



Building the Next Generation of Public Safety Communications

FISCAL YEAR 2024 ANNUAL REPORT TO CONGRESS

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and the United States House of Representatives Committee on Energy and Commerce

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The 2024 total solar eclipse brought massive crowds to 15 U.S. states in the path of totality. The FirstNet Authority began working with public safety officials two years prior to incorporate broadband into their eclipse planning. FirstNet stationed assets across the country to help provide additional coverage, especially in rural areas with unusually large crowds.



This Annual Report to Congress is issued pursuant to Section 6210 of Public Law 112-96 and reflects the operations, activities, financial condition, and accomplishments of the First Responder Network Authority (FirstNet Authority)¹ for fiscal year 2024.²

¹ Public Law 112-96 established the FirstNet Authority as an independent authority within the United States Department of Commerce's National Telecommunications and Information Administration (NTIA).

² Fiscal year 2024 is the period from October 1, 2023, through September 30, 2024.

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LETTER FROM ACTING BOARD CHAIR SHERIFF MICHAEL ADKINSON AND EXECUTIVE DIRECTOR AND CEO MICHAEL A. CANNON

We are excited to report that fiscal year (FY) 2024 was a transformative year at the First Responder Network Authority ("FirstNet Authority" or the "Authority"). In FY 2024, the FirstNet Authority approved investments that will keep our network at the cutting edge of emergency communications and build the infrastructure of tomorrow for first responders.

In FY 2023, we celebrated the completion of the initial five-year buildout of the Nationwide Public Safety Broadband Network (NPSBN, FirstNet), which was finalized on time and on budget. In addition, the Federal Communications Commission concluded that the FirstNet Authority had met its duties and obligations under its enabling statute, the Middle Class Tax Relief and Job Creation Act of 2012, and renewed the Authority's 10-year Band 14 radio spectrum license, the dedicated spectrum allocated by Congress for the NPSBN.

Building on this foundational record of achievement, during FY 2024, the FirstNet Authority announced the next stage of our development on behalf of the public safety community. The FirstNet Authority Board approved an investment initiative to evolve and expand network coverage, delivering full 5G capabilities on the FirstNet network and increasing mission-critical services for public safety across America. This investment reflects the Authority's ongoing commitment to support future technologies and innovations that will serve as vital tools and improve broadband communications for first responders. Also in FY 2024, the FirstNet Authority redoubled its efforts to provide the best service for first responders no matter where they serve.

The FirstNet Authority Board and staff recognize that every first responder utilizing the network places enormous trust in our work. We constantly strive to earn that trust and exceed their expectations. This year saw continued rapid adoption of FirstNet, adding 3,000 public safety organizations and over 1 million connections to the network, while also increasing the number of devices available for first responders.

The FirstNet Authority continues to drive innovation in public safety communications. This year, we again co-hosted "5x5: The Public Safety Innovation Summit" with the National Institute of Standards and Technology's Public Safety Communications Research Division. This national event brings together first responders, leading public safety officials, technology innovators, and government leaders to further our shared mission of improving public safety communications.

The FirstNet Authority works closely with the public safety community and prioritizes transparency, oversight of network performance, and efficient and effective administration. With seats on the FirstNet Authority Board, leading public safety experts ensure that first responders and emergency management have both a voice and a hand in the FirstNet Authority's governance and operation. The FirstNet Authority staff regularly engage with public safety stakeholders across jurisdictions and disciplines. In FY 2024, our staff held over 1,400 engagements with over 52,000 public safety stakeholders. Additionally, the FirstNet Authority's congressionally mandated Public Safety Advisory Committee is composed of representatives of more than

40 public safety and government associations. We owe our success to these real-world practitioners and experts who consistently provide valuable feedback to the organization.

As the FirstNet Authority moves forward, an important legislative issue requires congressional action. The Middle Class Tax Relief and Job Creation Act of 2012 included a sunset date of February 22, 2027. According to the U.S. Government Accountability Office, if Congress does not take action to reauthorize the FirstNet Authority before the sunset date, the program will not be able to continue.

Following September 11th, Congress and the first responder community joined together in a solemn cause—to create a nationwide public safety network that would be built for public safety, by public safety. The innovative public-private partnership that resulted maximized our ability to engage with public safety at all levels to ensure their operational needs were met while deploying a reliable network quickly and efficiently. Today, a little more than a decade after its creation, FirstNet is a critical communications platform for public safety across the country.



MICHAEL ADKINSON
Acting Board Chair



MICHAEL A. CANNON
Executive Director and CEO

Looking to the future, we know that we need to be at our best when things are at their worst. America's first responders give their all, every single day. With FirstNet, we have built—and continue to expand, augment, and advance—a reliable and secure high-speed, interoperable network that reciprocates public safety's level of dedication and continues to earn their trust. They are always there for us, and we will always be there for them.

Sincerely,



The Redstone Arsenal Fire and Emergency Services team in Alabama uses FirstNet to ensure seamless communication during complex federal public safety operations. FirstNet tools, like push-to-talk and mapping services, allows them to easily work with their partners across the military base.

EXECUTIVE SUMMARY

The First Responder Network Authority (FirstNet Authority) is tasked by Congress to ensure the establishment and continuing operation, maintenance, and improvement of an interoperable nationwide public safety broadband network ("NPSBN" or "FirstNet" or the "network").

Created in the Middle Class Tax Relief and Job Creation Act of 2012 (the Act), Congress allocated \$7 billion and 20 megahertz of dedicated wireless spectrum to establish the network. In 2017, following an open, transparent, and competitive procurement process, the FirstNet Authority awarded a 25-year contract to AT&T to build, operate, and maintain the network, creating a first-of-its-kind public-private partnership to support public safety. Shortly thereafter, in 2018, AT&T commenced deployment of FirstNet to bring network coverage, services, and capabilities to public safety. The nationwide network buildout was completed on time and on budget in 2023. The FirstNet Authority is now funded by fees collected through the public-private partnership, and the program operates at no direct cost to U.S. taxpayers following the initial investment.

Pursuant to the Act, the FirstNet Authority is led by a Board comprised of 15 members. Three are permanent members — the Secretary of Homeland Security, the Attorney General, and the Director of the Office of Management and Budget — and twelve are appointed by the Secretary of Commerce for their public safety, technical, network, and/or financial experience and expertise. The Board works to ensure that the FirstNet Authority and the network are delivering for public safety.

Today, first responders throughout the country use FirstNet to help save lives and keep communities safe. Focused on the needs of public safety, the network includes a dedicated network core capability that separates public safety traffic from non-public safety traffic. FirstNet provides one-of-a-kind, always-on priority and preemption, giving public safety users' calls, texts, and data the "lights and sirens" treatment on the network. The network continues to evolve with new public safety functions and features. The FirstNet nationwide buildout of Band 14—FirstNet's dedicated public safety spectrum—provides additional coverage and capacity where public safety needs it the most.

In fiscal year (FY) 2024, the Board announced new investments to enhance and expand the NPSBN. After standing up the network across all 50 states, 5 territories, and the District of Columbia (collectively "states and territories"), the FirstNet Authority is dedicated to building the public safety communications infrastructure of the future.

The FirstNet Authority recognizes that network coverage and performance must be exceptional for all first responders. In FY 2024, the FirstNet Authority made it a priority to ensure that public safety responders in America's tribal nations, U.S. territories, and rural areas (collectively "TTR") have the best possible emergency communications to successfully execute on the unique mission needs for these communities.

In FY 2024, the FirstNet Authority continued its strategic investments to expand coverage and enhance network performance wherever public safety operates, maintained our dedicated outreach to stakeholders to operationalize insight from public safety practitioners, conducted vigorous oversight of the network's deployment and performance, and ensured that FirstNet was a technology leader among public safety communications networks in developing innovative devices and applications (apps).

FirstNet by the Numbers

FirstNet Response Operations: FirstNet made a significant impact nationwide by completing milestones for state deployment, including targets for rural and tribal areas. Today, the FirstNet network provides coverage for more than 2.91 million square miles. In FY 2024, the network triaged and deployed over 2,250 portable cell equipment and signal enhancement solutions for public safety during emergency situations.

Connections: There has been significant, continuing adoption of FirstNet by public safety. In FY 2024, there were approximately 29,000 subscribed public safety agencies and organizations, with 6.4 million device connections to the network.

Public Safety Engagement: In FY 2024, the FirstNet Authority conducted over 1,400 engagements reaching more than 52,000 public safety stakeholders nationwide, including over 170 engagements involving tribal participation, to gain insight and collect feedback regarding the network.

Applications: There are more than 200 public safety apps available in the FirstNet app catalog, vetted for security.

Devices: First responders can choose from over 865 FirstNet Ready® devices, which undergo a rigorous certification process, from regular commercial phones to specialized and ruggedized equipment for activities such as search and rescue.

Deployables: Recognizing that natural disasters and other events can cause cell towers to go offline, and emergencies

can occur in remote areas, the FirstNet program has over 180 mobile broadband solutions in its deployable fleet. The fleet includes vehicles with mobile cell sites called Satellite Cell on Light Trucks (SatCOLTs) and smaller compact rapid deployables (CRDs). The AT&T FirstNet operations team also introduced a new smaller form factor miniCRD with better portability characteristics. Also, the FirstNet Authority's FY 2024 investments included contracting for the upgrade of the complete deployable fleet from 4G/LTE to 5G technology, as well as the gradual introduction of Low Earth Orbit (LEO) backhaul, further enhancing satellite coverage for users.

