FirstNet – Bringing 21st Century Communications Tools To Public Safety + First Responders
As a public safety professional, when responding to a call, you want to know as much as possible before you go in.

If you are in law enforcement (LE), you might need to run a license plate or provide situational awareness, confirm facts on the ground or identify where other officers are located.

If you are fire service personnel, you and your department rely on mobile applications to provide computer-aided dispatching, mapping tools, patient care reporting and hazardous materials information.

If you are an emergency medical services (EMS) professional, you need rapid access to information such as patient health databases and information exchange with emergency rooms.

However, there are challenges to getting the information you need. Communications systems used by responders in different agencies and jurisdictions often lack the ability to seamlessly interoperate, hindering incident response. During large-scale events or emergency incidents, high demand for broadband data by the general public can lead to congestion on commercial wireless networks, communications failures and disruptions, leaving public safety without the connectivity needed to effectively manage the incident.

Emergency response in rural areas such as search and rescue operations, manhunts through remote locations, wildland fires and EMS teams that must travel long distances to hospitals, depend on reliable connectivity.

Having the right tools is critical to improving response and ensuring successful outcomes. Public safety needs a “fast-lane” voice and data network that is highly secure and works when and where you respond.

About FirstNet

Understanding the need for an interoperable high-speed platform for emergency and daily public safety communications, Congress created an independent organization – the First Responder Network Authority (FirstNet) – to deliver a nationwide wireless broadband network dedicated to public safety.

This network is called the Nationwide Public Safety Broadband Network – NPSBN – sometimes called the FirstNet core network or FirstNet network.

FirstNet Will Serve . . .

FirstNet + AT&T Together Will . . .

Congress intends for the NPSBN to be fully funded and self-sustaining, constructed and operated as a public/private partnership.

After a nationwide Request for Proposals (RFP) and selection process, FirstNet has entered into a 25-year public/private partnership with AT&T to build out the NPSBN. AT&T is one of the largest communications companies in the world and has a 140-year history of innovation.

The partnership brings together the best of the private sector – including commercial best practices, infrastructure and resources – with FirstNet’s public safety expertise.

FirstNet Provides . . .

- Initial funding of approximately $7 BILLION.
- 20 MHz of spectrum.
- Deep public safety experience.

AT&T Provides . . .

- $40 BILLION investment over the life of the contract to build, operate, deploy and maintain the network.
- Proven track record and strong commitment to public safety.
- Commercial expertise.
- Nationwide resources to deploy, operate and maintain the network.

FirstNet + AT&T Together Will . . .

- Deploy Band 14 (758.00 - 763.00 MHz and 788.00 - 793.00 MHz frequencies) to expand reliable coverage.
- Phase in priority and preemptive usage by public safety.
- Improve voice communications and data exchange.
- Enable transmission of photos and video streaming.
- Rely on more than 2,200 scientists and engineers on AT&T staff and 10,000 AT&T people ready to support NPSBN operations today.
- Include 6,000 existing Distributed Antenna Systems (DAS) distributed across the FirstNet footprint and 40,000 additional Wi-Fi hotspots.
- Offer world-class device and app ecosystems and an app console for developers.
- Provide access to users to existing in-building AT&T LTE network architecture.
- Provide mobile units (deployables) that have triple redundant power for reliability, 60-foot cellular pneumatic masts and can be operational within 45 minutes after parking the unit.
NPSBN design will be based on input from public safety stakeholders. It is intended that seamless interoperable data-sharing requirements are met and that local, State, Tribal, Territorial and regional needs are identified through a partnership of planning, development and deployment, between individual States and FirstNet.

The 2012 Federal law that created FirstNet also established the State and Local Implementation Grant Program (SLIGP). SLIGP paved the way for Louisiana FirstNet.

SLIGP provides resources to engage Louisiana stakeholders through Louisiana FirstNet in identifying interoperability wireless data needs, gaps and priorities, and planning for build-out of the NPSBN. Louisiana FirstNet is committed to reaching out to public safety stakeholders to ensure concerns are identified and addressed, questions are raised and answered, and Louisiana needs are met.

