

# What it means to be FirstNet® Ready

The realization of public safety broadband communications takes more than developing to a standard.

“FirstNet® Ready” is a term you hear frequently from device vendors, application developers, and network infrastructure providers trying to convince you that their solution or service is ready for use with the Nationwide Public Safety Broadband Network (NPSBN). What you do not hear, though, is what it really means to be FirstNet Ready.

When lives and property are at risk it is important that those in public safety and mission critical communications clearly understand what it means to say that a broadband PTT (push-to-talk) application is FirstNet Ready. Equally important is that FirstNet’s winning contractor understand what it means for a broadband PTT solution to not only be ready for commercial service at IOC-2 but also easily scalable to address the full set of mission critical requirements.

Providing FirstNet Ready broadband PTT communications requires a solution that supports the following attributes:

**MCPTT Architecture** — to align with the 3GPP Mission Critical PTT (MCPTT) functional architecture and information flows

**PCPS-compliant** — to enable the rapid development and implementation of mission critical voice, video and data communications

**High Availability, Multi-site Resilient** — to deliver the five 9s availability necessary for public safety grade communications

**LMR Interoperability** — to provide seamless communication with P25 and other land mobile radio network technologies

**FIPS 140-2** — to ensure the security of public safety voice and data communications

**Carrier-integrated with QoS** — to provide first responders with real-time prioritized access to communication resources they need

# KODIAK



[kodiakptt.com](http://kodiakptt.com)

## MCPTT Architecture

As stated in Section C of the FirstNet RFP, the Authority's key objective is to deploy a network that will "function fully as an operational wireless 3rd Generation Partnership Project (3GPP) standards-based Long Term Evolution (LTE) NPSBN." That's why only applications in alignment with the 3GPP MCPTT reference architecture and information flows for group management, floor control, media distribution, and other key functions can be considered FirstNet Ready.

## PCPS-compliant

Compliance with the Open Mobile Alliance (OMA) PCPS (Push-to-Communicate for Public Safety) standard is another key to being FirstNet Ready because at the core of the 3GPP requirements for MCPTT communications is the OMA PCPS standard.

Licensed by 3GPP for use in defining the MCPTT requirements, the PCPS standard includes critical communication functions such as multicast Push-to-talk over Cellular (PoC), ad-hoc or predefined PoC group communications, prioritization and preemption, as well as dispatcher functions. Only broadband PTT solutions compliant with the current PCPS v1.0 specification provide a solid foundation for the rapid development and implementation of the voice, video and data communications capabilities defined in the MCPTT standard.

## High Availability, Multi-site Resilient

As outlined in the FirstNet RFP Section M.4.3.4.4 – Public Safety Grade, High Availability and Multi-site resiliency are also important keys to FirstNet Ready. Only broadband PTT solutions with a distributed, geo-redundant design consistent with that of a carrier private cloud architecture, as well as highly available components and site-level redundancy can deliver the five 9s availability necessary to be considered public safety grade.

So, the next time someone tells you their broadband PTT solution is FirstNet Ready you now know to ask "is it standards compliant"; "does it support the MCPTT functional architecture"; and, "is it carrier-integrated". Only those solutions that answer yes to each of those questions deliver the service interoperability, scalability, security, performance optimization and assurance necessary for both mission critical communications and the designation "FirstNet Ready".

To learn why Kodiak offers the only FirstNet Ready Broadband PTT solution in the market, visit [kodiakptt.com](http://kodiakptt.com).

## LMR Interoperability

Another key to FirstNet Ready, LMR Interoperability, is necessary so that FirstNet can meet its objective to "ensure that the NPSBN operates as a nationwide interoperable network, guaranteeing seamless interoperability". LMR Interoperability enables PTT communication between users on the NPSBN and those on legacy public safety LMR, enabling seamless network implementation and operation.

## FIPS 140-2

Included as part of its Identity, Credentials and Access Management (ICAM) security requirements, FIPS 140-2 is also key to a broadband PTT application being FirstNet Ready. FIPS 140-2 compliance ensures that the broadband PTT solution utilizes cryptographic modules that meet the Security Requirements for Cryptographic Modules issued by the National Institute of Standards and Technology.

## Carrier-integrated and QoS

The last key to FirstNet Ready is carrier-integration and QoS, which is necessary to meet the objective for a broadband PTT application that is optimized for the network and bandwidth, and can provide guaranteed performance as well as availability. Access to the dynamic assignment, control, and management of the QoS parameters needed to ensure that public safety users have prioritized access to network resources is only available to a broadband PTT solution inside the secure wireless carrier network.

FirstNet Ready also requires integration with the carrier's billing, provisioning, customer care, as well as network and security operations centers for seamless 24/7 monitoring and support.

It is this demonstrated ability to work inside the network, integrate with back office and operations systems, and reliably scale to meet anticipated user and traffic capacity requirements that differentiates broadband PTT solutions that are FirstNet Ready from those that claim to be.