FY 2024 Notable Successes

In addition to the network operations, expansion, and features noted above, the FirstNet Authority had several other notable successes in FY 2024, including:

- **Investments:** The FirstNet Authority continued to operationalize investments to improve the FirstNet network. This included the February 2024 announcement to expand and enhance the NPSBN, including transitioning to full 5G priority and preemption across all AT&T commercial spectrum bands and deploying a standalone 5G core. The investment also supports an additional 1,000 new FirstNet tower sites, expanding mission-critical services and upgrading the deployable network assets fleet, and readying the network to evolve beyond 5G.
- **Progress Update Engagement Meetings:** With the completion of the initial 5-year network buildout, the FirstNet Authority, in cooperation with AT&T, launched a series of progress update meetings in states and territories, all of which had unanimously opted into the FirstNet program. During FY 2024, meetings were held with 29 of the 56 states and territories, completing this multi-year state engagement project.
- **Contract Deployment and Oversight:** The FirstNet Authority continued to ensure the successful execution of the contract with AT&T to build, deploy, operate, and enhance the FirstNet network. In FY 2024, a new task order was awarded as the first major reinvestment of the FirstNet Authority's strategic investments plan; the task order requires AT&T to continue the evolution of the NPSBN.
- **Technology and Innovation:** The FirstNet Authority continues to serve as a conduit between public safety users and the industries that operate and develop innovative communications tools to advance public safety communications and their mission. Last year, the FirstNet Authority again partnered with NIST's PSCR Division to jointly host 5x5: The Public Safety Innovation Summit. This event brought together hundreds of stakeholders from across public safety; industry; academia; and federal, tribal, state, and local government to discuss the future of public safety communications.
- **Roadmap:** The FirstNet Authority Roadmap (Roadmap) is designed to guide the growth, evolution, and advancement of FirstNet by identifying public safety's operational needs and potential areas of focus. In FY 2024, the Authority's planning was still governed by the Roadmap released in FY 2023, which focuses on three areas. Foundationally, the goal is the continued evolution of (1) a Dependable Network to enable (2) Connected Responders, and ultimately allow for (3) Operationalizing Advanced Technologies. These areas represent end goals that enhance public safety operations today and into the future.
- **Financial Sustainability:** The FirstNet Authority continues to effectively manage its finances to remain self-sustaining, as required by Congress.



FirstNet Authority participated in a Northern Mariana Islands communications exercise where they demonstrated how FirstNet can support public safety through tools like MiniCRDs. The goal of the exercise was to discuss and demonstrate communication policies, procedures, plans, assets, and capabilities that agencies use in response to significant multi-jurisdictional incidents.



With the help of FirstNet, paramedics in Jackman, Maine, can conduct telehealth sessions and treat residents at the local health clinic or in their homes, rather than transporting patients to a hospital over an hour away.

2024 STRATEGIC EMPHASIS: BUILDING OUT THE FUTURE

The FirstNet Authority is charged to provide for today and build for tomorrow. When Congress created the FirstNet Authority to ensure and oversee the establishment and continued operation, maintenance, and improvement of the NPSBN, it fashioned a new concept for a unique mission: a self-financing government entity capable of leveraging the expertise, infrastructure, and scale of the private sector to swiftly stand up a new nationwide interoperable high-speed broadband network for public safety.

Given that Congress expected something that had not been done before, from day one, the FirstNet Authority has always been oriented toward the future—creating a network that will serve and adapt to the needs of public safety tomorrow while ensuring the best possible service today. In 2023, we finished our initial network build goal, providing FirstNet coverage to more than 99 percent of the U.S. population across more than 2.91 million square miles.

In FY 2024, the FirstNet Authority remained dedicated to ensuring this network is always operating at its best, while also responding to disasters and fulfilling our future oriented responsibilities to public safety. The FirstNet Authority has successfully delivered the initial NPSBN, now we are building its future. Last year, the FirstNet Authority Board made a leap in progress by committing to long-term network growth and enhancement; facilitating research and utilization of new technologies with new functionalities; and ensuring that public safety serving every American community has dependable, high-quality, high-capacity emergency communications.

Transformative Investments Enhance and Expand the Network

In FY 2024, the FirstNet Authority announced a major investment in the future of public safety communications. The FirstNet Authority Board committed to an investment initiative to expand and evolve FirstNet so public safety stays at the forefront of innovative, lifesaving technologies.

With more than 6.4 million connections and over 29,000 public safety agencies and organizations on FirstNet as of September 30, 2024, and more constantly added, first responders can reliably communicate with one another during everyday operations, big events, emergencies in the field, and more. The FirstNet Authority must ensure quality and capacity can meet the demands of public safety in the future.

This strategic commitment launches the next phase of FirstNet that will:

- Provide first responders on FirstNet with always-on **priority and preemption across all AT&T 5G commercial spectrum bands**.
- Build thousands of new, purpose-built FirstNet cell sites across the country — including **1,000 new sites** to deliver Band 14 coverage enhancements. These coverage investments will reflect public safety needs and network considerations, all in support of public safety response operations.
- Create a **standalone 5G core** to enhance current 5G functionality with specific public safety features on FirstNet and support the transition of public safety's Band 14 spectrum from LTE to 5G.
- Expand **mission-critical services** — voice, video, data, and location — to complement public safety's localized, voice-only radio systems with reliable, wireless connectivity.
- Upgrade public safety's dedicated **fleet of deployable network assets with 5G connectivity** to improve operational safety, security, and resiliency.
- Ready the network to **evolve beyond 5G**, while remaining focused on public safety's unique needs and emerging requirements when implementing future technological advancements.

With the initial buildout of FirstNet complete, this initiative will expand access to public safety's Band 14 spectrum in the near term, with plans for additional coverage enhancements on a recurring basis. The FirstNet Authority will work closely with public safety across the states, tribes, and territories to identify areas that could benefit from enhanced coverage. The FirstNet Authority will take this information into account, along with network considerations, to ensure future coverage enhancements maximize resources and make the biggest impact on public safety operations.

Supporting Emerging Technology, Leading Public Safety Innovation

The FirstNet Authority is a catalyst for technology and innovation for public safety. The network has created a robust ecosystem of mission-centric apps, solutions, and dedicated connectivity for public safety operations. The strategic investment initiative announced in FY 2024 ensures that FirstNet will remain at the forefront of technology, continues to solve the communications challenges facing

public safety today, and has the flexibility to adapt to public safety's future needs.

FirstNet 5G will provide first responders with access to enhanced upload and download speeds and enable all the quality of service, priority, and preemption capabilities in 5G. While transitioning to full 5G, FirstNet will utilize a dual-mode core supporting 4G/LTE devices as well as 5G devices. Evolving FirstNet's infrastructure and network to a completely 5G-capable service will improve the performance of current technologies now in use by public safety, as well as provide a stable foundation on which future communications solutions and emergency response equipment will run.

The strategic investments represent a bold expression of our future-oriented mindset to serving public safety. The FirstNet Authority has made innovation in emergency communications technology a cornerstone of serving public safety since our founding. The 2012 Act requires the FirstNet Authority to ensure that the NPSBN continues to evolve with technological advancements, and the FirstNet Authority Board has made — and will continue to make — the investments necessary to achieve this mandate.

One of the key capabilities that public safety requested during the planning phase of FirstNet was the ability to determine the Z-axis, or vertical axis, location of personnel. FirstNet's Z-axis capability provides first responders with enhanced situational awareness not available with traditional GPS. In addition to latitude and longitude coordinates, Z-axis provides a vertical location to help locate personnel in tall buildings by using the barometric sensor built into most smartphones to measure height above terrain. The FirstNet Authority is proud to say that this service is now available in a growing number of areas on the FirstNet network for the nation's first responders, and many apps employing Z-axis functionality are available in the FirstNet App Catalog.

The FirstNet program is also supporting the integration of greater Low Earth Orbit (LEO) connectivity to FirstNet deployable equipment. For example, now a modification kit is available that can provide LEO functionality to CRDs, which were previously equipped with geo-stationary satellite connectivity. CRDs are versatile vehicle-towed units that generate FirstNet cellular and Wi-Fi coverage for the surrounding area. The "miniCRD" — a FirstNet cellular site with Wi-Fi coverage in a portable ruggedized case — is equipped with LEO functionality by design.

Another example of continued innovation is High-Powered User Equipment (HPUE), which is available in a go kit with power and a fully integrated router for easier deployment. Both the CRDs and HPUE are important as the FirstNet Authority looks to enhance and expand connectivity and performance in maritime environments and rural areas at the network's edge.

In FY 2024, the FirstNet Authority again co-hosted 5x5: The Public Safety Innovation Summit with our partners at NIST PSCR. Over three days in Chicago, we brought together hundreds of public safety stakeholders to share insights into the challenges first responders face and innovative ways to provide communications solutions and help drive R&D forward for public safety, today and in the future. 5x5 included a lineup of influential speakers and collaborative sessions delivering engaging and educational opportunities focused on public safety communications and operations. The summit covered topics such as the use of drones for public safety applications, advancements in augmented reality, cybersecurity, artificial intelligence (AI) for public safety, and much more.

Wherever Public Safety Operates: Prioritizing Tribal Nations, U.S. Territories, and Rural Communities

The FirstNet Authority oversees a network that is massive in scope, and it must be versatile enough to serve the diverse communities that make up America. This is especially true for our mission in the toughest-to-reach areas when the speed of response can mean the difference between life and death.

In FY 2024, the FirstNet Authority identified assessing and improving the network's performance in tribal nations, U.S. territories, and rural areas ("TTR") as a strategic priority. Emergencies happen everywhere, and at any time. FirstNet must provide high-quality, dependable connectivity to serve first responders wherever and whenever they answer the call.

Delivering on the expectations for public safety and emergency response in rural areas can be daunting. Large distances and complex terrain can increase response times for first responders who may have multiple responsibilities. Emergency resources may not be as robust with limited people, facilities, and local finances in rural communities. Infrastructure, such as electricity and backhaul, may be sparse, and advanced health facilities like a trauma center may require transport by air. Emergency services may be a mix of full-time first responders or a volunteer force, and the equipment at their disposal may be limited.

FirstNet's reputation for reliable service, expansive coverage, and unique solutions like cell boosters and a fleet of deployable assets—mobile cell sites that link to FirstNet via satellite and do not rely on commercial power availability—help rural and remote first responders meet the many challenges presented by distance and terrain. Importantly, the mission of the FirstNet program and the input from public safety stakeholders dictates that FirstNet service is provided where public safety needs it, not dictated by profit maximization.

