

A Decade of Accomplishments

FISCAL YEAR 2021 ANNUAL REPORT TO CONGRESS

MARCH 2022

Submitted to the United States Senate Committee on Commerce, Science, and Transportation
and the United States House of Representatives Committee on Energy and Commerce



The deployables program is unique to FirstNet. FirstNet deployables boost coverage in the aftermath of disasters, during large planned events or incidents, or in remote areas — and are available to subscribers 24/7 at no extra cost. Here, a FirstNet SatCOLT boards a Put-In-Bay, Ohio ferry.



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 2021.²

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 2021 is the period from October 1, 2020, through September 30, 2021.

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First responders in Wayne County, North Carolina got a major boost in their wireless communications due to a new, purpose-built cell site located in the La Grange area. FirstNet provides coverage and capacity where public safety said they need it – with a focus on serving rural and remote regions.

LETTER *FROM* EXECUTIVE DIRECTOR EDWARD PARKINSON

In this year's Annual Report to Congress, we celebrate the First Responder Network Authority's (FirstNet Authority) 10th anniversary, how far we have come, and our vision for the future as we continue to improve the public safety network. Simply put, the FirstNet Authority has placed lifesaving technology into the hands of the brave women and men who run towards harm's way. In doing so, we have fulfilled Congress's vision of delivering a dedicated, interoperable nationwide public safety broadband network (NPSBN/FirstNet) to our nation's first responders.

We ask Congress for its continued support of this critical life-saving program.

Since 2012, we have faced many challenges in setting up, designing, deploying, and operating the FirstNet network, and one thing has remained critical to our success: we have always ensured that the voice of public safety would be integrated into the network from the ground up. Public safety consultation has been our cornerstone, and we look forward to continuing to work with our nation's first responders as we plan for the future.

Public safety has relied on FirstNet services during a variety of emergencies across the country—including natural disasters such as wildfires, hurricanes, tornadoes, and ice storms—and large-scale planned events, as well as for day-to-day communications capabilities, to help keep their communities and themselves safe. Millions of local, state, tribal, and federal first responders depend on the FirstNet network every day.

Congress should be aware of two major actions that impact the future of FirstNet this year. First, the Government Accountability Office (GAO) is required to provide a report to Congress (due February 2022) with recommendations on whether to reauthorize the FirstNet program or to allow the 2027 sunset provision to take effect. We feel confident that we have fulfilled Congress's vision in establishing an interoperable and innovative broadband network nationwide for public safety and believe that the program should be reauthorized to ensure that FirstNet service continues in the future. Second, we look forward in the months ahead to working with the Federal Communications Commission (FCC) to renew our license for Band 14, the spectrum set-aside for the NPSBN under our enabling statute.

Without programmatic reauthorization and license renewal, the FirstNet Authority will not be able to provide the life-saving technologies that public safety has come to rely on every single day. The landscape of public safety broadband changed with the passage of the FirstNet statute in 2012, and today public safety relies on this dedicated network that was designed with, and built for, the public safety community.

Finally, I would like to thank the FirstNet Authority Board and, most importantly, the FirstNet Authority team. These are incredible men and women who work tirelessly towards that end goal, to provide a world-class network for our nation's first responders.

Thank you,



A handwritten signature in black ink that reads "E Parkinson".

Edward Parkinson
Executive Director



FirstNet has created a public safety broadband marketplace that is leading to more choices, lower costs and specialized solutions built to public safety's needs. This includes more than 440 devices approved for use on FirstNet and more than 190 applications identified in the FirstNet App Catalog.

EXECUTIVE SUMMARY

The First Responder Network Authority (FirstNet Authority) is an independent entity within the U.S. Department of Commerce’s National Telecommunications and Information Administration (NTIA). In 2012, Congress created the FirstNet Authority to ensure the establishment and continuing operation, maintenance, and improvement of a nationwide, interoperable public safety broadband network. The FirstNet Authority marks its 10-year anniversary this year.

This is a pivotal year for the future of the program. As mentioned in Executive Director Parkinson’s opening letter and of particular interest to Congress, the Government Accountability Office (GAO) is required to deliver its report by February 22, 2022 on the 15-year sunset provision contained within the FirstNet Authority’s statute. This 2027 sunset, without Congressional action, would result in the termination of the FirstNet Authority in five years. Congress provided the sunset clause, and a series of extensive oversight mechanisms, to help ensure and review the success of what seemed, ten years ago, a formidable challenge.

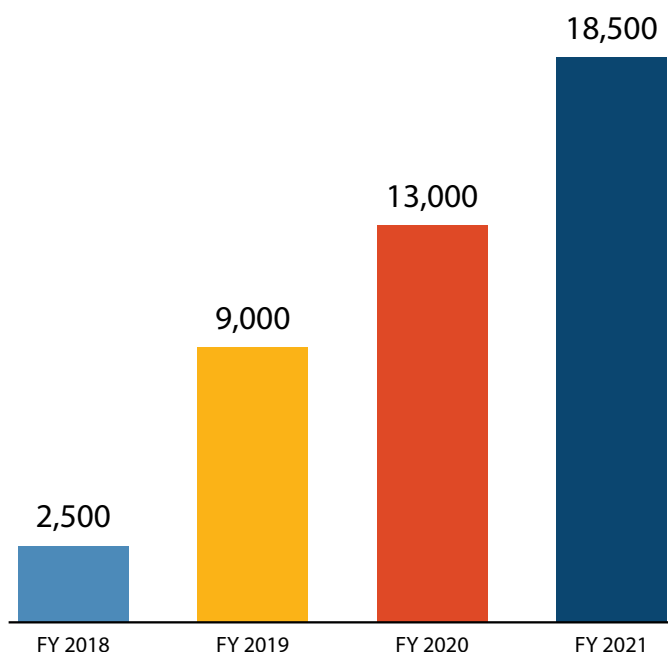
Today, the FirstNet Authority is a resounding success, providing vital communications services to local, state, tribal, and federal public safety officials throughout the nation. This outcome was not inevitable and is due to the tireless work of the first responders who urged Congress to create FirstNet and who have contributed to the program’s planning and implementation.

As Congress receives the GAO report, the FirstNet Authority is grateful for the opportunity to demonstrate that what was only an idea ten years ago is today a fully operational program with millions of public safety entities communicating vital information to each other every day over the nationwide public safety broadband network. Reauthorizing the FirstNet Authority ensures that life-saving resources will not be taken away from first responders.

