FIRSTCALL

RESPONSE, TECHNOLOGY, COMMUNITY

IN THIS ISSUE: CALLING FOR A NETWORK TO HELP YOU SAVE LIVES | TECHNOLOGY THAT PUTS YOU FIRST + MORE





FIRSTCALL CONTENTS

FEATURES

5CALLING FOR A
NETWORK TO HELP
YOU SAVE LIVES

10
THE NETWORK BUILT
WITH AND FOR FIRST
RESPONDERS

THAT PUTS YOU FIRST	18
CONNECTING SCHOOL PERSONNEL TO 9-1-1	28
BUILT TO BE READY FOR ANYTHING	31
FIRSTNET CASE STUDIES	36
TAKING CARE OF THOSE WHO TAKE CARE OF US	44
FACING TOMORROW HEAD ON	50
FINAL WORDS	58



LETTER FROM THE PRESIDENT

To All FirstNet Partners:

FirstNet now covers more first responders than any other wireless network. It's the only nationwide network built with and for public safety. And thanks to you, FirstNet has become the network first responders across this nation depend on most to stay mission ready and help keep their communities safe.

In just six years since the First Responder Network Authority partnered with AT&T to deliver America's public safety network, more agencies trust FirstNet to reliably communicate than any other network.

With your help and input, we've made tremendous progress. Together, we've developed tools and technology to ensure you have what you need when you need it. To keep you mission ready, we've built a network with always-on priority just for you. We've also gone beyond our commitment to build and maintain FirstNet by supporting your holistic health and wellness from the time your response begins to when you are back at home.

But we're not stopping there. We're in this for the long-haul. We want first responders everywhere to see for themselves how FirstNet can help you keep our communities safe. And we will continue to evolve based on your needs – with solutions that are revolutionizing the industry and solving connectivity for thousands of agencies and first responders.

FirstNet is **America's Public Safety Network**. And our mission is to deliver the technology, tools and coverage you need to complete your mission – even in the most difficult of situations.



Thank you,

Jim Bugel

President, FirstNet Program at AT&T

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CALLING FOR A NETWORK TO HELP YOU SAVE LIVES

Every day, first responders and those who support them face life-and-death decisions, from burning buildings to burning wildlands and viral outbreaks to school lockdowns, reliable communication is vital to a first responders' ability to serve and protect. Yet, first responders – the very people who need the best technology – had limited choice and access to advanced communication solutions. That's why FirstNet was born.

FirstNet grew out of the devastating losses from the terrorist attacks of Sept. 11, 2001. The attacks exposed glaring weaknesses in the nation's communications systems. Cell service was spotty. Countless emergency response teams could not communicate using their trusted radios. And many first responders lost their lives.

FirstNet is Born

Sept. 11 shed light on a host of flaws in first responder communications. The 9/11 Commission Report identified challenges and gaps and then recommended a nationwide communications network just for public safety.

In the years after the report's release, public safety organizations and associations came together to advocate for such a network and to encourage Congress to pass legislation to create this network.

In 2012, Congress passed an act that created the First Responder Network Authority (FirstNet Authority) and charged it with building a nationwide communications network just for first responders. The law also required the FirstNet Authority to consult with federal, state, tribal, and local public safety entities to ensure FirstNet was designed to meet their needs across the country. These consultations with public safety entities helped to shape the FirstNet Authority's Request for Proposal (RFP). And they helped give shape to the State Plans the FirstNet Authority issued to every U.S. state, territory, and the District of Columbia.

AT&T Answers the Call

In 2017, in a first-of-its-kind public-private partnership, the FirstNet Authority awarded AT&T a 25-year contract to build, deliver and operate FirstNet – an innovative ecosystem, comprising the network and devices, applications and services just for public safety. AT&T was the only major commercial carrier to bid and commit to build and maintain the only nationwide network for first responders.

After forming a partnership with AT&T, the FirstNet Authority issued the customized state plans outlining how FirstNet would be deployed.

Thanks to years spent consulting with public safety agencies across the country – and combined with AT&T's deep knowledge of and service to public safety – the FirstNet Authority had an understanding of the needs of first responders nationwide.

First responders put their lives on the line every day to help others. They deserve reliable and highly secure communication.



No Throttling

For FirstNet subscribers **anywhere** in the U.S.



Always-On Priority

Never competing with commercial traffic



Band 14 Spectrum

For **dedicated connectivity** when and where you need it



Highly Secure Network

With comprehensive tower-to-core **encryption**

FIRSTNET:

From a vision to America's Public Safety Network







March 2010

The FCC follows the recommendation of the 9/11 Commission to create a nationwide public safety network.

February 2012

The First Responder
Network Authority is
authorized to develop
and oversee the dedicated
nationwide network for
first responders.

March 2017

With over 100 years of public safety experience, AT&T is awarded the contract to build and maintain FirstNet.











March 2018

AT&T launches the dedicated FirstNet network core.

December 2019

FirstNet hits 1M connections serving over 10,000 public safety agencies nationwide.

December 2022

FirstNet surpasses over 2.9 million square miles of coverage – 250,000 more square miles than commercial networks.

Today

With 5.5M+ connections and 27,500+ agencies and organizations on FirstNet, with you we are developing the tools that advance public safety.*



— Jeffrey Marani, Global Medical Response





Learn how FirstNet showed up for Global Medical Response (GMR) when disaster hit and the chips were down. And see how GMR uses FirstNet to keep its teams connected. **Go to FirstNet.com/power-of-firstnet/response-to-disasters**





THE NETWORK BUILT WITH AND FOR FIRST RESPONDERS

The First Line of Defense for First Responders

In early conversations about public safety needs, first responders asked for key requirements in their network. They wanted a network that allowed them to communicate with each other and other agencies, a network that prioritized their connectivity above commercial networks, and a network that provided the tools they needed to get the job done.

One key differentiator that sets FirstNet apart from commercial networks is the

FirstNet evolved packet core. It is the first-ever wireless broadband network infrastructure dedicated solely to public safety, including our nation's first responders.

It's not virtually carved from a commercial core. The evolved packet core is physically separate from the core network architecture used by AT&T to serve its commercial wireless customers. Operating as the brain for FirstNet, the FirstNet evolved packet core:

- Separates public safety traffic from commercial traffic
- Supports FirstNet functions like First Priority® – which includes priority and, for first responders, preemption capabilities
- \ Is built with comprehensive towerto-core encryption for public safety communications
- Supports mission-critical services and location-based services
- Has a dedicated Security Operations
 Center just for FirstNet
- Gives local agencies control of their network, so they can manage incidents at a local level through their own portal – FirstNet Central.

Elliot Linke, Director of Emergency Services for Ford County, Kansas, said local control was very important to the agency. "We had full confidence in FirstNet because we had full insight into FirstNet," said Linke. "We knew if sites were down in our area. We knew if there was any impact on

services. We knew what the problems were on the network, if any."

The FirstNet evolved packet core is designed with a defense-in-depth approach that helps maintain security on multiple levels. The FirstNet core also provides FIPS 140-2 compliant VPN solutions, radio, transport and network core encryption tools, and advanced physical and logical security protocols. This means the solutions meet government, computer-security standards set in the Federal Information Processing Standards Publication 140-2.

The defense-in-depth approach means we've designed security within and between the various domains of the network with multiple redundant security elements. These include firewalls, proxies, intrusion-detection systems, and other controls. This helps to improve the availability and robustness of security across the FirstNet core.

Additionally, we assess these controls and the policies surrounding them within the scope of first responder and public safety needs – security controls, policies and procedures must provide protection without impacting the operability of the network or the mission of public safety.

We architected the FirstNet core for superior reliability, designed to enable a 99.99% service availability objective on the FirstNet network. Plus, it uses multiple geographically distributed core sites nationwide for enhanced redundancy and performance.

First responders and the extended public safety community know what they need in their network, and FirstNet brings their input and feedback to life.

"FirstNet, with the innovation that they have with HPUE equipment, has been tremendous for us."

— Brad Marzolf, IT director for Bangs Ambulance

Band 14 Spectrum: A VIP Lane for First Responders

As part of the commitment to create the nationwide public safety wireless broadband network, Congress licensed the Band 14 Spectrum to the FirstNet Authority. As the private partner behind FirstNet, AT&T has exclusive rights to this spectrum to provide first responders with the coverage and capacity they need across the country.

We look at Band 14 as public safety's VIP lane. We continually manage access to B14, limiting commercial access based on need.

This includes completely removing access during times of emergency. That means only those on FirstNet will be able to access Band 14 Spectrum, further elevating their connected experience and emergency response. They never have to compete with commercial traffic.

Using Band 14 and all AT&T commercial bands, FirstNet covers over 99% of the U.S. population, providing public safety with a dedicated lane of connectivity when and where they need it. That's unique in the industry and something public safety can't get anywhere but on the FirstNet network.

FirstNet MegaRange: Extending Coverage

Band 14 is the only LTE band in the U.S. enabled by 3GPP standards for use with higher-power user equipment (HPUE) at the highest allowable power levels (Power Class 1). That's why we launched FirstNet MegaRange™, the only HPUE solution available in the United States.

