

The Convergence of Public Safety and Commercial Wireless Systems

WELCOME
NJWA/NYSWA
Webinar Series
Session 4



David Cook
FirstNet Authority



Mariano Aguirre
Motorola Solutions

Some Notes Before We Start

- Please ask all questions via the **Zoom Control Panel** on the bottom of your screen
- Today's presentation slides will be emailed to all attendees
- If you would like more information about this topic, please visit:
nyswa.org or newjerseywireless.org

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Upcoming Events

NJWA

5/5/21: Cinco De Mayo
Networking Event
Top Golf in Edison, NJ

6/8/21: Golf Outing:
Forsgate Country Club

NYSWA:

10/21/21: Wireless Forum
Saratoga Springs, NY

The Convergence of Public Safety and Commercial Wireless Systems



David Cook
FirstNet Authority



Mariano Aguirre
Motorola Solutions



FirstNet

Our Nation's Public Safety Broadband Network

David Cook
Senior Public Safety Advisor

April 13, 2021



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 FirstNet Authority Established

- Independent agency to deploy Nationwide Public Safety Broadband Network



2012–16 Initial Outreach and Consultation

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



2016–17 Partnership and State Plans Created

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



2018–19 Network Deployment Begins

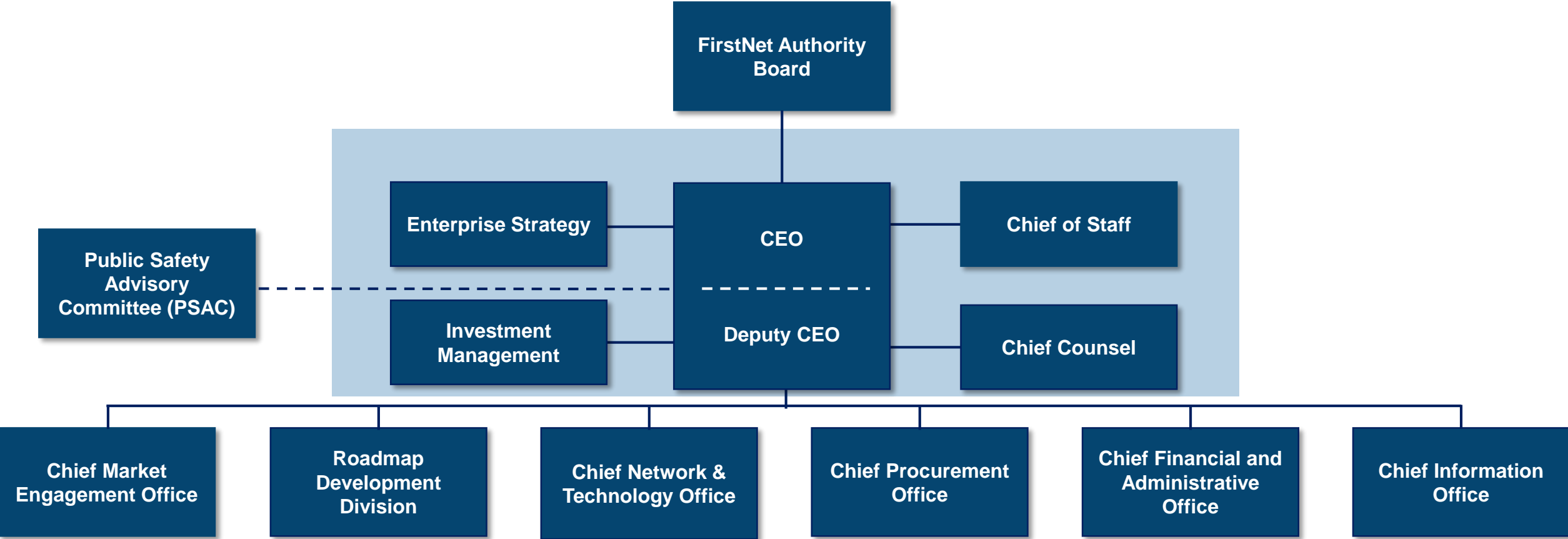
- FirstNet core launched
- Band 14 buildout nationwide
- Roadmap released to advance FirstNet, guide future investments



2020 and beyond Roadmap and Investments

- Engage and collaborate with public safety and industry
- Execute the FirstNet Authority Roadmap
- Invest in the network
- Continue Band 14 buildout

FirstNet Organizational Structure & Leadership Team



The First Responder Network Authority FirstNet Board is a team of highly-skilled, highly motivated individuals with a cross-section of expertise who are committed to making the nationwide public safety broadband network a success. The FirstNet Board was established as part of the Middle Class Tax Relief and Job Creation Act of 2012.



