ISSUE brief

August 2013

Issue Briefs are designed for practitioners with limited time and a need to know about the latest industry-based knowledge.

Prepping for the Nationwide Public Safety Broadband Network

By Bonnie B. Maney
SEARCH

Introduction

The vision for the Nationwide Public Safety Broadband Network (NPSBN) is to provide comprehensive high-speed wireless communication services to more than 60,000 public safety and emergency response agencies.[1] The First Responder Network Authority (FirstNet) is responsible for taking "all actions necessary" to build, deploy, and operate the network, in consultation with federal, state, tribal, and local public safety stakeholders.[2]

Building a nationwide public safety broadband network is an unprecedented and complex project. Public safety decision-makers at all levels recognize the challenges that face FirstNet in achieving the vision of the NPSBN. In the past, local agency decision-makers felt suspended in mid-air, while high-level policy-makers tried to answer critical questions about network architecture and access. Some are still unclear about the relationship between current Land Mobile Radio (LMR) and proposed future Long Term Evolution (LTE) technology, and many remain fearful

of spending money on infrastructure upgrades that may not be compatible with the vision, design, or the ultimate functional requirements of the NPSBN. Others may fear that if they do not upgrade now, it will cost them more in the future. The NPSBN model for local decision-makers is comparable to waiting to occupy a fully operational state-of-the-art communications center that a contractor is incrementally building over the course of an undefined period of time.

1. Statement of Requirements for Public Safety Wireless Communications & Interoperability; the SAFECOM Program, Department of Homeland Security, Version 1.1, January 26, 2006. "The scope of this community is broad, including more than 60,000 local and state public safety agencies and organizations." www.npstc.org/documents/SRSoR_V11_030606.pdf.

2. FirstNet is an independent entity within the Department of Commerce's National Telecommunications and Information Administration and is the authority for the NPSBN. The President's National Security Telecommunications Advisory Committee, NTSAC Nationwide Public Safety Broadband Network Scoping Report, May 15, 2012, at www.ncs.gov/nstac/reports/2012-05-15%20NPSBN%20Scoping%20Report.pdf.

COPS
Community Oriented Policing Services
U.S. Department of Justice

SEARCH

This *Issue Brief* provides public safety decision-makers, including those in law enforcement, with an overview of the current status of a nationwide network and the steps they can take to prepare for its eventual implementation. Because the development of this network is ongoing and complex, this brief is written to inform local decision-makers, and a brief synopsis of the development of the NPSBN is provided for context.

Unique Local Public Safety Agency Concerns

Local public safety decision-makers who purchase, plan for, and implement public safety data and voice technologies have an important role in the NPSBN planning and deployment. Understandably, they are hopeful that the current enthusiasm and momentum for implementing the NPSBN will remain focused and strong. Still, they are anxious to position their agencies to take advantage of the network as it becomes available. Given the fluidity of these circumstances, the challenge is to determine what actions represent a wise return on investment. Which activities, such as network build outs, equipment purchases, and training, are a good use of time, resources, and local money at this early stage of the network's development?

Given the rapid rate at which many local public safety agencies have implemented information technology over the years, one concern is the accuracy of information about the capabilities—including forward and backward compatibilities—of existing equipment. This ultimately leads to the challenge of managing system and service lifecycles, forecasting realistic funding needs, and being aware of the benefits of participating in the NPSBN.

As FirstNet develops the network architecture for the NPSBN, local agencies should begin preparing now for their eventual participation by taking critical first steps. At this time, appropriate steps include those such as:

- Educating key stakeholders
- Managing current assets and capabilities
- Getting involved in the NPSBN planning activities

These actions will better position local agencies to reap efficiency benefits and cost savings while waiting for more details concerning the emergence of the NPSBN. This *Issue Brief* introduces recommended practices to help local agencies take crucial first steps in preparing to access the NPSBN.

Background, Historical, and Current Environment

In February 2012 Congress passed, and President Obama signed, the Middle Class Tax Relief and Job Creation Act (PL 112-96) into law. This legislation addressed several questions regarding spectrum, governance, and funding that had long stymied efforts to develop a nationwide public safety broadband network. Highlights from the bill include:

- Reallocating the 700 MHz "D block" section of the airwaves to public safety use
- Establishing a nationwide governance structure, known as "FirstNet"
- Allocating $7 billion in federal grant money to begin building the NPSBN, plus an additional $135 million to support state, regional, tribal, and local jurisdictions' planning efforts[3]

3. www.npstc.org/firstNet.jsp

Public safety policymakers, managers, and first responders across the nation had long awaited this legislation. Realization of the NPSBN had been painfully slow as it was mired in debate that was technological, budgetary, and political in nature. However, with the enactment of the legislation the following flurry of activity and progress took place:

