

# FirstNet's Path to Network Implementation

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# FirstNet Seeks Input

- At September 2014 board meeting, FirstNet voted to initiate a request for information (RFI) and public notice of proposed statutory interpretations (Notice)
- Information collected will help guide request for proposal (RFP) procurement efforts
- Comment deadline for RFI and Notice was 10/27
- APCO responded to both inquiries

# FirstNet's Request For Information (RFI)

- Sought input on approaches to and objectives for the establishment of the nationwide, interoperable public safety broadband network (NPSBN)
- FirstNet will use the responses to understand industry's capabilities, evaluate procurement approaches, and determine ways to leverage existing capabilities and best practices to meet public safety's needs



**FirstNet RFI**  
Solicitation Number: FirstNet\_RFI  
Agency: Defense Information Systems Agency  
Office: Procurement Directorate  
Location: DITCO-Scott

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**Solicitation Number:** FirstNet\_RFI  
**Notice Type:** Presolicitation

**Synopsis:**  
Added: Sep 17, 2014 5:49 pm Modified: Sep 18, 2014 10:05 am [Track Changes](#)

This request for information (RFI) seeks input from interested parties regarding approaches to, and objectives for establishing a nationwide interoperable public safety broadband network. Responses to this RFI will be used by the First Responder Network Authority (FirstNet) to better understand industry's capabilities, evaluate/review perspective best procurement approach(es), and determine how to best leverage existing capabilities and best practices to meet public safety needs.

**Activity Log:**

- [Original Synopsis](#)  
Presolicitation  
Sep 17, 2014  
5:49 pm
- [Changed](#)  
Sep 18, 2014  
10:05 am
- [Changed](#)  
Oct 07, 2014  
6:09 pm

# FirstNet's Acquisition Approach

- Centers on maximizing value to public safety while meeting financial sustainability obligations.
- Based on premise that FirstNet will seek proposals for solutions that allow it to control and operate a nationwide Core and RANs, as well as for devices, deployable capabilities, apps, integration, and maintenance and operational services.
- Also seeking solutions that would include equipment and services in consideration for secondary use of FirstNet's excess spectrum capacity pursuant to covered leasing agreements.

# Draft Statement of Objectives (SOO)

- Provides a performance-based framework to guide proposals
- Defines the scope of the request and potential constraints
- Identifies objectives such as:
  - Building, operating, and maintaining the NPSBN
  - Financial sustainability
  - Competitive pricing
  - Network coverage and hardening
  - Priority/preemption
  - Establishing an apps ecosystem

# APCO's Response

- APCO responded from the perspective of a leader in the public safety-driven advocacy campaign to achieve the legislation that created FirstNet.
  - Formation of PSA
  - Grass roots efforts on Capitol Hill and across the United States

# APCO's Guiding Principles

- (1) The resulting Request for Proposals must be crafted to maximize interest on the part of the private sector to partner with FirstNet. Forging sufficient public-private partnerships, with the widest variety of potential partners, but especially with companies having expertise in advanced wireless communications, is fundamental to FirstNet's overall success.

# APCO's Guiding Principles

- (2) FirstNet must keep its “eye on the ball.” FirstNet’s charge is of such complexity and importance that it requires an initial, sharp focus on creating a solid network foundation – the “single, national network architecture” called for in the Act – upon which all subsequent network components will build.
- FirstNet must:
  - prioritize this network foundation,
  - maximize use of existing and the most readily accessible network infrastructure,
  - adhere to “commercial standards,”
  - be flexible enough to accommodate diverse public safety requirements as well as future enhancements and expansion, and
  - support a nationwide level of interoperable communications.



