

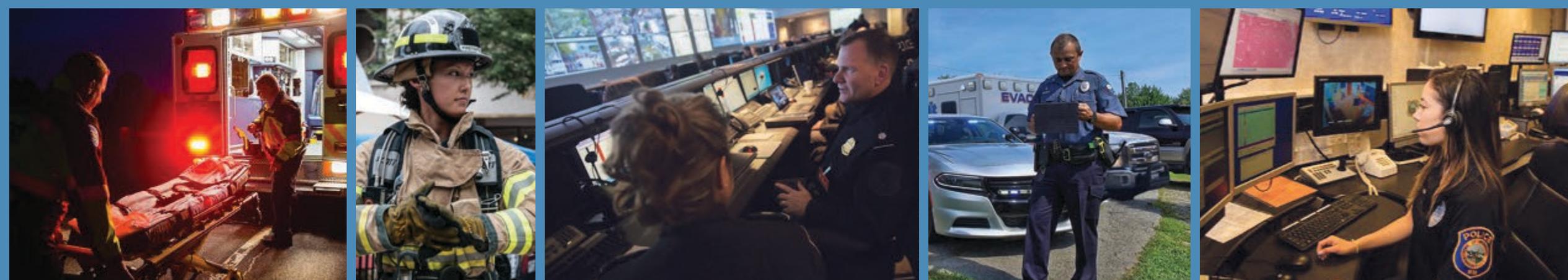


FirstNet: Our Nation's Public Safety Network

Jacque Miller-Waring

Public Safety Advocacy

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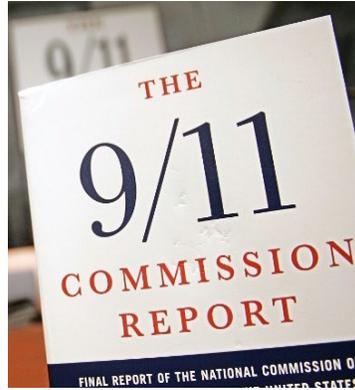


The FirstNet Journey



2001 9/11 attacks

Radio communication challenges affect first responders



2004 9/11 Commission

- Recommends national radio spectrum for public safety purposes
- Public safety unites to advocate for nationwide broadband network



2012 The First Responder Network Authority

Independent agency to deploy Nationwide Public Safety Broadband Network



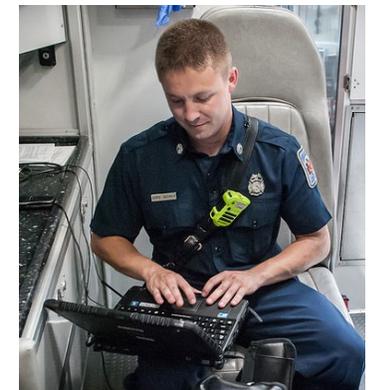
2012-16 Outreach and Consultation

- Governors identify FirstNet single points of contact
- Consultation in all 56 states/territories
- FirstNet works with states to collect and validate users and coverage data



2016-17 Partnership and State Plans

- Network RFP released
- Award to AT&T
- Delivery of 56 state/territory plans
- 56 Governors Opt-In decisions



2018-beyond Advancing the FirstNet Experience

- Engage and collaborate with public safety and industry
- Develop and promote Public Safety Communications roadmap
- Invest in the network

Strategy: Aligning and Guiding Our Efforts for Public Safety



STRATEGIC GOAL

Deploy, maintain, and operate a nationwide public safety broadband network

MISSION

We are a catalyst for advancing the nationwide public safety broadband network

VISION

Create a dedicated and differentiated broadband communications experience that transforms public safety operations to save lives

- **Guides our actions now through 2022 so we're aligned/able to meet our mission for public safety**
- **Metrics-based so we can validate we're meeting our goals**
- **Living document gives direction and structure, while encouraging growth, change, and collaboration**

Strategic Objectives



POSITIVE SENTIMENT

Engage, learn from, support, and advocate for the **public safety community** so that they benefit from the FirstNet Experience, convey a **positive sentiment**, and are champions of our efforts



SUCCESSFUL PARTNERSHIP PERFORMANCE

Oversee the management of a **successful partnership with AT&T** centered on two pillars – fulfilling the contractual objectives and improving the FirstNet Solution through value-adding activities that enhance the FirstNet Experience