The NPSBN Timeline of Activities and Progress Since February 2012

March 22, 2012	The Federal Communications Commission (FCC) establishes the Technical Advisory Board for First Responder Interoperability (Interoperability Board) to present "recommended minimum technical requirements to ensure a nationwide level of interoperability for the nationwide public safety broadband network."[a]
March 26, 2012	FCC establishes "A Public Docket For Providing Input To The Technical Advisory Board For First Responder Interoperability."
April 2012	To help agencies avoid investments incompatible with the nationwide network, the National Telecommunications and Information Administration (NTIA) tells 700 MHz Broadband Technology Opportunities Program (BTOP) waiver recipients to hold off on infrastructure deployment until FirstNet drafts the blueprint for the NPSBN architecture.[b]
May 2012	The NTIA issues a "Request for Information: Development of the State and Local Implementation Grant Program for the Nationwide Public Safety Broadband Network."[c]
May 22, 2012	In consultation with the NTIA, the National Institute of Standards and Technology (NIST), and the Office of Emergency Communications (OEC) within the Department of Homeland Security (DHS), the Interoperability Board publishes the "Recommended Minimum Technical Requirements to Ensure Nationwide Interoperability for the Nationwide Public Safety Broadband Network."[d]
August 20, 2012	The Acting Secretary of Commerce announces appointments to the FirstNet Board.[e]
September 25, 2012	The FirstNet board holds its first meeting, at which a conceptual network design is presented.[f]
October 1, 2012	The NTIA issues a Notice of Inquiry on behalf of FirstNet to seek public comment on the conceptual network architecture.[g]
November 14, 2012	The FirstNet Board Chairman announces the appointment of a Chairman to FirstNet's Public Safety Advisory Committee (PSAC), who subsequently announces appointments to the PSAC Executive Committee.[h]
February 5, 2013	The NTIA opened the Federal Funding Opportunity for the State and Local Implementation Grant Program (SLIGP).[i]
February 12, 2013	FirstNet passed a resolution recommending the NTIA lift the fund suspensions and allow BTOP grant recipients to move forward with approved projects.[j]
February 20, 2013	FirstNet announced the structure and membership of FirstNet's PSAC, which is composed of 40 representatives of public safety organizations. The PSAC is a standing advisory committee expected to be a key resource as it advises FirstNet on the needs of public safety.

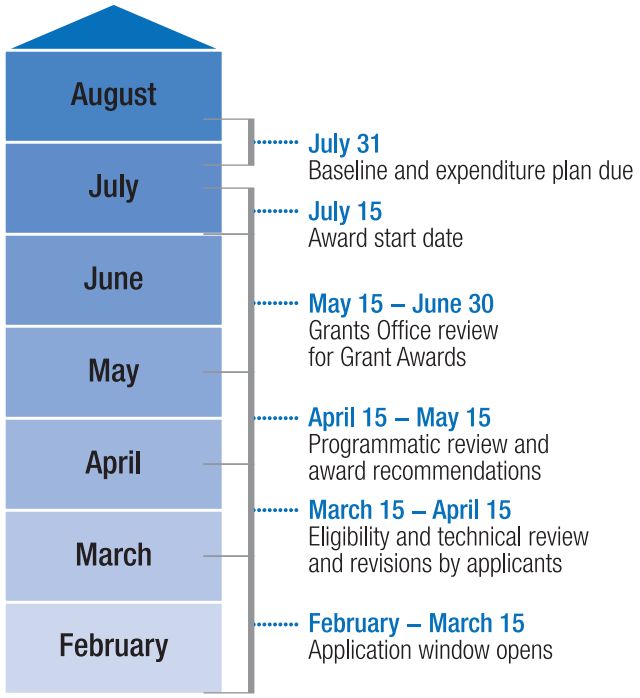
Notwithstanding the substantial progress made in 2012–2013, plans for the NPSBN are still in their infancy. We will know some parameters for the state's collection of data in Phase II of the SLIGP, however, there is no timeline yet for presenting proposed network build-out plans to each state. The NPSBN will not be fully operational nationwide overnight. FirstNet has much to consider before they can establish firm timelines. FirstNet must consult with regional, state, tribal, and local jurisdictions on numerous issues, including:

- Construction or access to the core network and any radio access network build-out
- Placement of towers
- Coverage areas of the network, whether at the regional, state, tribal, or local levels
- Adequacy of hardening, security, reliability, and resiliency requirements
- Assignment of priority to local users
- Assignment of priority and selection of entities seeking access to or use of the nationwide interoperable NPSBN
- Training needs of local users