Our nation's 575 federally recognized American Indian Tribes and Alaska Native Villages span 35 states. Many tribes possess significant telecommunications capabilities important to their people as well as nearby non-tribal communities, while others may lack the infrastructure and response capacity they would prefer. Many tribal lands are outside of urban areas and may be isolated from major roadways and established infrastructure.

FirstNet offers tribal nations a suite of versatile communications solutions supporting a tremendous range of functionality that can be called upon to support police, fire, EMS, and remote healthcare visits. Further, the FirstNet Authority's Public Safety Advisory Committee Tribal Advisory Group (TAG) ensures that public safety representatives from American Indian and Alaska Native communities have a seat at the table in providing advice and recommendations on FirstNet operations and enhancements. The FirstNet Authority will never be satisfied with "good enough." Through regular engagement with tribal first responders and TAG representatives, we are focused on improving network quality and performance in every community.

More than 3.5 million Americans are residents of U.S. territories in the Caribbean Sea or the Pacific Ocean. Their geographic locations can mean risks of severe weather events and exposure to potential national security threats, with lines of communication stretching hundreds or thousands of miles from the continental United States. As in the rest of the nation, dependable wireless communications are vital in these environments.

In FY 2024, FirstNet Authority leadership participated in several territory consultation meetings to learn more about their unique communication needs. These included participation in a major emergency event tabletop exercise conducted by the Federal Emergency Management Agency (FEMA) and the Guam Department of Homeland Security, and site visits to learn about network performance in the Commonwealth of the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. These visits provided the FirstNet Authority leadership with valuable firsthand feedback on the unique public safety mission needs of the island territories and helped inform investment and operational decisions.



The Baltimore City Sheriff's Office switched to FirstNet after an underground fire cut power and disabled radio communications. Today, deputies rely on their FirstNet devices for field reporting, prisoner transports, and daily operations.

FIRSTNET IN ACTION

FirstNet is the only nationwide public safety communications platform built with, and for, first responders, utilizing licensed and dedicated spectrum allocated by Congress. Below are some examples of FirstNet's usage by public safety agencies from around the country during FY 2024.

Preplanning Coordination for Major Events

The FirstNet Authority offers operational support to the public safety community through our Network Experience Engagement Program, offered at no cost to help subscribing agencies with pre-incident and event planning, post-incident and event reviews, and exercise planning.

The FirstNet Authority helps examine where responders will be operating, what broadband capabilities will be used, and which technologies are needed at various locations. The team can also look at FirstNet's coverage and capacity to determine if any supplemental options are needed. Through our public-private partnership with AT&T, we provide information about any coverage or capacity needs before they become a challenge. The FirstNet Authority stays on the ground for the day of the event, embedding with local agencies and event officials to monitor performance. After the crowds have gone home, the FirstNet Authority's team participates in after action analyses and lessons learned that will be used to prepare for the next big event.

In FY 2024, the FirstNet Authority's preplanning teams assisted host communities' first responders and local governments to identify needs and potential solutions ahead of some of the most high-profile events in the world. FirstNet Authority staff helped deliver smooth cross-agency interoperable communications before, during, and after major sporting events and large-scale gatherings and conferences across the country.

Hurricane Beryl Hits Texas

Hurricane Beryl slammed into Texas as a Category 1 storm on July 8, 2024. Flooding caused by storm surge and heavy rains, high winds, and storm-spawned tornadoes left a path of destruction across barrier islands and the Houston region, leaving more than 2.7 million people without power and, tragically, causing dozens of fatalities.

Amid the destruction at the peak of the storm, first responders and emergency agencies in Texas were able to communicate on FirstNet's high-speed interoperable

broadband network, coordinating rescues, dispatching EMTs, and preserving key functionalities of critical infrastructure.

Before Beryl made landfall, deployable assets were prepositioned, ready to maintain or restore communications connectivity. As needs were identified, FirstNet was there with solutions. The Harris County Emergency Operations Center received in-building solutions to provide dedicated connectivity to operations and dispatch teams during immediate recovery operations coordination. Over the course of the next few days, SatCOLTs, a Response Communications Vehicle, and CRDs were delivered to support response and recovery in nine Texas counties: Fort Bend, Galveston, Harris, Jackson, Matagorda, Montgomery, Newton, Polk, and Trinity.

FirstNet Employed as Wildfire Threatens Alaska Tourism

In late June and early July, the Riley Wildfire flared up, encroaching on the primary highway in central Alaska that connects Anchorage to Fairbanks. The wildfire threatened to cut Denali National Park off from the nearby town of Healy at the height of Alaska's vital tourism season. The threat became so serious that the national park was closed, and all staff were evacuated, as was the entire surrounding Denali Borough. Over several weeks, the fire would burn 436 acres.

As local, state, and federal first responders set up a command post to coordinate operations, a FirstNet SatCOLT was deployed to provide dedicated FirstNet connectivity across agencies. The fire was contained, Denali National Park was reopened, the borough evacuation was lifted, and the Parks Highway was protected. Throughout the response, interoperable communications carried on FirstNet connected first responders in rugged central Alaska while they beat back a fire that threatened a major source of tourism income and vital transportation lines for the state.

New Mexico Forest Fires Burn Across Tribal Lands

Central New Mexico's South Fork and Salt fires were ignited on Mescalero Apache lands near Ruidoso and rapidly spread into the Smokey Bear Ranger District of the Lincoln National Forest. The South Fork fire consumed 17,066 acres, while the Salt fire burned 7,688 acres. Of these, 5,843 acres were National Forest System lands. The fires were so severe that state and federal disaster declarations were declared.

Public safety agencies coordinating the fire response requested FirstNet deployable assets, and the AT&T FirstNet Response Operations Group delivered three SatCOLTs. These portable cell towers ensured strong, consistent signal strength and bandwidth were available to support voice communications and networked devices that were crucial to first responders scattered over a huge area of forested mountains until the fires were contained.

Once-in-a-Century Flood Breaches Minnesota Dam

Torrential rains drenched central Minnesota in June, surging storm water into the Blue Earth River and carrying massive amounts of water and storm debris into the 114-year-old Rapidan hydroelectric dam just a few miles outside Mankato. At the peak of the 100-year flooding event, water surged through the dam at a rate of 34,800 cubic feet per second when normal water flow averages 500 cubic feet per second. Officials feared an imminent catastrophic failure and urged nearby residents to evacuate. Eventually, an abutment failed, carving a new channel around the dam and carrying a nearby house into the river. A power station was destroyed, cutting electricity to about 600 households.

As first responders rushed to the dam and helped nearby residents, a command center was established to coordinate the agencies involved and ensure everyone across emergency disciplines were in communication with each other. A FirstNet SatCOLT was deployed to the scene, and with its independent power supply and portable cell tower, emergency communications via FirstNet were maintained.

Supporting Public Safety During the Eclipse

The total solar eclipse in April brought massive crowds to 15 states in the path of totality. Each state required different types of support to ensure their public safety agencies were prepared for the influx of people. The FirstNet Authority began working with public safety officials more than two years before the event to incorporate broadband into their eclipse planning.

In Texas, Oklahoma, and Arkansas, the FirstNet Authority coordinated with the U.S. Department of Homeland Security's FEMA and Cybersecurity and Infrastructure Security Agency to develop complex maps used to determine if FirstNet deployables were needed and in which areas. This streamlined the deployable process, reduced competing requests, and prioritized areas most in need of boosted coverage.

In Illinois, the city of Carbondale was one of the few places in the path of totality for both the 2017 and 2024 eclipses. In 2017, Carbondale public safety struggled with crippling road traffic congestion. In 2024, FirstNet Authority teams supported the eclipse preparation in Illinois by conducting drive testing for FirstNet before the event. This helped to assess the coverage, capacity, and quality of service for the network in Illinois during the eclipse.

In Pennsylvania, public safety officials conducted pre-planning sessions with the FirstNet Authority. After working together with local officials to understand their needs during the eclipse, AT&T accelerated the timeline for building a new FirstNet cell site near a high-traffic area. This new site was ready in time for the eclipse and successfully handled public safety communications.

In Vermont, the Department of Public Safety owns and manages their own FirstNet deployables. Public safety officials used the state's CRDs and miniCRDs, which are versatile because of their small size and ease of use. By owning their deployables, Vermont agencies had the discretion to send deployables where and when they wanted.

In New Hampshire and Maine, two deployables were stationed in strategic areas in each state, and the network was optimized for high traffic, as a result of several preplanning events with the FirstNet Authority. The Jackman-Moose River Fire and Rescue Department credited the FirstNet Authority and AT&T's preplanning support and the deployment of a temporary cell tower and Cell Booster Pros around the region to ensure a safe community event.

In all, FirstNet supported more than 85 requests from public safety, and more than a dozen dedicated FirstNet assets were deployed during the eclipse.

Planning Builds Resilience for U.S. Territories

Every community in the United States is unique, but certain particularly daunting challenges are shared by the U.S. territories. All five inhabited territories are islands outside the Continental United States and separated from the U.S. mainland by hundreds or thousands of miles. Lines of communication are stretched and vulnerable, and equipment and personnel may need to be flown or shipped in following an event, costing valuable time. The FirstNet Authority recognizes that preplanning and coordination builds resiliency in emergency response and recovery, readying responders and local officials for various scenarios and communications needs, identifying potential problems before they become real ones.

During a visit to territories in the Western Pacific in April, a FirstNet Authority team engaged with Northern Mariana Islands public safety leaders to discuss their emergency communications needs and the resources FirstNet brings to disaster mitigation and recovery through a reliable broadband network, hundreds of unique FirstNet apps, and several types of deployable assets to boost or provide cellular and satellite communications. The FirstNet Authority team then participated in the National Level Exercise for Guam, an emergency planning and response tabletop exercise facilitated by FEMA and the Guam Homeland Security and Office of Civil Defense. In preparation for the exercise, the FirstNet Authority presented a tech demonstration for Guam public safety officials.