Looking back, in the FirstNet Authority’s first five years, the Authority went from an idea on paper to a fully operational federal authority. During these first years, the FirstNet Authority hired its first staff; established its Board and Public Safety Advisory Committee; collaborated with NTIA to provide technical assistance to states through a new grant program; worked with NTIA and the FCC to help existing users of the Band 14 spectrum to transition away from it; and conducted thousands of engagements with first responders and other public safety personnel, states and territories, and federally recognized tribes so that their experiences and expertise could help shape the requirements for the FirstNet network. As a result of significant engagement with stakeholders, FirstNet Authority was able to issue a final Request for Proposals to build, operate, and maintain the network that incorporated the needs of first responders.

In 2017, following an open, transparent, and competitive procurement process, the FirstNet Authority awarded a

Figure 1: Agencies 2018-2021





A SatCOLT at the 2020 American Birkebeiner Ski Race removed communications concerns.

25-year contract to AT&T to build, operate, and maintain the network. AT&T commenced a five-year initial radio access network (RAN) deployment in March 2018. Under the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act), the FirstNet Authority oversees the network buildout and operations.

Construction and deployment of the network is on schedule and is currently meeting targets in both rural and non-rural areas. The rapid deployment of the network and extensive engagement programs have resulted in its use by over 18,500 agencies across all 50 states, 5 territories, and the District of Columbia. The FirstNet network has been available to first responders since FY 2018, and in four short years, the network has grown from zero to over 2.8 million connections. FY 2021 alone saw the number of network connections grow by 86%.

These 2.8 million connections represent, for example, ambulances that can reliably video conference emergency rooms while en route to save critical minutes in caring for patients; police officers that can share a photo of a missing child during a parade without competing with live streamers for service; and the locations of individual firefighters during wildfires that can be tracked against the fire line and weather conditions to improve safety. Each connection represents a potentially life-saving resource that local, state, tribal, and federal government officials can use to better serve the public.

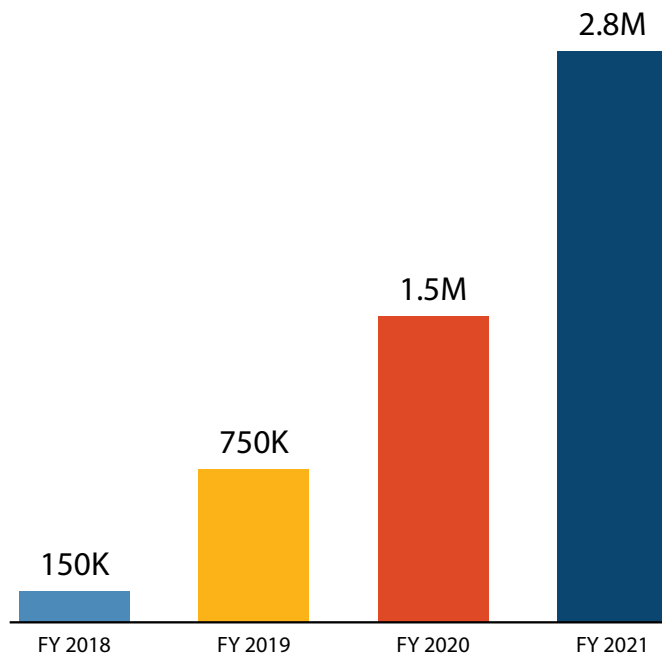
To best serve public safety, the FirstNet Authority emphasizes outreach and engagement with first responders around the nation. In FY 2021 alone, the FirstNet Authority conducted 1,695 engagements with public safety stakeholders in all 50 states, five territories, and the District of Columbia, reaching more than 40,000 stakeholders. The FirstNet Authority uses these engagements and the feedback gained from public safety to update its Roadmap, originally released in FY 2019, which guides future investments into the network.

By connecting with first responders directly, the FirstNet Authority better understands their needs and priorities for the network. These engagements also provide an opportunity to learn about and help enhance first responders' user experiences, which can supplement technical analysis of the network as part of contract oversight.

The FirstNet Authority's development over the past ten years has also been guided through Congressional oversight of all major programmatic and financial decisions to help ensure that the concept of a nationwide public safety broadband network would become the success it is today. We thank Congress for their continued engagement.



Figure 2: Connections 2018-2021





First responders in Tioga County, Pennsylvania, saw increased coverage thanks to three new purpose-built sites in the county. Mansfield University Police officers tested their smartphones at the ribbon cutting.

THE FIRSTNET AUTHORITY'S FIRST TEN YEARS

FY 2012: Creation

On February 22, 2012, President Obama signed the Middle Class Tax Relief and Job Creation Act of 2012 (Spectrum Act) into law. The Spectrum Act created the FirstNet Authority with the mission to “ensure the establishment of a nationwide, interoperable public safety broadband network.”¹ To achieve this goal, Congress provided the FirstNet Authority with 20 MHz of spectrum; \$7 billion; and a mandate to establish a unique public-private partnership to build, operate, and maintain the network.

To stand up the new program, the Spectrum Act stipulated a number of processes, including the appointment of a Board to oversee the FirstNet Authority, the establishment of a Technical Advisory Board for First Responder Interoperability at the FCC, and implementation of the State and Local Implementation Grant Program (SLIGP) by NTIA. The FCC delivered recommendations from the Technical Advisory Board on June 21, 2012. On August 20, 2012, the Acting Secretary of Commerce announced the appointment of the inaugural 12 non-permanent Board members. On August 21, 2012, NTIA issued a notice that described the programmatic requirements for SLIGP grants to assist local, state, regional, and tribal jurisdictions with planning for a nationwide interoperable public safety broadband network.

With these initial steps in place, the FirstNet Authority Board held its first meeting on September 25, 2012. This first Board meeting represented many of the values the FirstNet Authority maintains today, particularly a commitment to broadly serving all first responders. The Board included geographically diverse representatives from urban and rural communities; public and private sectors; police, fire, and emergency medical fields. During the first Board meeting, action was taken to approve bylaws and other administrative functions. More importantly, the Board established resolutions that created the FirstNet Authority's State and Local Consultation Process, the Public Safety Advisory Committee (PSAC), and officially filed for the Band 14 spectrum license at the FCC.

