



FirstNet Core Delivers on the Promise of a Dedicated Network for Public Safety

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By Jeff Bratcher, Chief Technology Officer and Operations Director

Following the terrorist attacks of 9/11, public safety from all disciplines joined together to advocate for a single nationwide public safety broadband network. A wireless network they would fight for and have a say in from the start. A network built upon industry standards, nationwide spectrum, and a device portfolio for all disciplines to ensure interoperability - a network with the security and reliability to help meet their lifesaving needs.

The First Responder Network Authority was established to work hand-in-hand with first responders to fulfill the promise of a nationwide network dedicated to them in times of need. We did this by working with public safety agencies around the country and listening to them. We used their input and feedback to develop the Request for Proposal (RFP) for a technology partner. One year ago this week, following a rigorous procurement process, we formed a public-private partnership with AT&T to execute on public safety's vision for this network. This includes the construction of a dedicated, robust, highly available and redundant distributed core infrastructure.

This week, AT&T has met another monumental contractual milestone by launching and delivering the FirstNet core to the First Responder Network Authority. The input and feedback we received from public safety has come to life with this core.

It is the first-ever nationwide LTE enhanced packet core infrastructure built specifically for our nation's first responder community. The FirstNet core serves as the brain and nervous system of the nationwide network – it separates public safety traffic from commercial traffic and supports current FirstNet functions, like Quality of Service (QoS), priority and preemption. It will also support future mission-critical services to be offered by FirstNet, like Mission Critical push-to-talk and location based services.

This dedicated FirstNet core is the foundation for the delivery of advanced public safety features requested by first responders that are unique to the FirstNet service offering, including:

End-to-end encryption. One of the most anticipated features of the network, end-to-end encryption will allow public safety users to transmit encrypted data securely across LTE enabled devices. The FirstNet core comes with FIPS 140-2 compliant VPN

solutions, radio, transport and network core encryption, and advanced physical and logical security protocols to keep all traffic on the network protected.

Around the clock security monitoring. The FirstNet core will be monitored 24/7/365 by a dedicated team at the Security Operations Center (SOC) whose sole focus will be to monitor the security of the network.

Superior reliability and availability. As we have heard and continue to hear from our public safety community, reliability and coverage are key to improving emergency communications. The FirstNet core will help enable the network's 99.99% end-to-end service availability. To enable redundancy and improve performance nationwide, core network elements will be geographically distributed across multiple locations.

Local control. Emergency incidents need to be managed at a local level which is why FirstNet's core introduces a local control framework that unlocks different levels of priority and puts control in the hands of local responders. This means incident commanders and eligible first responders can boost priority levels to best support specific situational responses, ensuring that responding units stay connected when it matters most.

Mission critical functions. The FirstNet core will support a range of next-generation public safety capabilities being developed for first responders based on open standards. In the future, these will include services such as Mission-Critical Push-to-Talk, enhanced location-based services, and more.

To ensure the network delivers the performance and integrity public safety demands, the FirstNet core will continue to undergo validation and testing with the First Responder Network Authority. Alongside AT&T, we will exercise the functionality of the public safety features, measure redundancy under a variety of conditions, and validate the overall performance and resiliency of network components. With the results of these tests, the First Responder Network Authority and AT&T will validate that the network will be there when public safety needs it.

While we are moving to expedite this process, we will not sacrifice delivering a robust, first class, secure broadband experience to our public safety users. This final phase of testing and validation is expected to be completed in the April/May timeframe. In the meantime, FirstNet users can begin moving to the core as part of a controlled introduction by AT&T. Once this phase of testing and validation is completed, more FirstNet users will move to the core.

The delivery of public safety's dedicated core is another major milestone for FirstNet, and it closely follows the [buildout of public safety's spectrum](#) – Band 14. As we move to operationalize the FirstNet core, we will continue to work closely with public safety as the full benefits of the network they fought for come to fruition.

About FirstNet

The Middle Class Tax Relief and Job Creation Act of 2012 created the First Responder Network Authority (FirstNet) as an independent authority within NTIA to provide emergency responders with the first nationwide, high-speed, broadband network dedicated to public safety.