FirstNet will provide each state with a proposed network build-out plan and state-specific funding allocation as determined by NTIA. The statewide interoperability governing bodies (SIGB) and Statewide Interoperability Coordinators (SWIC) will be integral to this planning process. Both are likely to have roles as the state-designated agents for consulting with FirstNet, and as the entities responsible for coordinating state activities with network resources in local jurisdictions and tactical users. This responsibility would include determining the assets and resources available at all levels in the state. For coordination and planning, FirstNet will work with the state-designated agents, not the local agencies. Some states do not have active interoperability governing bodies, and when Congress eliminated the Interoperable Emergency Communications Grant Program (IECGP) grant funding,[4] some states eliminated their SWICs. States in this situation will need to address the gap in their interoperability governance quickly or risk losing stakeholder support.[5]

Additionally, in consultation with FirstNet, the NTIA established the State and Local Interoperability Grant Program (SLIGP). The NTIA has defined associated requirement specifications such as: eligible costs, scope of eligible activities, and prioritization of funding to ensure full network coverage in rural as well as urban areas. The SLIGP is a non-competitive, two-phased formula-based "planning" grant with a three year performance period. One grant application was due from each state that wanted to receive grant funds by March 19, 2013.

Figure 1. SLIGP Time Line



Source: NTIA February 2013

The grant is designed to assist state and local entities with planning activities related to the implementation of the NPSBN. The first phase focuses on governance planning, strategy, and timeline development, as well as outreach and education efforts. The second phase focuses on data collection meant to help the states and FirstNet understand available state and local assets and usage. Second phase activities will also help states prepare for additional consultation with FirstNet including the definition of coverage needs, user requirements, and network hardening and resiliency requirements. The NTIA will hold back 50 percent of the funds each state receives to ensure funding exists for phase two activities. The NTIA expects to begin release of phase two funds after FirstNet has developed a standardized process to govern data collection activities.

It is important for local decision-makers to understand the activities allowable under each phase. To achieve success in this area, stakeholders need to stay informed and engaged. Local agencies continue to express a need for assistance with equipment and services that potentially

4. www.fema.gov/pdf/government/grant/IECGP.pdf

5. In November 2011, the OEC published "Interoperability Planning for Wireless Broadband." This document provides SWICs with a variety of information, including the fundamentals of wireless broadband, SWIC roles and responsibilities, lessons learned from waiver recipients, along with myths and reality. Although targeted toward SWICs, stakeholders at all levels can benefit from the foundational information contained in this document, which is available at www.publicsafetytools.info.

will use the future network, including Automatic Vehicle Location (AVL), Computer Aided Dispatch (CAD), Records Management Systems (RMS), Mobile Data, 911, and Land Mobile Radio (LMR). In addition, new applications and services are likely to be developed as the capabilities of wireless devices continue to evolve. As such, it is equally important that stakeholders are aware of future funding opportunities and requirements so they are ready to apply for funding as it becomes available.

Preparing to be a Part of the NPSBN

Local decision-makers need quality information to make educated decisions about the future of their voice and data communications assets and services. There is a need to identify and take practical first steps that can withstand the changes that will likely occur as FirstNet learns lessons before, during, and after implementations in individual states. While the NPSBN timeline for implementation in each state remains unsettled, the challenges for all state, local, and tribal agencies involves weighing the costs of maintaining existing equipment against spending resources to replace it. The challenge is to continue day-to-day operations as efficiently and cost effectively as possible in an evolving technological environment.

It is not reasonable to suggest agencies commit time and resources to strategic planning based on speculation too far in advance. However, it is reasonable to recommend agencies stay engaged and conduct activities based on informed decisions and therefore be ready to be compatible with the future path of the NPSBN.

An agency's ability to integrate with the NPSBN successfully depends in part on that agency's ability to maintain accurate knowledge of its assets, its future needs, and of the ongoing progress of the NPSBN. The process starts here, with the steps outlined below.

Steps local agencies can take to prepare to integrate with the NPSBN

The information that local agencies provide to their state is the foundation for developing the scope of a broad-based implementation model that focuses on more than just voice communications. Whatever the network architecture ultimately looks like, the activities presented here will prepare local agencies to provide feedback to the state-designated agent and governing bodies as they develop business cases, determine user needs and cost drivers, and prepare for their consultations with FirstNet. The Office of Emergency Communications' (OEC) Interoperable Communications Technical Assistance Program (ICTAP) developed a public safety wireless broadband planning workshop to assist states in developing a strategic plan.