FY 2013: Standing up the Organization

In April 2013, the Board announced the selection of the FirstNet Authority's first Executive Director (then referred to as “General Manager”). Subsequently, the agency's first leadership team took shape with the selection of a Deputy

Executive Director, Chief Counsel, Chief Financial Officer, and Chief Administrative Officer. With a senior management team in place, many other activities began to accelerate, including establishing the PSAC.

The PSAC's establishment represented an essential early step in the FirstNet Authority's continued commitment to engaging with public safety. From these early days, the FirstNet Authority was focused on understanding public safety needs. 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 mission of the PSAC is to assist the FirstNet Authority in carrying out its duties and responsibilities. Specifically, the PSAC:

- Offers the FirstNet Authority guidance, information, and subject matter expertise from a public safety perspective to ensure that user needs, requirements, and public safety operational capabilities are included in the network;
- Provides subject matter expertise on concepts (e.g., policies, procedures, technology, operational methods) developed by the FirstNet Authority;
- Advises the FirstNet Authority through the creation of initial documents, plans, or reports related to the buildout, deployment, and operation of the network. The PSAC reports include subject matter related to shared intergovernmental responsibilities or administration
- Conducts regular meetings to remain informed and up to date on FirstNet's progress.

In 2013, the FirstNet Authority also conducted its first tribal outreach to work with tribal associations to better understand their needs and gain recommendations to inform an effort to reach out to all 574 federally recognized tribes. Through a series of six regional workshops, FirstNet Authority staff and Board members gained insights into existing relationships and networks, current and prior emergency communications efforts, and tribal broadband communications needs. While tribal coverage would become part of broader state consultations and buildout plans, it was important for the FirstNet Authority to meet with tribal representatives to ensure Indian Country would not be overlooked during the subsequent formal state consultation process.

¹ 47 U.S.C. § 1422(a).



FY 2014: State Consultations and First Strategic Roadmap

During FY 2014, the FirstNet Authority began a formal state consultation process to understand public safety’s unique needs within each state and territory for the nationwide network. In addition, the FirstNet Authority issued a public notice seeking input on key legal interpretations of the Spectrum Act, released a comprehensive network draft Statement of Objectives and Request for Information, and the Board adopted Committee charters to ensure efficient and transparent Board and management operations. The FirstNet Authority created and formally adopted a Strategic Program Roadmap (Strategic Roadmap), while growing from a fledgling organization to a robust startup. The FirstNet Authority team increased from 8 to 75 full-time employees, which included hiring key senior management positions throughout the organization.



The adoption of the Strategic Roadmap in March 2014 laid out the FirstNet Authority’s short-term priorities, including a focus on in-person consultations with the states and territories. To build a public safety network, the FirstNet Authority needed to understand the needs of public safety agencies around the country. While there would be broad trends and commonalities, each region would have its own unique topography, industry, population densities, and other variables that impact communications.



In FY 2014, the FirstNet Authority conducted a series of workshops with state and local officials to collaboratively design the formal consultation process. Engaging with local stakeholders, even on the design of the formal engagement process, ensured that the FirstNet Authority and the eventual network were designed to meet the needs and experiences of the first responders who rely on it every day.

FY 2015: Request for Proposals Development and Continued Consultation

The FirstNet Authority released a draft Request for Proposals (RFP) in FY 2015 as the first step toward holding a competitive bidding process to select a private sector partner to build, operate, and maintain the NPSBN. Draft documents were published to ensure a transparent and fair process, allow stakeholders to submit questions and comments to the FirstNet Authority prior to publication of the final RFP, and inform stakeholders of the FirstNet Authority’s current thinking on its procurement. The FirstNet Authority responded to more than 650 questions ranging from inquiries about the FirstNet Authority’s processes to complex technical questions. Where appropriate, the FirstNet Authority used input from respondents to further develop the final RFP.

Public safety leadership join then-Vice President Joe Biden on Feb. 21, 2012, just before Congress allocated the D Block of spectrum and created FirstNet.

The Minnesota public safety community offers opinions during the FirstNet Authority’s opt-in process.

In 2017, the FirstNet Authority and AT&T launched a public private partnership to build FirstNet.

In early FY 2015, the FirstNet Authority closed its First Public Notice on proposed interpretations of the Spectrum Act. Subsequently, in March 2015, the FirstNet Authority published its Second Public Notice. Generally, both notices gave stakeholders and the public an opportunity to comment on certain proposed legal interpretations of the FirstNet Authority's enabling legislation. After thoroughly evaluating every comment, the FirstNet Authority published its final legal interpretations of 64 questions raised in the First and Second Public Notices in October 2015.

The public comment periods on the draft RFP and legal interpretations were significant milestones in the administrative development of the FirstNet Authority. They also provided further opportunities for stakeholders to help inform the FirstNet Authority's scope of work to best achieve its mission.

In addition to these administrative opportunities, the FirstNet Authority continued to actively seek out the input of public safety stakeholders across the country, through the formal state consultation process and stakeholder outreach, to inform the creation of the network. This included 55 state and territory in-person initial consultations; outreach to more than 45,000 public safety and private partners; more than 300 stakeholder engagements; and data collection from over 11,600 public safety entities representing 16 million personnel in 54 states and territories and seven federal agencies.

FY 2016: Request for Proposals Issued and Ongoing Stakeholder Engagement

In January 2016, the FirstNet Authority released the final RFP for a private sector entity to build, operate, and maintain the NPSBN, marking a major milestone in network deployment efforts. The FirstNet Authority adopted an objectives-based (instead of a requirements-based) approach to leverage the private sector's vast experience in deploying, operating, and maintaining expansive broadband networks. To inform the RFP, the FirstNet Authority engaged with public safety entities, states, territories, localities, tribal governments, federal partners, and the private sector for nearly four years to obtain the detailed information and objectives that were included in the RFP.

Potential partners were asked to explain how they would meet 16 key objectives and specifically encouraged to submit the most cost-effective, innovative models to achieve all objectives, and also to propose:

- Geographic coverage that includes rural and non-rural communities;

- A rapid deployment schedule that also incorporates improvements and upgrades as technology evolves throughout the contract;
- Payment milestones over the 25-year term of the contract; and
- Network and organizational designs that ensure technical reliability and maintainability.