RECOGNIZED DIFFERENTIATION

Create a **differentiated experience** for public safety by **fostering an ecosystem** and **investing resources** that advances the FirstNet Experience



FIRST RESPONDER NETWORK AUTHORITY ENABLEMENT

Work within the First Responder Network Authority and **across government to integrate the FirstNet Experience** and public safety- and broadband-related federal initiatives



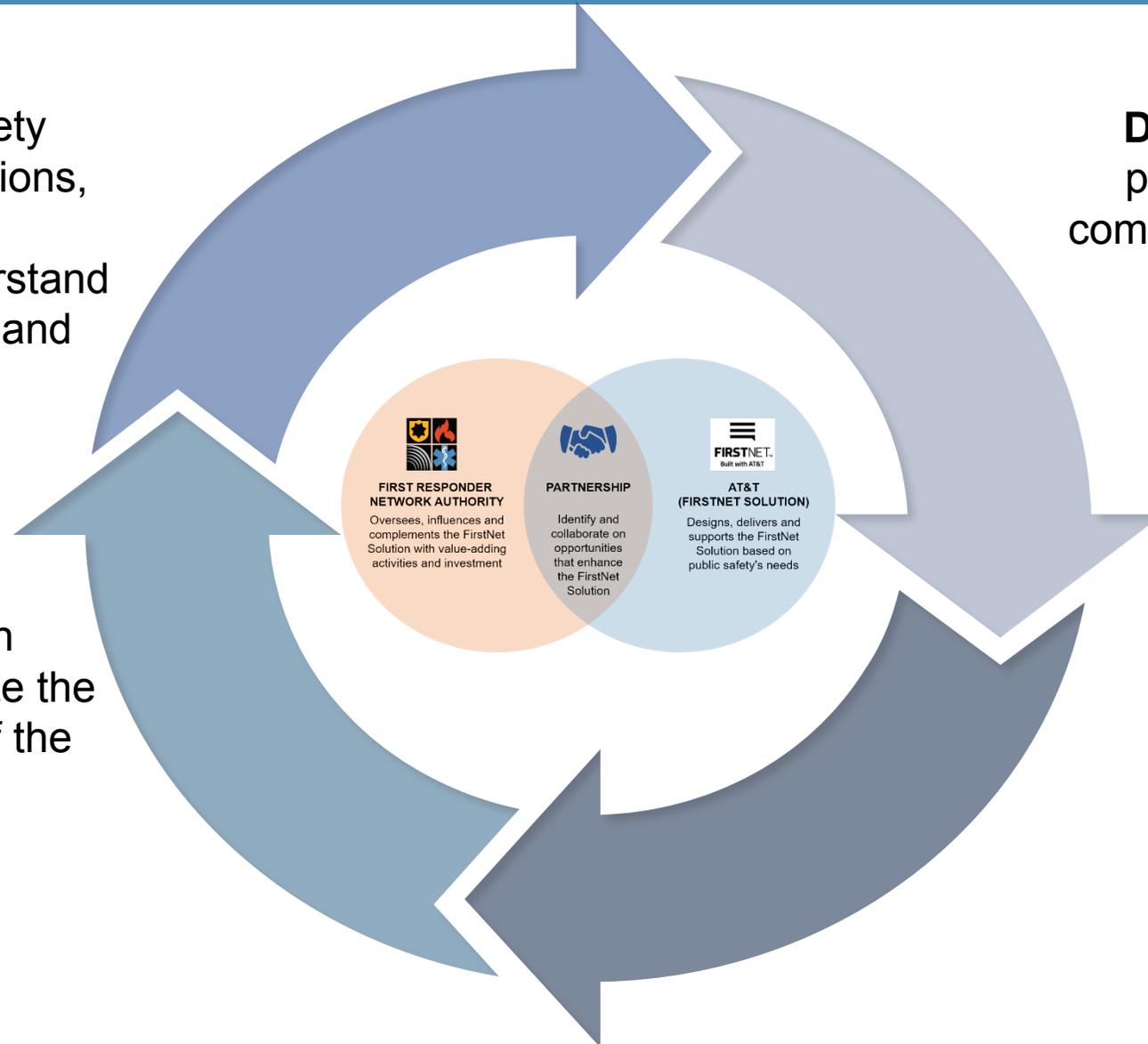
ORGANIZATIONAL EFFECTIVENESS

Sustain the First Responder Network Authority organization and **enable a culture positioned and empowered to achieve our mission**