For rural, remote and maritime first responders, FirstNet MegaRange can significantly boost signal strength – especially at the edge of network coverage. For urban and suburban responders, it can help solve the common challenge of difficult coverage spots. The stronger signal may better assist those connecting from hard-to-reach places like building shadows, parking garages, and basements, helping first responders communicate inside and out.





Using FirstNet MegaRange – a patented HPUE technology that is also FirstNet Trusted™ – first responders and public safety agencies can improve connectivity and uplink data speeds – particularly at the edge of signal coverage. First responders and public safety agencies can improve connectivity and uplink data speeds – particularly at the edge of signal coverage.

Agencies can use FirstNet MegaRange, either standalone to directly connect with devices like laptops, tablets, and hotspots, or in connection with mobile and fixed modems and routers.

First Priority: Putting First Responders First

FirstNet is the only network that offers
First Priority® – which includes priority and,
for first responders, preemption capabilities
for voice, text and data. First Priority
turns the FirstNet **always-on** priority and
preemption up a notch with an evolving set
of quality of service capabilities previously
unavailable to first responders.

In addition, it allows public safety agencies to assign priority levels based on their command structure or shifting needs.

First Priority data prioritization uses QoS technology to differentiate public safety users' traffic from other users' traffic and routes it quickly through the network.

Voice and text messages, images, videos, location information, data from apps and more – are all supported in near real time, helping first responders quickly work together to save lives.

Preemption goes a step further than priority and is available only to first responders. If network resources are scarce or unavailable, preemption allows first responders to push other non-emergency users to a different network band, or even off the network entirely, if the emergency is big enough. FirstNet is the only network that gives first responders **always-on** priority and preemption. Every day. Around-the-clock. No matter where in the U.S. an emergency is happening. This is revolutionary.

This is important because we can't predict when or where emergencies are going to happen. So, we need to make sure first responders have the tools they need when they need them. When seconds matter, you don't have time to dial special codes or wait for network access.

Security Operations Center: Protection Against Physical and Cyber Threats

For first responders, security breaches aren't just frustrating, they can cost lives. That's why we've designed FirstNet with a defense-in-depth security strategy that goes well beyond standard commercial network security measures. It gives first responders protection without sacrificing usability or impacting public safety's missions.

- FirstNet has a dedicated Security Operations Center (SOC) that monitors the network 24/7.
- FirstNet is the first-ever nationwide network with comprehensive tower-to-core network encryption

based on open industry standards. This means we automatically secure FirstNet traffic as it moves from the cell tower, through the backhaul, to the core and back again. Commercial networks may encrypt parts of the communications pathway, but only FirstNet has encryption along the entire route.

- With its trusted Identity, Credential, and Access Management (ICAM) platform, FirstNet is a cornerstone of mobile access to Criminal Justice Information Services (CJIS) tools, providing the highly secure connection necessary.
- And FirstNet has backing from AT&T, which helps secure more connections than any communications company in North America – with more than 594.7 petabytes of data crossing the AT&T global network every day.
- FirstNet has dedicated security experts who combine their deep knowledge of cyber threats with technical expertise to manage the network 24/7.

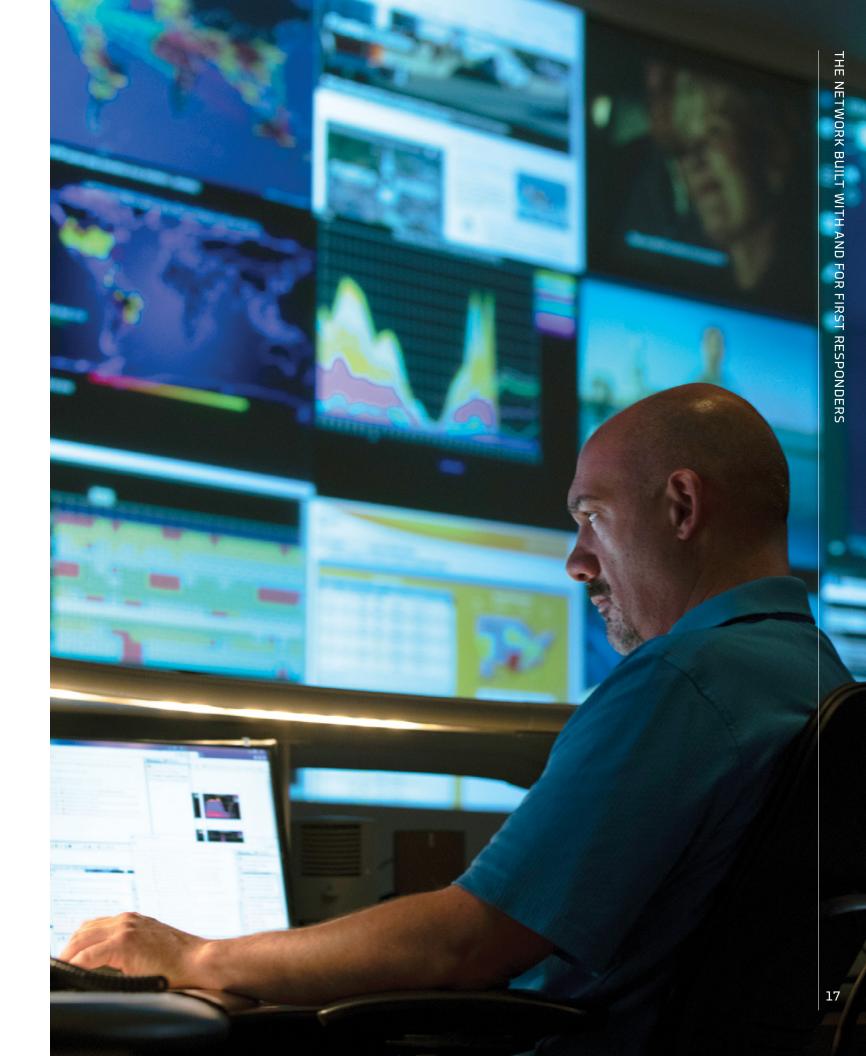
The Team Behind Your Team

The dedicated FirstNet Technical Care teams understand the challenges first responders face and the critical role they play in helping others. Our teams have years of experience serving public safety. And they know this is not just a job – it's a calling.

Every single member of the Technical Support team is dedicated to giving first responders and those who support their vital efforts the backup they need.
The teams receive continuous training to remain up to date on all the challenges first responders face – a critical role FirstNet plays in helping them help others. The U.S.-based Technical Support team provides:

- A dedicated customer service toll free number (1-800-574-7000) with emergency prompting and routing available during a crisis.
- Chat functionality embedded within the FirstNet Central experience, including the public safety home page site, user credential management, and online ordering and billing portals.
- Customer support email for offline support – including billing and the online ticketing option (when enabled) for submitting support requests via web form.

Every day, first responders answer the call for help. And every day, our Technical Support team is there to support them. On demand. On the phone. And online.





TECHNOLOGY THAT PUTS YOU FIRST

Non-Stop Innovation

As public safety's partner, we've launched innovations relevant to first responders to modernize interoperable communications during emergencies and day-to-day operations.

FirstNet teams at AT&T and the FirstNet
Authority focus on partnering and collaborating
with public safety to ensure we make public
safety's operational needs and solutions a top
priority.

Our team is responsible for evaluating and delivering new public safety solutions, based on customer feedback, market research and in-field proofs of concept with ongoing first responder engagement. For example, the team worked with a large law enforcement agency in California to find a solution to help the agency eliminate paperwork. The team worked with the agency to understand their pain point and identify an application – Intrepid Response – that could do this for them.



Mission-Critical Push-to-Talk: Revolutionizing Public Safety Communications

Land Mobile Radio (LMR) has been the standard for collaborative communication for over 80 years. And in the past, many agencies relied solely on LMR systems to communicate with each other during emergencies but LMR faces various challenges. Some of these include the limited coverage area of LMR, its inability to interoperate with other systems; its lack of capacity to handle high volumes and its cost.

FirstNet Mission-Critical Push-to-Talk (MCPTT) solutions modernize this trusted and familiar platform by adding video, location, and data services. They help establish reliable and secure talk groups within agencies and between them, across cities and counties, for a truly coordinated mobile response.

Users can still talk using rugged devices. But they can also stream video, locate other team members, and send images and annotated files. Think about the number of texts, videos, and chats you send and receive on a daily basis, compared to the voice calls you make. It makes sense for public safety to strongly consider how their staff – especially newer officers, dispatchers

and firefighters – communicate today and adapt for the future.

Collaboration doesn't only mean PTT group communication. It also means you can use existing communication infrastructure, policies, and procedures as the foundation. Agencies can adopt MCPTT and be confident that they'll still be able to communicate with other agencies that remain on LMR.

MCPTT Capabilities

A mission-critical platform must be able to interoperate with various LMR systems and protocols, so that responders can still use two-way radios to speak with command staff who may prefer PTT on their smartphones. FirstNet Mission-Critical Push-to-Talk, offers public safety a standards-based, Mission-Critical ecosystem, from the FirstNet Core to the end-user equipment. The MCPTT public safety-grade platform delivers coverage and performance for public safety to meet their requirements for voice, data, and video collaboration.