After several months of open competition, the RFP closed on May 31, 2016, with multiple proposals submitted. The FirstNet Authority initiated an evaluation process to select a partner.

While administering the RFP process, the FirstNet Authority also maintained a vigorous engagement process to continue and deepen collaboration with state and local officials and first responders. Through 140 formal consultations, 130 association events, and numerous other engagements with local, regional, tribal, and state stakeholders, the FirstNet Authority worked to enable first responders to influence their network with particular attention to the needs of rural and tribal communities.

Across all of these consultations and engagements, the FirstNet Authority focused on increasing its understanding of the challenges facing public safety in rural areas. At each of the consultation meetings, the FirstNet Authority reiterated how rural milestones in the RFP would help ensure that rural public safety communications capabilities are deployed throughout the project's planned 5-year lifecycle. Recognizing that deploying permanent infrastructure in rural areas may present challenges at the outset, the RFP requested innovative solutions to deliver service to areas that lack connectivity (e.g., vehicular network systems).

FY 2017: Contract Awarded and States begin to Opt-In

In March 2017, after completing the open, transparent, and competitive procurement process, the FirstNet Authority awarded AT&T a 25-year contract to build, deploy, operate, and maintain the NPSBN. Then, following extensive engagement and consultation efforts, the first of what would become all 50 states, five territories, and the District of Columbia chose to opt-in to the FirstNet program and approved their state plans.

Awarding the contract to AT&T marked the successful conclusion of the open, transparent, and competitive bidding process, but most importantly, the beginning of an innovative public-private partnership. The FirstNet Authority leveraged its 20 MHz of spectrum and its federal position to bring scale and resources to the marketplace, including



up to \$6.5 billion in success-based payments. AT&T brought operational expertise, financial stability, and network assets valued at up to \$180 billion. The financial model used in this contract was so innovative that the FirstNet Authority team that developed the RFP was awarded the highest U.S. Department of Commerce honor — the Gold Medal.

Additionally, the FirstNet Authority and AT&T issued state plans for the RAN deployment three months ahead of schedule. The state plans were informed by the extensive data collected from four years of consultation and cooperation with states and territories, tribal outreach, engagement with federal agencies, and work with rural and metropolitan areas to understand public safety's needs for coverage, capacity, and broadband applications. The state plans provided governors with the information necessary to make an informed decision as to whether an "opt-in" or "opt-out" decision would best meet the needs of their state.

These two accomplishments embody the innovative nature of the FirstNet Authority. This innovative public-private partnership uses federal resources, such as spectrum, to create a public-private arrangement that is building a national network based on local needs.



FY 2018: Launching the Network

After the contract was awarded in March 2017, AT&T moved quickly to deploy a network that provided essential communications tools and features for first responders and other public safety personnel. Accomplishments included officially launching the FirstNet core in March 2018. The FirstNet Core provides a dedicated, secure, resilient network backbone, with the priority and preemption capabilities public safety subscribers need. The FirstNet Core also functions like a dedicated router separate from commercial traffic that processes FirstNet communications and data.

Pursuant to its agreement with the FirstNet Authority, AT&T also initiated buildout of the Band 14 RAN nationwide. This included both the construction of new purpose-built towers where coverage previously did not exist and the addition of Band 14 equipment onto existing cell towers. This dual approach recognizes the need to provide dedicated coverage for first responders in dense urban areas and in rural areas where there may not have been a business case to build and operate commercial towers. While new purpose-built towers take longer to construct due to land acquisition and permitting, they are critical to ensuring that FirstNet is deployed as a public service based on the state plans rather than just another commercial network.



An Alachua Fire Rescue officer offers his thoughts to FirstNet Authority staff and AT&T representatives.

A FirstNet cell tower is built on the Red Cliff Band of Lake Superior Chippewa reservation in Wisconsin.

The FirstNet Authority Roadmap is released at APCO in 2019.

Local, state, tribal, and federal public safety entities also began subscribing to FirstNet service and buying FirstNet

devices in FY 2018. This year also saw the delivery and first use of the FirstNet deployable fleet, which at the time consisted of satellite trucks. These trucks function as mobile cell towers, providing service to support disaster response and boost capacity during major planned events. These resources were identified early in the engagement and consultation process as a priority of first responders. As a result, the contract included the delivery of 72 deployables that are available free of charge to FirstNet subscribers and strategically deployed around the country to respond within hours.

FY 2019: Growing Adoption, Roadmap Issued, and Investment Process Established

At the start of FY 2019, there were more than 2,500 public safety agencies, and 150,000 device connections on the FirstNet network. By the end of FY 2019, there were more than 9,000 public safety agencies and 750,000 device connections on the network.

In August 2019, the FirstNet Authority released its Roadmap to guide the future enhancements of the FirstNet network. The Roadmap, driven by direct consultation with public safety stakeholders, documents the FirstNet Authority's priorities over the next five years to evolve and improve public safety broadband communications for the FirstNet network. It builds upon the organization's nationwide engagement with public safety to gather feedback on the most important communications capabilities for their missions. In FY 2019, the FirstNet Authority conducted more than 1,100 engagements, reaching nearly 33,000 stakeholders across all public safety disciplines and in all 50 states, five territories, and the District of Columbia. These 1,100 engagements included over 75 engagements with tribal stakeholders and 150 engagements with federal stakeholders. Informed by these engagements, the FirstNet Authority developed prioritized technology areas to ensure the Roadmap reflects public safety's specific communications needs. Additionally, the Roadmap incorporates industry trends through market research and outreach to private sector, academia, and industry associations.

Developing a reinvestment process was another critical element of planning for the future. The FirstNet Authority's enabling legislation states that spectrum lease payments from the private sector partner will be used to reinvest into the network. In FY 2019, the FirstNet Authority developed and executed a structured, transparent, and rigorous investment process that drives disciplined investment of the FirstNet Authority's financial resources. As a result of the investment process, the FirstNet Authority presented

investment opportunities during the September 2019 Board meeting for approval. These first investments would be made in FY 2020 to serve current needs better and prepare for the future.

FY 2020: Unprecedented Public Safety Challenges, First Investments, and Over One Million Connections

In FY 2020, the FirstNet network faced unprecedented challenges. Under pressure from multiple and often simultaneous response efforts across the nation, the network rose to the challenge. The network was successful in meeting the needs of existing users and more than doubled the number of connected devices used by first responders. As first responders adapted to the pandemic, historic wildfires, and national protests, FirstNet adapted alongside them and enabled them to serve the public under new circumstances.

