

# 2013-07-10 FirstNet Issues RFIs on Technology for Nationwide Wireless Broadband Network

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## FirstNet Issues RFIs on Technology for Nationwide Wireless Broadband Network

*Potential Vendors and Partners Invited to Provide Information On Innovative Solutions for Core and Radio Access Networks*

**Topics:** [FirstNet](#) [1] [Public Safety](#) [2]

**FOR IMMEDIATE RELEASE:**

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Washington — As part of its extensive market research to determine the most appropriate network design approach, the First Responder Network Authority (FirstNet) today announced the release of 10 requests for information (RFIs). These RFIs ask for input from vendors and interested stakeholders regarding potential deployment options for two crucial portions of the nationwide public safety network: the radio access network (RAN) and core network.

"These RFIs will enable FirstNet to gather input from equipment manufacturers, service providers and other stakeholders on possible models and partnership and technology platforms," said Bill D'Agostino, FirstNet General Manager. "We need to hear about innovative, cost-effective solutions for delivering the coverage, capacity, connectivity, cybersecurity and resiliency that a high-speed network dedicated to public safety demands."

The FirstNet RFIs, posted on [www.fedbizopps.gov](http://www.fedbizopps.gov) [4], follow a device RFI issued April 15. They are a key step in the competitive procurement process that FirstNet is following for its network buildout. Equipment and service providers are encouraged to respond to one or more of the new RFIs alone or jointly with other companies. They may describe potential solution elements, complete solutions or combinations of solutions on a regional or nationwide basis. Questions from respondents are due July 22 and responses are due Aug. 30, 2013.

"Over the past few months, FirstNet has been deeply engaged in extensive outreach and consultation with all 56 states and territories and now we are reaching out and engaging with the public safety wireless supplier community through RFIs," said FirstNet Board member Craig Farrill, who also serves as acting Chief Technology Officer. "These detailed RFIs reflect the diversity of uses and applications as well as the extensive broadband wireless needs of first responders and public safety professionals. We look forward to a wide range of innovative, highly reliable, cost effective products and services to address the mission-critical telecommunications needs of public safety."

After FirstNet receives and analyzes responses to the RFIs, it will develop and issue Requests for Proposal (RFPs). All RFI responses, as well as information gathered from FirstNet's ongoing state consultation process including its series of regional workshops and the results of additional state meetings planned for this fall, will be used to inform the development of the FirstNet nationwide deployment plan. This plan will be presented to the states for their review and decisions.

### **Radio Access Network RFIs**

The first RAN-related RFI involves the largest potential expenditures by FirstNet and seeks information about ways to deploy the RAN and core network. Four additional RFIs on RAN components address antenna systems, microwave backhaul, deployables and satellite services.

#### *1. Network Partnering and RAN Provisioning*

FirstNet is looking for organizations with demonstrated experience in developing and sustaining public safety networks by: a) partnering for network implementation, operation and spectrum sharing or b) providing network equipment and buildout. All possible models, partnerships and technology platforms, regional and nationwide, will be considered.

SA1301-12-RP-0016-b Network Partnering And Radio Access Network (RAN) Provisioning

[https://www.fbo.gov/index?s=opportunity&mode=form&id=e10b0f2b5da3c5c451600563e574fbce&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=e10b0f2b5da3c5c451600563e574fbce&tab=core&_cview=0) [5]

#### *2. Antenna Systems*

FirstNet needs cell site antennas delivering the best possible coverage and capacity characteristics, particularly for first responders in rural areas. This RFI was developed to provide an opportunity for subsystem manufacturers of extended range antennas and radios to respond separately from major OEMs.

SA1301-12-RP-0016-c FirstNet - Antenna Systems

[https://www.fbo.gov/index?s=opportunity&mode=form&id=79b4062e9707a2c0d119e7757d6adcfa&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=79b4062e9707a2c0d119e7757d6adcfa&tab=core&_cview=0) [6]

#### *3. Microwave Backhaul Equipment*

Fixed wireless solutions are needed to connect individual cell sites back to the FirstNet core. Microwave typically represents one-third of a wireless operator's backhaul network; it is important where fiber is not available and as a redundant/failsafe backhaul solution to fiber. This RFI enables microwave equipment vendors not aligned with the major OEMs to file a response.

SA1301-12-RP-0016-d FirstNet - Microwave Backhaul Equipment

[https://www.fbo.gov/index?s=opportunity&mode=form&id=7ed9d4feefe9fd0c6d47f3b6d4ef80c8&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=7ed9d4feefe9fd0c6d47f3b6d4ef80c8&tab=core&_cview=0) [7]

#### 4. Deployables

FirstNet seeks information on portable cell site equipment that can be moved into unserved areas where the cost of a permanent network is exorbitant or into areas experiencing widespread network outages. This equipment can operate as a stand-alone wireless network or augment capacity and coverage in a specific location.