FirstNet MCPTT core level service delivers end-to-end low latency that meets or exceeds the globally accepted set of features and capabilities, per the 3GPP standard, for call-access time. It meets the mouth-to-ear latency standard to ensure users can connect when they need to. And the FirstNet Mission Critical Quality of Service (QoS) parameters provide priority to mission

- critical communications, whatever the situation.
- FirstNet MCPTT Emergency Calling and Alerting provides public safety calling in life-threatening situations. In addition, MCPTT has the highest level priority voice service on the network − aside from Enhanced 9-1-1 calls.
- FirstNet MCPTT supports communication in large entertainment or sporting venues, as the network dynamically adjusts to deliver MCPTT despite network congestion or talk group size, both within a cell and within the core network.
- Includes support for 3rd party integrations and solutions. Some examples include, a variety of device types such as ruggedized and radio form-factor style devices, as well as software integration for functionality such as dispatch consoles.

What does this all mean? **MCPTT is fast.** Audio is very clear in loud noise environments and it is more consistent when the network is under extreme congestion than any other service we've ever deployed.





Coverage

FirstNet uses Band 14 spectrum, as well as AT&T commercial bands, to give first responders even more coverage and capacity across the country. And FirstNet has continued to expand coverage for first responders in rural areas where public safety said it needed coverage.

Using this nationwide network for mission-critical communications provides many operational benefits to public safety. FirstNet Mission-Critical Push-to-Talk solutions give first responders immediate access to nationwide coverage – extending beyond the limits of LMR.

Historically, when public safety officers responded to a mutual aid request outside their normal area of operations, they had challenges with communications. FirstNet MCPTT solutions help extend beyond the typical LMR coverage footprint and reduce the amount of time spent programming radio systems and the radios of our nation's heroes. It helps ensure first responders can communicate and interoperate with existing LMR systems anywhere in the country.

Your choice of software application can have a profound effect on your experience. Any application can work under normal times but it's those tough times that separate a regular application from a mission-critical application.

FirstNet is built exclusively for public safety. In fact, it now connects more first responders than any commercial network. The dedicated network core, combined with spectrum, specifically set aside for public safety, allows FirstNet to offer a more reliable, flexible, and powerful experience for the changing conditions first responders face.

Security and Reliability

AT&T has engineered and deployed the FirstNet MCPTT solutions with geographic redundancy and diverse connectivity between sites. This helps us meet the performance and reliability requirements of public safety.

MCPTT is unlike any other push-to-talk broadband offering – it's built into the FirstNet Core. And with comprehensive tower-to-core encryption, public safety can trust that its communications are highly secure.

Innovative Tools for a Dedicated Community: **FirstNet Devices**

FirstNet wouldn't be complete without a robust set of smart, innovative device options that enable first responders to tap into the power of FirstNet. As part of our partnership with the FirstNet Authority, AT&T committed to use our relationships with device manufacturers to deliver next-generation technologies to public safety.

You'll find a <u>list of FirstNet Ready®</u> <u>devices</u> – over 720 as of October 2023 – on FirstNet.com. By bringing popular mobile devices to FirstNet, we're meeting public safety where they are and giving them the ability to choose the type of device they want to use to carry out their missions.

We follow a rigorous device evaluation process to provide first responders on FirstNet with access to highly-secure, high-performance devices. Each device must complete a series of tests assessing everything from security, durability, and voice quality to network impacts, battery life, screen size and resolution before getting the seal of approval.

There's an App for That: The FirstNet App Catalog

The FirstNet network brings public safety the connectivity they need to communicate and collaborate. But it's

really what we're able to build on top of that connectivity that can make the biggest difference in day-to-day operations for the brave individuals who keep our communities safe. The app ecosystem takes connectivity to the next level with empowering solutions.

We launched the FirstNet App Catalog to meet the needs of America's first responders. The apps in the FirstNet App Catalog are pre-evaluated, giving agencies and first responders on FirstNet, a dedicated place to find new solutions that are purpose-built and tested according to their needs.

Using the app catalog, FirstNet users can view, sort, and search solutions by name, provider, discipline, topic, and review designation (FirstNet Verified™ or FirstNet Certified™ as explained in more detail below).

FirstNet.com visitors can download the FirstNet app catalog booklet, which provides additional information about the app catalog and its contents. Users can download FirstNet approved apps from the commercial app stores. And the App Catalog gives them a curated list of apps that we have vetted for relevancy, security, and reliability. Every app in the catalog must receive a distinct rating of either FirstNet Verified or FirstNet Certified that indicates the app has passed a thorough evaluation by security and mobility experts.



Qualification Criteria for FirstNet Verified:

- \ The solution is relevant for the public safety community.
- \ The app binary is highly secure.
- \ The app has a track record of 99.9% (three 9's) availability.
- The app follows industry best practices in protecting data access and is recommended for first responders by a public safety administrator.
- Access to developer tools that enable functionality specific to the FirstNet network, like single sign-on (SSO)
- The ability to extend APIs/SDKs to third-party developers helping to

- create new solutions
- Simplified management of the distribution, certification, feedback, and lifecycle of an app via the portal's "app control" capability

In Addition, FirstNet Certified Apps Must Also Be:

- **** Inspected for vulnerabilities
- Resilient, using best practices to respond to failure
- Scalable, using best practices to adjust to changes in demand
- \ In the App Catalog, providing a dedicated means to market and make available apps to public safety agencies and first responders.

And through the approval process for both FirstNet Verified and FirstNet Certified, you can get direct feedback from public safety administrators and first responders through ratings and reviews.

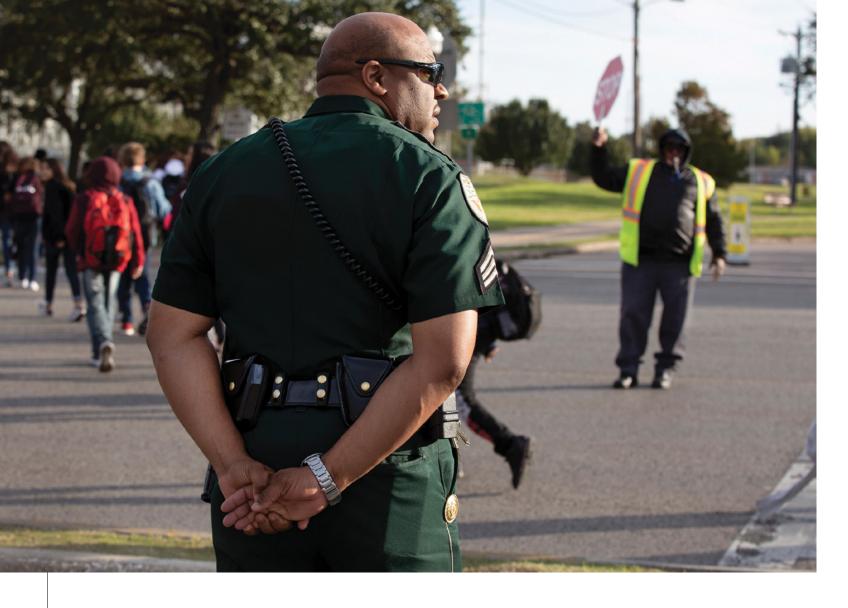
App Availability for Purchase:

- The ability to have your app recommended to first responders by a public safety administrator
- The app catalog previews the apps available, but the apps are sold separately. Some apps may be purchased directly from FirstNet, Built with AT&T, but most apps are available for purchase directly from

- the app vendor.
- The app catalog also includes FirstNet-branded apps and FirstNetapproved third party apps available for purchase directly from FirstNet, Built with AT&T. FirstNet-branded apps are FirstNet Certified and built into the FirstNet evolved packet core.
- FirstNet-approved third-party apps are approved by the FirstNet Certification program.

What does it mean to have all these things? It means your app will be secure, reliable, efficient with battery resources and that you will get the support you need, when you need it.





Connecting School Personnel to 9-1-1

New Intrado Safety Suite with Wearable Panic Button reduces emergency response time by directly connecting school personnel with 9-1-1 via FirstNet

Schools across the country can now get the new school safety solution – powered by FirstNet, Built with AT&T, Intrado and AT&T ESInet™. The solution helps reduce emergency response times by seamlessly connecting school staff, school information systems, 9-1-1 call takers and first responders.

As the only carrier that can provide end-to-end emergency communication solutions, AT&T* wants to help school districts better protect their students and faculty in the event of an emergency. Plus, the solution is fully compliant with Alyssa's Law and comprises:

No The FirstNet Certified Intrado Safety Shield mobile app, which helps schools prevent, prepare for, respond to and recover from safety threats. The app includes a silent panic alarm, secure 2-way faculty chat, digitized emergency response plans, role-specific response checklists, integration with school information

systems to account for all children in an emergency and quickly reunite students with their parent/guardian, and more.

- including teachers, bus drivers and administrators which can send lifesaving situational data to 9-1-1 while simultaneously and silently notifying campus-wide personnel via haptic vibration. And because FirstNet covers 250,000+ more sq. miles than commercial networks, its benefits extend beyond school grounds to support emergencies during field trips, athletic and other events that occur off-campus.
- The Intrado Safety Shield portal, which provides key stakeholders with a single operational view for all emergency response activities across the district.

