



# FirstNet™

## Vision for the Future

Regional Workshop

May 21, 2013



### Craig Farrill

Acting CTO

FirstNet Board Member

### Jeffrey D. Johnson, Chief (Ret.)

CEO Western Fire Chiefs Association

Acting Customer Advocacy Officer

FirstNet Board Member

# What We'll Cover

**VISION AND GUIDING PRINCIPLES**

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**LEARNING FROM PUBLIC SAFETY**

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**RESEARCH AND ANALYSIS**

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**PROJECT PHASES**

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**REALITY CHECK**

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**THE STATE & LOCAL CONSULTATION PROCESS**

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**CLOSE**

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# What is the vision of FirstNet?



# VISION

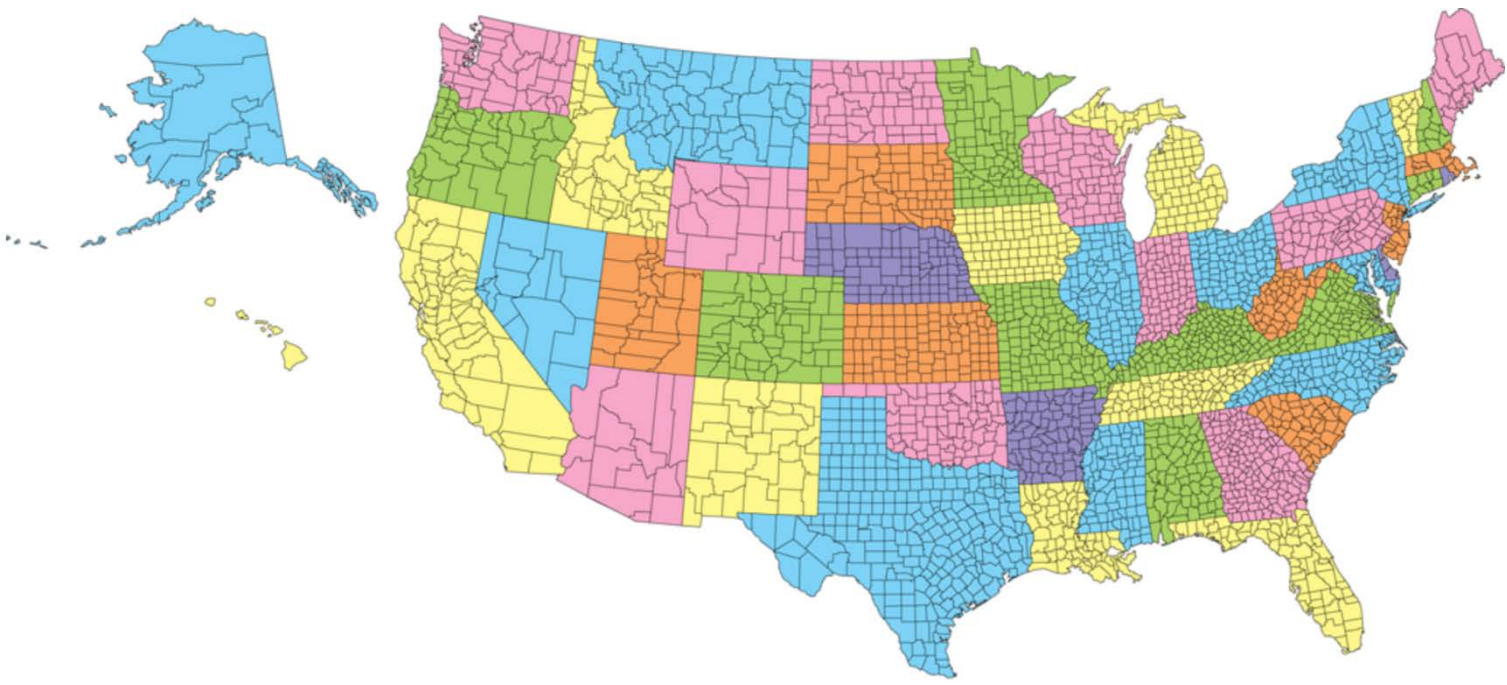
To provide emergency responders with the first nationwide, high-speed, wireless broadband network dedicated to public safety



**“FirstNet will be a force multiplier, enabling collaboration to help save more lives, solve more crimes and keep communities safer.”**

**Jeffrey D. Johnson, Chief (Ret.)**  
Chief Executive Officer — Western Fire Chiefs Association  
FirstNet Board Member

**FirstNet will work toward supporting first responders wherever their need is.**



That includes  
3,252 counties  
across 50 states and  
6 commonwealth/  
territories.



