

The Nationwide Public Safety Broadband Network

The First Responders Network (FirstNet)

Critical Communications



AGENDA

- What is FirstNet?
- Who is Eligible?
- Why it's Unique
- Q&A

City of Cincinnati

Law & Public Safety Committee

March 30, 2021

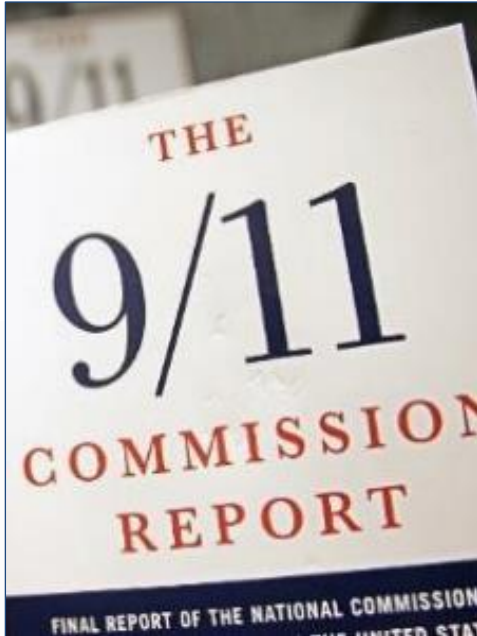
- Mark Romito – AT&T External Affairs
- Kyle Richardson – FirstNet Authority
- Ryan Favor – AT&T FirstNet
- Guerdy Charles – AT&T FirstNet

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 Investment**

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

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

ELIGIBILITY

PRIMARY USERS

- Fire/Hazmat
- Law Enforcement
- EMS
- PSAP / 911 Center
- Emergency Management

EXTENDED PRIMARY USERS

- Healthcare
- Utilities
- Transportation
- K-12 and Universities
- Support Services