"This solution is a game changer for how districts can protect students and teachers, while also better equipping the first responders that serve them," said Jim Bugel, President – FirstNet Program at AT&T. Keeping children safe is paramount, as school shootings across the United States continue to rise, hitting a record high in 2022.

"Intrado and AT&T share a common commitment to prioritizing the safety and well-being of our communities, and especially of our students, school staff and the surrounding communities," said Jeff Robertson, CEO, Intrado Life & Safety, Inc. "And we remain dedicated to investing

"We believe students are more likely to succeed in school when they feel safe."

— David R. Schuler, Executive Director – AASA, The School Superintendents Association

in technology that aligns with state and federal regulations, in order to safeguard their security."

What sets this solution apart?

Traditional panic buttons notify a preset individual who then contacts 9-1-1. The new solution removes the "middleman" by integrating directly into 9-1-1 call centers – also known as Public Safety Answering Points or PSAPs with solutions like AT&T ESInet. The solution automatically works in any 9-1-1 center without adding new equipment or processes.

"We believe students are more likely to succeed in school when they feel safe," said David R. Schuler, Executive Director – AASA, The School Superintendents Association. "Our educators need the peace of mind that if an emergency occurs, the lines of communication will stay open when they need it the most. By having a reliable communications plan in place, schools can keep students safer, establishing a better learning environment for all."





BUILT TO BE READY FOR ANYTHING

The Response Operations Group™

The Response Operations Group is a team of former first responders who guide deployment of the FirstNet portable assets. This team has an intimate understanding of the needs of public safety and works in alignment with Homeland Security's National Incident Management System (focus on life safety, incident stabilization and property conservation) to identify the right solutions for public safety. The **Response Operations Group** is also directly linked to State Emergency Operations Centers (EOCs) across the country and embeds within EOCs during disasters, serving as a public safety asset within the appropriate emergency support functions.

When public safety calls for additional support, ROG works with the agency to assess the situation. The team will either deploy one of the 150+ dedicated assets in the nationwide FirstNet fleet of land-based and airborne portable cell sites or identify and provide alternate solutions that could better serve public safety. This could include expediting network restoration or quickly turning up indoor coverage. This strengthens public safety's command and control of their network.

In addition, the team can draw from over 400 assets in the AT&T Network Disaster Recovery Fleet when needed and available.

"When everything was down, FirstNet was working."

— Hal Lowder, Director of the Emergency Operations Center, Whiteville, N.C., after Hurricane Florence.

Extreme Weather Demands an Extreme Response

In 2022, the U.S. experienced 18 separate weather and climate disasters costing at least \$1 billion. That put 2022 into a 3-way tie with 2017 and 2011 for the third-highest number of billion-dollar disasters

in a calendar year, behind the 20 events in 2021, and 22 events in 2020. According to the National Oceanic and Atmospheric Administration's National Centers for Environmental Information, 2022 was another year with a high diversity of destructive disasters.

These events – coupled with increasing instabilities in the commercial power infrastructure landscape – spurred AT&T to go above and beyond its contractual commitment with the FirstNet Authority to grow the dedicated FirstNet fleet.

In addition, AT&T expanded its Weather Operations Center (AWOC) team, which has over 50 years of combined meteorologic experience, to provide focused support for FirstNet. Using in-house weather modeling and rich datasets, this team of meteorologists provides **ROG** custom, near real-time risk analyses. These reports help guide the deployment and continued posture of assets in the field.

The FirstNet fleet sits across more than 50 sites nationwide ready for deployment in an emergency. Strategically stationed across the country, these assets are atthe-ready to support first responders battling wildfires, hurricanes and other major events and disasters.

But evolving weather conditions – like windspeed and direction during a wildfire or an incoming storm system with a high-





risk of tornado development – can make conditions unsafe for deployment. By collaborating with the AWOC, the FirstNet team can assess weather risk, help the crew on the ground know when it's safe to travel, provide an alternate route to their destination and more.

"When disaster strikes, FirstNet is there to support first responders," said Jim Bugel, President, FirstNet Program at AT&T.

"Thanks to reinvestment from the FirstNet Authority, we've expanded the FirstNet fleet to provide even more portable cell sites, as well as to introduce new types of assets to help public safety stay mission-ready. No matter the emergency."

"You just have to be prepared for whatever may arise."

— Lisa Tiger, Licensed Practical Nurse and Medical Responder

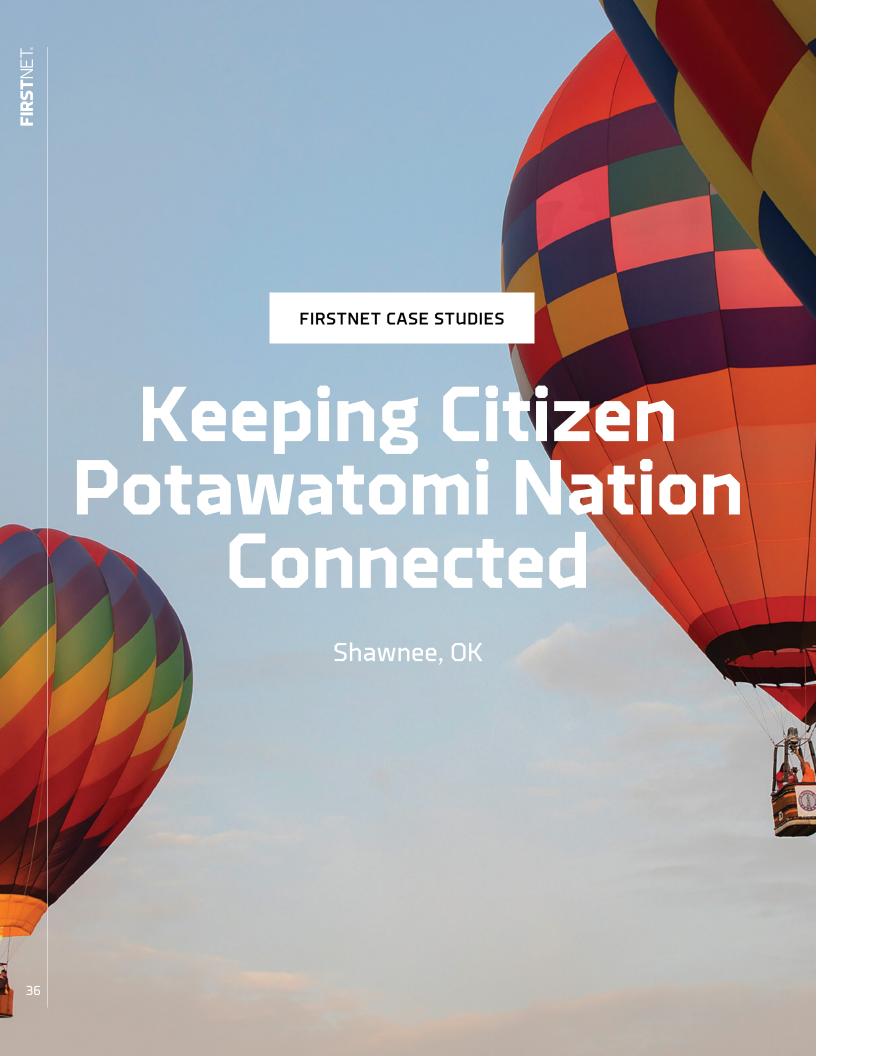
Mobile Service That's Truly Mobile

Early on, public safety stakeholders across the country, identified deployable assets, such as Satellite Cells on Light Trucks (SatCOLTs) as "must-have" solutions critical to their mission. These mobile cell sites don't rely on commercial power availability. They link to FirstNet via satellite and provide first responders with the connectivity they need in remote or disaster-stricken areas.

As a result, public safety has access to a dedicated fleet of 180+ land-based and airborne portable cell sites, all at no additional charge. Stationed across the country, these assets are available 24/7 at the request of agencies on FirstNet. They provide additional connectivity in support of public safety's mission and include over 90 SatCOLTs and over 50 Compact Rapid Deployables (CRDs).

This can be in the immediate aftermath of a storm or other disaster, when commercial power and other infrastructure may be down. Think search and rescue missions or after a major hurricane. And with on-the-go coverage, public safety will have dedicated Band 14 connectivity when and where they need it.

In 2022, FirstNet deployed over 1,200 solutions in support of public safety. In 2023, we've triaged and deployed 1,450+ solutions for public safety.





Citizen Potawatomi Nation FireLake Fireflight Balloon Fest

Every year, Citizen Potawatomi Nation holds the FireLake Fireflight Balloon Fest, which draws more than 30,000 people – complete with a carnival for small children, food vendors, concerts, and hot air balloons that launch in the morning and evening.

To keep visitors safe during the festival, first responders with Citizen Potawatomi Nation rely on FirstNet. FirstNet deployed a Satellite Cell on Light Truck (SatCoLT) to the festival to enhance the communications for that weekend.

"We wanted our visitors to come and enjoy the festival. But we also wanted to make sure we had dependable communications in case of emergencies," said Tim Zientek, Citizen Potawatomi Nation's director of emergency management, fire and housekeeping. "If someone were to have a medical emergency, we wouldn't be able to get to them without communication."