Robert T.
Osterthaler



Chief Richard
Carrizzo



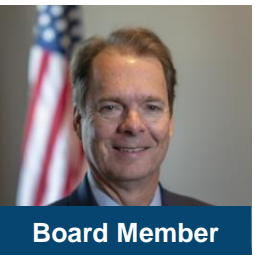
Welton
Chase Jr.



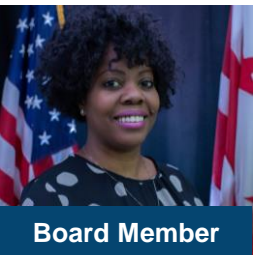
Neil E.
Cox



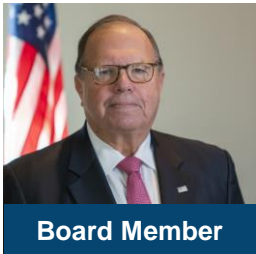
Brian
Crawford



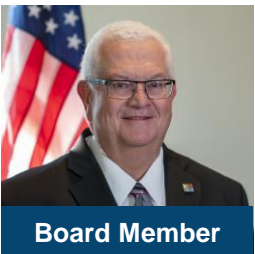
Mayor Billy
Hewes



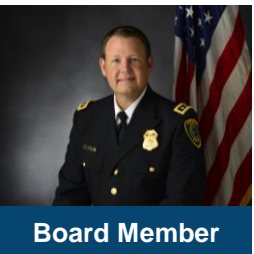
Karima
Holmes



Edward
Horowitz



Paul R.
Patrick



Chief Matt
Slinkard



David
Zolet



Darrin E.
Jones



Billy Bob
Brown, Jr.



The PSAC provides subject matter expertise on concepts, policies, procedures, technologies, and operational methods developed in support of the FirstNet network. Its perspective helps ensure necessary operational constructs are met for critical first responder communications.

- 44-member committee with public safety and state/local/tribal representatives and non-traditional first responders
- Led by seven-member Executive Committee
- Bi-monthly webinars on essential topics related to network, products, and devices, plus in-person meeting(s) each year
- Operates Tribal Working Group to provide advice on tribal outreach, education and consultation

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 Authority

The First Responder Network Authority is responsible for overseeing the creation and delivery of FirstNet – the nationwide public safety broadband network. An independent entity within the Department of Commerce’s NTIA, the FirstNet Authority ensures AT&T delivers on the terms of its contract and deploys a network that meets the needs of public safety now and into the future.

FirstNet: The Network

FirstNet is a nationwide wireless broadband network for first responders being built and deployed across all 50 states, 5 U.S. territories and the District of Columbia. FirstNet offers public safety a communications network built and customized to meet their needs.

AT&T

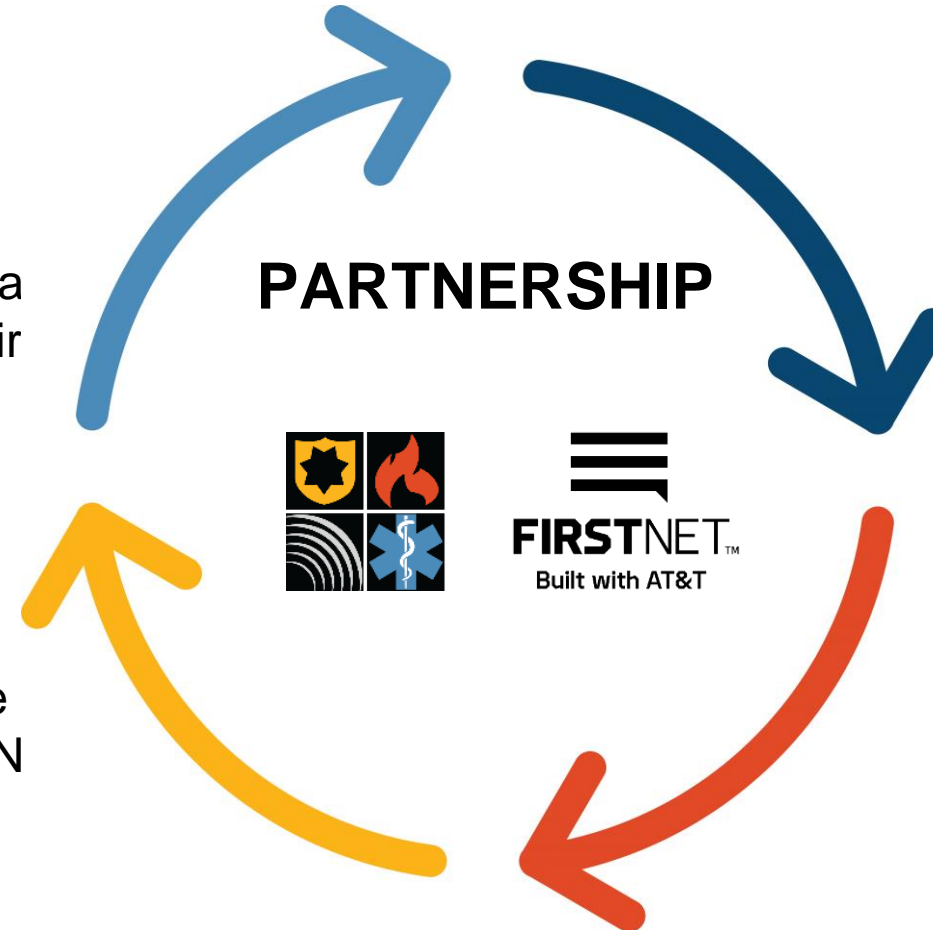
AT&T is responsible for building, operating, deploying, and maintaining the FirstNet network in accordance with a 25-year contract with the FirstNet Authority. As part of this agreement, AT&T gains access to 20 MHz of federally owned spectrum and \$6.5 billion in initial funding, and it will invest about \$40 billion over the life of the contract to establish the network.