Advancing the FirstNet Experience

ENGAGE public safety entities and associations, PSAC, industry, and government to understand their trends, drivers, and priorities

COLLABORATE with public safety to realize the operational benefit of the FirstNet Experience



DEVELOP and promote public safety broadband communications roadmaps that reflect the voice of public safety

INVEST in the network to further a differentiated FirstNet Experience



Initial Consultation/Data Collection

Gathered critical public safety input which led to the RFP process



State Plans

Consulted with states and territories to ensure state plans reflected public safety input and needs

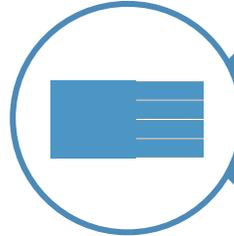


FirstNet Authority Roadmap

Collecting input to ensure roadmap for future development and investment reflects public safety's voice

First Responder Network Authority Roadmap Overview

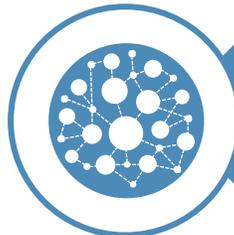
The Roadmap expresses how the FirstNet Authority will work to advance the FirstNet network over a multiyear horizon.



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

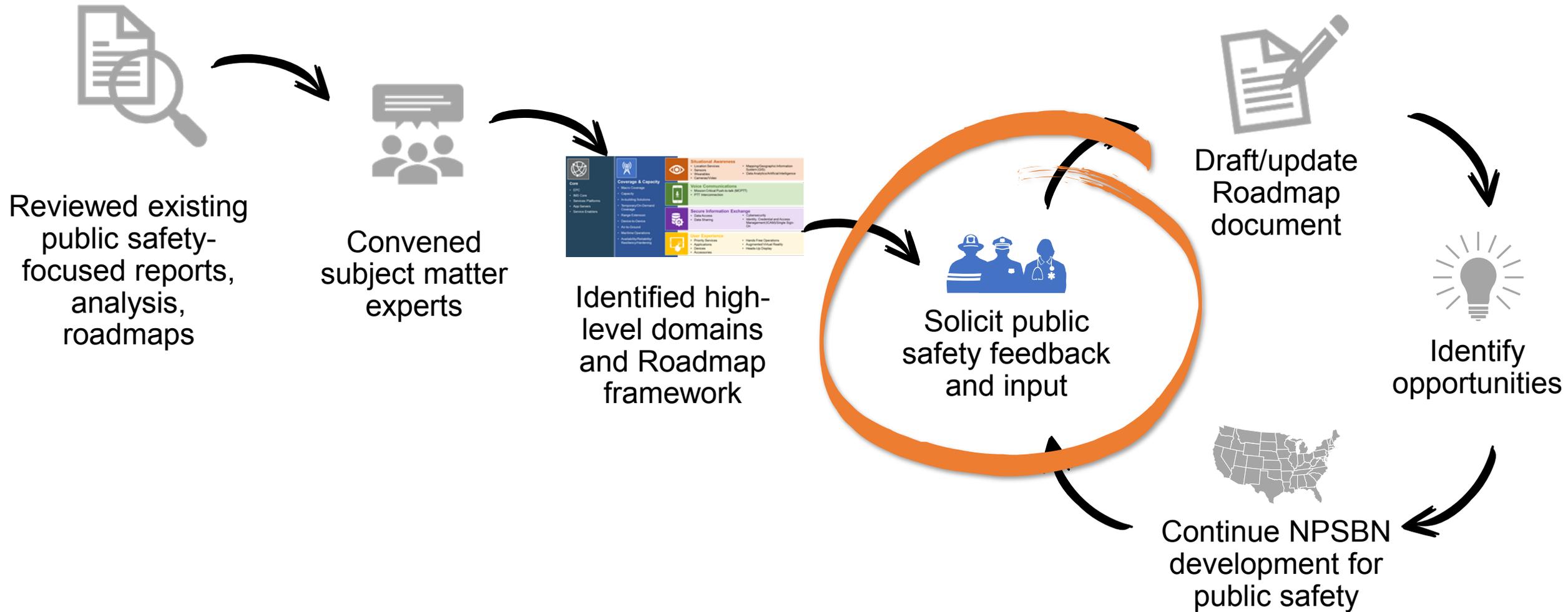


Incorporates ***analysis*** of industry trends and drivers as well as AT&T's roadmap for the Network