Lisa Tiger, a licensed practical nurse and medical responder, added: "We can have medical emergencies that are heat-related. We've also had a cardiac arrest and a stroke, and we've had a lady that had an incident with her pregnancy. So, the variety of injuries cannot really be predicted; you just have to be prepared for whatever may arise while you're here."

Hurricane Response

At FirstNet, we prepare for the worst that Mother Nature can deliver. So, public safety officers can have the connectivity they require when it matters most. That's why America's first responders called for the creation of their own network – FirstNet.

lan

After slamming the Florida coastline in late September 2022, Hurricane Ian battered the state with record flooding. Then it intensified and made landfall again in South Carolina. Public safety, spanning federal, state, tribal, and local agencies, quickly sprang into action. Agencies requested FirstNet emergency support 100+ times for Ian. And we were there for them each time.

Assets from the dedicated FirstNet Fleet supported first responders in affected areas, including Charlotte, Collier, Hardee, Hendry, Lee, Manatee, Orange, and Sarasota counties in Florida and Charleston and Georgetown counties in South Carolina. This included portable cell sites, in-building solutions and satellites to provide backhaul to macro cell sites.

Now, sheriffs, firefighters, search and rescue teams, and those providing mutual aid have the dedicated connectivity where they need it most.

On **Sanibel Island**, lan ripped away several parts of the causeway that was the

island's only access to Florida's mainland.
Boats were the only way to reach the island. A Satellite Cell on Light Truck (SatCOLT) was too heavy to travel via the available boats. So, the team deployed a Compact Rapid Deployable (CRD), which is a lighter, new addition to the fleet that gives us greater flexibility to support public safety.

All of these assets link to FirstNet via satellite and do not rely on commercial power availability. This makes them ideal for search and rescue missions. The AT&T Network Disaster Recovery (NDR) team was able to load the CRD into the trunk of one of its Amphibious Vehicles (AVs), drive it to the channel and then engage the hydraulic drive-system to motor and navigate like a boat across the water to the island.

North of Sanibel Island, the FirstNet team coordinated with federal agencies, to deploy a CRD and other assets via a Blackhawk helicopter to Pine Island. First responders on the island had dedicated connectivity with Band 14 – that's the nationwide, high-quality spectrum set aside specifically for FirstNet. And the team was able to turn on Wi-Fi calling to give residents connectivity on the AT&T network. In fact, just five minutes after the asset arrived, people were able to make urgent calls to let others know they were safe. These deployments help exemplify the power of the public-private partnership that created FirstNet.

In addition to deploying FirstNet assets, the team expedited cell site restoration based on public safety's needs, deploying generators and providing FirstNet Ready® devices to first responders on the ground.

And the AT&T Weather Operations Center (AWOC) was in close collaboration with the FirstNet team to assess weather risk and help crews know when it was safe to travel. Plus, FirstNet liaisons were embedded in state and federal Emergency Operations Centers (EOCs) to help ensure first responders continue to have the mobile connectivity and devices they need.

Fiona

Hurricane Fiona hit Puerto Rico with extreme rainfall and winds exactly five years after Hurricane Maria made landfall in the U.S. territory.

Working in close collaboration with local telecom provider, Liberty Mobile Puerto Rico Inc. and Liberty Mobile USVI Inc., we closely monitored the impact of the storm across Puerto Rico and the U.S. Virgin Islands (USVI).

Within 48 hours of the storm making landfall, the network in Puerto Rico had 83% of its cell sites operational, maintaining 99% of coverages, thanks to hundreds of generators across the network.

Dedicated Mobile Cell Sites

And in further testament to the resiliency of FirstNet, the network in the USVI was fully operational throughout the entire storm. While severe damage in Puerto Rico will take time to repair, public safety has dedicated, on-island mobile cell sites and unparalleled support from the FirstNet team at AT&T.

"Liberty is committed to keep providing the most reliable mobile service in Puerto Rico and USVI to the first responder community when they need it most. We were ready to support first responders during Hurricane Fiona," said Victor Vera, Director of RAN Engineering at Liberty Mobile.

Coordinating with EOCs

We continued to coordinate efforts with the local EOCs. And we supported the communications needs of public safety on FirstNet – from on-island first responder agencies to FEMA and those providing mutual-aid support from the mainland. This included everything from prioritizing cell site restoral to deploying in-building solutions in places like San Juan.

Florence

Hal Lowder, Director of the Emergency Operations Center in Whiteville, N.C., said Hurricane Florence was the biggest test of the FirstNet system for the county in 2019. "When everything was down, FirstNet was working," Lowder said.

"During Florence, at the height of the storm we lost all of our land-based mobile systems out of our county dispatch centers. And at one point we were the only thing talking in the county. We actually went to FirstNet as it was intended.

We were using the enhanced Push-To-Talk. It actually became our primary communication system at the time."

"When we started losing some

performance, I made a call to our representative at FirstNet," Lowder added. "And they said, 'We will deploy a SatCOLT.' Every support call I've asked for has been answered." Darren Currie, City Manager for Whiteville, N.C., agreed. "Being that we were on FirstNet, we were still able to get updates," he said. "We were still able to monitor the weather. We were still able to see where the storm was. It's really worked out through Hurricane Florence. But it's also a very good system to have just in the field anytime."





— Curtis Sutton, Executive Director, Tennessee Emergency Commissions Board



Always-on 24x7 priority and preemption for first responders across voice and data communications.

FirstNet.com/coverage/network-investments



TAKING CARE OF THOSE WHO TAKE CARE OF US

AT&T recognizes the tremendous impact that public safety has on the health and wellness of our local communities. However, this public service does not come without personal sacrifice and burdens on responders. That's why AT&T, as public safety's partner, has gone beyond its commitment to build and operate FirstNet and has put resources behind supporting responder health and wellness. In 2020, we established the FirstNet Health and Wellness Coalition to coordinate how we support the holistic health and wellness of first responders.

FirstNet Health and Wellness Coalition

Our mission is to integrate responder, community, industry, and academic capabilities to support the health, wellness and readiness of America's first responders. \ With more than **2 dozen member** public safety organizations representing more than **5.1 million** first responders, we're focused on collaborating with our members to support healthy, well and resilient first responders who are ready to support public safety at a moments notice. Member organizations include the International Association of Fire Chiefs (IAFC), National Emergency Management Association (NEMA), the National Association of Emergency Medical Technicians (NAEMT), and the International Association of Chiefs of Police (IACP) and many others.

IACP Officer Safety & Wellness Symposium

- In February 2020, FirstNet was the presenting sponsor of the International Association of Chiefs of Police (IACP)
 Officer Safety & Wellness Symposium.
- Officer safety and wellness go beyond the typical aspects such as ballistic vests, body cameras, and weapons. Addressing and providing resources to officers across the country that focus on mental health, financial literacy, nutritional needs, sleep deprivation, and injury reduction is a high priority for the IACP.

Boulder Crest Foundation

FirstNet works with Boulder Crest, a non-profit that develops and delivers post-traumatic growth-based programs to provide trainingsfor



first responders across the country. It is estimated that 20-25% of first responders experience post-traumatic stress. Boulder Crest's innovative program focuses on transformative post-traumatic growth training that uses a blend of wellness practices to help participants thrive during and after their careers.

- Post-traumatic growth details how struggle and trauma can be catalysts for growth and transformation in our lives – instead of focusing just on a diagnosis.
- No Through its training, Boulder Crest has seen a 37% reduction in PTSD symptoms and we've seen more and more departments across the country commit to training their personnel in mental health programming that will help chip away the overall crisis.

FirstNet and 02X Human Performance

We're sponsoring and collaborating on a program that brings health, wellness, and resilience-training workshops to first responders in cities across Arizona, Colorado, Connecticut, Florida, Massachusetts, Michigan, Ohio, and Washington."

First H.E.L.P.

- First H.E.L.P. is an organization committed to addressing suicide prevention in public safety and supporting the families of first responders who lost their lives to suicide (Honor, Educate, Lead, and Protect).
- We are a Stigma Smasher Sponsor of the Blue H.E.L.P. Family Weekend, as well as a sponsor of their readiness training in 15 states and counting.

National Association of Emergency Medical Technicians (NAEMT)

NAEMT is a key member of the
FirstNet Health and Wellness
Coalition as an advocate for mental
health and wellness in emergency
response professionals. We are the
exclusive sponsor of their Emotional
Resiliency Officer training program and
collaborated with them to produce
a video on Mental Resiliency in EMS:
Responding With Resilience: Mental
Wellness in EMS – available
on YouTube.

All Clear Foundation

- We're working to increase the accessibility of education resources and support that will aid first responders who may be struggling with health wellness challenges brought on by the unique stressors of their jobs.
- Additionally, we've helping the All Clear Foundation to bring their "Responder Strong" training to public safety in Idaho, Iowa, Illinois, Massachusetts, Minnesota, North Dakota, Pennsylvania, Wisconsin and Washington.

Lighthouse Health and Wellness Application

In December of 2021, we were the exclusive sponsor of a solution to develop a one-stop shop for health and wellness resources for public safety that can be used on their FirstNet

approved devices. This solution ensures that first responders can have access to health and wellness resources, 24/7 for free on their mobile devices.

