



## Nationwide Public Safety Broadband Network Award Update

*November Target Announcement delayed; protest over procurement evaluation process working its way through the court; FirstNet undeterred.*

Bidding for the Statement-of-Objectives-based NPSBN RFP closed on May 31 last year. Three known bids were submitted: AT&T, Rivada Mercury, and pdvWireless. Of those, only AT&T made it to the “competitive range.” Through legal action, Rivada Mercury has protested, claiming they were eliminated from consideration unfairly. As a result, FirstNet has agreed to not announce an award until at least March 1, allowing the legal case to be resolved. How this, or future protests might further delay an award is not known. In the meantime, FirstNet continues to prepare for the implementation of the NPSBN with an ambitious [First 100 Day plan](#).

The award announcement will begin the flow of answers to many questions we have only been able to speculate on over the past few years. What can we expect to learn early on from the NPSBN Award Announcement? Key answers should include:

- Prime Partner and Team
- FirstNet's Selection Rationale
- Technology Solution(s)
- Allowed Users on the NPSBN
- Services and Offerings – Devices, Apps, Costs
- Implementation Schedule

Beyond the initial announcement, we expect that many more details will become clear and we will continue to provide updates.

## New York State's Role in the State Plan Evaluation

While NYS stakeholders await an award announcement and the expected details of what the NPSBN will be, NYS's Division of Homeland Security and Emergency Services (DHSES) is preparing to evaluate the State Plan, which will be delivered six months following the announcement. Topics of particular interest to NY stakeholders have been identified, and subject matter expert candidates are being identified to serve on topic teams to support the evaluation. If you would like to support the evaluation, tell us about yourself by taking a short online [survey](#). Taking the survey does not enlist you, but it will allow us to reach out and request your participation later in the year.

Evaluation topics of interest include:

- Coverage & Capacity
- Implementation Schedule
- Public Safety Grade & Reliability
- Security
- Future Network Enhancement
- Quality of Service (QoS), Priority & Preemption
- End User Devices & Apps
- Deployable Devices
- User Interfaces
- Vendor Assessment
- Integration w/other systems
- User Services
- Cost of Service
- Comparison with alternate mobile data service options
- Legal Factors

## Ask Your SPOC Keeping Current



Q: With technology's rapid advance, doesn't the NPSBN risk becoming obsolete in a few years?

A: One of FirstNet's underlying assertions of the NPSBN is that it will leverage commercial technology advances. Last year's inclusion of Mission Critical Voice in the 3GPP standards demonstrates that *the NPSBN will have a role in driving technology's direction*. The NPSBN RFP was based upon satisfying 16 objectives, including: Device & Applications Ecosystem, Life-cycle Innovation, and Operation & Maintenance (of the network). The economics of this 25-year contract suggest that the awardee will leverage current technology and may very well incorporate commercial infrastructure into their coverage solution. Remember that, although public safety will have priority access on Band 14, secondary use of this spectrum has considerable commercial value to the awardee, and they will need to keep their infrastructure current to attract commercial subscribers.

As described on p. 2 of this newsletter, FirstNet and the PSCR are actively supporting innovation in the public safety arena. Pairing this focus on public safety's leading edge requirements with the commercial pressures that continue to power underlying technology advances means that public safety stakeholders will likely benefit from the best of “both worlds.”

The NYS Division of Homeland Security and Emergency Services (NYS DHSES) Office of Interoperable and Emergency Communications (OIEC) has been designated as the State's Single Point of Contact (SPOC) to assist the FirstNet Authority regarding the NPSBN buildout in New York State. The OIEC has also created the Public Safety Broadband Working Group (PSBBWG), consisting of more than 50 public safety professionals from across the State, experienced in public safety communications. The PSBBWG meets periodically to discuss topics of interest and provide input to the SPOC on behalf of NY stakeholders

## ***FirstNet Fundamental Facts - Several NPSBN topics continue to be a source of misunderstanding and concern to NYS stakeholders. We thought it would help if we provided clarification on these.***

### ***FirstNet is Not a Replacement for Critical Voice Communications***

The NPSBN is an LTE mobile data network. Voice-over-LTE (VoLTE) solutions exist and are in use today; however, they do not meet Mission Critical Voice (MCV) standards. FirstNet has been actively engaged with the LTE standards body, the 3rd Generation Partnership Project (3GPP), to develop and incorporate MCV into the LTE standards; 3GPP Release 13 includes MCV. As a result, future infrastructure and device development should include MCV capability.