ENGAGE

public safety entities and associations, PSAC, industry, a 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



CORE

- Generational Updates (e.g., 4G to 5G)
- Priority and Preemption, including Uplift on 5G
- Mission Critical Services Platforms and Enablers on 5G
- Network Security on 5G



COVERAGE

- Outdoor Coverage Expansion
- Indoor Coverage Expansion
- Unique Coverage Solutions Advancement



SITUATIONAL AWARENESS

- Locate and Present Personnel Location
- Location Services Integration



VOICE COMMUNICATIONS

- Operationalize FirstNet Push-to-Talk
- Active Role in Standards
- Critical Features



SECURE INFORMATION EXCHANGE

- Database Integration
- Application Integration



USER EXPERIENCE

- Mission-Enabling Applications
- Mission-Capable Devices

Deliver Payloads

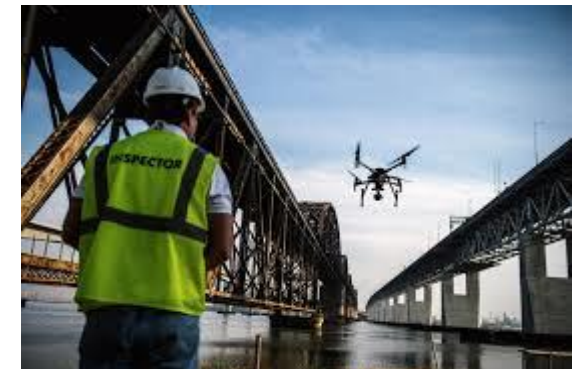


Eye in the sky



Firefighting

Artificial Intelligence



Built in Collision Avoidance



Inside steel trusses



Inside a forest

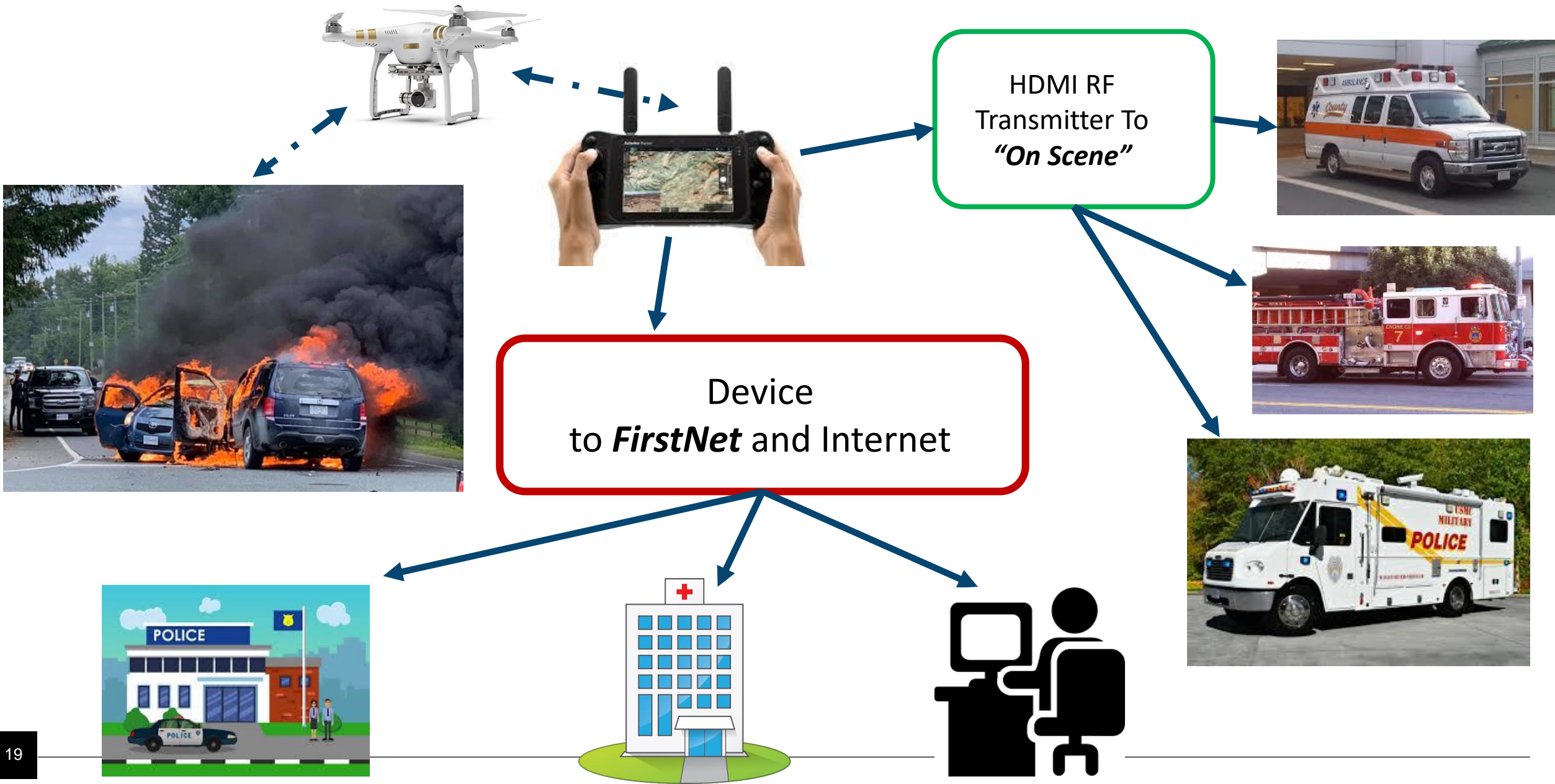


Track Moving Objects

Inside a structure



Drone Communications



CARRIER OVERVIEW

- **What is QPP?**
 - **Quality of Service, Priority and Preemption**
- **FirstNet Band 14**
- **Verizon Public Safety Details**
- **Device QPP**
- **Application QPP**

APX NEXT

- All-band radio
- Analog and P25
- FDMA and TDMA
- Public Safety LTE
- Wi-Fi
- Bluetooth 5.0
- NFC (future)

