FirstNet Deployment
Status of the Nationwide Public Safety Broadband Network
NTIA Webinar Series

Dial in to listen to the webinar
Conference Line: 800-593-7190 Passcode: 984-4951#

July 17, 2019
Participants

Presenters

• Dave Buchanan, Executive Director of Public Safety Advocacy, FirstNet

• Doug Clark, Assistant Vice President, FirstNet Program, AT&T Public Safety Solutions

• Chris Denney, Division Chief, Southern Platte Fire Protection District, Kansas City, MO

Moderator

• Scott Woods, Manager of Technical Assistance, BroadbandUSA, NTIA
FirstNet: Our Nation’s Public Safety Network

Dave Buchanan, FirstNet Authority
Executive Director, Public Safety Advocacy

Wednesday, July 17, 2019
1. History, Partnership and Strategy
2. The Network: Developments and Technology
3. Public Safety Success Stories / Network Use Cases
4. Public Safety Engagement
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>9/11 attacks</td>
<td>Radio communication challenges affect first responders</td>
</tr>
<tr>
<td>2004</td>
<td>9/11 Commission</td>
<td>• Recommends national radio spectrum for public safety purposes&lt;br&gt;• Public safety unites to advocate for nationwide broadband network</td>
</tr>
<tr>
<td>2012</td>
<td>The First Responder Network Authority</td>
<td>Independent agency to deploy Nationwide Public Safety Broadband Network</td>
</tr>
<tr>
<td>2012-16</td>
<td>Outreach and Consultation</td>
<td>• Governors identify FirstNet single points of contact&lt;br&gt;• Consultation in all 56 states/territories&lt;br&gt;• FirstNet works with states to collect and validate users and coverage data</td>
</tr>
<tr>
<td>2016-17</td>
<td>Partnership and State Plans</td>
<td>• Network RFP released&lt;br&gt;• Award to AT&amp;T&lt;br&gt;• Delivery of 56 state/territory plans&lt;br&gt;• 56 Governors Opt-In decisions</td>
</tr>
<tr>
<td>2018-beyond</td>
<td>Advancing the FirstNet Experience</td>
<td>• Engage and collaborate with public safety and industry&lt;br&gt;• Develop and promote Public Safety Communications roadmap&lt;br&gt;• Invest in the network</td>
</tr>
</tbody>
</table>
An Innovative Public-Private Partnership

First Responder Network Authority

• Partner oversight and support
• Public safety advocate
• Technical expertise
• Innovation strategy and investment

AT&T

• Nationwide core
• RAN build-out
• Adoption and customer care (24x7x365)
• Security operations center
• Mission-critical services
• App and device ecosystems
FirstNet: Transforming Public Safety Communications

FirstNet - Dedicated to Excellent Customer Experience (CX)

MODERNIZED
- Innovative apps and large devices ecosystem
- Network improvements and upgrades over 25 years
- Multi-layered, proven, cybersecurity and network security solutions

PRIORITIZED
- Emergency communications receive highest Quality
- Priority & Preemption
- Rapid deployment of network
- Instant nationwide coverage leveraging existing infrastructure

SPECIALIZED
- Nationwide coverage with access to deployables
- Aggressive pricing for public safety
- Dedicated 24/7/365 public safety helpdesk

PUBLIC SAFETY
- Police, Fire, EMS, 911, others

COMMUNITIES
- Counties, Cities, Tribal, Rural

THE NATION
- 50 states
- 5 territories & DC
The Roadmap expresses how the FirstNet Authority will work to advance the FirstNet network over a multiyear horizon.

- Provides a **technology framework** to understand all of the components and capabilities of the FirstNet Experience.
- Reflects **public safety’s feedback** and needs based on a multitude of Roadmap engagements with the public safety community.
- Incorporates **analysis** of industry trends and drivers as well as AT&T’s roadmap for the Network.
- Identifies the **priorities that will guide investments** and other opportunities based on FirstNet Authority analysis.
# First Responder Network Authority Roadmap Domains

## Core
- EPC
- IMS Core
- Services Platforms
- App Servers
- Service Enablers

## Coverage & Capacity
- Macro Coverage
- Capacity
- In-building Solutions
- Temporary/On-Demand Coverage
- Range Extension
- Device-to-Device
- Air-to-Ground
- Maritime Operations
- Availability/Reliability/Resiliency/Hardening

## Situational Awareness
- Location Services
- Sensors
- Wearables
- Cameras/Video
- Mapping/Geographic Information System (GIS)
- Data Analytics/Artificial Intelligence

## Voice Communications
- Mission Critical Push-to-talk (MCPTT)
- PTT Interworking

## Secure Information Exchange
- Data Access
- Data Sharing
- Cybersecurity
- Identity, Credential and Access Management (ICAM)/Single Sign-On

## User Experience
- Priority Services
- Applications
- Devices
- Accessories
- Hands Free Operations
- Augmented Virtual Reality
- Heads-Up Display
FirstNet Authority Roadmap Process

- Reviewed existing public safety-focused reports, analysis, roadmaps
- Convened subject matter experts
- Identified high-level domains and Roadmap framework
- Solicit public safety feedback and input
- Draft/update Roadmap document
- Identify opportunities
- Continue NPSBN development for public safety
- Continue NPSBN development for public safety
VISION: Create a dedicated and differentiated broadband communications experience that transforms public safety operations to save lives
1. History, Partnership and Strategy