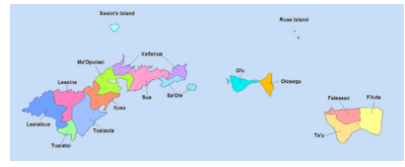
**DC**



**Puerto Rico**



**Virgin Islands**



**American Samoa**



**Guam**



**Northern  
Mariana  
Islands**

**FirstNet will provide dedicated spectrum, a single technology and funding to create a nationwide network dedicated to public safety.**



### **Public Safety Effectiveness**

- Dynamic Priority Access
  - Force Multiplier

### **Public Safety Grade**

- Reliable
- Hardened
- Redundant
- Security

### **Public Safety Applications**

- 4G data for video and web
- Non mission-critical voice

## 4G LTE: A Proven Next Generation Technology

- Fastest data speeds
- A bigger pipe
- Field-tested across the country
- Global technology standard
- Being adopted as a standard for public safety
- Non-mission critical voice



**“ First responders need a network they can rely on and trust to get the job done, even in the worst of circumstances. That’s what FirstNet will build. ”**

**Chuck Dowd**  
Assistant Chief of Police, New York City  
FirstNet Board Member

## FirstNet Will Augment LMR



- Public safety will rely on LMR for mission-critical voice for many years
- FirstNet can be co-located on existing LMR infrastructure
- Sharing infrastructure will keep costs down and enhance coverage
- Our goal is to allow voice to pass between the two networks



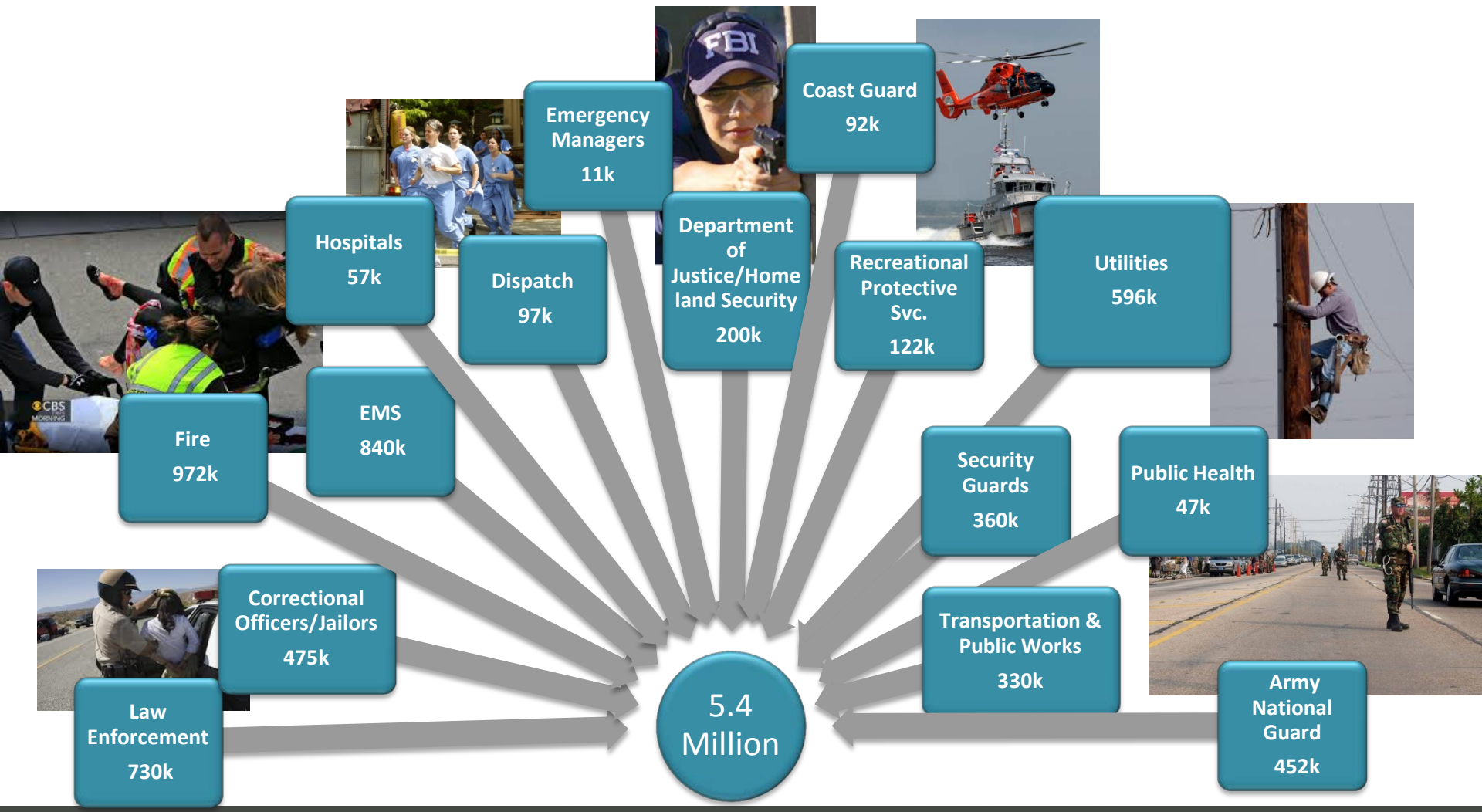
## What will it cost?