In May, another FirstNet Authority team went to the U.S. Virgin Islands (USVI) where local public safety officials and responders trained on new FirstNet devices and apps, discussed FirstNet investment strategies, assessed network performance, and conducted contract verification. The Virgin Islands Territorial Emergency Management Agency was particularly interested in FirstNet capabilities for hurricane preparedness and response, and FirstNet Authority technical advisers provided in-depth training on a CRD acquired by the territory. During the visit, dozens of stakeholders were briefed and expressed enthusiasm for their experience with FirstNet.

Iconic Pacific Coast Highway Collapses in Big Sur, California

An entire lane of world-renowned Highway 1 in California unexpectedly slid into the Pacific Ocean below on March 30, 2024, when heavy rains washed out the ground below the road. Famous for its dramatic coastal cliffs, the highway is also an important north-south thoroughfare for coastal California. The damage caused the road to close for several days, cutting off the community of Big Sur and approximately 1,600 people from the south.

The next day, a FirstNet SatCOLT was deployed to the scene to facilitate recovery efforts by improving wireless connectivity. Public safety officials and repair crews were able to use FirstNet's signal—provided by the portable cell tower—throughout the immediate response, speeding the reopening of the vital highway.

FirstNet at the Pioneer Forest Fire

From early June to early October 2024, the Pioneer Fire burned through almost 39,000 acres around Chelan County, Washington. The mountains and dense forests of the rural area meant firefighters and other public safety officials responding to the fire frequently encountered difficulty maintaining communications with each other.

The Pioneer wildfire is the kind of emergency where distance, terrain, and unpredictability can wreak havoc on response coordination. On June 24, 2024, a FirstNet miniCRD was deployed to provide first responders dedicated connectivity at the Pioneer Fire command post near Chelan. The miniCRD is a highly portable FirstNet asset contained in two ruggedized cases that can be hand-carried or transported by a single person in a vehicle, by air or over water, to anywhere communications are needed.

FirstNet's Rapid Response to the Baltimore Bridge Collapse

Early in the morning of March 26, 2024, an outbound container ship, the MV Dali, suffered power failure and drifted into a support pier of the Francis Scott Key Bridge spanning the Patapsco River in Maryland. The crash caused a catastrophic and immediate collapse of the bridge. Tragically, six members of a bridge maintenance crew died, and the fallen bridge would block almost all shipping into and out of the economically vital Port of Baltimore for 11 weeks.

Public safety's response to the disaster was nearly instantaneous, with local emergency responders racing to the scene. A massive rescue and recovery operation commenced quickly in the dead of night, with local, state, and federal emergency responders and government agencies arriving at the scene, deploying on land, at sea, and in the air. The response was commensurate with the immediate risk of casualties and the national importance of the Port.

The disaster response included the deployment of FirstNet with a SatCOLT arriving to lend mission support as part of the cross-agency coordination. FirstNet signal strength remained strong throughout as hundreds of public safety personnel from multiple jurisdictions and disciplines sought to rescue survivors, search for victims, secure the Dali, and assess the structural integrity of the bridge infrastructure.



The FirstNet Authority has a legislative mandate and self-sustaining business model that requires it to invest program generated funds back into the network. This model enables the network to continually improve and advance to meet the needs of public safety. FirstNet Authority staff work with public safety stakeholders to gather their feedback on network needs.

THE FIRSTNET AUTHORITY ROADMAP AND INVESTMENTS

The Roadmap

The FirstNet Authority Roadmap guides the FirstNet Authority's strategic efforts to meet the ever-evolving needs of public safety through continual innovation and investment. In keeping with our organizational promise to sustain and enhance our strategy and approach as technology and public safety's needs evolve, the updated Roadmap, published in FY 2023, represented a significant update from its 2019 inception and subsequent 2020 revision.

Building upon the domain-specific focus of previous Roadmaps, the current iteration established goals and identified three key focus areas for enhancing public safety operations to ensure that solutions are effective for first responders through the continued evolution of **aDependable Network**, which enables **Connected Responders**, and ultimately allows for **Operationalizing Advanced Technologies**. This approach allows the FirstNet Authority to contextualize technology solutions to support the operational goals of first responders across all 56 states and territories, including tribal nations.

Since 2020, the FirstNet Authority has participated in thousands of engagements with public safety, academia, and industry to gather input that informs the Roadmap. Following the FY 2023 Roadmap publication, the FirstNet Authority continued to guide the deployment and operationalization of the FirstNet network to stand as a differentiated solution designed to meet the unique requirements of first responders wherever they operate.

During FY 2024, the FirstNet Authority conducted thorough, targeted analysis and engagement efforts to refine the focus areas of the Roadmap and to advance the technologies available for end users on FirstNet. These initiatives concentrated on assessing current operational challenges across public safety disciplines and considering the potential impact of emerging communications technologies on our ability to meet those challenges. Examples of this work include:

- Conducting innovation trials to evaluate technology readiness for FirstNet to potentially support air-to-ground operations, provide enhanced connectivity in maritime areas, and enable satellite-to-device capability for coverage in wilderness and rural geographies.

- Examining public safety considerations for prioritizing coverage gaps, in support of the FirstNet Authority's investment decisions, especially in territorial, tribal, and rural geographies.
- Leading focus groups and engaging with early adopters to understand needs and gaps in mission-critical services (MCS) to better address public safety challenges in this area.
- Facilitating pre-planning, on-site support, and post-event reviews with public safety stakeholders to gain insights into operational needs, challenges, and communication capabilities in the larger context of evolving broadband technologies and identifying future network capabilities.

Engagements in FY 2024 reaffirmed that first responders place a high priority on enhancing the communication technologies they rely on for daily operations (e.g., coverage improvements, availability of MCS, enhanced user experience for better data and information sharing and integration). Overall, these efforts, along with other research initiatives, enable the FirstNet Authority to incorporate collective feedback from public safety into its strategic planning, operational engagements, and reinvestment strategies.

Investments

The innovative public-private partnership that the FirstNet Authority entered into with AT&T in 2017 provides fee income from AT&T over the 25-year duration of the contract to operate, maintain, and improve the NPSBN to meet the evolving needs of public safety. The Act requires the FirstNet Authority to reinvest those funds back into the network. The FirstNet Authority is committed to being a responsible steward of its reinvestment resources and ensuring transparency with respect to how those resources are used to evolve the network.

The FirstNet Authority has developed a structured and rigorous investment process that drives disciplined investment of the FirstNet Authority's financial resources. The investments align with the FirstNet Authority's Roadmap, which outlines the key priorities and initiatives for advancing and evolving the network beyond current contractual commitments. Additionally, to guide the FirstNet Authority's investments, the FirstNet Authority Board

adopted Resolution 98¹, “The FirstNet Authority’s Investment Principles,” which states that investments must:

- Be derived from and benefit public safety;
- Maintain and advance the foundation of the FirstNet network;
- Consider a balanced approach and provide value to public safety; and
- Be fiscally responsible and reflect strong financial management.

Public safety is at the center of the FirstNet Authority’s investment process, which is guided by the Act, the FirstNet Authority’s investment principles, and public safety’s priorities as reflected in the FirstNet Authority Roadmap.

The FirstNet Authority Board previously approved three investments to evolve the FirstNet network:

- **Initial upgrades to enable 5G network capabilities (FY 2020-2024)** – Evolving the network to support full 5G capabilities is a multi-year, multi-phased effort, beginning with initial upgrades to FirstNet’s network Core. The Core acts as the nervous system of the network, separating all public safety traffic from non-

public safety user traffic, and enables differentiated services like quality of service, priority, and preemption. In the future, 5G is expected to drive major increases in the quantity and types of connected devices for FirstNet users, as well as significant increases in throughput and dramatically reduced latency.

▪ **Expanding the fleet of FirstNet deployables to enhance network coverage and capacity for public safety during emergencies and events (FY 2020-2024)** – Public safety turns to FirstNet deployables for additional support in hundreds of operations around the nation annually. These assets support public safety communications at large pre-planned events; during major emergencies; and throughout responses to disasters, including wildfires, tornados, flash floods and hurricanes. The FirstNet fleet currently includes more than 180 deployables, such as SatCOLTs, flying COWs, and CRDs, to support first responders in all U.S. states and territories. In FY 2024 alone more than 2,250 temporary coverage solutions were triaged and deployed for public safety nationwide.

▪ **Enhancing in-building coverage capabilities (FY 2022-2024)** – Public safety often operates in locations with indoor coverage challenges. This investment adds an important capability to provide enhanced coverage where public safety agencies operate indoors,

such as police headquarters, fire stations, emergency communications centers, and other critical sites. This service enables more resilient in-building access to the network, including MCS and priority and preemption. FirstNet subscribers can deploy this capability where and when they need it to enhance Band 14 coverage where they operate, including temporary field locations.

In February 2024, the FirstNet Authority announced a major investment initiative to transform America’s public safety network. This investment strategy includes upgrades to the FirstNet network to full 5G technology and ongoing investments in coverage enhancements to the benefit of public safety nationwide. These strategic investments will expand and evolve FirstNet so public safety stays at the forefront of innovative, lifesaving technologies.