SA1301-12-RP-0016-e FirstNet - Deployables

[https://www.fbo.gov/index?s=opportunity&mode=form&id=60cfdeb95699be5a43d48132431cb7fb&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=60cfdeb95699be5a43d48132431cb7fb&tab=core&_cview=0) [8]

#### 5. Satellite Service

Designed to investigate portable and fixed devices, this RFI requests data on the ways that satellite services can be used to connect end-user devices to the network and provide backhaul. The delivery of public safety communications in rural and remote areas and regions with rugged terrain is a fundamental element of FirstNet's mission.

SA1301-12-RP-0016-f FirstNet - Satellite Service

[https://www.fbo.gov/index?s=opportunity&mode=form&id=9d0eb06b881e49f8e375d079b6eb27dd&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=9d0eb06b881e49f8e375d079b6eb27dd&tab=core&_cview=0) [9]

### **Core Network RFIs**

Five RFIs on core network issues request data on an enhanced packet core (EPC), transmission and transport, data center services, network management and operations centers and a network service platform.

#### 6. Enhanced Packet Core (EPC)

FirstNet is investigating the industry's capability to provide core network functionality including: call priority, call preemption, home network treatment for roamers, class of service and quality of service treatment, application security architectures and other elements. Aggregate core network solutions, as well as best-in-class solutions and solution elements, will be considered.

SA1301-12-RP-0016-g FirstNet - Enhanced Packet Core (EPC)

[https://www.fbo.gov/index?s=opportunity&mode=form&id=87b3e1e1758e8c5c9e9485b0c68f4300&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=87b3e1e1758e8c5c9e9485b0c68f4300&tab=core&_cview=0) [10]

#### 7. Transmission/Transport

FirstNet needs information on the potential ways to connect many core network elements located across the nation. This RFI also addresses local fiber rings to connect multiple cell sites to the core. FirstNet is interested in hearing from core transport providers with regional and national footprints, as well as state and local governments with fiber assets that could be leveraged for FirstNet.

SA1301-12-RP-0016-h FirstNet - Transmission/Transport

[https://www.fbo.gov/index?s=opportunity&mode=form&id=5a1a195ef55596c8853b32c651b88305&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=5a1a195ef55596c8853b32c651b88305&tab=core&_cview=0) [11]

#### 8. Data Centers

Data center facilities provide key locations for crucial core network elements. They are also connection points for transport between the core and RAN networks. FirstNet is open to nationwide, integrated core solutions and

stand-alone data center offerings, as well as partnerships with government entities to share data center facilities.

SA1301-12-RP-0016-i      FirstNet - Data Centers

[https://www.fbo.gov/index?s=opportunity&mode=form&id=668b596bbf696698b14ce1473c3e0956&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=668b596bbf696698b14ce1473c3e0956&tab=core&_cview=0) [12]

#### 9. Network Management Center/Operations Management Center (NMC/OMC)

A NMC/OMC or Network Operations Center (NOC) provides network monitoring, software management and network outage resolution functions. This RFI is designed to collect information regarding stand-alone services that offer full functionality and NOC services from a greater network partnership or network platform package. FirstNet is especially interested in independent, third-party NOC solutions and potential sharing relationships with existing government NOCs.

SA1301-12-RP-0016-j      FirstNet - Network Management

[https://www.fbo.gov/index?s=opportunity&mode=form&id=8df8aa68cf22b40851a13f96281fb0be&tab=core&\\_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&id=8df8aa68cf22b40851a13f96281fb0be&tab=core&_cview=0) [13]

#### 10. Network Service Platform

This key part of the core network houses servers enabling critical applications and services required by the network manager and end users. Significant components are: a) service enablers, such as location and presence capability to support development of end-user applications; b) core applications, such as voice and push to talk; and c) emergency services including interconnection with the existing Commercial Mobile Alert System (CMAS) and evolving Next-Generation 9-1-1 services.

SA1301-12-RP-0016-k      FirstNet - Network Service Platform

[https://www.fbo.gov/?s=opportunity&mode=form&id=865fdacb5b5f42934a5e46c57a613b97&tab=core&\\_cview=0](https://www.fbo.gov/?s=opportunity&mode=form&id=865fdacb5b5f42934a5e46c57a613b97&tab=core&_cview=0) [14]

#### About FirstNet

FirstNet will provide emergency responders with the first high-speed, nationwide network dedicated to public safety. FirstNet is designed to improve communication among local, state, regional, tribal and national emergency services personnel. The broadband data network will help save lives and protect the health and safety of all Americans. It will be built using LTE, the most advanced wireless technology available today. FirstNet fulfills a fundamental need of the public safety community for a single, mission-critical communications system enabling force multiplier effectiveness. Overseen by representatives of public safety, government and the wireless industry, FirstNet is an independent entity within the U.S. Department of Commerce, National Telecommunications and Information Administration ([www.firstnet.gov](http://www.firstnet.gov) [15]).

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National Telecommunications and Information Administration

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