The workshop walks through a strategic planning template related to mobile broadband implementations.[6] The template helps capture broadband issues that states must address to prepare for FirstNet coordination and includes questions states can use for a Statewide Broadband Plan Survey.[7]

Regardless of the format chosen to gather data from these surveys, be it on-line, face-to-face interviews, or working group conference calls, it will take considerably less time to respond if states proactively compile the information into a comprehensive representation of local agency needs, rather than throwing them together at the last minute.

A comprehensive statewide implementation model must include an inventory of all assets in the state. The activities presented in this *Issue Brief* will help local agencies develop an asset and capabilities management process in order to contribute when the time comes.

Quick Start for an Asset and Capabilities Management Process

- Identify and categorize existing assets and capabilities
- Document business requirements and user needs
- Engage early and stay informed about the capabilities and requirements of the NPSBN participation
- Assess and evaluate assets to identify those that offer utility to the NPSBN
- Continue the asset and capabilities management cycle over the course of the project

Many government entities underestimate their assets, resources, and capabilities. Utilizing the "Quick Start" activities stated in the sidebar will put developing an asset and capabilities management process and creating a comprehensive full asset inventory within your agency's control, allowing leveraging of decisions made today at that time in the future when the NPSBN is viable.

There are numerous benefits beyond accessing the NPSBN for developing an asset and capabilities management process. Even if a state opts out or chooses not to integrate into the NPSBN, there are benefits that cross over and create efficiencies and cost savings in other technology and operational areas, so nothing suggested here is a waste of time.[8]

6. This plan should—at a high level—be incorporated into the Statewide Communication Interoperability Plan (SCIP) goals and initiatives.

7. Newly assigned project managers may wish to use ICTAP's SPCL-PRJMGMT and ENG-BRBND offerings together to develop project planning work products, such as project charters and risk management documentation: www.publicsafetytools.info/ta_request/start_ta_info.php.

8. The benefits of configuration management have a direct relationship to the benefits of completing a full asset inventory: http://ric-zai-inc.com/Publications/cops-p237-pub.pdf.

Refer back to our analogy of building a communications center 10–15 years before you are going to move in. A project manager or decision-maker will want to know what needs to happen now, so the organization is ready when it comes time to occupy the center. Assessing needs and defining requirements in advance of the availability of the communications center will afford cost savings and increase operational efficiency, thus providing opportunities to improve the functionality of the communications center and make better purchasing decisions to meet needs as the building construction progresses. To further explain, here are the Quick Start activities more fully defined:

1. Identify and categorize existing assets and capabilities

Agencies should start the process by identifying tangible and intangible assets, resources, capabilities, services, and relationships that will improve the ability to leverage opportunities to save money and improve connectivity. Almost everyone is familiar with the physical inventory of fixed assets that entities conduct on a regular basis. An asset and capabilities management process for accessing the NPSBN is more than a physical asset, a software asset, or an information technology (IT) inventory. *It is all of those combined, plus nontangible and nonstructural assets.* Besides physical assets and software, the inventory records anything that can bring utility to the NPSBN and offset or defer costs. It includes not only structural assets like towers, backhaul, fiber, and land, but also nonstructural assets and in-kind services. These assets include land use rights (rights of way), service contracts and agreements, and public-private partnerships.[9] It also includes other resources, including personnel with specialized skills such as information technology staff and radio technicians. Knowledge of organizational capabilities and assets is important and useful to offset or defer costs.

2. Document business requirements and user needs

Using the building analogy, the contractor will build the building to specifications. The contractor will ask several questions, including how the building is going to be used, how many occupants, what types of offices are needed, and what equipment it will house. Documenting business requirements and user needs encourages thinking about requirements and business problems to solve prior to accessing the NPSBN.

Is it possible for a local agency to know what will go on the network *before* knowing what the architecture or capabilities of the network will be? Probably not, but your agency can consider what is desired of the network and analyze the feasibility—including risk and benefits—based on knowledge of current broadband capabilities and requirements to participate. Business requirements and user needs, as well as knowledge of existing equipment lifecycles, will play a large role in determining the NPSBN requirements.