Identifies the ***priorities that will guide investments*** and other opportunities based on FirstNet Authority analysis

FirstNet Authority Roadmap Process



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 Interconnection



Secure Information Exchange

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

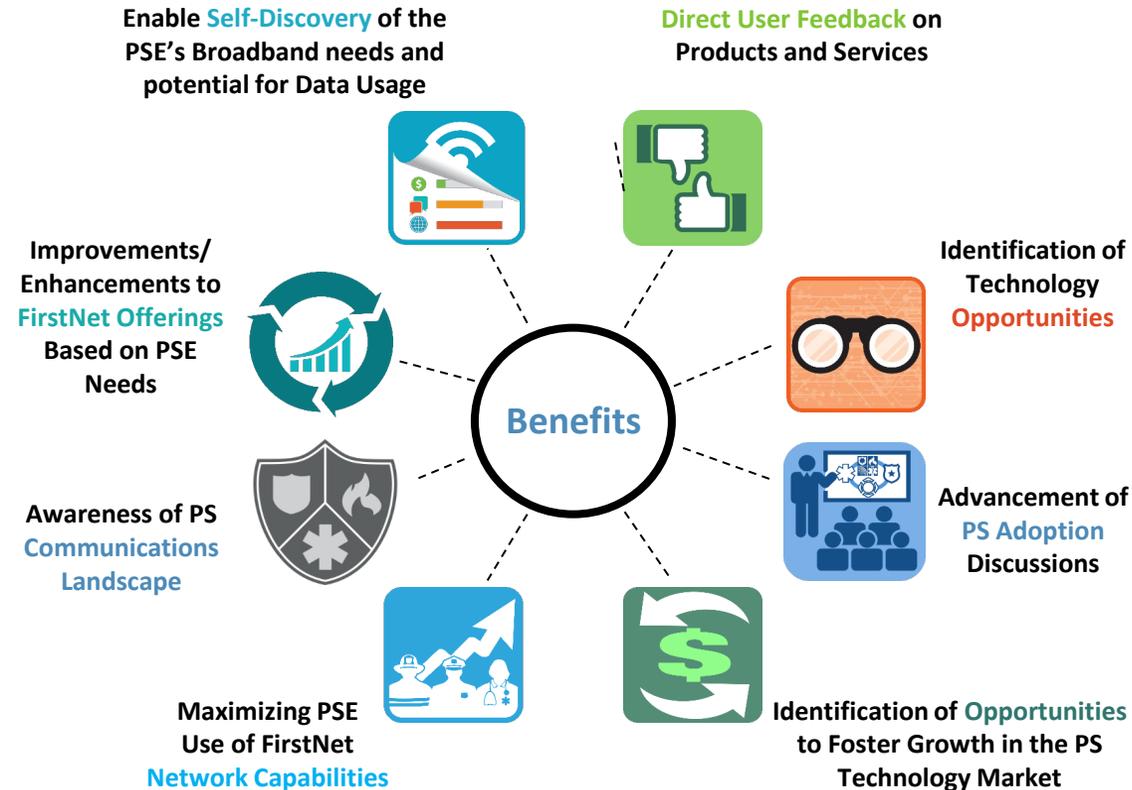


User Experience

- Priority Services
- Applications
- Devices
- Accessories
- Hands Free Operations
- Augmented Virtual Reality
- Heads-Up Display



Benefits of Scenario and Agency Broadband Engagements



PSAC in 2019



PSAC Strike Teams

- Provide input on quick-turnaround timeline on specific/nuanced operational or technical subject
- Small group of PSAC members with expertise, in addition to the Executive Committee, to participate on each strike team
- Short intensive meetings to validate findings, provide guidance and develop recommendations



Tribal Working Group

- Continue to advise First Responder Network Authority and AT&T on successful tribal engagement strategies
- Support execution of tribal consultation
- Monthly teleconferences
- February 2019 in-person meeting, Tennessee



