

# Nationwide Public Safety Broadband Network

October 2012



Office Of Information Technology

# Overview

- Set in motion by Title VI of the Middle Class Tax Relief and Job Creation Act, enacted Feb 22, 2012
- Created the First Responder Network Authority (FirstNet)
- FirstNet to establish a nationwide public safety broadband network (PSBN) based on a single national network architecture
- Reallocated 700 MHz D block spectrum to public safety
- Deficit neutral;
  - Funded through proceeds from spectrum auctions through FY 2022
  - Network is sustained long term through user fees
- Identified \$7B for construction of the system and \$135M for State implementation planning purposes

# Important Items

- Initially intended for data communications based on LTE, i.e. a Radio Access Network (RAN)
- Not a replacement for traditional push-to-talk public safety land mobile radio systems
- States are “In” by default, with “Opt out” decision years down the road
- A number of unknowns at this time
  - Rural coverage, time frames, costs, funding, federal entities, etc.
- Multi-agency approach to consultation with FirstNet
  - MEMA, OIT, ConnectME
- Implementation planning grant funding expected in Q1 2013

# Broadband is Creating a Major Public Safety Communications Paradigm Shift

<b>LMR</b>	<b>National Broadband</b>
Voice oriented	Data oriented
Designed for coverage	Designed for data rate, capacity and coverage
Ensured local control	Some local control?
Public Safety priority access	Public Safety priority desired, may not be attainable w/ Carriers
Own frequencies, each system different	Owned by FirstNet, frequencies common to all
Capital expense, but often no user fees	Fees paid to FirstNet
Wireless Carrier participation uncommon	Some Carrier participation

# First Responder Network Authority

- FirstNet is an independent authority within NTIA
- Headed by a 15 member board;
  - 12 individuals appointed by Secretary of Commerce
  - Ensure geographic and regional representation
  - Ensure rural and urban representation
  - First meeting on September 25, 2012
- Holds a single public safety 700 MHz wireless broadband license
- Responsible to ensure the design, construction, deployment and operation of the PSBN, in consultation with State and local public safety entities
- Ensure substantial rural coverage

# FirstNet Consultation

- Must consult with State and local jurisdictions regarding the distribution and expenditures of any amounts;
  - Construction or access to the core network
  - Placement of towers
  - Coverage areas of the network
  - Adequacy of hardening, security, reliability requirements
  - Local user priority
  - Assignment of priority and selection of entities seeking access to PSBN
  - Training need of local users
- Consultation must occur through the designated single officer or governmental body designated by each State.
- Shall establish a standing advisory committee for public safety

# PSBN Process

- FirstNet must consult with the States prior to issuing RFP for the construction, operations and maintenance of the PSBN
- Upon completion of the RFP process FirstNet will notify the Governor of each State of;
  - Details of the proposed plan for build out of the PSBN in the State
  - Funding levels for the State
- No later than 90 days after being notified by FirstNet each Governor must choose whether State will;
  - Participate in the deployment of the PSBN as proposed by FirstNet
  - Conduct its own deployment of a radio access network in the State
- Significant burden on States who decide to opt-out
- FCC will review and either approve or disapprove State opt-out plans

# Funding

- NTIA granted borrowing authority not to exceed \$2B for the build out of the PSBN and \$135M for State implementation planning
- NTIA borrows the initial funds from the Treasury prior to the deposit of spectrum auction proceeds into the Public Safety Trust Fund (PSTF)
- Order of PSTF funding priority
  - Repayment of borrowed \$2B
  - Repayment of borrowed \$135M
  - Build out of PSBN to \$7B less initial borrowed \$2B
  - Public Safety research and development \$100M
  - Deficit reduction \$20.4B
- PSTF funding targeted to begin in FY 2017 and run through FY 2022



# Implementation Grant Program

- \$135M available to assist State to identify and plan the most effective way to utilize and integrate with the nationwide PSBN
- Maine responded to the NTIA Request for Information associated with the State Implementation Planning Grant
- Funding for two phases:
  - Phase 1: initial planning, strategy, timeline. Prove that a state is 'resource capacity building' to ensure states are ready to have discussions with FirstNet
    - No data collection in Phase 1 because they want to use common templates
    - Phase 1 funding probably will be larger than Phase 2
  - Phase 2: to provide additional consultation w/FirstNet and data collection activities
  - Phase 1 likely to be formula based, Phase 2 might be competitive
  - Time frames undefined but probably Phase 1: 3 years, Phase 2: 2 years
  - A 20% state cash match requirement (possibly soft match, TBD)

# Likely State Implementation Tasks

## Phase 1

1. Governance (what worked/didn't, BB expertise available)
2. Procedures ensuring all Public Safety agencies represented; ensure rural funding
3. Outreach process
4. Identified all Public Safety users
5. MOUs for existing infrastructure use
6. Staffing plans to provide data
7. New Public Safety Broadband Comms Plan
8. Discuss coverage, user reqs, hardening & resiliency w/FirstNet

## Phase 2

1. 'Supplemental data collection' presumed to be:
  - coverage & data capacity requirements
  - asset inventory including backhaul
  - detailed user applications and operational needs assessment
  - target hazard identification
  - possible infrastructure that could be shared
2. Additional FirstNet consultation: presumably to discuss offered RAN design & RFP

# FirstNet Meeting

- Held on September 25<sup>th</sup> included the adoption of 10 resolutions and a network architect concept presentation
- Resolutions of interest
  - State and Local consultation process
  - Grant program consultation process
  - Public Safety Advisory Committee
    - Safecom: Dept Homeland Security, Office of Interoperability and Compatibility
- FirstNet Nationwide Network (FNN) presentation
  - Concept network relying on MNOs
  - FirstNet distributed core network consisting of
    - Enhanced Packet Core: switching, routing, scheduling
    - Service Delivery Platform: voice, messaging, location, Apps
  - Unclear how rural coverage will be met
  - Public comment period until November 1st

# Wrap Up

- Stay engaged as the process unfolds
  - Issuance of State Implementation Planning Grant funding availability
  - Formation of Public Safety Advisory Committee
- Communicate and inform local and county public safety entities
  - What are the PSBN and FirstNet
  - What they are not and set realistic expectations
- Identify benefits for Maine
  - Reduced wireless data costs
  - Enhanced coverage, bandwidth, capacity
  - Lever for application system access
  - Enhance public access to broadband
  - New partners and participants, e.g. commercial carriers, utilities