This is a good first step, but don't plan to abandon LMR Push-To-Talk voice systems yet! Public safety LMR systems are specified/designed/operated by stakeholders to provide coverage levels by area, building type, user device, etc. The NPSBN's initial deployment will be based upon mobile data needs and is unlikely to provide the coverage reliability necessary to support MCV. As the NPSBN is initially implemented, and as it is enhanced over time, *some agencies* may determine that the NPSBN provides sufficient coverage and reliability over their jurisdiction to rely on it for their MCV needs. For others, the NPSBN may offer an opportunity to offload non-critical voice traffic from a capacity-limited LMR system. Until an NPSBN MCV solution and coverage are specifically verified, FirstNet will remain a data network, and LMR MCV system administrators should continue to plan for the operation and maintenance of their own system.

### ***Public Safety has a Choice***

FirstNet will implement the NPSBN in every state and territory. Once implemented, FirstNet will offer services to public safety users, much like commercial services are offered today. No agency will be required to subscribe to services on the NPSBN. Agencies can continue with their existing commercial services, a level of competition that should encourage FirstNet to offer competitive rates and a higher grade of public safety services.

In December, the Public Safety Communications Research Division (PSCR) of the National Institute of Standards and Technology (NIST) announced the [Public Safety Innovation Accelerator Grant Opportunity FY17](#), a \$30M competitive grant program to support the advancement of broadband applications and related innovations. Six research and development categories are eligible for the program: Mission Critical Voice, Location Based Services, Public Safety Analytics, Public Safety Communication Demand Model, Research and Prototyping Platforms, and Resilient Systems.

### ***NG-911 and FirstNet***

These two initiatives are separate and distinct, although they do have some common elements. NG-911's purpose is to make 911 services work well with new types of consumer technologies, such as wireless and VoIP. It not only includes improved 911 call routing to PSAPs but also addresses the ability of PSAPs to accept and transfer multimedia in the form of voice, text, images, video, and data. NG-911 does not require the NPSBN for completeness.

The NPSBN will provide a wireless mobile network for public safety's prioritized use. With this network, first responders will be able to send and receive mobile data, access databases, and share information reliably with their organization and other agencies. First Responders and PSAPs will be able to share information as well. However, the NPSBN does not require NG-911 for completeness.

Although neither initiative is dependent on the other, their combined capabilities provide an opportunity, as well as additional challenges, to share caller information. For example, the added influx of data into the PSAP from both callers and FRs should improve situational awareness but will demand a sea change in the operation of the PSAP of the future.

### ***NPSBN vs. Commercial Services***

The NPSBN leverages, and will continue to benefit from, the technological advances of the commercial mobile data market. In addition to the features and functions we have come to expect from commercial service, the NPSBN will provide public safety users priority access, increased reliability and security, and deployable coverage solutions. As a large nationwide system, FirstNet will be a catalyst to encourage the development of public safety applications and user devices, and will provide a certification process to ensure public-safety-grade products. Although the specifics are not yet released, it is expected that costs and services will be similar to commercial offerings.

## ***NIST and FirstNet Support Innovation***

As a part of the federal law that established FirstNet, the PSCR has been allocated up to \$300M for the funding of related research.

Separate, but complementary to this R&D grant announcement, FirstNet officially [opened its testing lab](#) in Boulder, CO, in November. The lab's purpose is to evaluate and certify public safety devices and applications and to work closely with the PSCR. In addition to a "lab" environment, it supports over-the-air Band 14 coverage field testing and includes training facilities for first responders to test and assess the usefulness of future tools, such as virtual or augmented reality.

Visit New York's Public Safety Broadband [website](#) for additional information on FirstNet in NY.