ROG the Dog

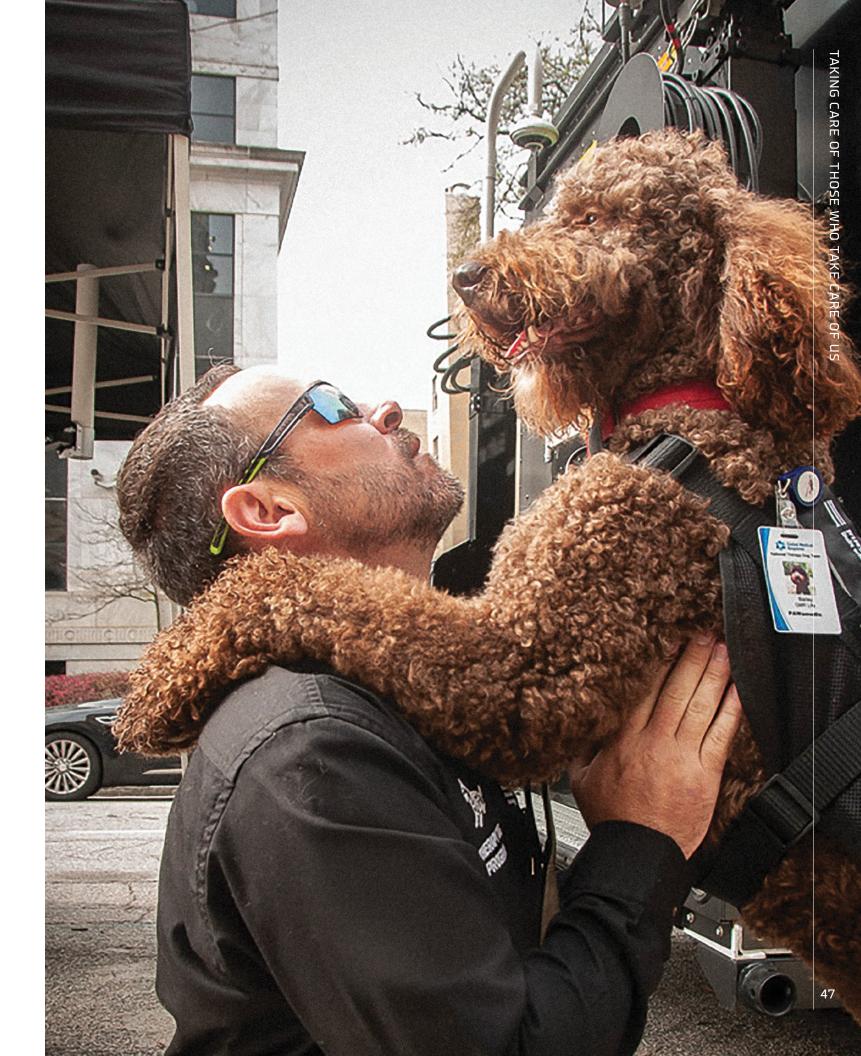
With the creation of the FirstNet Health and Wellness coalition in 2020 – and, subsequently, the animal-assisted therapy program called ROG the Dog – we've gone beyond our commitment to build and operate FirstNet.

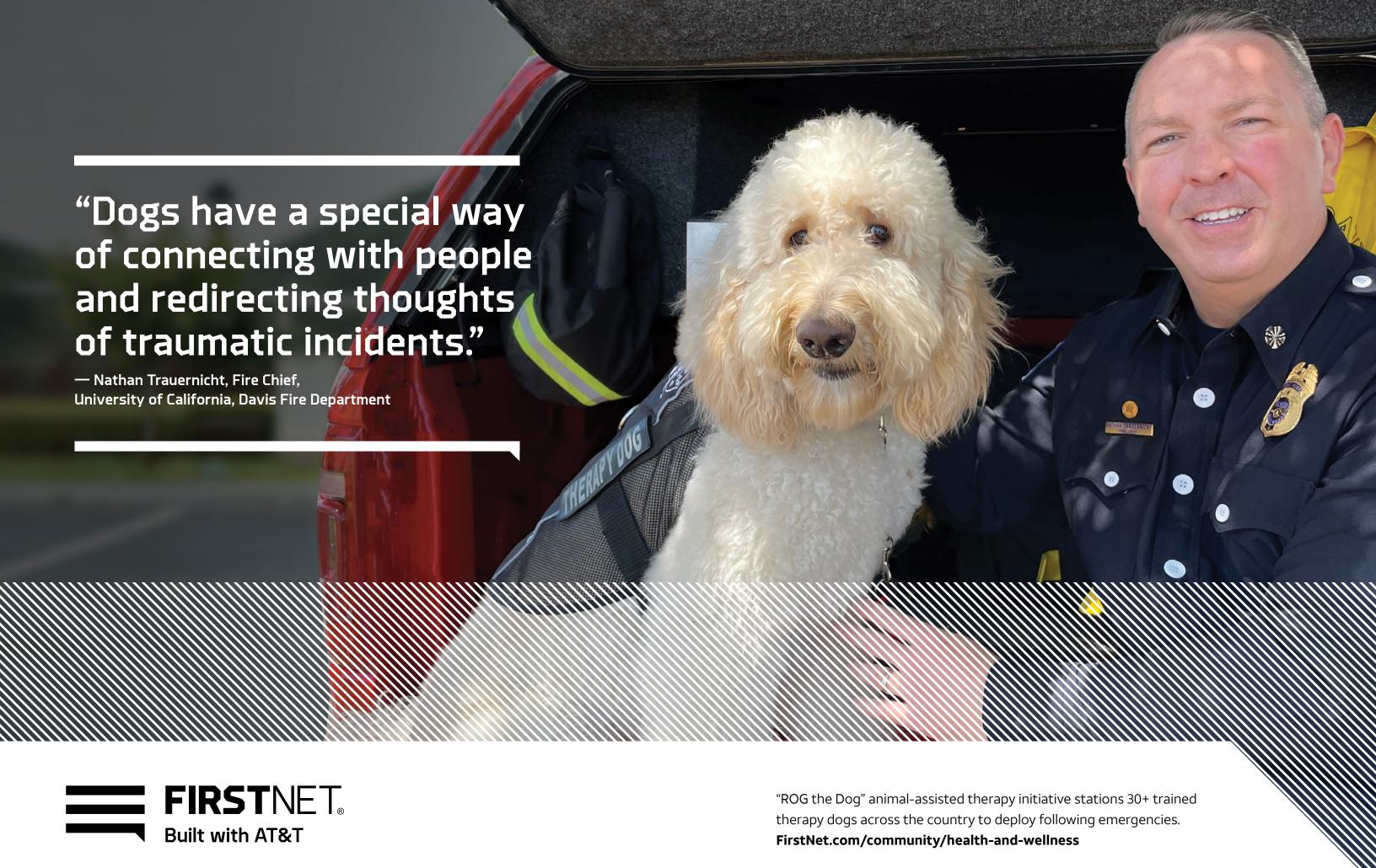
We launched the program through a collaboration with Global Medical Response to support public safety on the front lines. The program consists of a fleet of trained Labradoodles that specialize in animal assisted therapy for first responders.

ROG the DOG is affectionately named for the FirstNet Response Operations Group (ROG) – the team led by former first responders who guide the deployment of the FirstNet fleet of dedicated deployable network assets.

Therapy dogs are proven to have a positive impact on mental and physical health. Studies have shown that interacting with animals can improve coping and recovery, enhance morale, decrease stress, and reduce the effects of PTSD and emotional distress.

Agencies on FirstNet can request a therapy dog following a critical incident in the same way they request a network asset from the FirstNet fleet. And just like the fleet, the dogs are available at no additional charge.







FACING TOMORROW HEAD ON

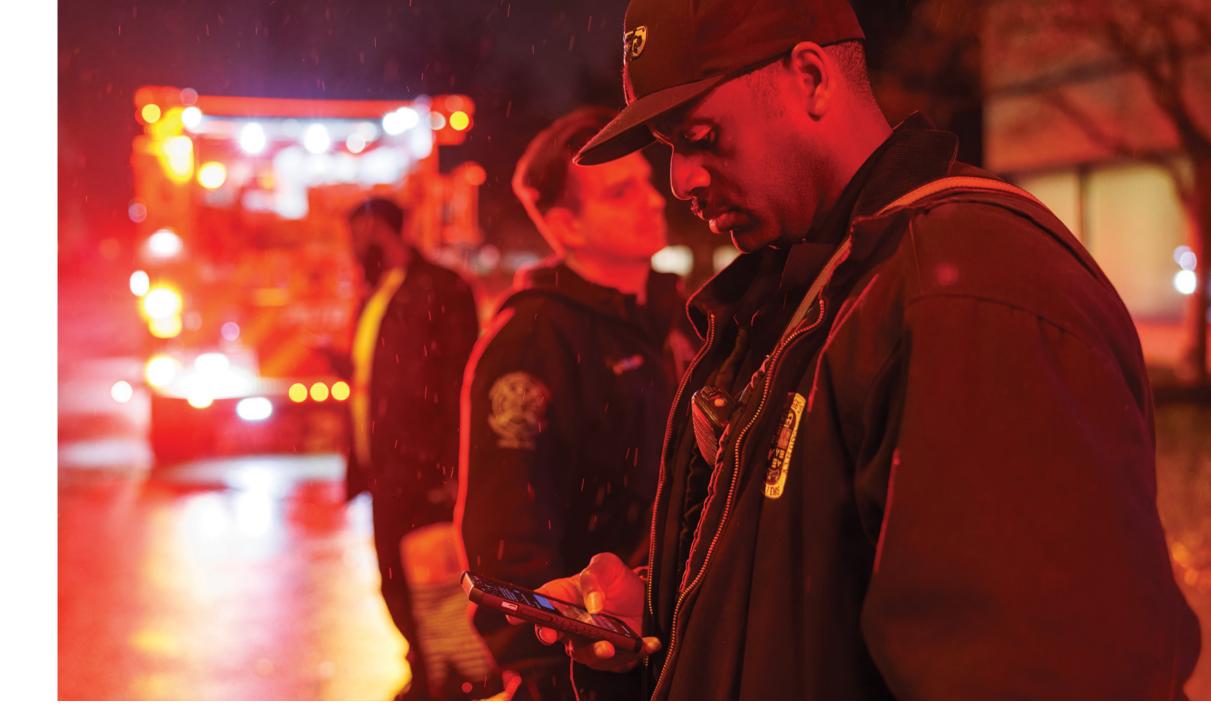
Continuing to deliver for public safety – from call to car to crisis