**“ FirstNet intends to offer public safety grade services at a cost that’s compelling to users. ”**

**— FirstNet Tenet**

# FirstNet has the potential to support a broadly defined set of public safety users.



# Our goal is to build a nationwide network.

- There are many unanswered questions. Each will get an answer over time, and we'll start down that path today.
- The purpose of this workshop is to start to learn about your needs and to share with you what we've been researching and thinking about.
- Let's get started...

# LEARNING FROM PUBLIC SAFETY

The Foundation of our Planning



# Public Safety Input To Date: More than 1,300 Requirements



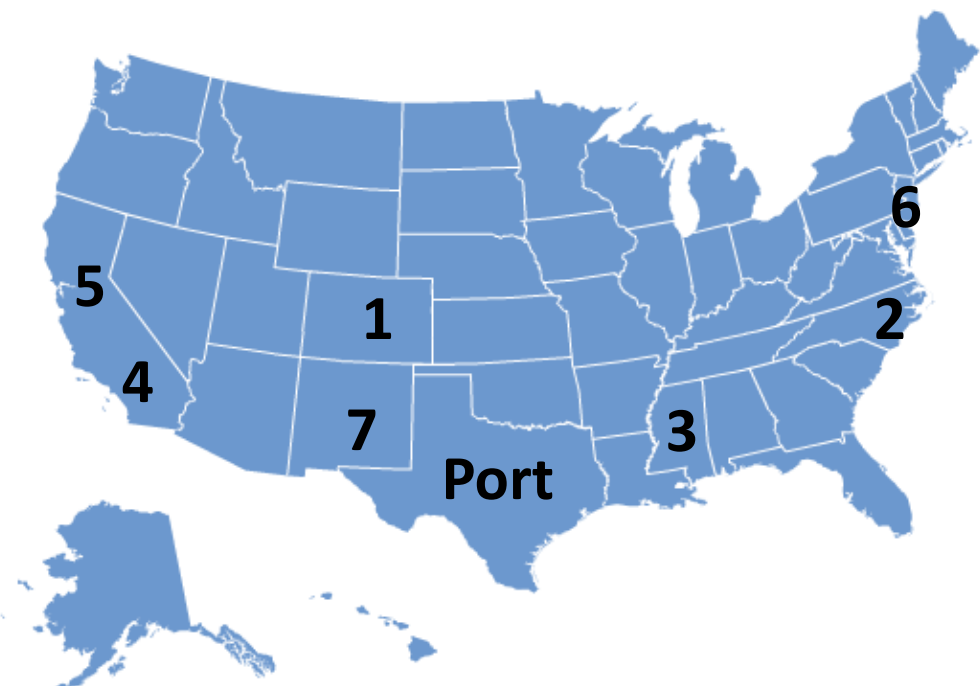
NPSTC Requirements	# of Req's
User Services	312
Network Services	209
Transport Requirements	154
System Design	66
User Equipment	60
Local Operations Support	157
Migration and Evolution	60
Governance	10
Policies and Procedures	94