# Acquisition Approach

- FirstNet should leverage funds and spectrum to promote as many opportunities as possible with partners who can contribute technology, infrastructure, and expertise
  - Strong private sector interest will incentivize state participation
- Permit multiple parties to jointly respond to future RFPs
- It is to everyone's advantage – including states that may in good faith be considering a path for the opt-out option – for FirstNet to get the basic network infrastructure on the right footing, issue RFPs that maximize private sector interest, and leverage national-level economies of scale and bargaining power

# Build, Deploy, Operate and Maintain the NPSBN

- Start with a properly designed and implemented baseline network
- Continually strive to enhance coverage and resiliency by leveraging public-private partnerships

# Financial Sustainability

- Initially pursue partnerships with companies that have experience in deploying wireless communications networks, the most readily accessible infrastructure to share, and interest in leveraging the FirstNet spectrum on a secondary basis.
- Entering into roaming agreements with existing wireless service providers could help quickly drive availability of handsets with commercial and band class 14 chipsets, and provide first responders with communications capability over commercial spectrum at nationally-bargained rates until FirstNet's spectrum is built out.

# Accelerate Speed to Market

- Roaming agreements can also create an immediate network option for first responders, foster availability of handsets with BC 14, begin to build public safety subscribership, and build use cases on actual network usage, devices, and mobile apps.

# System Hardening

- Target initial funds to most pressing resiliency needs, augment thereafter
- Handsets with multiple commercial bands would provide network redundancy
- Future off-network communications capabilities will help as well
- Opportunity to design cyber protections from the start

# Priority and Preemption

- Primary purpose of NPSBN is to serve the needs of public safety communications professionals and first responders
- LTE technology affords ability to assign quality of service and spectrum access levels
- Secondary access users are at lowest priority and are preemptible

# Opt-Out RAN Integration

- Any opt-out state RAN modifications, maintenance, upgrades, repairs, etc. must be coordinated with FirstNet to maintain interoperability
- Opt-out states must be financially, technically, and operationally capable and responsible for ensuring and maintaining full connectivity and interoperability with the FirstNet network

# Integration with PSAPs

- Not addressed in RFI
- Act requires FirstNet to promote integration of the NPSBN with PSAPs
- Thus, this needs to be a prominent part of FirstNet's planning and acquisition strategy
- NG911 and FirstNet will represent two complementary sides of emergency response, with PSAPs serving as the "nerve centers"



# Statutory Interpretations

- In addition to advocacy efforts, APCO also has intimate knowledge of the lawmakers' decision-making process and intent
- Core concept of advocacy: public safety communications professionals and first responders should have the most modern communications tools at their disposal, including sufficient dedicated spectrum

# Two Basic Principles

- The Act grants FirstNet significant discretion in carrying out its responsibilities
- The complexity of FirstNet's task is mirrored in the complexity of the legislation – legal interpretation should be guided by the advocacy goals, Congress' intent, and a view of the Act as a whole

# Who is the Intended FirstNet User?

- Notice proposes an expansive interpretation of "public safety entity"
- APCO believes "public safety entities" means traditional first responders (police, fire, EMS)

# Policy Guidance

- First responders did not and still do not have a network with sufficient spectrum capacity and nationwide interoperability
- APCO carried the fight for the "D Block" for the benefit of first responders
- Public-private partnerships are an essential element of success – FirstNet not intended to compete with potential partners

# Legal Guidance

- Plain language – "public safety," "sole or principal purpose," "emergency response providers"
  - Logical to read 337(f) and the Homeland Security Act definition together
- Act as a whole directed at serving public safety
- No other entities specified
- Therefore, any others must share the mission of first responders

# Secondary Users

- In return for entering into public-private partnership, gain access to FirstNet spectrum on secondary basis pursuant to a "covered leasing agreement"
- Allows network access by non-"public safety entities"
  - For example: utilities and transportation authorities

# During Emergencies

- At times, first responders need to communicate with other entities who may not meet the definition of "public safety entity" or have entered into a covered leasing agreement
- In such cases, such entities can operate on FirstNet spectrum via pre-arranged MOUs or sharing cached radios

# Definition of "Rural"

- Ensuring network coverage in rural areas is an important requirement of the Act
- FirstNet put forth a number of options for defining "rural" from other contexts
- APCO: use other definitions for guidance, but use discretion aided by state and local consultation process; joint RFP responses would help too



# Going Forward

- APCO will continue to serve as a resource to the FirstNet board members and staff
- View the APCO responses at [www.apcointl.org/advocacy](http://www.apcointl.org/advocacy)
- [cohenj@apcointl.org](mailto:cohenj@apcointl.org)
- Twitter @GRO\_APCO