There are several questions to consider regarding mobile data, Next Generation 9-1-1 (NG911), Computer Aided Dispatch (CAD), Records Management System (RMS), radio, and other network and cloud services. The first line of inquiry is to determine if it is possible to place each particular service as it currently exists on the network. Initially, this is largely a "no" or "yes" response. Based on that basic determination, pursue further inquiry, such as:

- If the answer is "no," determine *why* is it not possible. What would be the cost of enabling the service to be used on a wireless network (e.g., purchasing compatible software/hardware to enable officers to input incident and arrest data from in-car computers or handheld devices)? Is the cost worth the benefit? Would it be better to wait for the next generation of the software/service or consider replacing it with one designed and engineered specifically to operate in a wireless environment?
- If the answer is "yes"—the current technology *can* operate on the network—then your agency should articulate which business problem adding the service to the network would solve. Business problems that, at a minimum, could be partially resolved include improved connectivity in rural areas, decreased time processing reports, reduced data entry duplication, improved data accuracy, or improved interagency/interjurisdictional information sharing. As the network matures, tools to support smart policing, such as predictive analysis, may be a possibility.

Another question that warrants consideration is identifying any risks that might exist when putting a service on the network. Are there concerns about network security, control of local data, or priority access to mission-critical voice and data services? Ultimately, analyzing cost benefits will determine what services an agency decides to place on the network.

Your agency should analyze the information you have compiled to establish what to do next, such as:

- Hold steady
- Start taking additional steps, if you learn you cannot wait to refresh or replace existing equipment
- Determine if there are opportunities to develop public-private partnerships

9. Public-private partnership (PPP) is a funding model for a public infrastructure project such as a new telecommunications system, airport, or power plant. The government at a local, state, or national level represents the public partner. The private partner can be a privately owned business, public corporation, or consortium of businesses with a specific area of expertise. Different models of PPP funding are characterized by which partner is responsible for owning and maintaining assets at different stages of the project: http://searchcio.techtarget.in/definition/Public-private-partnership-PPP.

With the knowledge your agency gains by studying its needs, you can effectively communicate those needs to the policy-makers. Understanding your unique requirements is vital, as these determine the scope of the implementation model and create state build-out plans.

3. Engage early and stay informed about the capabilities and requirements of participation in the NPSBN

Making informed decisions regarding requirements and user needs calls for keeping current on information about the status of the NPSBN, including information relating to:

- Construction and access to the network
- Coverage areas
- Security
- Reliability and resiliency requirements
- Priority to local users
- Training needs of local users

The biggest challenge here is to stay on top of the changes that will inevitably occur over time. The ability to make decisions will only improve if you stay informed about the capabilities of the network and the requirements for participating in it. As the entity responsible for a project that realistically may unfold across a decade or more, FirstNet will learn many lessons as implementations take place at the state or regional level, and it will make necessary adjustments as part of the process. No one can do anything to eliminate the fact that this is going to be a moving target. The best approach to avoiding costly changes is to keep informed of the development of the NPSBN via the reliable sources and methods highlighted later in this brief.

4. Assess and evaluate assets to identify those that offer utility to the NPSBN

Are there assets, resources, partnerships, in-kind services, and more, that agencies can leverage and share to reduce costs and improve operational efficiency? FirstNet is not going to build the NPSBN from scratch. The Act requires that FirstNet enter into agreements to maximize economic opportunities to leverage existing resources, public-private partnerships, and infrastructure—consisting of commercial wireless networks and systems, as well as public safety infrastructure. These assets exist within agencies at every level—federal, state, regional, local, and tribal, and can include anything from the list of tangible and intangible (structural and nonstructural) assets, resources, capabilities, services, and relationships identified earlier.

Grant funding will only go so far, and agencies at all levels will incur costs. Agencies can potentially defer some of these costs by knowing what they can contribute that FirstNet wants or needs to build an effective, cost-effective network. For example, there will be a need for resources such as fiber and microwave to serve as network backhaul solutions. Agencies that have land use rights such as highway rights-of-way may be able to leverage that need in exchange for improved coverage or funding for subscriber units. Agencies may not be able to determine specific cost saving opportunities now, but will need to keep in mind that decisions made today may benefit them in the future. This knowledge comes from understanding their organizations' capabilities and needs as well as those of the NPSBN.

5. Continue the asset and capabilities management cycle over the course of the project

It is not enough to walk through these tasks and forget them. If your agency is not located in one of the first states to receive a build-out plan, you may need to maintain and update asset information for many years. Agencies must revisit these tasks in a continual cycle of improvement while the project management process of implementing the NPSBN is taking place all around them. There will be points where the overarching NPSBN project will require information and feedback from the state and local agencies. Local agency decision-makers can support the process by being ready with accurate and reliable information.

Just like determining technology lifecycle costs, this is not a one-time occurrence. It is essential that agencies continually review and update this information so they can be ready when their state representative requests information for developing its implementation model and when FirstNet presents their state with the build-out plan.