FCC Minimum Interoperability Specifications	# of Req's
Requirements (Must)	46
Considerations (Should)	55
Interfaces (Architectural)	11
Recommended Interfaces Requirements	9

 **FirstNet** will:

- Build on the foundation of early work done by public safety groups
- Seek vendors who will meet or exceed these requirements
- Broaden the requirements to increase flexibility and decrease costs

# FirstNet Pilot Projects\* will provide broad learning opportunities.



\* Seven current BTOP projects, and Texas

BTOP Grantees
1. Adams County, CO
2. Charlotte, NC
3. Mississippi
4. LA-RICS (Los Angeles)
5. Bay-RICS (San Francisco)
6. New Jersey
7. New Mexico
Ports
Harris County, TX

- International interference
  - Operational issues
  - Applications

# Learning from Pilot Project Experiences

- Sites represent a substantial opportunity to demonstrate critical FirstNet functionality – starting in 2013.
- The FirstNet Board is negotiating a Spectrum Manager Lease Agreement (SMLA) with each of the seven BTOP grantees and recently authorized negotiations with Texas for the Harris County Project.
- FirstNet will work collaboratively with the pilot participants on “key learning areas” and share information with other projects, FirstNet and the public safety community.

# REALITY CHECK





# FirstNet exists to serve public safety.

## PERCEPTION

## REALITY



Public safety may have to give up autonomy and control.



FirstNet will be a nationwide platform; Public safety sets rules locally.

Public safety will lose management of devices, users and talk groups.



Public safety will maintain local management.

FirstNet will cost too much to build and operate.



FirstNet has substantial opportunities to partner to lower construction and operating costs.

States can use FirstNet spectrum to generate revenue.



Fees from the use of FirstNet spectrum must , by law, be reinvested to build, operate, maintain, and improve the network.

FirstNet will replace LMR networks.



FirstNet will augment LMR for many years.

FirstNet has already begun designing the network.



FirstNet is in the research and analysis phase and must have input from states and territories to design the network...let the workshop begin.



- Public safety fought for D-Block.
- Legislation was a victory born of that effort.
- It established a path for a dedicated network.
- It set up its own governance board with public safety.
  - Board members
  - PSAC

**FirstNet was created by public safety, for public safety.**

## Public Safety Advisory Committee (PSAC) activities



- 40+ member organization
- Executive Committee had a two-day briefing with FirstNet technical team in March
- Executive committee will meet monthly for updates with the General Manager
- Outreach for conferences
- Handling specific projects

# STATE & LOCAL CONSULTATION PROCESS

Input and Requirements



## Workshops are just the start.

FirstNet will continue to consult with the states, tribes, territories and localities until we have the information we need to develop state network build-out plans.

