



Information for Louisiana's Public Safety Practitioner

About FirstNet

The Middle Class Tax Relief and Job Creation Act of 2012 (Act) created the First Responder Network Authority (FirstNet) after years of Congressional advocacy by public safety. The law gives FirstNet the mission to ensure the building, deployment, and operation of the first high-speed, nationwide wireless broadband network with spectrum prioritized to public safety. FirstNet will provide a single, interoperable platform for emergency and daily public safety communications. This broadband network will fulfill a fundamental need of the public safety community as well as the last remaining recommendation of the 9/11 Commission. FirstNet will bring 21st century tools to millions of organizations and individuals that respond to emergencies at the local, state/territory, tribal and federal levels.

The Consultation Process with Louisiana



FirstNet held its initial consultation meeting with Louisiana on May 13, 2015. Officials from the state were very enthusiastic about FirstNet's potential to assist their public safety efforts. At the meeting, Louisiana's Single Point of Contact (SPOC) Colonel Michael Edmonson, talked about lessons learned from Hurricane Katrina and described Louisiana's proactive approach to public safety communications. They highlighted Louisiana's achievement in establishing interoperable public safety communications statewide through the Louisiana Wireless Information Network (LWIN) and emphasized the importance of having a prioritized public safety broadband network.

Going forward, FirstNet looks forward to continuing our outreach efforts with Louisiana's public safety community as well as state and local officials. Louisiana, with its unique terrain and distinctive issues

that face the state, has done much work on disaster resiliency and preparedness. FirstNet looks to be an additional tool in first responders toolkit so that when a disaster strikes, a broadband network with priority to public safety is there to help. We will continue our open dialogue and collaboration with Louisiana as we move towards network deployment.

FirstNet Business Plan

The FirstNet network will provide quality of service, priority and pre-emption capabilities to public safety entities (PSEs). FirstNet now has a full 20 MHz of nationwide spectrum with which to deploy the FirstNet network. To cover part of the costs of building and maintaining the network, it is expected that PSE users will be charged subscription fees, as per the Act. Additional revenues necessary to cover the full cost of the network will be generated from the commercial use of excess spectrum capacity under covered leasing agreements as authorized by the Act. All revenue generated from these fees must be reinvested into the nationwide network to be used for constructing, maintaining, operating, or improving the network. No revenue can be redistributed in the state for any other uses. Revenues generated in states assuming responsibility for the Radio Access Network (RAN) in excess of the reasonable costs of the RAN deployment and operation in those respective states must be reinvested back into the nationwide network. Costs of network usage, devices and services will be determined following award of a contract.

Network Policies

Policies addressing the management, operation, and use of the network including, but not limited to, cybersecurity, quality of service (QoS), priority and pre-emption (QPP), will be established and administered by FirstNet throughout the lifecycle of the network. FirstNet is collecting information from local, state/territory, tribal, and federal agencies throughout 2016 to inform and adapt these policies to current/standard operating procedures and public safety industry best practices.

Examples include:

- Cybersecurity:** The FirstNet network cybersecurity solution will include a dedicated cybersecurity program that considers all source threats; constructs a dynamic threat profile; generates cybersecurity architecture; builds in proactive forensics; and establishes incident response capabilities that ensure the ability to operate and deliver crucial services as needed during a national, state, territorial, or local incident. The solution will deploy an ecosystem-wide approach to cybersecurity, including that for the network, devices, and applications. The territory's role in cybersecurity will be to ensure that PSE users are compliant with usage policies.
- QoS, QPP:** FirstNet requested proposals from offerors that shall ensure public safety users can



access network services during emergencies in spite of network congestion, including a detailed description of the systems, interfaces, and settings of its QPP solution for the FirstNet network. In addition, FirstNet has consulted with the Public Safety Advisory Committee (PSAC) and will be consulting with state identified consultation task teams on our conceptual QPP framework for the various states of the network.

- **Local control:** This means different things to different constituencies. The FirstNet CTO team has worked to synthesize a variety of sources on the subject into the recently released Request for Proposals (RFP). The framework sets the stage for the next phase of our efforts when FirstNet, the Public Safety Communications Research program (PSCR), and the PSAC will investigate specific areas of local control and develop answers to key questions in preparation for working with the Awardee.

