ensure both rural and urban network coverage.

**Does the size of my State matter or will most of the funding go to States with larger populations?** If the State has many tribal entities, does that impact how much money a State may get? Distribution of grant funding for State and local planning for broadband has not yet been determined. The Act contains no provisions that indicate certain areas will receive more funding than other regions of the country. At this time it is also undetermined how the prevalence of tribal entities in a State will impact funding.

**How much will the network cost to develop, deploy, and maintain?** For what percentage of this cost will States and local areas be responsible? At this time, it is unknown how much it will cost to develop, deploy, and maintain the NPSBN; thus, there is no specific information available to indicate what percentages may be attributable to State or local entities. Any qualified entity receiving support through the State and Local Implementation Grant Program and State construction grant funding will be required to provide a minimum of a 20 percent match, unless a waiver is obtained.

**Should I continue to spend money on public safety communications systems?** Public safety's use of LMR systems will continue for the foreseeable future as there is no defined timeframe when LTE broadband technology may provide the same level of mission-critical voice services that are available today. Therefore, it will be necessary to continue investments for existing and new LMR voice systems, while allocating new funding to the development and deployment of the NPSBN.

**Can my State generate revenue from the NPSBN if we opt-out?** No. If a State chooses to opt-out it is only opting-out of the provision and construction of the RAN portion of the envisioned network. The Act specifies that if a State chooses to opt-out and then satisfies all of the conditions to construct a State-provided RAN using grant funding from FirstNet, any money or fees collected must be used to support the constructed network.

## **IMPACT AND THE FUTURE OF THE NETWORK**

**What do I need to do to promote the development and deployment of the NPSBN?** The network build-out will require continuing education and a high level of commitment at all levels of government

and across public safety disciplines to understand network requirements and identify existing resources and assets. It will also be necessary to develop and maintain strategic partnerships with a variety of stakeholder agencies and organizations, and design effective policy and governance structures. Stakeholders must engage in planning and coordination at the nationwide, statewide, regional, and tactical levels; foster partnerships between disciplines and jurisdictions; and develop policies and plans for new and emerging emergency communications technologies.

**Has such a deployment been done successfully elsewhere?** While there are regions that have received grant funding and invested their own resources to develop a network using broadband technology, no such nationwide public safety network exists in the US today. Further, while no other nation has developed a broadband network for public safety, nation states throughout the world, primarily in Europe and Asia, have built TETRA and TETRAPOL voice and data systems for emergency responders. In North America, the National Law Enforcement Telecommunications System (NLETS) network provides law enforcement and public safety personnel in the US and Canada with the ability to exchange information and other data. Other Federal networks, such as the Federal Bureau of Investigation's National Crime Information Center, Automated Fingerprint Identification System, and State Criminal Justice Information Systems, are accessible by authorized law enforcement entities at all levels of government.

### **FOR ADDITIONAL INFORMATION**

Please contact [OEC@dhs.gov](mailto:OEC@dhs.gov) or visit [www.dhs.gov](http://www.dhs.gov) (keyword OEC).