2. The Network: Developments and Technology

3. Public Safety Success Stories/Network Use Cases

4. Public Safety Engagement
FirstNet Network Status

**600K+ FirstNet connections**

**7,250+ Public safety agencies signed**

**75 Deployable network assets, including 3 Flying COWs**

**25% Faster\(^1\) than any commercial network**

**50%+ Band 14 coverage completion; well ahead of schedule**

**Markets**
- 600+
- Band 14
- U.S. Virgin Islands
- Puerto Rico
- Northern Mariana Islands
- American Samoa
- Guam
- Hawaii
- Alaska
Deployables

- **75 FirstNet-dedicated** deployable assets available nationwide

- **Subscribing agencies can request at no cost** to support scenarios, from disasters, to critical incidents and planned events

- **Service includes** all expenses directly associated with FirstNet deployables are included, at no cost to public safety
• Achieving rich, diverse user device portfolio
• Band 14 adoption ramping up, with FirstNet Ready device announcements
• Inclusive of public safety focused Internet of Things (IoT) devices and accessories
• SIM/UICC available and connect users to dedicated FirstNet Core
• See latest available devices at FirstNet.com/devices

*This slide does not constitute an endorsement by FirstNet Authority of any product or service, organization or company.*
App Catalog for FirstNet


All Applications listed in the FirstNet catalog have been scanned for malware and severe security vulnerabilities to better protect the public safety community. Certified apps have passed more stringent security assessment. Learn more.

*This slide does not constitute an endorsement by FirstNet Authority of any product or service, organization or company.
Security

- **Dedicated** Security Operations Center (SOC) for FirstNet subscribers
- **Coordinates** with AT&T’s Global Network Operations Center (GNOC)
- **24x7x365** situational awareness
Service Plans and Customer Care

Service plans
- Agency- or subscriber-paid
- Flexible
  - Unlimited plans pooled
  - Smartphones or data-only
  - Machine-to-machine options
- Multiple contract options
  - NASPO
  - NPPGov
  - GSA Schedule 70
  - Custom Government

Customer care
- 24x7x365 technical support
- Single phone number
- Chat and email available
- U.S.-based public safety-specific reps
- Training available
1. History, Partnership and Strategy
2. The Network: Developments and Technology
3. Public Safety Success Stories/Network Use Cases
4. Public Safety Engagement
“Because of the variety of local and state responders from a variety of counties to support this large special event, we needed to find something to support that. Having [FirstNet] available early on and knowing that capability existed in the planning process was really instrumental in the success of the event.”

— Brad Thatcher, Director of Response, Indiana Department of Homeland Security
101 Storyline

1. History, Partnership and Strategy
2. The Network: Developments and Technology
3. Public Safety Success Stories/Network Use Cases
4. Public Safety Engagement
<table>
<thead>
<tr>
<th>UNDERSTAND</th>
<th>COLLABORATE</th>
<th>TRANSFORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage, understand, and analyze public safety operational needs and opportunities</td>
<td>Include public safety, industry, government, and AT&amp;T to determine the priorities we will address through the Roadmap and other efforts</td>
<td>Assist public safety in its adoption and use of FirstNet so that it realizes the advantages and benefits offered by the network</td>
</tr>
</tbody>
</table>
Chris Denney
Division Chief
Southern Platte Fire Protection District
Kansas City, MO
Public Safety Broadband Network – Key Capabilities

Push-to-Talk

Local Control

Land Mobile Radio – LTE
Helpful Information

Questions
• Please type questions and comments in the question box on the right hand side of the screen. Questions will be taken after the final presenter.

Presentation
• The presentation along with a transcript and an audio recording will be available on the BroadbandUSA website within 7 days of this webinar under Events/Past Events.
  • https://broadbandusa.ntia.doc.gov/past-event

Technical Assistance
• Guides, products, publications, and other tools are available to assist you with the planning, funding and implementation of your broadband project.
  • https://broadbandusa.ntia.doc.gov

*To listen to the webinar: Conference Line: 800-593-7190 Passcode: 984-4951#
FirstNet Deployment
Status of the Nationwide Public Safety Broadband Network

Questions and Answers

• Please type your questions in the question box.

• The slides, transcript, and an audio recording will be posted on the BroadbandUSA website within 7 days of the webinar.

https://broadbandusa.ntia.doc.gov/past-event
Thank you for attending.
Tune in for the next Practical Conversations Webinar

The Digital Economy: Measuring the Economic Impact of Broadband
September 18, 2019
2:00 pm EST

Registration is required for each webinar:
https://broadbandusa.ntia.doc.gov/event
BroadbandUSA is available to help communities with their broadband access and digital inclusion efforts

For General Information:

202-482-2048

broadbandusa@ntia.gov

https://broadbandusa.ntia.doc.gov/resources

To Request Technical Assistance (TA):

Broadband TA Request Form - https://broadbandusa.ntia.doc.gov/ntia-common-content/how-we-can-help

BBUSA Resources

- Implementing a Broadband Network Vision: A Toolkit for Local and Tribal Governments
- Community Broadband Roadmap Toolkit
- Guide to Federal Funding of Broadband Projects
- Using Partnerships to Power Smart Cities