More specifically, this announcement launches the next phase of FirstNet with an investment initiative that will:

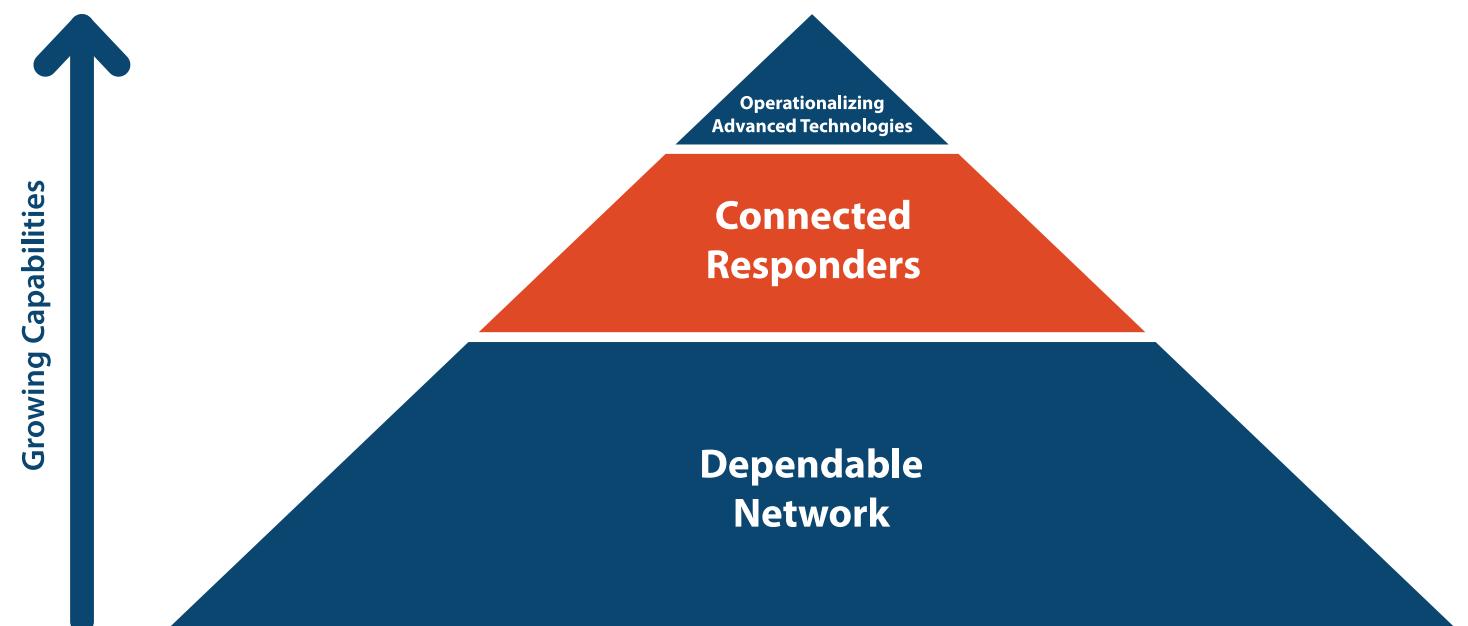
- Provide first responders on FirstNet with always-on priority and preemption across all AT&T 5G commercial spectrum bands;
- Deploy a standalone 5G core to enhance current 5G functionality with specific public safety features on FirstNet and support the transition of public safety’s Band 14 spectrum from 4G LTE to 5G;
- Build thousands of new, purpose-built FirstNet cell sites across the country – including 1,000 new sites;
- Expand mission-critical services — voice, video, data, and location — to complement public safety’s localized, voice-only radio systems with reliable, wireless connectivity;
- Upgrade public safety’s dedicated fleet of deployable network assets with 5G and low-earth orbit satellite connectivity to improve operational safety, security, and resiliency; and
- Ready the network to evolve beyond 5G, while remaining focused on public safety’s unique needs and emerging requirements when implementing future technological advancements.

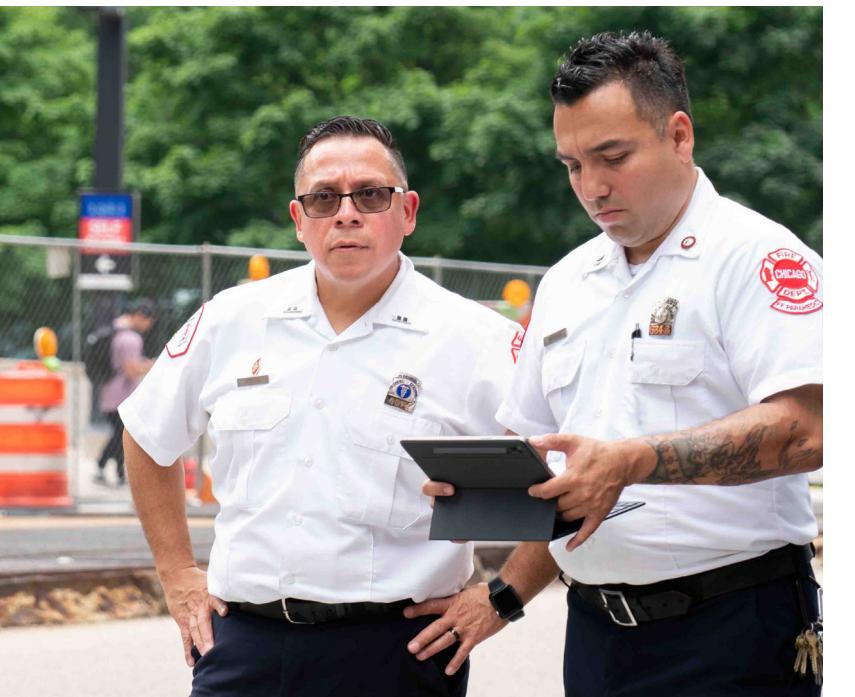
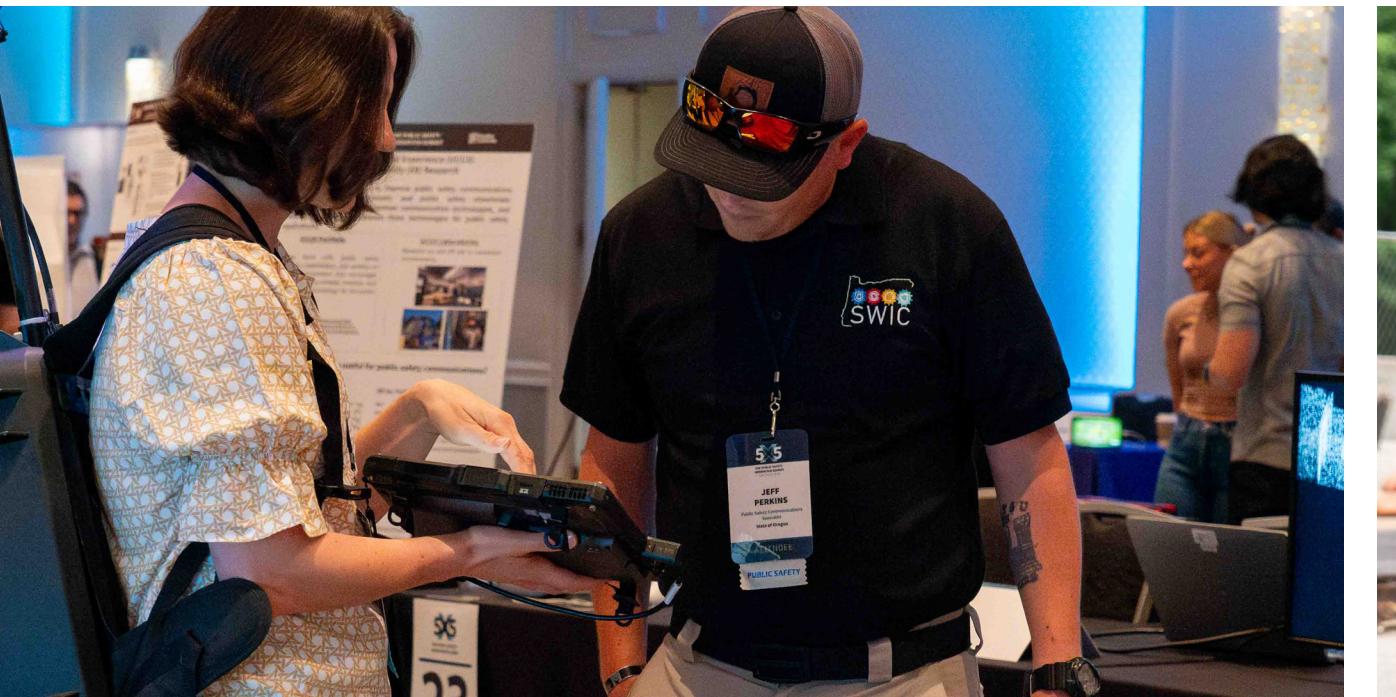
The transition to a full 5G network will enable FirstNet to keep pace with current evolutions in technology and 3rd Generation Partnership Project (3GPP) standards-based mission critical advancements. The planned 5G network upgrades will generate faster speeds, increase capacity, enhance the quality of service for FirstNet users, and drive innovations in 5G mission critical services. Throughout this multi-year transition to a full 5G network, the existing FirstNet 4G LTE network will remain fully operational and maintain the high level of service that first responders have come to rely on.

These expenditures represent continued strategic investments toward advancing the network beyond its contractual baseline and responding to first responders’ evolving operational needs. During FY 2024, the FirstNet Authority continued to identify and prioritize additional network investments to ensure the NPSBN remains relevant and technologically innovative to support public safety stakeholders across all states and territories for generations to come.

¹ See: [Board Resolution 98: The FirstNet Authority’s Investment Principles](#)

Figure 1: Roadmap Pyramid







The Public Safety Immersive Test Center, a partnership between the FirstNet Authority and the National Institute of Standards and Technology, is a space where technology for public safety can be tested.

STAKEHOLDER ENGAGEMENT

The FirstNet Authority continued its robust engagement with public safety stakeholders in FY 2024, conducting over 1,400 engagements and reaching more than 52,000 public safety stakeholders across the 56 states and territories, the federal government, and tribal jurisdictions. Through these engagements, public safety was briefed on FirstNet and its latest innovations; received support to operationalize FirstNet within their agency; and gained access to new and enhanced FirstNet services, features, and capabilities based on their input. Formal and informal engagements across the spectrum of public safety disciplines and command chains allow public safety to provide feedback and recommendations to influence network updates and investments in the future.

In FY 2024, the FirstNet Authority also continued to gather insights from public safety via a stakeholder survey. The FirstNet Authority learned public safety's primary reasons for adopting FirstNet are coverage, priority and preemption, and network reliability. Further, a majority of respondents indicated FirstNet products and services benefit their operations, and they are satisfied with FirstNet products and services.