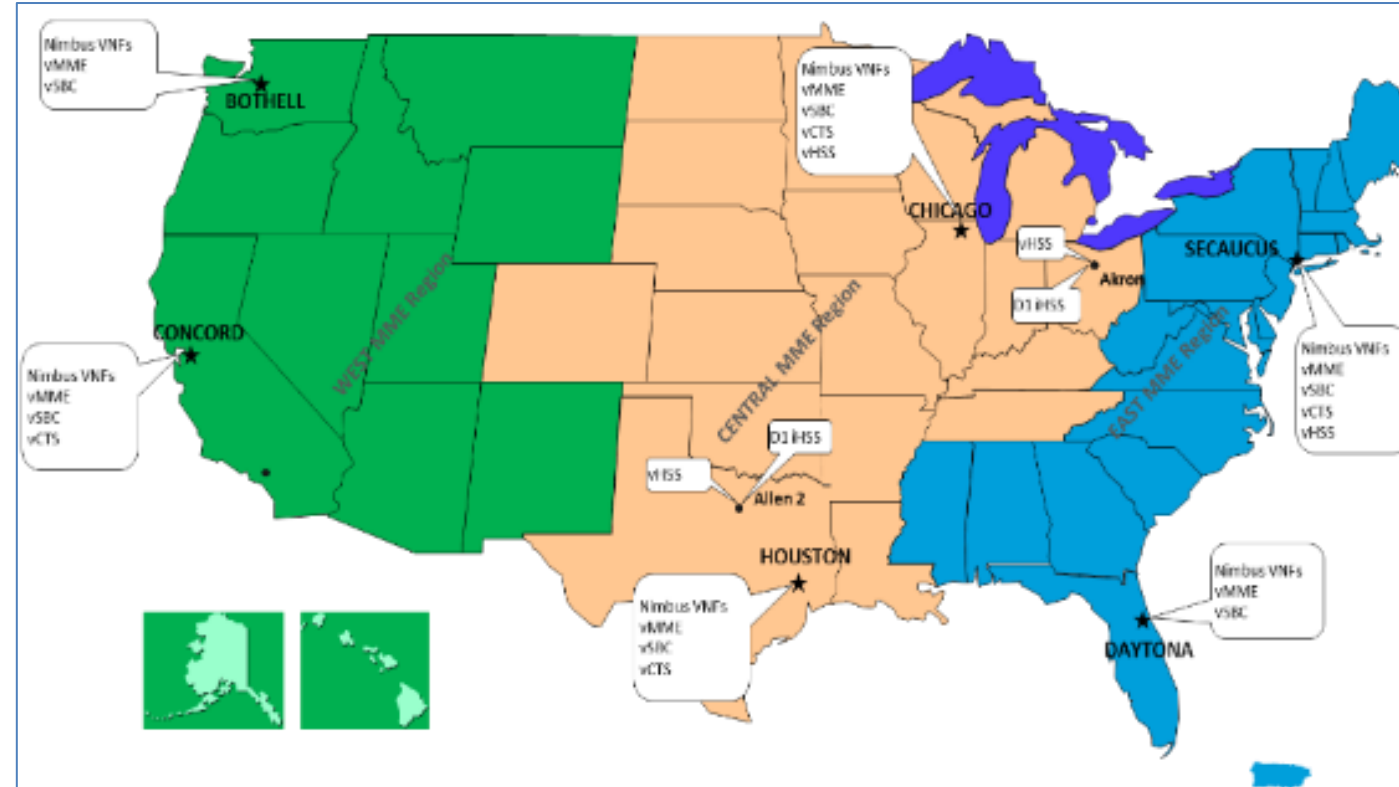
CUSTOMERS

- Agencies
- Individual Subscribers



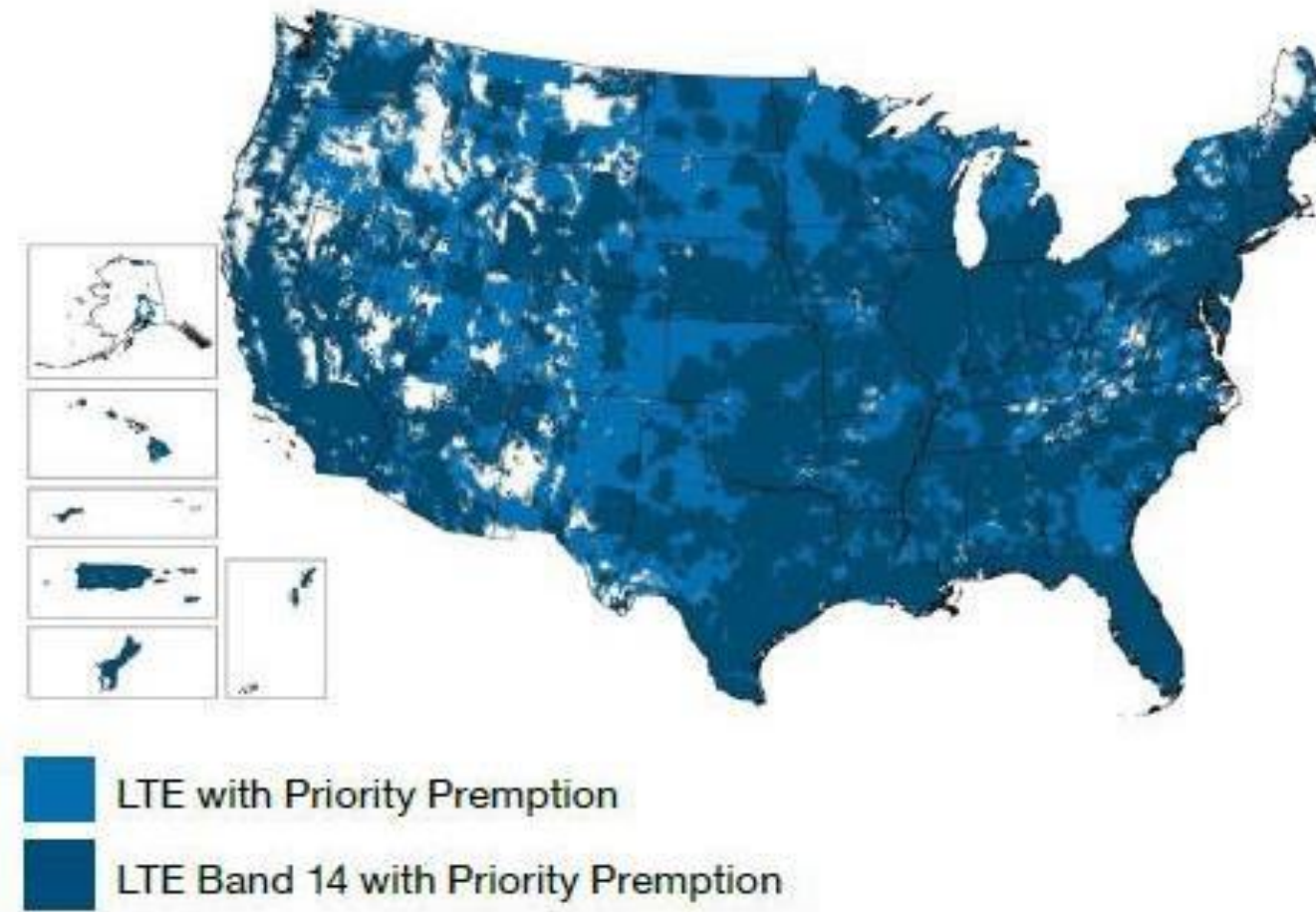
FIRSTNET NETWORK/DEDICATED CORE

- Not just a dedicated core – a *completely logically separate network* with unique PLMN ID and SIM cards
- Dedicated to FirstNet users with advanced public safety features not available in the commercial network
- A highly secure, physically separate, purpose-built network core with geographical redundancy
- Failover and “roam like home” to AT&T commercial core for additional redundancy
- 24x7 monitoring by the AT&T Global NOC and a dedicated FirstNet U.S.-based Security Operations Center