Among the innovations FirstNet supported was the movement to remote 911 call centers. Utilizing FirstNet equipment, many 911 call centers went fully or partially remote to minimize the risk of Covid-19 infection to staff and ensure continuity of operations. While the pandemic forced this innovation, it could prove useful in the future to maintain operations during weather events or for employee flexibility. In December 2019, even before the pandemic pushed many into quicker adoption of technology than planned, the FirstNet Authority and AT&T celebrated the one millionth connection to the network. By the end of the fiscal year, that number would rise to 1.5 million, from its inception just three years before.

In June 2020, the FirstNet Authority Board approved its first set of investments: (1) to upgrade the FirstNet core to be 5G-ready; and (2) to further expand the dedicated fleet of deployable assets.

Specifically, the Board approved \$218 million for the FirstNet Authority to invest in:

1. Initial upgrades to enable 5G network capabilities. Evolving the network to 5G is expected to be a multi-phase effort, beginning with upgrades to the dedicated FirstNet network core. The physically separate, redundant, and highly secure network core is foundational to FirstNet. It acts as the nervous system of the network, separates all public safety traffic from non-public safety user traffic, and enables differentiated services for network users. In the future, 5G is expected to drive major increases in the quantity and types of connected devices for FirstNet users.
2. Expanding the fleet of FirstNet deployables to enhance



network coverage and capacity for public safety during emergencies and events. These assets supported public safety communications during the COVID-19 response; at large events and emergencies; and during responses to disasters, including wildfires, tornadoes, and hurricanes. The FirstNet fleet currently includes more than 100 dedicated deployable assets, including flying Cells on Wings (Flying COWs), Communications Vehicles, Satellite Cell on Light Trucks (SatCOLTs), Compact Rapid Deployables, and an Aerostat (blimp). The Board's actions aimed to grow the fleet to help meet the increasing demand for these assets from public safety.



These investments were a direct result of Roadmap priorities, and they represented the first strategic investments toward advancing the network beyond its contractual baseline and responding to first responders' evolving operational needs.

FY 2021: Learning and Growing

September 11, 2021, marked the 20th anniversary of the 9/11 attacks. The FirstNet Authority was created by Congress to help address the public safety communications challenges of 9/11 and of the future. Since the passage of the Spectrum Act, the FirstNet Authority has been solely focused on our mission of deploying public safety's nationwide interoperable broadband network.



In four years, the FirstNet Authority, through our public-private partnership, has helped bring emergency communications into the digital age. It is not easy to evaluate or quantify the benefits of better communications, but the data demonstrates that FirstNet is earning the trust of public safety, with over 18,500 agencies utilizing over 2.8 million connections on the network.

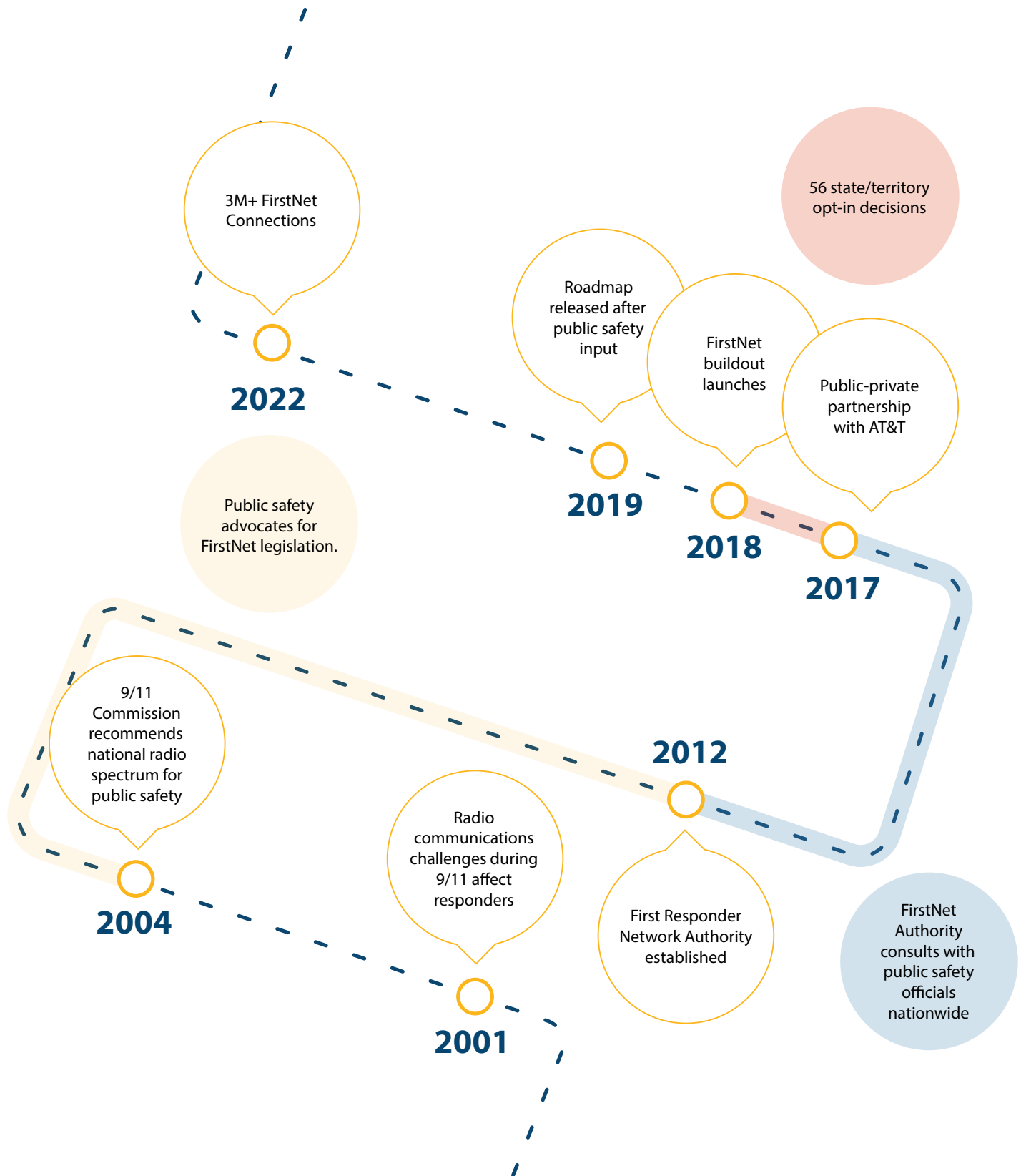
Over the course of FY 2021, the FirstNet Authority and the network continued to learn and improve. While daily successes have driven widespread and rapid adoption of the network, FY 2021 also saw significant events—such as the Nashville, Tennessee bombing and Hurricane Ida—that have informed network operations and enhancements. While evaluation and analysis of network performance during these events are ongoing, they have challenged the FirstNet Authority and its partner, AT&T, to plan, prepare, and invest for a broader variety of scenarios. Four years into a 25-year project, the FirstNet Authority acknowledges that the mission to build and operate the network is never achieved but a constantly evolving goal. First responders across the nation are adapting to new threats to public safety and more intense natural disasters. The FirstNet Authority is fully committed to looking forward to plan and prepare for these challenges to support the millions of first responders who depend on FirstNet to serve their communities.