Network coverage was again the most discussed topic during stakeholder engagements in FY 2024. Feedback on coverage included praise for the FirstNet Authority's continued investment in deployable assets and in-building coverage, with an overall favorable view of network coverage. Public safety continued to identify ongoing coverage needs, as well as suggested enhancements to FirstNet products and services. The inputs provided during stakeholder engagements continuously inform the FirstNet Authority's investments, programs, and activities.

State FirstNet Progress Updates

With the completion of the initial five-year network build-out in March 2023, the FirstNet Authority, in coordination with AT&T, launched a series of progress update meetings for the states and territories. These progress update meetings continued in FY 2024 with local, state, tribal, and federal representatives in the remaining 29 states and territories, providing information regarding the network and coverage commitments memorialized in the FirstNet state plans. The FirstNet Authority plans to conduct further progress updates in FY 2025.

Public Safety Advisory Committee

Consistent with its authorizing statute, the FirstNet Authority established a Public Safety Advisory Committee (PSAC) in

February 2013. The PSAC consists of members representing all disciplines of public safety, as well as local, state, territorial, and tribal governments. The PSAC also has at-large members and federal members. The PSAC's mission is to assist the FirstNet Authority in carrying out its duties and responsibilities.

In FY 2024, the PSAC conducted more than 40 engagements, including business meetings, bi-monthly webinars addressing network developments with FirstNet Authority staff, focus groups, public safety agency visits, interviews targeted at gathering feedback on potential investment topics and priorities, and monthly Tribal Advisory Group meetings.

These regular meetings enabled strong working relationships among PSAC members and the FirstNet Authority to discuss and address topics such as FirstNet adoption and use, disaster response and deployable use, and association engagement. Throughout the year, the PSAC carried out its statutory responsibility to assist the FirstNet Authority by contributing to key discussions, including considerations for improvements to network outage notifications.

PSAC Tribal Advisory Group

Federally recognized tribal jurisdictions span the country, and telecommunications capabilities are vitally important to first responders in these areas. Broadband availability and connectivity represent essential infrastructure that is economically important to tribal nations. Increased connectivity and coverage improve the impact for surrounding first responder agencies as well as nearby, non-tribal communities. Engaging with these nations is essential to FirstNet's success and the welfare of American Indian and Alaska Native communities.

The PSAC's TAG was established to provide advice on Indian Country outreach, education, and inclusive engagement strategies. The intent is to inform and involve federally recognized tribes as it relates to their use of the FirstNet network. In FY 2024, the FirstNet Authority continued its outreach with tribal communities with 177 engagements involving tribal participation.

Network Experience Engagement Program

At the request of public safety agencies, the FirstNet Authority established the Network Experience Engagement Program (NEEP), which aids first responders in their planning for network coverage and capacity needs during large-scale



The FirstNet Authority co-hosts 5x5: The Public Safety Innovation Summit with the National Institute of Standards and Technology's Public Safety Communications Research Division. This summit brings together leaders in public safety, academia, government, and industry to look at current and emerging public safety communications technologies.

events and incidents. Through pre-incident/event planning support, the FirstNet Authority's goal is to augment public safety's user experience with the FirstNet network before, during, and after an event or incident, and ensure agencies receive the maximum benefit public safety broadband can offer to their respective operations.

Stakeholders have provided positive feedback regarding the program, including the FirstNet Authority's support for pre-planning and post-incident/event reviews. Stakeholders note that the discussions during pre-planning engagements prompt them to consider communication and coordination challenges they either have not previously considered or have not revisited. These discussions often lead agencies to plan more dynamically, integrating various applications for broadband use into event and incident support, resulting in more comprehensive planning.

Post-incident/event review engagements offer an opportunity for public safety agencies to analyze and inform the FirstNet Authority of successes, challenges, and concerns related to an incident or event where the FirstNet network was used. These engagements are structured as after-action reviews that agencies are accustomed to conducting—but with a broadband-specific focus. During FY 2024, the FirstNet Authority conducted post-event engagements following events as diverse as Typhoon Mawar in Guam and a concert in Dane County, Wisconsin. The post-event engagement findings not only help agencies enhance their own future planning, but they also inform the FirstNet Authority's activities. When appropriate and with an agency's prior consent, the FirstNet Authority will share information with its network contractor, AT&T, to enhance planning and response for future incidents.

Supporting Federal Users of FirstNet

FirstNet provides dedicated spectrum and quality of service, priority, and preemption to public safety users at all levels of government. To support our federal user base, the FirstNet Authority's Government Engagement team collaborates with federal agencies that have public safety, emergency management, or homeland security missions—such as the Department of War (DoW), Department of Justice (DOJ), and Department of Homeland Security (DHS)—to advance and support broadband technology planning and operations.

In FY 2024, the Government Engagement team continued to assist federal agencies with the implementation and operationalization of FirstNet, allowing them to take advantage of the network's many communications capabilities, services, and tools. Over two dozen federal departments and agencies are represented on the FirstNet Authority's Agency Point of Contact (APOC) group. APOCs

engage monthly with the FirstNet Authority and help distribute information and any requests for feedback from the FirstNet Authority to other agency components and bureaus. The Government Engagement team works closely with federal agencies to provide the latest FirstNet updates and help address barriers to operationalize FirstNet capabilities for the benefit of all public safety users.

DoW (as a whole) is the nation's largest federal agency, and DoW first responders are stationed at bases to provide emergency medical, fire, and law enforcement services. In addition to serving their base community, DoW first responders regularly provide mutual aid to assist local public safety agencies. With FirstNet, these federal users can communicate with ease as they move on and off base and seamlessly coordinate with local civilian first responders over the interoperable network.

FirstNet's contribution to the safety of federal facilities can be found in the most sensitive area in America: the National Capital Region, which encompasses the metropolitan Washington, DC area. For instance, according to Julien Crolet, deputy fire chief at the Army's sprawling Fort Belvoir campus, prior to FirstNet, the Fire and Emergency Services division at Fort Belvoir experienced communication challenges due to low service reliability in the area. "Now, that's all gone away and we're able to communicate daily with no issues, utilizing several methods that are all interoperable by use of FirstNet."

As another example, Joint Base Myer-Henderson Hall is made up of both military and civilian personnel and encompasses Fort Myer, Henderson Hall, and Fort McNair. It spans several campuses located in both Arlington, Virginia, and Washington, DC, and provides services to Arlington National Cemetery. For responders at Joint Base Myer-Henderson Hall, communication and interoperability are vital for both everyday activity and during events drawing large crowds. "Joint Base Myer-Henderson Hall adopted FirstNet because being one of 52 federal law enforcement agencies in the National Capital Region, we wanted to be able to communicate with all of our local, state, and federal partners in case of emergency," said Joint Base Police Chief William Johnson.

Finally, the FirstNet Authority works closely with federal agencies that play robust roles in emergency planning and response. Federal users can request mobile assets from the FirstNet deployable fleet to support planned events or in response to emergencies. During major disasters, both the Authority and our partner AT&T are active participants in coordination calls with state emergency operations centers, FEMA's National Response Coordination Center, and the federal Communications Information Sharing and Analysis Center (COMM-ISAC) to ensure situational awareness and coordination of resources.



Elbert County is a fast-growing, rural community in Colorado. Public safety agencies like Elizabeth Fire Rescue rely on FirstNet to keep responders connected across the county's 1,800 square miles.

CONTRACT DEPLOYMENT AND OVERSIGHT

Contract Overview

One of the FirstNet Authority's primary responsibilities is to manage and ensure the successful execution of the contract with AT&T to build, deploy, and operate the FirstNet network. Signed in March 2017, this 25-year indefinite-delivery/indefinite-quantity (IDIQ) services contract was designed to ensure the FirstNet network meets the rigorous communication needs of the nation's first responders and continues to improve and evolve to meet their changing requirements over time.

Under the contract, AT&T must build, operate, maintain, and enhance the network for 25 years while achieving public safety user adoption targets and maintaining a minimum number of devices connected to the network. The contract also guarantees the FirstNet Authority's continued financial sustainability over the life of the contract through annual payments from AT&T to the FirstNet Authority, fulfilling Congress's vision that the FirstNet Authority be financially self-sustaining.

The FirstNet Authority has issued 13 task orders under the IDIQ contract:

- Task Order 1 (TO1) required the development of a secure platform (the state plan portal) that delivered individual state plans to the states, territories, and the District of Columbia (referred to herein as "states"). (Closed Out)
- Task Order 2 (TO2) required development of the individual state plans. These plans detail the Radio Access Network (RAN) deployment and operations for each of the states. While the state plans were delivered by AT&T and TO2 closed out in March 2018, the state plan portal (TO1) was available until March 2024 (through the initial five-year buildout, plus one additional year) to allow governors and designated state stakeholders to access their respective plans. The state plans were developed in consultation with state officials and approved by the state's governor, a key aspect of the FirstNet Authority's focus on fostering a partnership with public safety and local authorities. (Closed Out)
- Task Order 3 (TO3) requires AT&T to deploy, operate, and maintain the network's core and all its functions, and provide for the development of device and application ecosystems for the network. The FirstNet network has its own core, which processes and secures FirstNet users' traffic separate from the AT&T commercial network. The core is a critical piece of physical infrastructure
- Task Order 4 (TO4) requires AT&T to deploy the network's Band 14 coverage nationwide (including the territories), while fulfilling the specific commitments made in the individual state plans. TO4 contains the requirements associated with constructing the RAN, which consists of cell towers, sites with RAN infrastructure, and other elements that connect public safety's devices to the core. At the end of FY 2023, the initial network buildout of Band 14 was complete; the buildout was validated by the FirstNet Authority in the first quarter of FY 2024. AT&T has met all contractual milestones to date—including rural and non-rural coverage requirements and adoption targets—and continues to deliver key services to the public safety community. The task order also requires AT&T to provide 72 transportable cellular assets dedicated solely to FirstNet (also known as deployables), and access to at least 300 other transportable cellular assets in AT&T's commercial fleet that can provide supplementary network coverage when needed. AT&T delivered the initial 72 deployables in September 2018.
- Task Order 5 (TO5) requires equipment and connectivity for the FirstNet Boulder Lab, located in the FirstNet Authority's office in Boulder, Colorado. (Closed Out)
- Task Order 6 (TO6) requires AT&T to expand the FirstNet deployable solution acquired through TO4. TO6 includes adding more SatCOLTs to the FirstNet dedicated deployable fleet, as well as adding new deployable form factors to provide additional flexibility and variety to the services offered. TO6 further requires AT&T to examine their deployable storage and response plans to ensure the deployable fleet is optimized to meet the response requirements per the terms and conditions of the IDIQ contract and TO4. TO6 also created a new quality assurance performance metric to ensure that deployables are meeting the contractually defined response times. TO6 is one of two reinvestment task orders awarded in June 2020.
- Task Order 7 (TO7) requires AT&T to upgrade the FirstNet network so public safety begins to experience the throughput benefits of 5G while maintaining the overall FirstNet user experience. TO7 enables a smooth transition from 4G to 5G by leveraging some of the

that serves a telecommunications network in a way like a server or router for an office or home, respectively. AT&T deployed the FirstNet core in March 2018 and continues to operate and maintain it under the terms and conditions of the IDIQ contract and TO3.

existing 4G network systems. Future task orders are required to complete a full migration from 4G to 5G. TO7 is the second of two reinvestment task orders awarded in June 2020.