Activities	When
Nationwide, Regional Workshops	May – June 2013
Individual State Meetings	Beginning June 2013
Data Gathering	Commencing with Phase 2 SLIGP Funds Release



## Information and data needed.

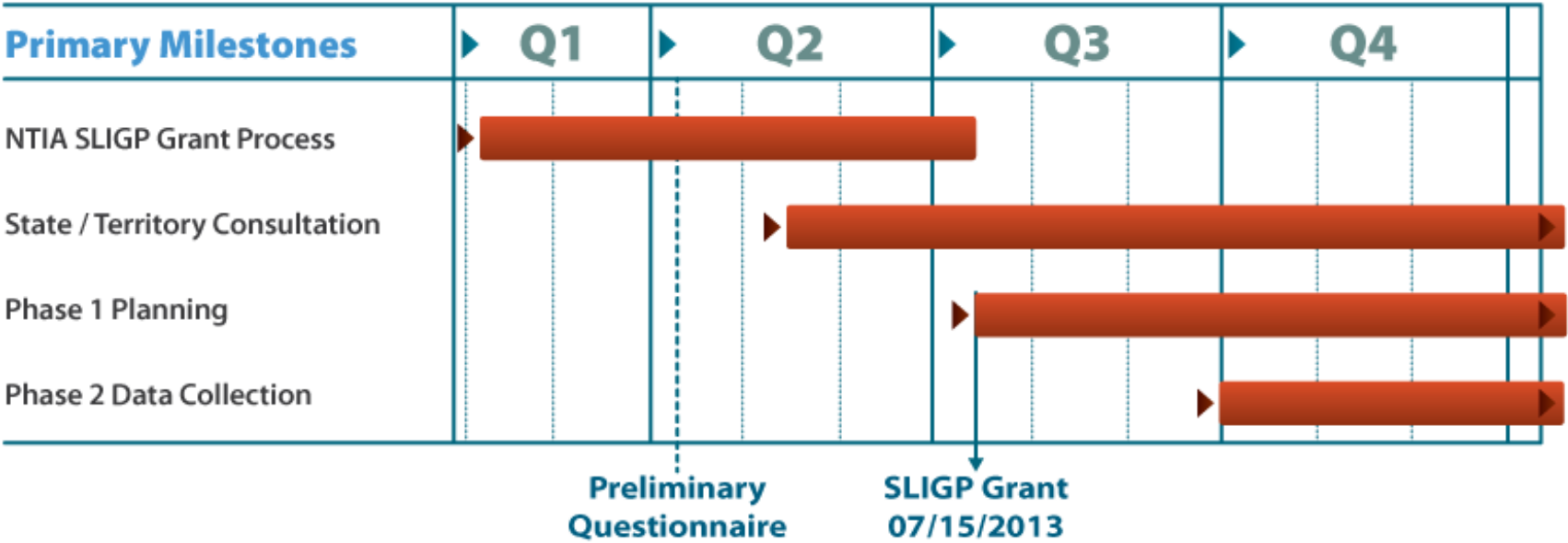
- **Only what's needed:** The data request will be structured to be as efficient as possible.
- **What is needed:** FirstNet requires input and requirements from state, local and tribal entities to prepare network plans for state review. Examples include:
  - Architecture of an evolved packet core and radio access network
  - Required coverage areas of the network
  - Hardening, security, reliability, and resiliency requirements
  - Assignment of priority users and selection of secondary users
  - Training needs
  - Availability of assets that may be utilized

## Resources and help.

- **Funding:** State and Local Implementation Grant Program (SLIGP) funds will enable states to plan and collect data for the nationwide public safety broadband network.
- **Ability to preview the data elements:** FirstNet will share preliminary data needs with workshop participants for state feedback. The FirstNet team will use these consultations to finalize a full data request supporting the formal SLIGP effort.
- **Time to prepare:** FirstNet anticipates releasing the full data request sometime during the summer of 2013.
- **Additional tools and support:** DHS Office of Emergency Communications has planning tools and some previously collected data that states can choose to use upon request.

2013

SLIGP Timeline (tentative)



- The SLIGP program runs for three years. FirstNet anticipates a significant amount of data will be collected early in the process.
- SLIGP Phase 2 is tentatively scheduled to start shortly after Phase 1.



# In the future, a vibrant developer community contributing useful apps for first responders.



- **TODAY:** work with developers to showcase existing and new apps
- **FUTURE**
  - All apps would be 100% vetted by FirstNet prior to availability
  - FirstNet will define new standards:
    - Performance
    - Security
    - Identity management, etc.
  - Work to build a developer community with expertise in public safety needs



# PROJECT PHASES

## Timeline and Gating Items