The Louisiana recipient of the SLIGP grant is the Louisiana Department of Public Safety and Corrections (DPS&C), Office of the State Police (OSP).

The grant is administered by the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP). The Director of GOHSEP is the single point of contact (SPOC) between FirstNet and Louisiana.

To Create Customized State Plans, FirstNet Consulted With . . .

140,000+ PUBLIC SAFETY STAKEHOLDERS NATIONWIDE

50 STATES

2 MILLION PUBLIC SAFETY PERSONNEL THROUGH A 12,000 AGENCY DATA COLLECTION EFFORT

Why Connect? Discipline-specific Solutions Through NPSBN

- Law Enforcement (LE)
  - Situational Awareness
  - Video Surveillance
  - Access To Arrest Records
  - Records Management System
  - Wearable Devices + GPS
  - Computer Aided Dispatch (CAD)

- Fire Services
  - Situational Awareness
  - Mapping/Location/Floorplans
  - Wearable Devices + Sensors
  - Computer Aided Dispatch (CAD)

- Emergency Medical Services (EMS)
  - Telemetry + Telemedicine
  - Records Management System
  - Real-Time Patient Medical Information
  - Wearable Devices + Sensors
  - Computer Aided Dispatch (CAD)

Connecting to the NPSBN

Success of the network build-out depends, in part, on all 56 U.S. States and Territories having a radio access network (RAN) that connects to the FirstNet core network – NPSBN.

Two (2) Ways RANs Can Connect. Each State or Territory Can Choose To . . .

Opt-in

AND PARTICIPATE AS PART OF FIRSTNET.

OR

Seek FCC Approval to construct an alternative plan for connecting their RAN to the NPSBN.

The decision to opt-in or opt-out identifies who takes on the responsibility to fund and deploy, operate and maintain the State RAN. If the State or Territory opts-in, FirstNet and AT&T are responsible to deploy, maintain and operate the State’s or Territory’s RAN at NO COST to the State for the 25-year contract period with AT&T.

If the opt-out decision is made, those responsibilities, including costs and risks remain with the State or Territory.

For both options, subscriber rate fees support the system.

State and Territorial Governors choose which option they think best benefits their State or Territory.
Bringing 21st Century Communications Tools to Public Safety + First Responders

Using the FirstNet network, first responders and public safety professionals will be able to share video, photos and text messaging in near real-time.

They will have access to databases from the field, be able to share information with each other and between disciplines – law enforcement, fire services and emergency medical services (EMS) – and service providers like hospitals and others. They will have access to the newest communications technologies, including mapping tools, wearables, patient care reporting, hazardous materials information and camera-equipped drones. Congestion from high-demand large events will be overcome; connectivity will be reliable regardless of where you are.

FirstNet also offers . . .

› Public safety-grade reliability and extensive coverage public safety personnel can count on.
› Coverage that lets public safety personnel “take-the-network-along” to their destination.
› Local control so that local individual departments and agencies determine those who can use the system.
› Standards. FirstNet is involved in working closely with public safety organizations to develop national and international standards and functionality that meet the needs of public safety users.
› Mission-critical voice (MCV) – based on international standards so that they work across all standards-based equipment and networks worldwide.
› Mobile units (deployables) and satellite service to ensure coverage in rural areas.

What's Next – Governor’s Decision

The Governor of each State and Territory is the point of contact (POC) responsible for the “opt-in” or “opt-out” decision.

- State and Territorial jurisdictions have received a copy of the DRAFT State Plan to implement the FirstNet network.
- States have 45 days to comment on the DRAFT Plan.
- FirstNet will have 45 days to review comments submitted by the States and Territories.
- State and Territorial Governors have 90 days to decide if they want “opt-in” or “opt-out” of the network.

If a State or Territory opts-in, local, State and Tribal agencies choose to subscribe to the network or not.
1. **Why is the construction of the FirstNet network initiative important to public safety?**

   By providing **reliable interoperable high-speed data** and **voice transmission**, the FirstNet network will enable first responders and public safety personnel to respond more **quickly** and **effectively** to accidents, disasters and other emergencies, **saving lives** and offering **better protection** for our citizens.