▪ Task Order 8 (TO8) requires AT&T to provide feasibility assessments as requested through specific work orders. These feasibility assessments will help the FirstNet Authority understand how new and evolving technologies, features, and functionality might be used to improve the ability of first responders to better support incident response and whether implementation warrants potential network reinvestment.

▪ Task Order 9 (TO9) requires AT&T to extend NPSBN Band 14 coverage indoors to public safety facilities. TO9 enables agency-deployed RAN extension services to include Band 14 support, MCS capabilities support, monitoring and reporting, forward and reverse logistics, and customer care. These RAN extension services provide enhancements for FirstNet subscribers who experience coverage gaps, macro network outages, or require faster upload and download speeds than those provided by the NPSBN's fixed terrestrial network. TO9 is the third reinvestment task order awarded by the FirstNet Authority.

▪ Task Order 10 (TO10), which was awarded in September 2023, requires AT&T to further evolve the Boulder FirstNet Lab, located in the FirstNet Authority's office in Boulder, Colorado, as well as provide FirstNet network-enabling services to allow for technology testing and public safety interactive experiences with the network.

▪ Task Order 11 (TO11), which was awarded in January 2024, requires AT&T to continue the evolution of the NPSBN with a focus on the following three areas:

- Generational Network Upgrades: Upgrade the NPSBN to the 3GPP standardized Standalone 5G Next Gen Core architecture and upgrade the Band 14 RAN from LTE to 5G New Radio to enable public safety to fully realize the benefits and capabilities of a 5G network.
- MCS Enhancements: Additional core-enabled functions, features, and capabilities, based on public safety need, to make MCS on the NPSBN a viable alternative to Land Mobile Radio (LMR).
- FirstNet Core Integrated Application Enhancements ("FirstNet Applications"): Enhancements and additions to those applications (desktop, web-based, and/or mobile) and associated services served by the FirstNet core to address public safety needs.

▪ Coverage Enhancement Investments require AT&T to deliver both permanent and temporary coverage solutions to further enhance the FirstNet Network. The 2024 Coverage Enhancement investments are accomplished in the following Task Orders:

- CE-D146-2024-01 awarded in September 2024, requires AT&T to perform an assessment of FirstNet-provided coverage "areas of interest".
- CE-D-147-2025-01 awarded in October 2024, requires AT&T to develop an analysis of deployment solutions required to meet the FirstNet-provided coverage "areas of interest".

Task orders 3, 4, 6, 7, 8, 9, 10, and 11 as well as both Coverage Enhancements are ongoing. TO1 was completed in March 2024. TO2 was completed in March 2018 after all 56 governors (or appropriate territorial counterparts) opted into their respective customized state plans. TO5 expired in September 2023 and was closed out. TO11 and both Coverage Enhancements awarded in FY 2024 will further enhance the FirstNet network and support the evolution from LTE technologies to 5G and beyond.

Network Deployment, Operation, and Maintenance

Under the IDIQ contract, AT&T is required to deploy, operate, and maintain the FirstNet network. The FirstNet network is a standards-based, interoperable, reliable, and forward-looking nationwide broadband network that is redefining how the nation's public safety community communicates. With all states and territories opting into the FirstNet deployment, the FirstNet Authority has established a single, interoperable nationwide network as required by Congress, which the Federal Communications Commission (FCC) confirmed in FY 2023 through its renewal of the FirstNet Authority's Band 14 license.

At the end of FY 2024, the initial five-year network deployment was 100 percent complete with all contract milestones, including nationwide rural and non-rural coverage requirements, validated; state-level adoption targets continue to be met. Additionally, in FY 2024 the FirstNet Authority launched two major coverage enhancement and network evolution investments, leading to the award of three task orders to further nationwide coverage and 5G services to enhance services to support our public safety stakeholders, concentrating on rural, tribal, and territory locations.

Figure 2: Task Orders 2024-25

	2023	2024	2025
	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
TASK ORDER 3 NPSBN Functions			Ongoing through 2042 Operations and Maintenance
TASK ORDER 4 Coverage and Capacity		Task Order 4 FOC+	Ongoing through 2042 Operations and Maintenance
TASK ORDER 6 Expanded Deployables			Task Order 6 Operations and Maintenance
TASK ORDER 7 5G Network Enhancement			Task Order 7 Operations and Maintenance
TASK ORDER 8 NPSBN Feasibility Assessments		Task Order 8 Option Period 2	Task Order 8 Option Period 3
TASK ORDER 9 RAN Extension Services			Task Order 9 Ongoing RAN Extension Services
TASK ORDER 10 FirstNet Test Lab			Task Order 10 FirstNet Test Lab Services
TASK ORDER 11 Network Evolution			Task Order 11 Network Evolution (5G)
Rolling Cycle: Coverage Enhancement			Coverage Enhancement Site Build Assessment
Rolling Cycle: Coverage Enhancement			Coverage Enhancement Site Deployment Analysis

Measures for Success

In addition to key contractual deliverables, the FirstNet Authority uses standardized program management tools and contractual processes to track and evaluate all activities associated with the FirstNet network contract and program. The FirstNet Authority has developed, and continuously strives to improve, the rigorous contract management and administrative processes and tools used since the execution of the IDIQ contract. This is used to track network-related contractual activities to include the incorporation of additional on-site surveillance and contractor operational reviews. Network deployment and service compliance visits were implemented in late FY 2023 and continued through FY 2024. These visits ensure that the contractor, AT&T, remains compliant with the commitments made to our public safety stakeholders.

As a result, the FirstNet Authority can minimize and mitigate risks while continuing to improve the network. The FirstNet Authority continued to utilize and improve upon these processes and measures in FY 2024, including the enhancement and automation of key contract oversight processes and workflows, to become more efficient and streamlined, allowing oversight personnel to have further insight into the progress of the NPSBN.



The Boulder FirstNet Lab in Boulder, Colorado, serves as the FirstNet Authority's technical headquarters. Here, a team of engineers look daily at how the network operates, ensuring it provides key capabilities for first responders, like quality of service, priority, and preemption. They also demonstrate technology for public safety stakeholders, like MiniCRDs. MiniCRDs come in two 85-pound cases that are the size of checked luggage. They provide up to a half mile of coverage, with enhanced throughput and processing speeds.



TECHNOLOGY AND INNOVATION

Standardization

As required by Congress, the FirstNet network uses technology based on commercially available open standards. Using available commercial standards makes it easier for device manufacturers to participate in the public safety device market, increasing competition and lowering device costs for public safety users.

The FirstNet Authority ensures the inclusion of public safety requirements in standards development, with efforts mainly focused on 3GPP, a partnership that unites seven global telecommunications standards development organizations to produce reports and specifications for evolving 4G LTE technology, 5G specifications, and the beginning of 6G studies. The FirstNet Authority has successfully ensured that 3GPP specifications address the needs of first responders, and the Authority participates in the Next G Alliance that seeks to outline the capabilities needed in 6G.

During FY 2024, the FirstNet Authority worked together with suppliers and global public safety partners to progress 3GPP standards for mission-critical communications. Of particular interest to public safety was the completion of 3GPP Release 18, which included:

- Mission-critical location services
- Mission-critical ad-hoc group communications
- 5G Direct Mode capabilities
- Enhanced reliability for 5G Multicast Broadcast Services
- 5G over non-terrestrial networks (i.e., satellites) to support both Low-Earth Orbit and Geosynchronous Equatorial Orbit operations
- Inclusion of E-UTRAN New Radio—Dual Connectivity carrier aggregation to combine both B14 (LTE FirstNet Band 14) and n41(AT&T 5G Band 77) to support American Samoa, Guam, and the Commonwealth of Northern Mariana Islands in achieving higher data throughput

Upon the completion of 3GPP Release 18, the standards community and the FirstNet Authority shifted focus to 3GPP Release 19 work. This work is planned to be completed by December 2025 and includes:

- Multiple-hop relaying feature to further extend the range of off-network communications

- Support for Isolated Operation for Public Safety (IOPS) mode introduced over 5G to help continue MCS capability if communications connectivity to the core network is lost
- Integration of satellite components in the 5G architecture
- Core network enhancements to leverage Artificial Intelligence (AI) and Machine Learning (ML) technologies
- Integrated Sensing and Communications (ISAC), which uses signals to detect and identify objects and surfaces in a device's surrounding environment, and ambient Internet of Things (IoT) where many devices in an ecosystem are connected to a network

The FirstNet Authority also continued working with 3GPP and two other standards-setting organizations, the Alliance for Telecommunications Industry Solutions and the Telecommunications Industry Association, to support standards work for the interworking between 3GPP-based mission-critical push-to-talk (PTT) systems and legacy LMR-based systems. Through this effort, a wider adoption of mission-critical PTT will be possible as these interworking standards will permit an LMR user to talk to a FirstNet PTT user and vice versa.