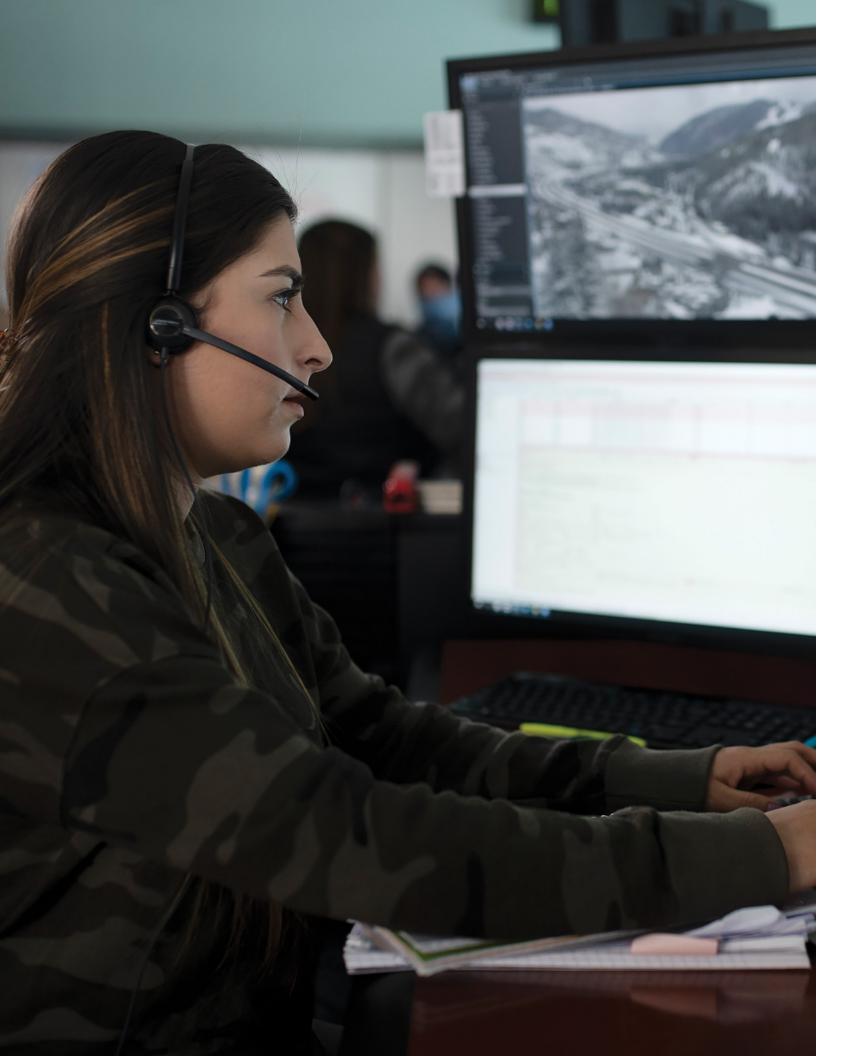
As public safety's partner, FirstNet has continued to deliver innovative public safety-centric solutions to modernize communications for first responders – for emergencies and normal operations. And it will continue to enhance communications for public safety for years to come. These include:

No Integration of full wireless backup through FirstNet – America's public safety network – and AT&T ESInet™ to increase reliability and resiliency for 9-1-1 call centers. Wireless backup means that even during the toughest strains and worst-case scenarios, network connectivity will be available so that callers will know that 9-1-1 telecommunicators will answer their call. If AT&T ESInet detects a disruption to the primary 9-1-1 call center connections, it will automatically re-route 9-1-1 calls over the FirstNet network, ensuring they are answered.

- \ Ongoing expansion of 5G on FirstNet across the country.
- Continued investment in the FirstNet Health and Wellness Coalition to develop a national strategy for emergency responder wellness groups to focus on enhanced in-building

- communications capabilities.
- Expansion of the FirstNet fleet of dedicated deployable assets.
- N Expansion of the mission critical push-to-talk solutions, including FirstNet Push-to-Talk and FirstNet Rapid Response.





"We've made remarkable progress in only five years, working alongside the first responder community to deliver FirstNet and its entire ecosystem of mission-centric tools – all designed specifically for them," said Jim Bugel, President, FirstNet Program at AT&T. "As technology rapidly evolves, we'll continue to create innovative solutions and equip public safety to further strengthen their situational awareness and incident response in any emergency."

"We're moving fast, prioritizing this vital community, not just because it's what they asked for, but because it ultimately helps people across the country stay safe," said Bugel.

Evolution of 9-1-1

When AT&T worked with the FCC to establish the first 9-1-1 systems over 50 years ago, landline communications reigned supreme. Now, 68% of adults do not have a landline in their homes according to the National Centers for Disease Control (CDC).

Today, 80% of 9-1-1 calls come from a mobile device, according to the National Emergency Number Association and PSAPs need technology that is compatible with what the majority of 9-1-1 callers use today. That's why AT&T ESInet is the first NextGen 9-1-1 solution to integrate with both FirstNet and the commercial AT&T wireless network.

This integrated solution takes advantage of device-based hybrid technology so

"We got exactly what we wanted with AT&T. They listened."

— Al Gillespie, former President, International Association of Fire Chiefs

PSAPs can identify a more precise wireless caller location, route calls quicker, and reduce emergency response times. In fact, the FCC estimates that over 10,000 lives could be saved each year if public safety were able to reach callers just one minute faster. Device-based hybrid technology uses a combination of satellite GPS, Wi-Fi and a wireless network to track a caller's location more accurately, even when a wireless call is coming from inside a building.

From Calls to Texts

And now PSAPs using AT&T ESInet can receive verified text alerts when an alarm is triggered. By seamlessly integrating home alarm information into AT&T ESInet, 9-1-1 telecommunicators can quickly assess information and provide critical information to fire, law enforcement, ambulances, and other first responders on-scene.

These initiatives come as FCC Chairwoman, Jessica Rosenworcel stated, "it's time for a nationwide digital upgrade of 9-1-1." She also proposed a plan to dedicate proceeds from upcoming spectrum auctions toward a nationwide investment in NextGen 9-1-1 services. By integrating AT&T ESInet with the AT&T network, we've set the foundation for PSAPs to support the future exchange of multimedia.

This means 9-1-1 callers will have the ability to send photos and videos to help improve public safety's situational awareness during critical times. To date, over 1,400 PSAPs have adopted AT&T ESInet. In addition, all technology and certification used for AT&T's Next Gen 9-1-1 integration with FirstNet is available to any ESInet provider. Public safety agencies should check with their Next Gen 9-1-1 service provider to determine the feasibility for integration of FirstNet. AT&T has worked relentlessly to seamlessly integrate the FirstNet solutions in the customer experience to better service the 9-1-1 call taker and as a result. AT&T is leading the way with NG911 and FirstNet Integration. For example, public safety agencies in the state of lowa and Tennessee have announced successful implementation of FirstNet to provide this wireless network as an alternative to traditional wireline/fiber connectivity.

Moving forward, of the \$18 billion in sustainability payments, it is expected the FirstNet Authority will reinvest \$15 billion in the network. With this partnership

approach, the FirstNet Authority and AT&T do not need any additional federal funding to build and operate the network – it is a fully funded, self-sustaining network.