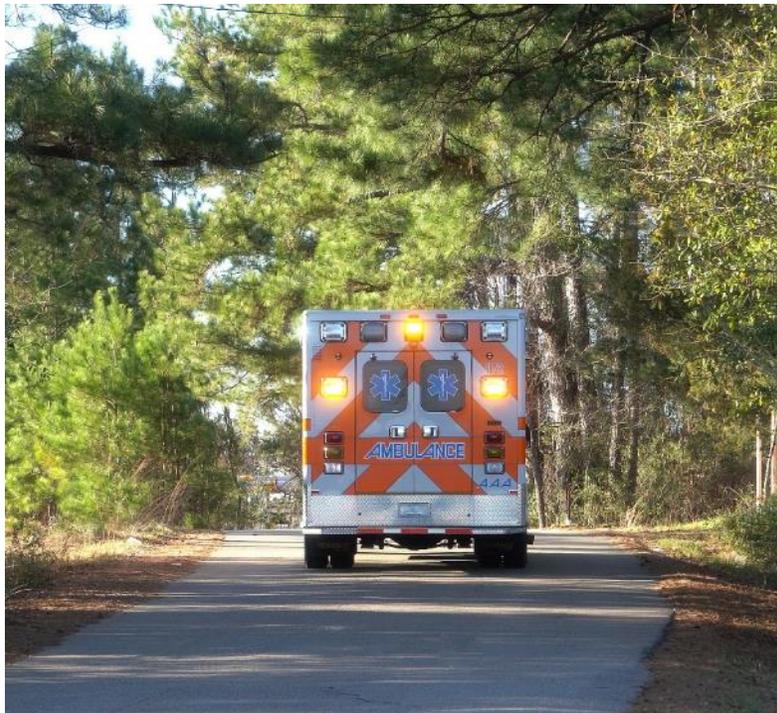
Webinar Series

- Continue monthly webinar series in 2019 to support/validate network products/services
- Seek input from PSAC members and feedback from public safety association engagement strategy on future topics

Vision to Reality: A Catalyst for Public Safety Communications



VISION: Create a dedicated and differentiated broadband communications experience that transforms public safety operations to save lives