Device Ecosystem

The FirstNet device ecosystem continued to evolve during the past year. These devices include smartphones, tablets, routers, modems, and wearables that use FirstNet network capabilities to meet first responders' unique needs. From ruggedization features like impact resistance and being waterproof to built-in public safety features like PTT, these devices are built to work for responders. The number of FirstNet Ready® (Band 14-enabled) devices grew from about 820 at the end of FY 2023 to over 865 at the end of FY 2024. The availability of FirstNet Ready® devices from a wide range of leading manufacturers represents a significant accomplishment that benefits FirstNet users.

Application Ecosystem

In FY 2024, the FirstNet Authority continued to monitor growth and health of the FirstNet app ecosystem. The FirstNet App Catalog only lists apps that have undergone a rigorous vetting and approval process; it currently contains over 200 FirstNet Verified apps for public safety. The apps certification



process continues to evolve and be updated to incorporate scanning for new threats and concerns found in apps.

The FirstNet app ecosystem supports many areas of public safety operations, including critical infrastructure, dispatch, EMS, fire and rescue, wellness/safety, hazardous materials, and law enforcement. Apps in the FirstNet App Catalog are identified by categories to address public safety needs in the areas of cloud solutions, computer-aided dispatch systems, cybersecurity and fraud detection, device security, public safety community, secure connections, situational awareness and detection, video surveillance, public safety communication tools, in-building coverage, mapping, and forensic intelligence.

In FY 2024, AT&T, in collaboration with key partners, released three additional public safety solutions. One is an inconspicuous wearable wireless device that can quickly communicate with a dedicated trained responder for help if

the wearer feels they are in a threatening situation. Another enables the drone-enabled delivery of life-saving medical devices, directly to 911 callers, over 35 square miles with 2.5-minute average response times. The third enables safety-wearable devices and mobile apps to proactively monitor and enable rapid communications and emergency response to workers who may be injured or threatened.

Cybersecurity

In alignment with the Middle-Class Tax Relief and Jobs Creation Act of 2012, FirstNet Authority oversees the safety, security, and resiliency of the network through its comprehensive cybersecurity oversight program. The program assesses contractual performance against hundreds of criteria throughout essential security domains, including threat management, vulnerability management, patch management, risk management, and physical security.



Consistent with its authorizing statute, the FirstNet Authority established a Public Safety Advisory Committee (PSAC) in February 2013. The PSAC consists of members representing all disciplines of public safety as well as state, territorial, tribal, and local governments. PSAC members offer guidance, information, and subject matter expertise from a public safety perspective

STATUTORY OPPORTUNITIES

Under the Act, the FirstNet Authority is scheduled to terminate in February 2027, which would create a risk for continued network operations and result in a potential loss of service for public safety users. The Act directed the GAO to submit a report to Congress on what actions Congress should take regarding this sunset provision. In February 2022, the GAO published the report, recognizing the need for Congress to act regarding the FirstNet Authority's reauthorization to ensure network continuity and prevent significant disruption to first responders.

Specifically, the GAO stated: "The 2012 Act provided FirstNet with many powers, duties, and responsibilities to develop a nationwide public-safety broadband network that has the potential to save lives every day. However, without congressional action on FirstNet's key statutory responsibilities described in this report, it is unclear how the federal government will continue to oversee network operations and the network's required enhancements when FirstNet's authority sunsets."

The GAO further stated: "As Congress considers the various options for managing the network...it will be important to take some legislative actions, at the minimum, to ensure network continuity. Without any legislative action, the continued operation of the network would be jeopardized and could result in significant disruption for first responders who rely on the network for emergency response."

In 2023, the FCC renewed the FirstNet Authority's license for the Band 14 spectrum, confirming that the FirstNet Authority complied with its duties and responsibilities under its enabling statute. Further, the FirstNet Authority Board has approved multiple investments to improve and continuously modernize the NPSBN, and over 29,000 public safety agencies and organizations have adopted FirstNet—as of September 30, 2024—based on the unique benefits the public-private partnership offers. Congress directed the FirstNet Authority to build, maintain, and invest in the NPSBN, and the FirstNet Authority has executed on that directive.



The FirstNet Authority engages with public safety across the nation in many ways, including an active Emergency Management cohort that tells the agency about how FirstNet works in the real world. This group gives valuable feedback about how they currently use FirstNet for emergency management, the challenges they've faced, and what they'd like to see in the future.

FINANCIAL CONDITION

In FY 2024, the FirstNet Authority continued its strong financial stewardship delivering continued expansion of FirstNet and the buildout of Band 14. Throughout FY 2024, funds were used to support our ongoing operations and execution of our strategic vision, which yielded network expansion and enhancements of the NPSBN. We incurred operating expenses during FY 2024 related to personnel compensation, contractual services for strategic and operational support, extensive stakeholder engagement, and update of the FirstNet Authority Roadmap. As of September 30, 2024, we had a cash balance of \$992 million. The FirstNet Authority's audited FY 2024 Financial Report, including Independent Auditors' Report, is posted on the FirstNet Authority website at FirstNet.gov/reports.

Collections Data

The FirstNet Authority receives annual payments from AT&T for access to 20 MHz of spectrum and associated capacity for the 25-year term of the NPSBN contract. These annual payments from AT&T are the FirstNet Authority's source of revenue. As payments are received from AT&T, they are recognized as a contract liability and amortized on a straight line basis over the applicable fiscal year. As of September 30, 2024, the FirstNet Authority received \$561 million from AT&T as the FY 2024 payment due under the contract, to fund FY 2024 operations.

Changes in Assets, Liabilities, and Net Position

The FirstNet Authority had \$6.4 billion in total assets as of September 30, 2024, compared to \$6.5 billion for FY 2023. Total liabilities decreased by \$222 million substantially due to a decrease in accruals for contractual Task Orders for the construction, operation, and maintenance of the NPSBN.

(\$ in Thousands)

As of September 30:	FY 2024	FY 2023 (Audited)
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Changes in Net Position

	Total Assets	\$ 6,369,956	\$ 6,511,641
	Total Liabilities	\$ 333,258	\$ 554,733
	Net Position	\$ 6,036,698	\$ 5,956,908



Inside their joint 9-1-1 center, dispatchers and call takers at Redstone Arsenal help keep multiple military and federal public safety agencies in coordination.

CONCLUSION

After September 11th, first responders vowed “never again” and demanded a network of their own. Congress adopted that vision, creating an expansive cutting-edge network dedicated to public safety. The FirstNet Authority’s mission is a sacred inheritance, and we never forget the trust placed in us.

The unique model of FirstNet as a public-private partnership has achieved incredible results by combining the transparency and public accountability of government with the innovation, expertise, and operational infrastructure of American industry and the robust involvement of public safety in articulating the tools, services, and solutions they need from their network. The FirstNet Authority is extremely proud of all that has been accomplished in just 12 years: creating a brand-new, mission-specific network that now supports thousands of subscribing public safety agencies and organizations and millions of connections and counting.

FY 2024 was a year of action. More agencies used more connections and solutions on FirstNet to respond to more emergencies than any prior year. At no additional cost to taxpayers, the FirstNet Authority has overseen the building, maintenance, operation, evolution, and reinvestment in the NPSBN. The FirstNet Authority does all of this in service of keeping Americans — and American heroes — safe.

APPENDIX A: FY24 FIRSTNET AUTHORITY BOARD



CHIEF RICHARD CARRIZZO (CHAIR)
Fire Chief, Southern Platte Fire Protection District, Missouri



RENEE GORDON (VICE CHAIR)
Director, City of Alexandria Department of Emergency & Customer Communications, Alexandria, Virginia



BRIAN CRAWFORD
Senior Vice President, Willis-Knighton Health System



ALEXANDRA FERNANDEZ-NAVARRO
Former Associate Member, Puerto Rico Public Service Regulatory Board



KRISTIN GRAZIANO
Sheriff, Charleston County Sheriff's Office, South Carolina



BILLY HEWES
Mayor, Gulfport, Mississippi



PETER KOUTOUJIAN
Sheriff, Middlesex Sheriff's Office, Massachusetts



WARREN MICKENS
Former Vice President of Wholesale Operations, Centurylink/Quest



SYLVIA MOIR
Undersheriff, Marin County Sheriff's Office, California



JOCELYN MOORE
Independent Director, DraftKings



PAUL PATRICK
Director, Family Health and Preparedness Division, Utah Department of Health



SHALANDA YOUNG
Director of the Office of Management and Budget



JOE CARLILE (DESIGNEE)
Program Associate Director for General Government Programs (GPP), OMB



ALEJANDRO MAYORKAS
Secretary of the Department of Homeland Security



BILLY BOB BROWN, JR. (DESIGNEE)
Executive Assistant Director, Emergency Communications, Cybersecurity and Infrastructure Security Agency



MERRICK B. GARLAND
U.S. Attorney General, Department of Justice



ROBERT BROWN (DESIGNEE)
Executive Assistant Director, Science and Technology Branch, Federal Bureau of Investigation

Robert Brown retired from the FBI and resigned from the Board May 31, 2024.



The FirstNet Authority was established in light of 9/11 to lead the creation of a dedicated nationwide broadband network using spectrum set aside for the public safety community (Band 14). Through a combination of government, commercial, and public safety partnerships, we are committed to delivering a network and supporting ecosystem of apps, devices, and capabilities that are innovative, reliable, accessible and secure. By modernizing public safety communications with our partners, we can help responders keep America safe — every day and in every emergency.

To learn more, visit FirstNet.gov.



FirstNet improved public safety communications in St. Augustine, Florida, especially since first responders experienced dropped calls and spotty service before switching. FirstNet allows all city officials—from first responders to city management to public works—to work together.



First Responder Network Authority

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