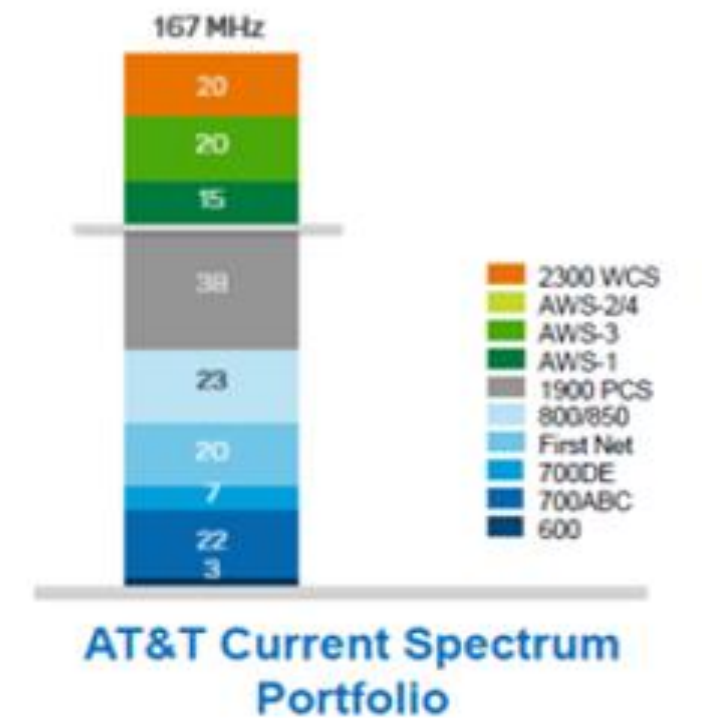


FIRSTNET COVERAGE

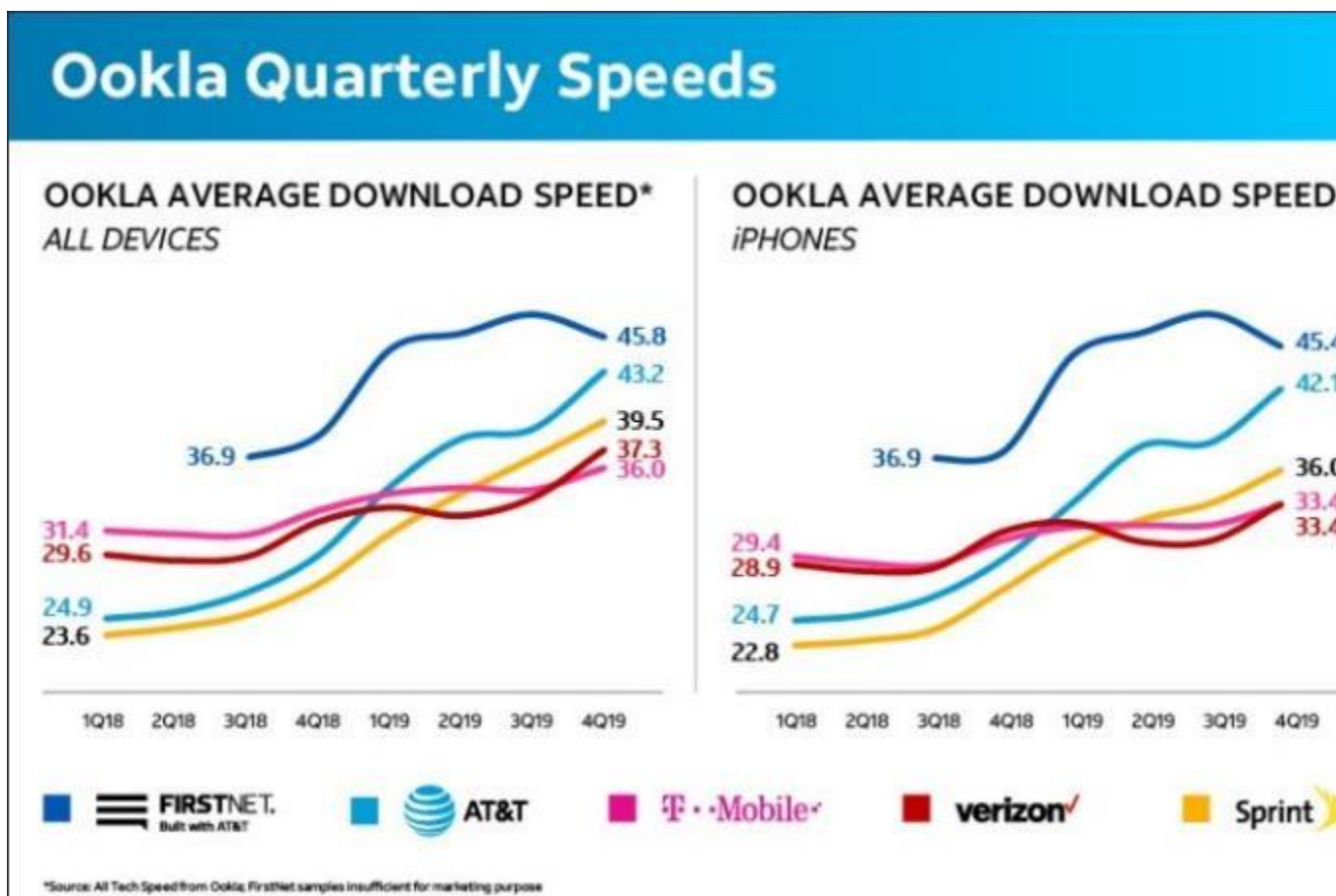
- FirstNet wireless coverage will reach more than 99% of Americans – “AT&T coverage is FirstNet coverage”
- **FirstNet is an all-band solution** – QPP on all LTE frequencies including Band 14 and commercial
- Band 14 spectrum currently deployed in over 600 rural and urban markets – over 75% through deployment that will run through 2022
- Deploying Band 14 access with QPP in partnership with rural roaming providers + access to new sites for FirstNet
- Coverage extending to 2.74 million square miles/76.2% of the contiguous United States landmass



FirstNet Network Outdoor LTE Coverage at Final Operating Capability by 2022.