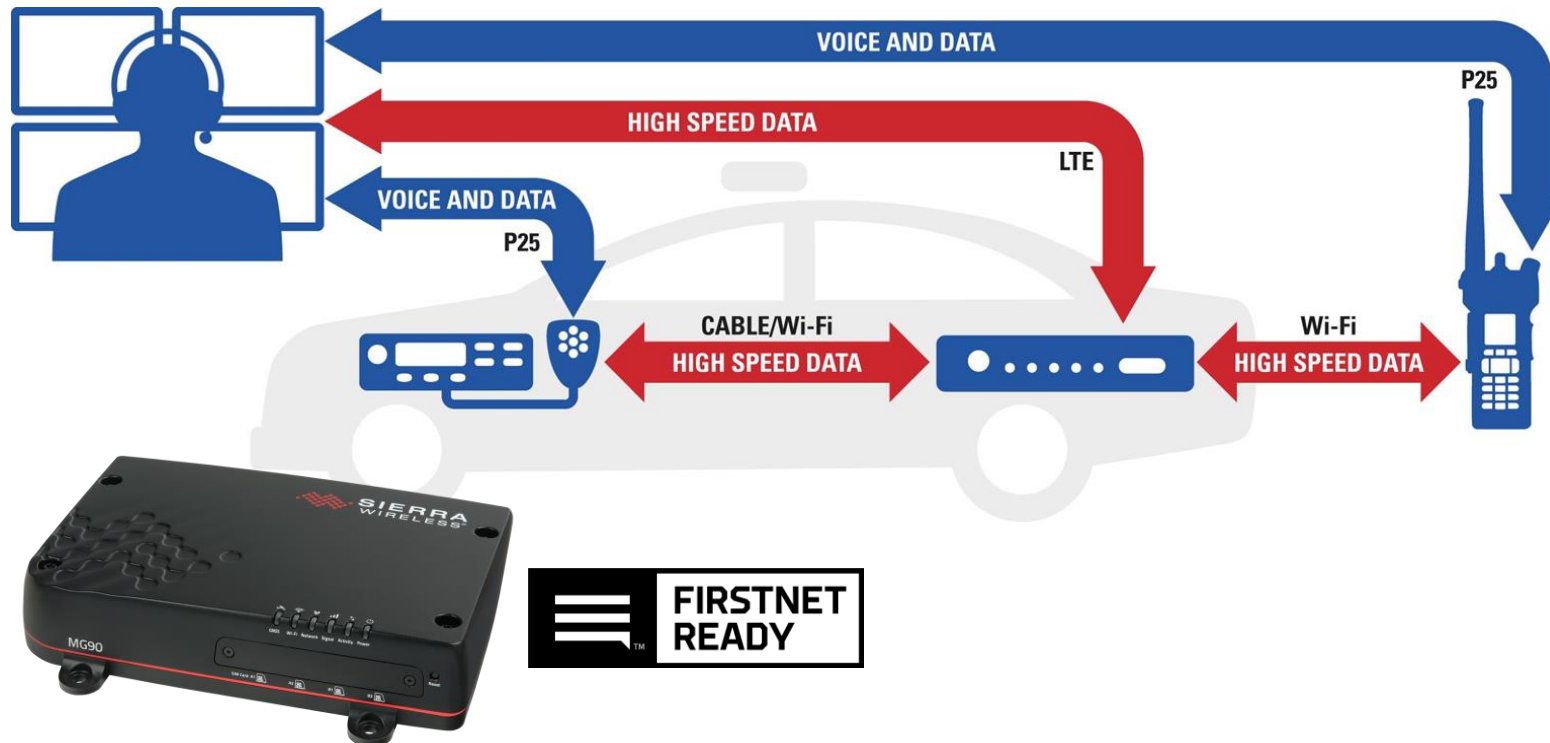
MOBILE ACCESS TO INTELLIGENCE

- ViQi Virtual Partner
- SmartConnect
- SmartLocate
- SmartMapping
- SmartMessaging



APX COLLABORATIVE FEATURES

DATA MODEM TETHERING*



- OVER THE AIR PROGRAMMING
- FIRMWARE UPDATES
- OVER THE AIR RE-KEYING
- LOCATION
- PRESENCE
- TEXT MESSAGING



COMMANDCENTRAL



Frontline Responder

PremierOne Mobile
Spillman Flex Mobile

Callyo 10-21 App
CAPE UAV

Critical Connect, WAVE PTX for Public Safety, Mission-Critical
PTT



LTE Radio, Body Worn, In-Car Video, Smartphone LMR

Incident Awareness

Incident Management

Post-Incident Resolution

COMMUNITY
ENGAGEMENT



Citizen

CommandCentral
Community

EMERGENCY
CALL
MANAGEMENT



911 Call Taker

VESTA Router &
ESInet
VESTA 9-1-1
CallWorks 9-1-1

VOICE &
COMPUTER
AIDED
DISPATCH



Dispatcher

PremierOne Cloud
CAD
PremierOne CAD
Spillman Flex CAD
Mass Notification
CommandCentral AXS
Console

REAL-TIME
INTELLIGENCE
OPERATIONS



Intelligence Analyst

CommandCentral
Aware
Avigilon Analytics
Vigilant Analytics
CAPE UAV

RECORDS
& EVIDENCE
MANAGEMENT



Records Specialist

PremierOne Cloud
Records
PremierOne Records
Spillman Flex Records
CommandCentral Vault
Watchguard Evidence
Library

ANALYSIS &
INVESTIGATION



Crime Analyst

CommandCentral
Analytics
Avigilon Analytics
Vigilant Analytics
Callyo Investigative

JAIL & INMATE
MANAGEMENT



Corrections Officer

CommandCentral
Jail

Cloud-enabled
Unified communication & collaboration

PUBLIC SAFETY PLATFORM

Centralized public safety data
Analytics & AI

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Q&A



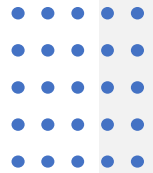
Thank You

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WWW.FIRSTNET.GOV



Thank You for joining us today!



Details coming soon regarding
the next webinar in the
NYSWA/NJWA Webinar Series