PUBLIC SAFETY'S NEEDS

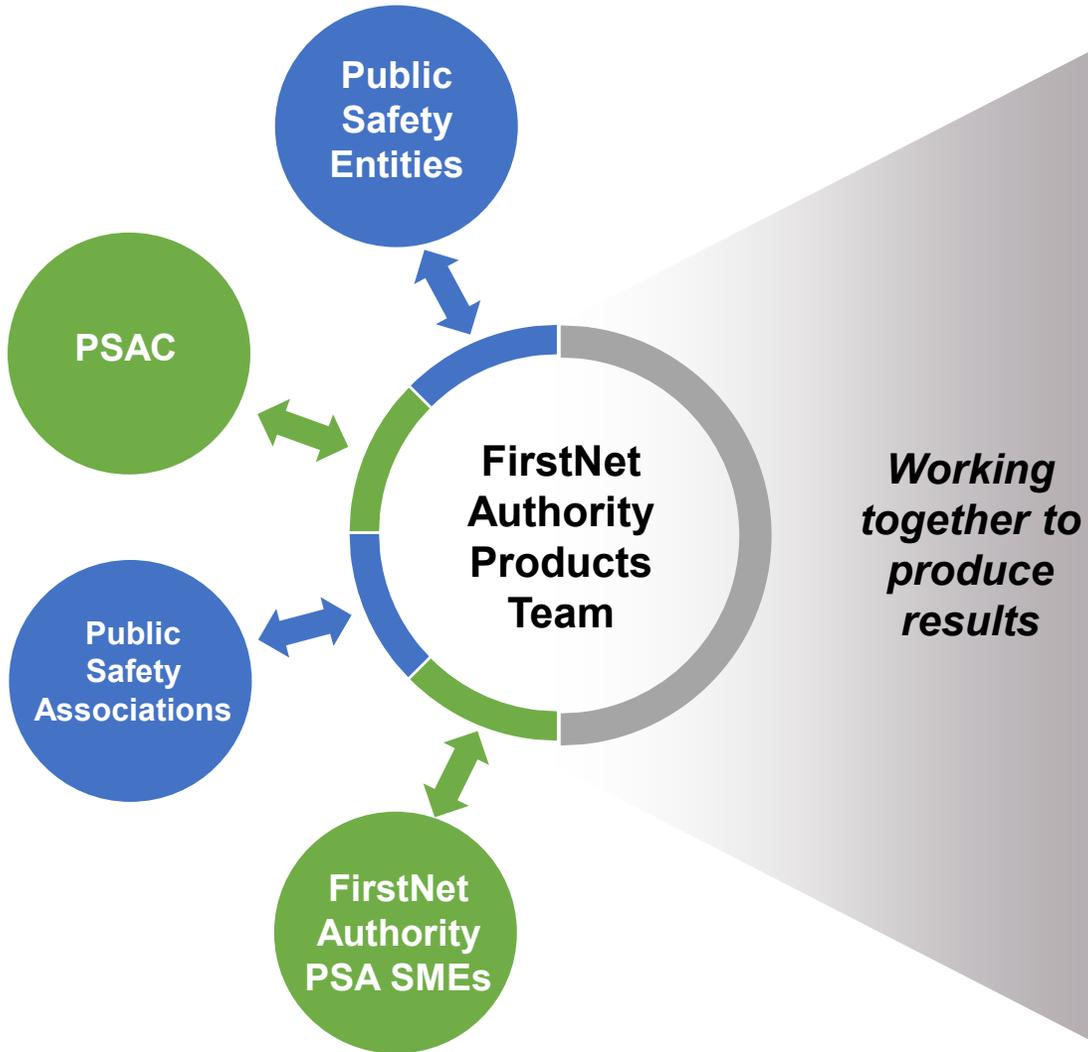


ROADMAP



INVESTMENT

First Responder Network Authority Products Team



FirstNet: for public safety, by public safety

Service Plans & Procurement 	Coverage 	Devices 	Basic Services
FirstPriority™ 	ICAM 	App Catalog 	Local Control
Public Safety Home Page 	App Developer Program 	Solutions 	In-building Solutions
Deployables 	Training 	Customer Care 	Cybersecurity

FirstNet Innovation & Test Lab

Network Services | Technologies |
Devices & Applications





FirstNet Authority Roadmap Domains



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 Interconnection



Secure Information Exchange

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



User Experience

- Priority Services
- Applications
- Devices
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Relevant Technologies

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

Discussion

- As we work to fill coverage gaps in today's network, what factors should we consider or weigh to prioritize our decisions?
- How do you operationally handle or work around coverage gaps today?
- In procurement decisions, how do you weigh coverage relative to other network features or benefits?

Domain Definition

Presence of NPSBN within a given geography with sufficient capacity for public safety to perform duties



Domain Definition

Ability to aggregate and synthesize data in real-time from multiple sources (e.g., human, machine, sensors) and present actionable insights to the public safety on the NPSBN

Relevant Technologies

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

Discussion

- What does “situational awareness” mean to your organization?
- Name the single most important piece of situational awareness data to you or your agency.
- Aside from smart phones, what types of LTE technologies do you issue to your field personnel?
- Aside from responders and vehicles, what other types of things do you consistently need to track the location of?



Domain Definition

Ability for public safety to verbally communicate with one another across agencies, jurisdictions and platforms (e.g., VoIP, LMR)

Relevant Technologies

- MCPTT
- PTT Interconnection

Discussion

- When can you envision your organization incorporating PTT over LTE into your operations?
- How do you anticipate incorporating PTT over LTE into your operations – ranging from not at all to a replacement for LMR?
- What features of PTT over LTE are most important to your organization when it comes to adoption/ procurement decisions?



Domain Definition

Ability to access, exchange, and manage data securely and conveniently within/across public safety agencies and jurisdictions

Relevant Technologies

- Data Access
- Data Sharing/ Data Interoperability
- Information Security and Cybersecurity Features
- Identity, Credential and Access Management (ICAM)/Single Sign-On

Discussion

- If you're in the field responding to a call, name a database or source(s) of information that you would want to be able to access from your mobile device.
- Who is it most critical for you to share data with? When and how do you facilitate that today?
- How do you balance information and cyber security with other mission needs and investments?



Domain Definition

Tailoring of NPSBN capabilities, features, devices, and applications to public safety needs and requirements

Relevant Technologies

- Priority Services
- Applications
- Devices
- Accessories
- Hands Free Operations
- Augmented Virtual Reality
- Heads-Up Display

Discussion

- In what ways do you use broadband communications on a daily basis?
- Have you had recent experiences where prioritized services have impacted the way you have been able to operate on the network?
- What are the top three things that drive decision making on purchase of given device or app?