**Includes 20mhz of FirstNet Spectrum that AT&T manages via CLA, not ownership



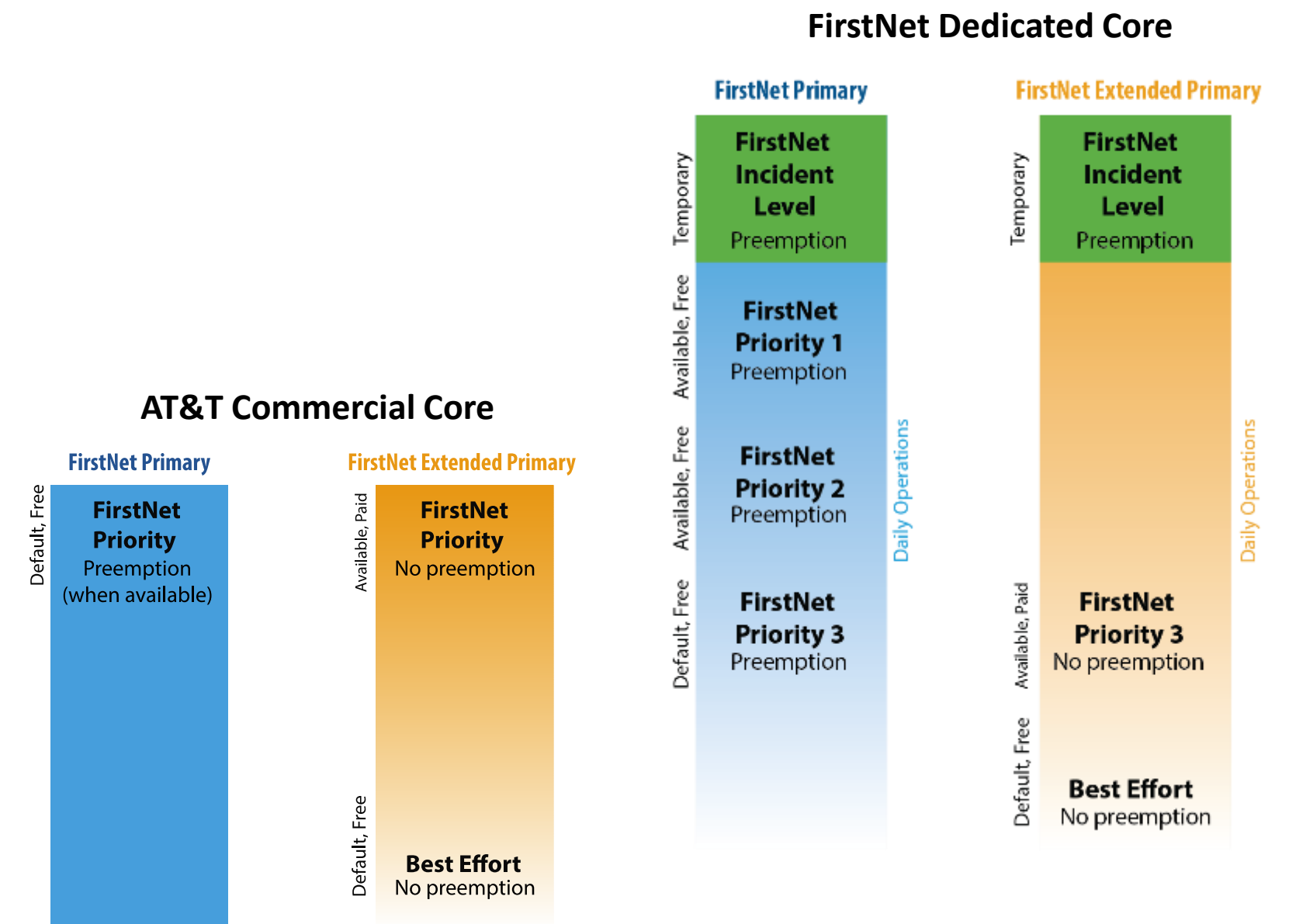
*Source: All Tech Speed from Ookla; FirstNet samples insufficient for marketing purpose



FIRST PRIORITY®

The only network that offers First Priority™ - a 24/7/365 priority and preemption solution for voice, text and data that works across all AT&T LTE spectrum bands