Miami-Dade County Fire Rescue has used FirstNet for Super Bowl LIV operations and to assess storm damage.

Community representatives join FirstNet Authority Board Member Brian Crawford to cut a ribbon at a new FirstNet cell site in East Carroll Parish, Louisiana.

FirstNet Authority staff show visitors the capabilities of the Boulder FirstNet Lab.

Figure 3: The History of Our Nation's Public Safety Network



As part of this commitment, the FirstNet Authority has maintained its dedication to working and learning directly from first responders. In FY 2021, the FirstNet Authority conducted 1,695 engagements with public safety stakeholders in all 50 states, five territories, and the District of Columbia, reaching more than 40,000 stakeholders. These engagements resulted in enhanced stakeholder relationships, insights into the FirstNet experience, and over 2,100 feedback items that informed FirstNet product and network enhancements and the FirstNet Authority Roadmap, paving the way for future investments in the network.

These engagements include discussions with the PSAC, which includes 44 members from associations representing local, tribal, state, and federal government and public safety. The PSAC conducted three formal business meetings as well as bi-monthly webinars and focus groups to gain targeted feedback.

The FirstNet Authority also continues its commitment to tribal partners to ensure they benefit from the network. The PSAC has a specialized Tribal Working Group chaired by a member appointed by the National Congress of American Indians to support this goal. The Tribal Working Group focuses on providing the FirstNet Authority with feedback to meet the needs of tribal first responders and how to appropriately communicate and encourage adoption of FirstNet. A member of the FirstNet Authority Board is designated to be a direct liaison between the Tribal Working Group and the Board to ensure the Working Group's ability to drive actions to serve Indian Country.

At the end of FY 2021, the network deployment was 95 percent complete and all contract milestones (including nationwide rural and non-rural coverage requirements / nationwide adoption targets) were met by AT&T. The initial five-year network buildout, developed through intensive consultations and approved by governors, remains on schedule for completion.

A more comprehensive and detailed discussion of the FirstNet Authority's FY 2021 activities, operations, accomplishments, and financial condition follows.



Six counties from across Maryland staged a 9-1-1 expo with live call-taking from a remote and crowded location using FirstNet.



The City of Gainesville, Florida has implemented a seamless, city-wide integrated communications system using FirstNet that benefits various agencies and the communities in which they serve.

FIRSTNET AUTHORITY ROADMAP

The Roadmap

Originally published in August 2019, the Roadmap reflects stakeholder input and focus areas for the FirstNet Authority in evolving and advancing the FirstNet network. In FY 2020, the FirstNet Authority updated the Roadmap to reflect new research and current stakeholder input. Publicly released in October 2020, the updated version maintains the original six domains: Core, Coverage, Situational Awareness, Voice Communications, Secure Information Exchange, and User Experience. However, revisions to the primary underlying relevant technology and the domain priorities reflect the ongoing evolution of public safety needs. Figure 1 identifies the priorities within each Roadmap domain.

As with its creation, the FirstNet Authority based updates to the Roadmap deliberately on stakeholder input and recent research. Since the release of the original Roadmap, the FirstNet Authority has participated in over 3,000 engagements with first responders and hundreds of discussions with industry, and executed substantive engagement-driven polling and data collection to gain feedback and inform the Roadmap.

In addition to general public safety engagements, the FirstNet Authority conducted a series of more in-depth, targeted research efforts to hone the Roadmap focus areas further. These efforts included:

- A series of interviews with academic and industry-leading technologists focused on long-term technology trends;

- An analysis of applicable research publications and trade press transcending law enforcement, fire service, EMS, emergency communications/911, and emergency management; and
- A rigorous technology prioritization survey of first responders.

These efforts focused on the current and future impact of communications technology on first responder effectiveness as well as emerging technology trends. In the near term, first responder priorities include coverage improvement, mission-critical services, and LMR-to-LTE interconnectivity. First responders prioritized the concrete items they see and use on a daily basis that impact today's operations. Technologists, who naturally have a different focus and were specifically asked about future trends, suggested real-time data analytics and non-intrusive user communications as examples of the most promising technology in the long term.

As a result of these efforts, the 2020 Roadmap included updates to the priorities and focused technology areas, refinement in "public safety's take" on each domain, and updates to the FirstNet Authority's "key takeaways." All updates were centered on those items with the most potential to improve first responder effectiveness.

The Roadmap will continue to be the FirstNet Authority's guide in applying its resources to the most promising and impactful priorities, both in the short and long term.

Figure 4: Roadmap Domains and Priorities





Jeff Bratcher, the FirstNet Authority's Chief Technology Officer, demonstrates a Compact Rapid Deployable.

STAKEHOLDER OUTREACH

Since its inception, the FirstNet Authority has prioritized stakeholder engagement to ensure the network reflects the operational needs and objectives of the public safety community — for which the network was created. The FirstNet Authority's Market Engagement Office (MEO) team regularly engages with public safety across disciplines and levels of government: local, state, tribal, and federal. With staff drawn from the public safety community (including law enforcement, EMS, emergency communications/911, emergency management, and fire service), as well as dedicated and specialized staff to engage with tribal governments and federal government agencies, the MEO team engages with public safety in the field to receive feedback regarding FirstNet usage and experience and the FirstNet Authority Roadmap, and to share information with public safety professionals. The FirstNet Authority's website lists the name and contact information for each state, territory, and tribal nation's point of contact to ensure local users have access to the staff that serve them.