How to get started

It is beneficial to identify the steps to develop an asset and capabilities management process, but how do you get started? What does a full asset inventory based on an asset and capabilities management process look like? What questions does the state want answered about mobile data infrastructure, users, and subscriber units? One of the best approaches to data collection is to keep things scalable and simple. Once the information is gathered, the rest is nothing but formatting it to meet reporting requirements. Start simple and go from there.

Too much detail can overburden an agency with costs for developing an inventory beyond the necessary scope. Too little information runs the risk of missing opportunities. The level of detail of the inventory needs to be practical and align with the agency's needs and circumstances. From this inventory, one can categorize and organize the assets into a format that can meet current and future needs. *To promote opportunities for reimbursement of allowable planning activities, stay engaged with state specific NSPBN activities and informed about the SLIGP.*

A template can provide a scalable approach to completing the five activities suggested earlier to establish and maintain an asset and capabilities management process and create a full asset inventory. Until the data points are identified and the process standardized, developing such a template is premature; however, staying informed and engaged will ensure that stakeholders know when valuable tools like this are available. A standardized template to capture these characteristics and then report only those required data points will be a welcomed tool at all levels of government.

In the meantime, agencies may already have resources that can help streamline the process of identifying assets, such as a physical fixed asset inventory list, an information technology service catalog, or configuration management database (CMDB).[10] The important thing is to start simple, use templates if available, and organize completed documents in a paper or electronic file to create a full asset inventory.

To promote opportunities for reimbursement of allowable planning activities, stakeholders need to stay engaged with state specific NSPBN activities and informed about the SLIGP.

10. Additional information and templates for creating service catalogs and a configuration management databases are available at www.search.org/publications and http://cops.usdoj.gov/RIC/ResourceDetail.aspx?RID=662.

The Power of Knowledge

Myths and Rumor – How can you determine fact from fiction?

Over the years, there have been many rumors about what a nationwide broadband network will entail. Even now that the contours of the NPSBN are forming, questions remain as to what it is and what it is not. If left unchecked, rumors and myths can be damaging to a project. The best defensive measure against rumors is knowledge. Learning where to find the answers will improve your ability to make sound decisions and reduce chances for costly mistakes—such as incompatible purchases, lost functionality, and system failures.

Confidently separating fact from fiction requires preparation, along with reliable, frequent, and accurate information streams. When decision-makers prepare using quality information, the result is improved short-, mid-, and long-term decision-making. Conversely, the consequence is poor decision-making and costly mistakes.

Sound familiar?

You have equipment that is approaching its recommended end of lifecycle. Should you replace it now or hang in there until later? You have vendors knocking down your door and approaching you at conferences advising you to replace it now because they have network-ready equipment. Sure, they have identified LTE as the technology of choice, but how can that be, when FirstNet has not yet determined the network architecture? How can that be, when voice over LTE (VoLTE) is not yet possible? LTE will not be ready to replace LMR for a long time. In fact, no one knows when LTE will be ready to support LMR features like simulcast. And, what is all this about "opting in" and "opting out"? If the state opts in, is your municipality or county obligated to opt in as well? Can you realistically afford to opt out, and what are the risks if you do? You hear talk about having to conduct an inventory of your equipment so they can see if there is equipment and resources that can be used on the network. Is this a bad thing? It might be a good thing if you can leverage that opportunity and receive in-kind services on the network.

Avoid the proliferation of rumors and myths by using reliable sources. When faced with questionable information, seek the facts from reliable sources, such as FirstNet, NTIA, OEC, the National Public Safety Telecommunications Council (NPSTC), your SIGB, or SWIC to answer your questions like:[11]

- When will the NPSBN be deployed?
- When will broadband Voice over Internet Protocol (VoIP) replace LMR?
- Will the NPSBN make all public safety agencies interoperable?
- Will I have connectivity and coverage where I did not before?
- What does "local control" entail?
- Should I continue to spend money on my public safety communications systems?
- Do I need to purchase LTE-capable equipment now?
- Do I need to begin the transition to 700 MHz?
- What percentage of costs to develop, deploy, and maintain the network will be the responsibility of states and local entities?
- What grants are available and what will grant funding pay for?

Stay connected with key policy-makers to ensure you receive quality answers to these questions along with others as they arise over the course of implementation.

To achieve successful integration of state and local agencies into the NPSBN, stakeholders at all levels need to stay educated and hold strong to their commitment to the project. No one at any level or any public safety discipline is exempt.