2. **Who pays for the FirstNet network?**

   Congress initially appropriated **$7 BILLION** for construction of the network. Funding was a result of a **Federal Communications Commission (FCC)** **spectrum auction**. The build out will **leverage** existing infrastructure to save money. The network will not be taxpayer funded. **Subscriber rate fees** will **sustain** and support development of the network and will be competitive with commercial carriers.

3. **When will the FirstNet network be operational?**

   The FirstNet network became operational **July 2017**, for **priority** access by public safety personnel and offering **preemption December 2017**. Full operational capability is anticipated by **2022**.

   **FirstNet Priority + Preemption Overview**

   | Quality of Service Priority + Preemption (QPP) Phase 1 | • QPP Phase 1 priority access available on all AT&T LTE bands  
   | AT&T Evolved Packet Core 3rd Quarter 2017 | • Variable QoS  
   | • Included with **Primary First Responder Rate Plan** | • QPP Phase 1+  
   | QPP Phase 2 | • Preemption (estimated by 12/31/17)  
   | AT&T Evolved Packet Core 4th Quarter 2017 | • QPP Phase 2+  
   | • Additional priority levels  
   | • Ability to elevate priority for situational response | **FirstNet Evolved Packet Core 1st Quarter 2018**

4. **What are priority and preemptive services?**

   NPSBN relies in part on both **dedicated spectrum** (also called **Band 14**) and the use of **AT&T’s existing LTE network**. AT&T can also use the FirstNet dedicated spectrum (Band 14) for its **other customers** when the dedicated spectrum is **not in use by public safety**.

   **Quality of Service** (QoS) is needed to **ensure** public safety users have **access** to mission critical network services and applications at the required level of quality to meet individual needs. **Priority** and **preemption** are components of QoS (QPP).

   **Priority** is when certain users or groups of users take precedence over other users. For example, during an emergency or disaster or when there is **high network user congestion**, AT&T will prioritize **first responders** over other users of either or both of the dedicated spectrum or AT&T’s LTE network.

   **Preemption removes** users of a lower priority so that allocation of resources can be provided to **higher priority** users. For example, when network resources are **scarce** or **fully occupied**, first responders and public safety will **preempt** the users of either or both Band 14 or AT&T’s existing LTE network.
5. **Will the FirstNet network replace LMR systems?**

First responders currently use land mobile radio (LMR) networks for mission-critical voice communications. When the NPSBN is launched, it **w**ill **n**ot replace LMR systems. The network is expected to initially transmit data and video and other high-speed features such as location information and streaming video as well as non-mission critical voice. Public safety entities will continue to use LMR networks for their mission-critical voice needs.

6. **What happens if a State or Territory decides to opt-out of FirstNet?**

The decision to opt-in or opt-out identifies who takes on the responsibility to fund, deploy, operate and maintain the State RAN connectivity to NPSBN – FirstNet OR the State or Territory.

For jurisdictions that opt-out they must:
- Submit and receive FCC approval for an alternative plan to connect their RAN to the NPSBN.
- Fund the build out of RAN connectivity to the network. [There may be National Telecommunications and Information Administration (NTIA) grants for some portion of this cost.]
- Fund deployment, operations and maintenance of the network compliant with national network policy.
- Establish user fees to be funded by individuals/agencies.

7. **What is Band 14?**

**Band 14** is a range of frequencies: 758.00 - 763.00 MHz and 788.00 - 793.00 MHz. These frequencies have been licensed to FirstNet through the FCC to establish the development, deployment and operation of the NPSBN.

8. **Coverage is everything. If the Governor decides to opt-in, what coverage can we expect from the FirstNet footprint in Louisiana?**

FirstNet, in consultation with the States, was very clear in requesting coverage objectives from the State, not specific coverage maps. Louisiana has submitted the following phased coverage priorities.