- **First Priority™** is always on and will provide primary users with an evolving set of QoS, priority and preemption
- FirstNet users are **exempt from throttling**
- **Extended primary** users can be uplifted to First Priority™ status on the FirstNet core
- Top-level **“incident priority”** supersedes all other users on a temporary basis except Wireless Priority Service (WPS)
- Primary users have the ability to pre-empt all other users (except 911 calls and WPS)
- Available across the AT&T US LTE footprint and select domestic roaming partner areas



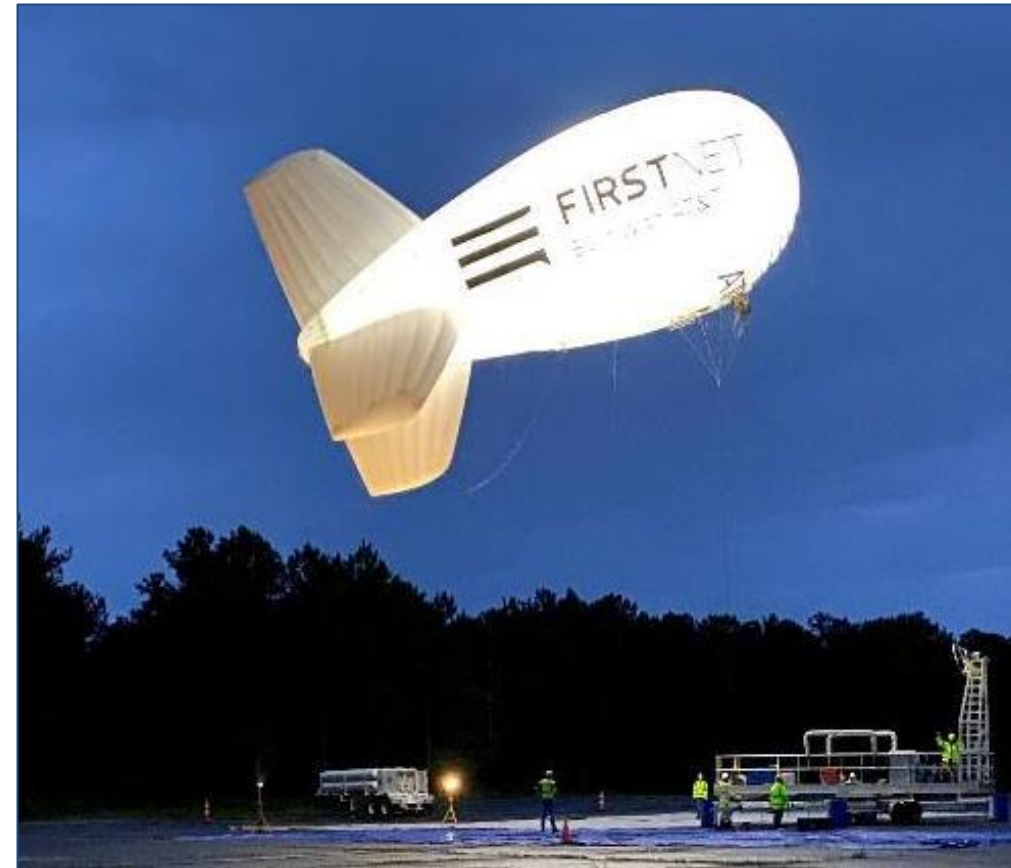
DEDICATED DEPLOYABLES

80+ Dedicated Deployables – including 3 Satellite Cells on Wings and 1 Aerostat

FirstNet-dedicated deployables, such as Satellite Cells on Light Trucks, are mobile cell sites that link to FirstNet via satellite. Can support both planned and unplanned events

- Are **Band 14 enabled**
- Provide voice (including Voice over IP, VoLTE), data, location, messaging, First Priority® (QPP)
- Up to 25Mbps downlink and 8 Mbps uplink
- 6 SatCOLTs pre-positioned in Nor-Cal

In addition, the **FirstNet Response Operations Group** at AT&T, led by former first responders



WIRELESS DEVICES

Sample of available phones



Apple iPhone XR



Kyocera Duraforce PRO 2



Motorola LEX L11



Sonim XP5S



Sonim XP8



Samsung S9



Samsung Note 9



LG V35 ThinQ



WIRELESS DEVICES



Phones

Standard and rugged options with new features and functionality to provide an optimal experience for productivity, connectivity and security to hold up against the rigor of first responder use.