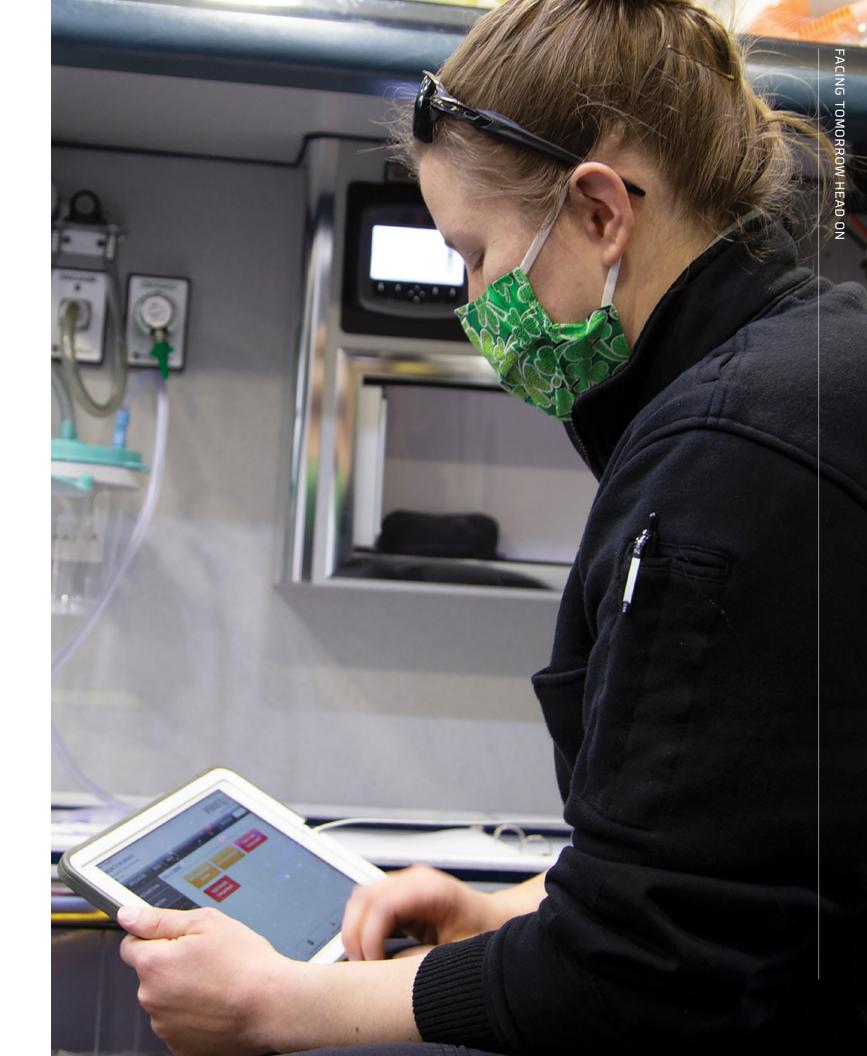
The Future is 5G

Emergencies are unpredictable.

During these critical moments, public safety needs reliable, interoperable communications. That's why our approach to 5G for public safety is unlike anything else.

It's not the typical approach to 5G you see in television commercials. That's because 5G on FirstNet – America's public safety network – is a one-of-a-kind experience. It gives our nation's first responders the early benefits of this next-generation connectivity while continuing to use LTE, the current gold standard for reliable mobile broadband, for their mission-critical needs.

First responders maintain voice communications with always-on priority and preemption on LTE, while the FirstNet network determines the best route for data traffic, whether that's 5G or LTE spectrum. The dedicated FirstNet network core has been enhanced to enable reliable 5G connectivity and opened access to AT&T high-band 5G+ spectrum. We also have available access to AT&T low-band 5G and, the "sweet spot" of 5G – AT&T mid-band 5G+.



This means 9-1-1 callers will have the ability to send photos and videos to help improve public safety's situational awareness during critical times.

All public safety needs to access 5G on FirstNet is a FirstNet Ready® 5G device.

On FirstNet, 5G connectivity is ideal for IoT and video intelligence solutions. Imagine being able to deploy cameras during parades and other celebrations to help identify suspicious bags or packages. Or using 5G in an ambulance to transmit patient data back to the emergency room. That's just a few ways 5G on FirstNet can help public safety achieve its life-saving missions in the future.

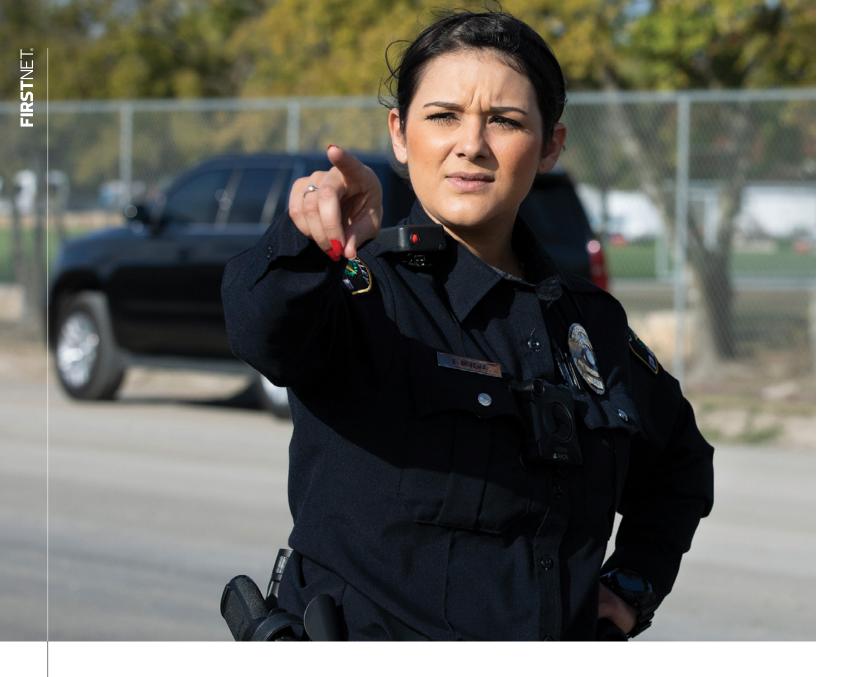
As new technologies become available, we understand what's most important is taking a first responder-centric view in their deployment. That applies to 5G, augmented reality, edge computing, and others. It's our responsibility as America's public safety wireless communications provider. We're not building 5G on FirstNet for the bottom line. We're building it for public safety's unique mission needs. That means making sound decisions and being good stewards of public safety's network – all to ensure we do 5G right for public safety.

The 3 B's of 5G

We're delivering 3 flavors of 5G on FirstNet using AT&T spectrum bands. Public safety in about 100 markets across the country have access to at least 1 of the 3 flavors of 5G. And we're continuing to roll out additional 5G connectivity for FirstNet in more communities nationwide:

- Negative New York New
- \ Mid-Band 5G+: This spectrum fills the gap between our other bands and provides a great combination of ultra-fast speeds and wide geographic coverage. Now the first responder community has access to the "sweet spot" of 5G spectrum in multiple cities coast-to-coast.
- **\ Low-Band 5G**: This band can travel farther, as well as penetrate through buildings and infrastructure better than high-band 5G+. And it's available in multiple cities across the country.





FINAL WORDS

Not Just for Today, but for Whatever Tomorrow Brings

In the years since FirstNet Authority partnered with AT&T to deliver America's public safety network, more agencies – think fire, law enforcement, and EMS – trust FirstNet, Built with AT&T to reliably communicate than any other network.

In short, the network that public safety demanded is delivering. But don't take

our word for it. Our leadership position within the public safety community is based on two independent analyses of the industry landscape and backed by more than 20 consecutive quarters of consistent, steady growth.¹

"After just 6 years of partnership, we are proud to see how far FirstNet has come," said Joseph M. Wassel, CEO, FirstNet Authority. "The network is serving public safety in every state and territory, making a positive impact on responder operations and our nation's communities every day. The FirstNet Authority looks forward to collaborating with public safety to ensure the network grows and evolves to meet their needs – now and in the future."

Both AT&T and the FirstNet Authority have committed significant resources to build a network that will help improve communication for first responders and members of the public safety community.

The FirstNet Authority will continue to hold AT&T accountable to deliver and maintain a solution that meets public safety's needs – today and for many years to come.

We're proud to cover more first responders than any network.² And with the nation's largest coverage footprint of more than **2.91 million square miles**,³ public safety on FirstNet has access to 250,000+ more square miles than competing commercial network offerings.

As public safety's partner, we understand we must earn and re-earn their trust

each day. That's why we're laser-focused on delivering not only a mission-ready network but an entire public safety ecosystem that is second to none.

"Reliable connectivity for public safety's mission is critical to helping save lives and protect our communities," said Jim Bugel, President, FirstNet Program at AT&T. "That's why America's first responders are choosing FirstNet more than any other network. And as we enter the next stage of delivering public safety's network, AT&T will continue to be held to a higher standard, ensuring that FirstNet is there for public safety no matter the emergency."

FirstNet is the only network that is purpose-built to the high standards of public safety, based on an understanding of their needs. FirstNet represents an unprecedented public-private investment in infrastructure and has made public safety a national priority.

We're taking our obligation to deliver
FirstNet seriously, hitting or exceeding
milestones the FirstNet Authority has
laid out on public safety's behalf. This is
what we're built to do. We're honored to
have the opportunity, and we won't stop
serving first responders because they
never stop serving their communities.

¹Based upon AT&T analysis of 3rd party data. ²Coverage not available everywhere. ³As of EOY 2022



Helping you connect, so you can serve and protect

Whatever the situation, FirstNet is the wireless network first responders like you need to connect – every day. That includes prioritized connectivity – never competing with commercial traffic – and the mission-critical tools you need to get the job done.

Visit FirstNet.com to learn more.