In FY 2021, the FirstNet Authority conducted 1,695 engagements with public safety stakeholders in all 50 states, five territories, and the District of Columbia, reaching more than 40,000 stakeholders. These engagements resulted

in enhanced stakeholder relationships, sharing FirstNet experience, and over 2,100 feedback items that informed FirstNet product and network enhancements and the FirstNet Authority Roadmap, paving the way for future investments in the network.

The FirstNet Authority and AT&T also regularly provided briefings and updates to state government leaders on the deployment of the FirstNet network in their state during FY 2021. The FirstNet Authority has taken steps to improve transparency with state leaders and expanded the level of detailed information that we can share with key stakeholders. Additionally, the FirstNet Authority has been working with AT&T to improve the consistency of briefings on progress made toward achieving the goals of the individual state plans and will continue this work in the coming year.

Public Safety Advisory Committee

As required by the Spectrum Act, the FirstNet Authority established the Public Safety Advisory Committee (PSAC) to assist the FirstNet Authority in carrying out its mission. The PSAC consists of 44 members² representing all disciplines

²firstnet.gov/about/psac/psac-members



of public safety as well as local, state, territorial, and tribal governments. The PSAC also has two at-large members and two federal public safety members. At the end of FY 2021, the PSAC welcomed 10 new representatives from public safety associations as part of its bi-annual membership renewal process.

During FY 2021, the PSAC conducted 44 engagements, including: three virtual business meetings with staff, leadership, Board members, and AT&T; bi-monthly webinars addressing product and network developments with staff experts; strike team meetings; focus groups targeted at gathering feedback on potential investment topics and priorities; and monthly Executive Committee leadership and Tribal Working Group teleconferences. These regular meetings enabled strong working relationships among PSAC members and the FirstNet Authority to discuss and address topics such as: disaster response and deployable assets; location services; mobile applications and the FirstNet App Catalog; next generation public safety devices; telehealth services; and Identity, Credential, and Access Management (ICAM) capabilities. Throughout the year, the FirstNet Authority Roadmap guided PSAC activities, as topics and technology were specifically and strategically selected from those called out in the Roadmap's priorities.

Tribal Government Engagement

Recognizing the unique needs and requirements of tribal

governments and public safety agencies, the FirstNet Authority has a Tribal Working Group within the PSAC that is led by dedicated staff. The Tribal Working Group is made up of delegates appointed by regional and national tribal associations and tribal governments. The Chair of the Tribal Working Group is a PSAC member appointed by the National Congress of American Indians. The Tribal Working Group also has a dedicated member of the FirstNet Authority Board to act as a liaison.

The Tribal Working Group, which represents diverse geographic and disciplinary interests in tribal public safety, was established to provide advice on formal tribal consultation, outreach, education, and inclusive engagement strategies in Indian Country. The intent is to inform and involve federally recognized tribes as it relates to their use of the FirstNet network.

The FirstNet Authority has continued to emphasize engagement with tribal stakeholders to address their public safety communications challenges and needs. During FY 2021, the Tribal Working Group met monthly via teleconference, and focused these meetings on Roadmap domain topics and associated data collection in an effort to help guide the advancement of the FirstNet network in tribal communities. The group focused on leveraging its connections within tribal communities to learn what they need from the network and how to encourage tribal use and adoption.



Alabama Governor Kay Ivey and Deputy Commanding General of Army Material Command Lieutenant General Donnie Walker celebrate new FirstNet infrastructure at Redstone Arsenal in Alabama. The FirstNet build at Redstone is another example of the government working hand-in-hand with the public safety community to guarantee first responders have the next-generation tools needed to serve our communities and U.S. Army installations.

CONTRACT *AND* DEPLOYMENT 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 our 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 self-sustaining.

The FirstNet Authority has issued eight 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 District of Columbia.
- Task Order 2 (TO2) required development of the individual state plans. These plans detail the RAN deployment for each of the 50 states, five territories, and District of Columbia. While the state plans were delivered by AT&T and TO2 closed out (March 2018), the State Plan Portal (TO1) remains in an operations and maintenance mode through the initial five-year buildout, 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 at the time, a key aspect of the FirstNet Authority's focus on fostering a partnership with public safety and local authorities.
- Task Order 3 (TO3) requires AT&T to deploy, operate, and maintain the FirstNet network's core and all of its associated functions, to include providing for the development of device and application ecosystems for the network. The FirstNet network has a dedicated and physically separate and distributed core, which processes and secures FirstNet users' traffic separate from the AT&T commercial network. A network

core is a critical piece of infrastructure that serves a telecommunications network in a way similar to a server or router for a business or industry. 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.

- Task Order 4 (TO4) requires AT&T to deploy eNodeBs, transceivers that deliver the network's Band 14 coverage nationwide, while fulfilling the specific geographic coverage 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 FirstNet core. The task order also requires AT&T to develop, deploy, and support 72 SatCOLTs, transportable cellular assets dedicated solely to FirstNet (also known as deployables), which are in addition to the FirstNet network's access to at least 300 other transportable cellular assets in AT&T's commercial fleet that can provide supplementary network coverage when needed.
- Task Order 5 (TO5) requires equipment and connectivity for the Boulder FirstNet Lab, located in the FirstNet Authority's office in Boulder, Colorado.
- Task Order 6 (TO6) requires AT&T to expand the FirstNet deployable fleet acquired through TO4. TO6 includes services to add more SatCOLTs to the FirstNet dedicated deployable fleet, as well as new deployable form factors to provide additional flexibility and variety to the services offered. TO6 further requires AT&T to examine its 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 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 the TO3 4G core to 5G by leveraging some of the 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 conduct feasibility assessments. Feasibility assessments will help the FirstNet Authority understand how new or evolving

technology, features, and functionality might be used to improve the ability of first responders to support incident response, and if implementation warrants potential network reinvestment. TO8 is the third reinvestment task order and was awarded in September 2021.

Task Orders 1, 3, 4, 5, 6, 7, and 8 are ongoing. TO2 was completed in March 2018 after all 56 governors (or appropriate territorial counterparts) opted into their respective customized state plans.