In-Vehicle

Devices are approved for use and designed to operate in demanding environments of first responders.



[Uniden ULS23 In-Line Booster](#)

Tablets

Diverse selection including standard and rugged options to enhance productivity, connectivity and security.



Accessories

Offering a wide assortment of accessories designed for first responders to be safe and efficient on the job.



WIRELESS DEVICES

Sample of available in-vehicle devices



Netgear Nighthawk MR1100



Cradlepoint COR IBR900-1200M



Sierra Wireless AirLink MG90 Vehicle Router



Rocket IoT - XLE



Broad Selection of SATCOM Solutions for FirstNet Specific Needs.



FIRSTNET MegaRange™

Assures the **highest** LTE communications **availability** to meet first responder mission needs



A stronger and more reliable connection as first responders near the cell edge



In an urban environment this may provide better connectivity in buildings, building shadows, or underground structures.

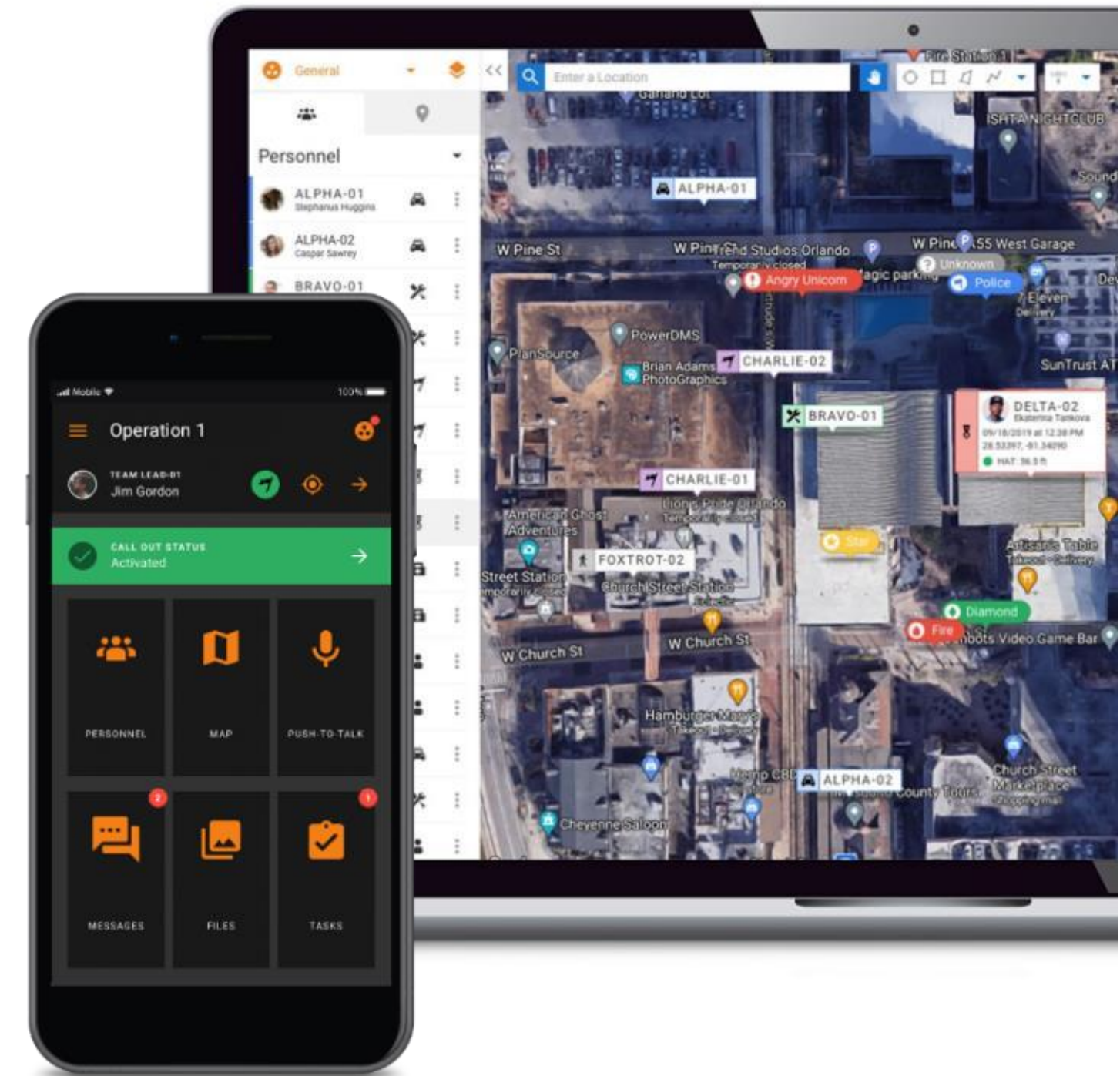
RESPONSE FOR FIRSTNET WITH Z-AXIS

The **Intrepid Response for FirstNet** is a situational awareness platform comprised of smartphone and web applications that are used for day-to-day and emergency operations. Some of the core capabilities include:

- Locate* – a mapping visualizer of all personnel in real-time
- Activate – a team notification and activation tool
- Connect – a communications and collaboration solution

With Z-Axis, first responders will have **real-time altitude information** of all active personnel in markets with Z-Axis coverage.

Z-Axis is a top feature requested by Public Safety and is not currently offered by any other network.



FIRSTNET MOMENTUM

Source: https://about.att.com/story/2021/fn_expands.html
*These numbers have not been validated by the FirstNet Authority

80+

dedicated deployable network assets, including three Flying COWs™ and one Aerostat



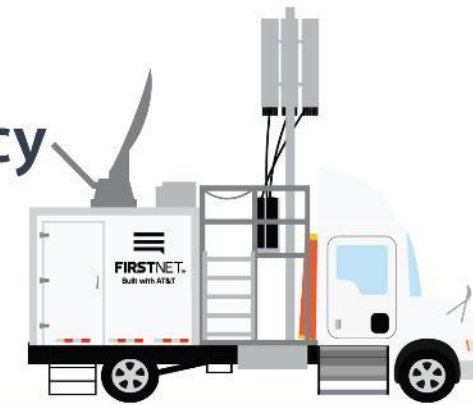
160+

unique apps in the FirstNet App Catalog



750+

asset deployments for planned and emergency events in 2020



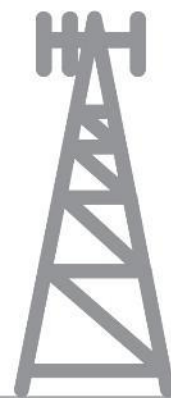
210+

FirstNet Ready™ devices



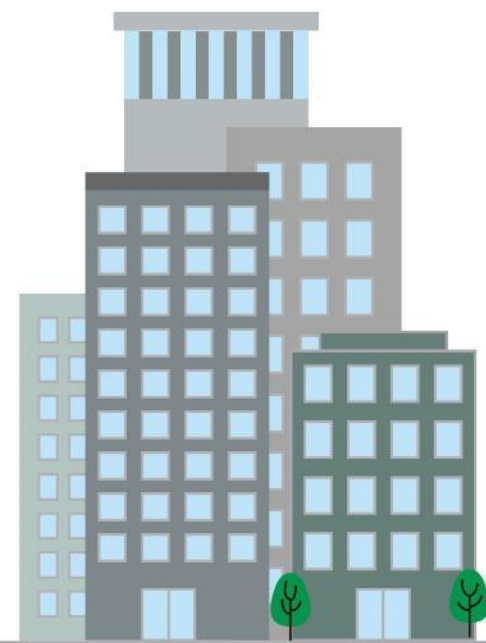
~90%

Band 14 coverage completion



2M+

FirstNet connections



15,000+

public safety agencies and organizations subscribed



QUESTIONS & ANSWERS

Security



Coverage



Devices



Control



Innovation