Every stakeholder—anyone who can affect the project or is affected by the project—needs:

- Knowledge of their own organizational assets, resources, capabilities, business requirements, relationships, and services
- Knowledge of current NPSBN activities supported by an internal process for managing changes in these processes and requirements as they occur over time
- Knowledge of reliable sources of information such as stakeholders, vendors, and public-private partnerships

Productive cross-jurisdictional and cross-discipline relationships among stakeholders will be essential to sustain the cooperation needed to design effective policies and governance structures. Cooperative relationships will allow effective planning and coordination at all levels. Not only will this address what is currently happening, but also what

11. Contact the OEC via e-mail at OEC@DHS.gov or visit www.dhs.gov (keyword oec).

Information Resources

FirstNet The "First Responder Network Authority" is an independent authority within NTIA responsible for taking "all actions necessary" to build, deploy, and operate the network, in consultation with federal, state, tribal and local public safety entities. FirstNet will hold the spectrum license for the network: www.ntia.doc.gov/category/public-safety.

NTIA Located within the Department of Commerce, the National Telecommunications & Information Administration (NTIA) is the Executive Branch agency that is principally responsible by law for advising the President on telecommunications and information policy issues.

OEC Congress created the Office of Emergency Communications (OEC) within the Department of Homeland Security (DHS) in response to the communications challenges witnessed during Hurricane Katrina. DHS, through the OEC, supports the establishment of the nationwide network, and is working with the Departments of Commerce and Justice and the FCC to ensure it meets the needs of users in the public safety community. As the NPSBN is developed and deployed, OEC's ability to engage and collaborate with public safety and government at the federal, state, local, and tribal levels will be more important than ever: www.dhs.gov/public-safety-broadband-fulfilling-911-commission-recommendation.

NPSTC OEC and the Office for Interoperability and Compatibility (OIC) have provided support to the National Public Safety Telecommunications Council's (NPSTC) Broadband Working Group (BBWG) and its task groups. These groups research and define public safety broadband requirements in a number of key areas. Since the passage of the Act, they are working to complete their respective tasks: to define requirements and develop use cases and definitions: www.npstc.org/broadband.jsp.

SIGB A State Interoperability Governing Body (SIGB), also known as the State Interoperability Executive Council (SIEC), is a practitioner-driven group committed to managing and implementing the overarching statewide communications interoperability strategy.[k] While spectrum management is one of the SIGB responsibilities referenced, a SIGB must also address all other facets associated with achieving statewide communications interoperability, including potentially collaborating with FirstNet as a state-designated agent.[l]

SWIC The SWIC serves as the cornerstone of the state's interoperability effort.[m] SWICs are a valuable source of knowledge, technical assistance, and training. The SWIC is another candidate for the state to choose as a potential state-designated agent to consult with FirstNet.

can happen in the future as lessons are learned during each implementation and as technology advances. There are many opportunities to get involved. Since this is a state-centric planning effort, agencies need to engage with their SIGB and SWIC and attend any offered meetings and workshops.

There is a special emphasis on fostering relationships and collaboration with regional, municipal, and tribal entities within each state. Both the SIGB and SWIC will likely be highly involved in implementation modeling and build-out of the NPSBN. Although a Governor may select either the SIGB or SWIC to be the official state-designated agent to consult with FirstNet, either the SIGB and SWIC (or both) would be a good source of information on emerging NPSBN activities. Either should be able to provide agency leaders with vital information, such as who is responsible for compiling the results of the full asset inventories from each reporting entity into a "Public Safety Wireless Report," that will assist in clarifying requirements for the NPSBN.

No one who has responsibility for first-responder broadband communications and data services should pass up any opportunities to receive notifications, newsletters, or other forms of correspondence from any of these entities. Where available, subscribe to RSS feeds and follow them on social media sites. These should be your go-to resources for accurate, up-to-date, and reliable information on the NPSBN activities and progress. Get to know these organizations. There are several opportunities available to be involved from the local level through the federal level, and these opportunities will only increase as the states begin working with FirstNet on their proposed build-out plans. Find information about working groups on their websites and through state interoperability representatives. To learn who sits on SIGBs or SWIC names, contact your regional OEC representative.[13]

13. www.dhs.gov/oec-regional-coordination-program

Conclusion

Local public safety decision-makers will contribute to the success of the NPSBN on a variety of levels. Be proactive in advance of the availability of the NPSBN by educating key stakeholders, inventorying current assets and capabilities, and getting involved in planning opportunities. Establish a foundation and develop an asset and capabilities management process now to maximize opportunities and improve the network for all agencies regardless of size or existing technology. Empowered agencies have knowledge of their organizations, the NPSBN, and valuable resources.

Engage early and stay engaged. Local agency participation is vital to the success of the NPSBN, about which the state policy-makers and FirstNet need to know. A two-way flow of information is needed for stakeholders at all levels to help them make good decisions regarding how to develop and build-out the NPSBN in a cost-effective manner.