Coverage Objectives

As a result of FirstNet's data collection effort in 2015, information and data was gathered from various national databases and state/territory, local, and tribal agency inputs to inform each state/territory's coverage objectives. This was a collaborative and data-driven exercise for states and territories to identify public safety's needs for coverage. In our enabling legislation, measures were put in place to ensure the FirstNet network covered rural areas. Recognizing that important need, FirstNet included benchmarks in the RFP for substantial rural deployments for each phase of network deployment as well as ensuring rural partnerships are included. Although the opportunity to leverage long-term evolution (LTE) technology is high in all geographies in which public safety operates within a state/territory, terrestrial coverage and deployment will be practically constrained by fiscal and operational factors. It is for this reason that states and territories performed the data collection and were asked to prioritize their coverage objectives, and it is also why the RFP seeks to leverage synergies with existing LTE infrastructure and services. In Louisiana, the solutions may not always be terrestrial and will be dependent on the future partner's proposal. In some cases, there may be temporary on-demand aerial or vehicular solutions deployed to provide coverage and capacity when it's needed.

Infrastructure and Security

CTTs are state and territory task teams formed around subjects on which FirstNet is seeking further stakeholder input. Teams are topic-specific and meet over a short period of time. The first CTT will be on the conceptual QPP Framework FirstNet developed with the support of the PSAC. It will provide a formal opportunity for stakeholders with operational and technical expertise to provide meaningful input to inform FirstNet network policies and operations on QPP. FirstNet recommends that Single Points of Contact select a wide range of knowledgeable and dedicated stakeholders as QPP CTT members.

Interoperability

FirstNet network devices will be inherently interoperable and able to communicate, exchange, and receive Internet Protocol (IP) data using FirstNet's prioritized 700 MHz spectrum, also referred to as Band 14. Upload/Download speeds on a network device will be dependent upon the deployed architecture and LTE coverage footprint. FirstNet recognizes that application compatibility and data exchange standards for interoperability need to be closely monitored as they continue to develop. All public safety

users who leverage the FirstNet network will be using the same spectrum and all state RANs, whether in an opt-in or opt-out deployment (more info on that below), will connect to the FirstNet Core. These two factors allow for nationwide interoperability of the FirstNet network.

Bring Your Own Device (BYOD)

Throughout the course of our consultation and outreach efforts, including feedback on the Special Notice and Draft Request for Proposals (RFP) documents, many of our stakeholders have asked a recurring question: “Will FirstNet allow personal devices on the FirstNet network?” Recognizing that



the public safety user community will demand support for personal devices on the FirstNet network, FirstNet is taking steps to develop and implement an effective BYOD policy. The BYOD policy must provide adequate security and control of the device, while still providing an acceptable user experience when accessing the FirstNet network. It must also operate in real time to analyze BYOD access and identify anomalies. To address these and other device scenarios, FirstNet is planning to support personal devices on the FirstNet network through a BYOD policy that is being developed as part of the overall network architecture.

Future Build Out & NextGen-911

The FirstNet network design and phased deployment plan will be determined following award of a contract. At this point in time, future build out scenarios beyond full operational capability of the network are not measurable and therefore have not been contemplated. FirstNet is tasked with promoting integration of the network with Public Safety Answering Points (PSAPs) or their equivalent. Although it has not been determined how PSAP network integration will take place, it remains a topic for further discussion and was an identified objective in our RFP.



Resiliency Required During Natural Disasters and Man-made Threats

One of the most compelling reasons to deploy the FirstNet network is to ensure first responders have access to life saving communications tools regardless of what’s happening on the ground around them. In a state like Louisiana that has been affected by multiple hurricanes, floods, and other natural disasters over the last 10 years, having reliable broadband infrastructure throughout extreme weather events is critical.



Major weather events such as Hurricane Katrina affect infrastructure when public safety needs it most. As wind speeds rise and electrical power begins to fail, cell sites need ample power backup to address outages and adequate hardening to withstand the destructive forces of nature. Simultaneously, the network must be designed so that it can stand up to criminal events by rerouting rapidly if portions of the network are destroyed or compromised. FirstNet intends to design a network with as much resiliency and redundancy that it can afford to support.

Governor's Decision

Our objective through consultation is to work together to deliver the best plan possible for Louisiana. To achieve that, we want to identify and incorporate the territory's needs while leveraging FirstNet's nationwide buying power and economies of scale benefits. FirstNet's goal is to provide a comprehensive State Plan strategy – minimizing time and cost for each state/territory as well as ensuring interoperability of the FirstNet network. The Governor may “opt out” of FirstNet's plan for the RAN deployment but the state/territory will assume responsibility for deployment and operation and be required get FCC and NTIA approval, as well as negotiate a spectrum lease with FirstNet.

As prescribed by the Act, this decision happens at the state/territory level, and there is no carve out for counties, cities, regions or tribes within a state/territory boundary. The state/territory will also be responsible for related maintenance and future upgrades should they choose to “opt-out.” This decision does not commit PSE users to using the FirstNet service. For more information about the Opt-in or Opt-out decision, please refer to the FirstNet document titled, “Key Factors to Consider for the Governor to Opt-In or Opt-Out of the FirstNet Plan.”

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