Success of the NPSBN depends on a design that meets public safety user needs. Take an active role in how the nation realizes the NPSBN.

Endnotes

a. www.fcc.gov/encyclopedia/technical-advisory-board-first-responder-interoperability

b. www.fiercebroadbandwireless.com/story/public-safety-told-stop-early-lte-deployments/2012-04-13#ixzz290XK0WoX

c. www.ntia.doc.gov/federal-register-notice/2012/development-state-and-local-implementation-grant-program-nationwide-pub

d. http://apps.fcc.gov/ecfs/document/view?id=7021919873

e. www.commerce.gov/news/fact-sheets/2012/08/20/fact-sheet-announcement-firstnet-board-directors-frequently-asked-questi

f. www.ntia.doc.gov/press-release/2012/firstnet-board-holds-first-meeting

g. www.ntia.doc.gov/federal-register-notice/2012/notice-inquiry-firstnet-conceptual-network-architecture

h. www.ntia.doc.gov/press-release/2012/chief-harlin-mcewen-appointed-chairman-firstnet-s-public-safety-advisory-committe

i. www.ntia.doc.gov/press-release/2013/ntia-announces-availability-1215-million-state-grants-assist-firstnet-planning and www.ntia.doc.gov/other-publication/2013/sligp-federal-funding-opportunity

j. www.ntia.doc.gov/other-publication/2013/02122013-firstnet-board-meeting-documents

k. Many states have long-established SIGBs that follow guidelines developed in 2001 by the FCC's Public Safety National Coordination Committee and NPSTC. The FCC recommended that states create SIECs that are responsible for administering interoperability channels. The mission of a SIGB is much broader than the mission of an FCC SIEC. As such, a state should not assume that an existing FCC SIEC fulfills all of the roles and responsibilities that will be required under FirstNet: www.safecomprogram.gov/SiteCollectionDocuments/EstablishingGovernanceGuide.pdf.

l. Ibid.

m. Ibid.

Policy Development, Training, and Technical Assistance Resources

- SEARCH, The National Consortium for Justice Information and Statistics: SEARCH offers technical assistance to local and state justice agencies to develop, manage, improve, acquire, and integrate their automated information systems. SEARCH works with individual justice agencies (such as a police department that is implementing a new RMS, or a court acquiring a new case management system), but also works with multidisciplinary groups of justice agencies to assist them in planning for and integrating their information systems at local, state, and regional levels. For more than two decades, SEARCH assistance programs have provided both on-site and in-house, no-cost technical assistance to justice agencies throughout the country. SEARCH staff has considerable experience in assisting with project management activities. See www.search.org/products.
- **U.S. Department of Justice Office of Community Oriented Policing Services (COPS Office):** The COPS Office is the component of the U.S. Department of Justice responsible for advancing the practice of community policing by the nation's state, local, and tribal law enforcement agencies. The community policing philosophy promotes organizational strategies that support the systematic use of partnerships and problem-solving techniques to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime. The COPS Office does its work principally by sharing information and awarding grants to law enforcement agencies around the United States to hire and train community policing professionals, acquire and deploy cutting-edge crime-fighting technologies, and develop and test innovative policing strategies. See www.cops.usdoj.gov.

This *Issue Brief* is part of a series that SEARCH developed for the public safety/justice community in partnership with the U.S. Department of Justice, COPS Office.

Questions, comments, or feedback: Please contact SEARCH at www.search.org/about/contact/.

This project was supported by Cooperative Agreement #2007-CK-WX-K002 by the U.S. Department of Justice, Office of Community Oriented Policing Services. The opinions contained herein are those of the author(s) and do not necessarily represent the official position or policies of the U.S. Department of Justice. References to specific agencies, companies, products, or services should not be considered an endorsement by the author(s) or the U.S. Department of Justice. Rather, the references are illustrations to supplement discussion of the issues.

Francis X. Aumand III
Chairman, SEARCH

Scott M. Came
Executive Director, SEARCH

COPS
Community Oriented Policing Services
U.S. Department of Justice

SEARCH

U.S. Department of Justice
Office of Community Oriented Policing Services
145 N Street NE
Washington, DC 20530
www.cops.usdoj.gov

© 2013 SEARCH Group, Inc. The U.S. Department of Justice reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use this publication for Federal Government purposes. This publication may be freely distributed and used for noncommercial and educational purposes.

The Internet references cited in this publication were valid as of the date of this publication. Given that URLs and websites are in constant flux, neither the author nor the COPS Office can vouch for their current validity.

e06133579

Published August 2013