Network Deployment, Operation, and Maintenance

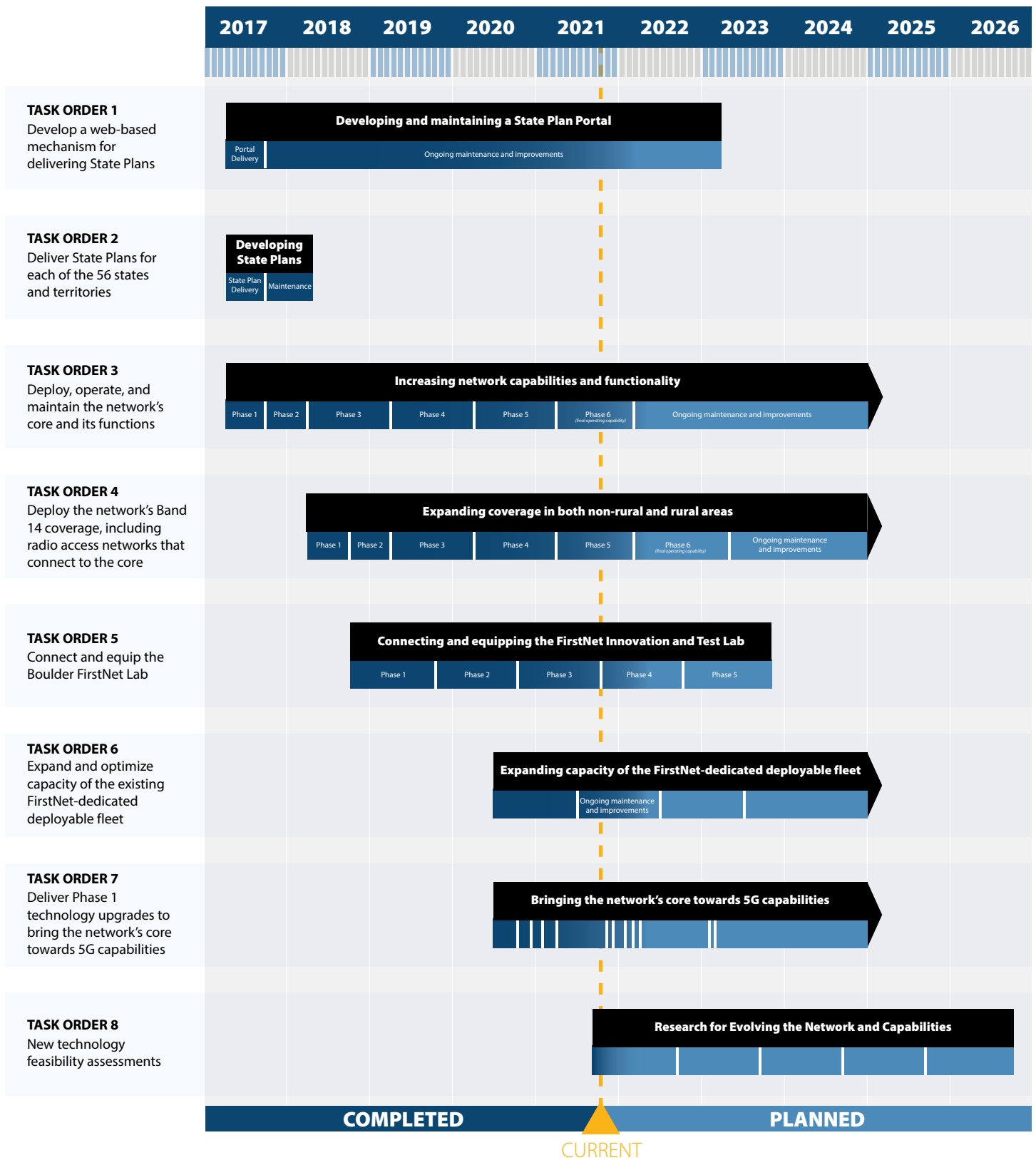
Under the IDIQ contract, AT&T is required to deploy, operate, and maintain the FirstNet network. The FirstNet network is a standards-based, interoperable, reliable, and forward-looking nationwide broadband network that is redefining how the nation's public safety community communicates. With all states, territories, and the District of Columbia opting into the FirstNet deployment, the FirstNet Authority has established a single, interoperable nationwide network as required by Congress.

At the end of FY 2021, the network deployment was 95 percent complete and all contract milestones (including nationwide rural and non-rural coverage requirements / nationwide adoption targets) were met by AT&T. Additionally, the FirstNet Authority has a process through which potential investment opportunities to further improve the FirstNet network are identified and evaluated — the first such investments were approved in FY 2020.

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 rigorous contract management and administrative processes and tools since the execution of the IDIQ contract to track network-related contractual activities. As a result, the FirstNet Authority can minimize and mitigate risk while improving the network. The FirstNet Authority continued to utilize these measures in FY 2021 to ensure the progress of the NPSBN.

Figure 3: Task Orders 2017-2026





A FirstNet SatCOLT deployed to the Bootleg Fire in Oregon. These mobile cell sites link to FirstNet via satellite, do not rely on commercial power availability, and provide similar capabilities and connectivity as a cell tower.

TECHNOLOGY *AND* INNOVATION

As part of the mission to deploy the FirstNet network, the FirstNet Authority serves as a conduit between public safety users and the industries that develop innovative communications tools to advance public safety operations. To help industry recognize the value and potential of the public safety communications market, the FirstNet Authority continues to:

- Engage with telecommunications **standards development** organizations, such as the 3rd Generation Partnership Project (3GPP) and Telecommunications Industry Association (TIA).
- Ensure **Device** and **Application** ecosystems evolve to meet the needs of public safety.
- **Manage spectrum** to ensure the efficient utilization of the 700 MHz Band 14 Public Safety Broadband Spectrum in support of the NPSBN.
- Establish **innovative partnerships across government** to stimulate the public safety ecosystem.

Standardization

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

The FirstNet Authority continues to prioritize the inclusion of public safety requirements in standards development. Our efforts are mainly focused on 3GPP, a partnership that unites seven telecommunications standards development organizations to produce reports and specifications for creating 4G LTE technology and next-generation 5G specifications. In coordination with AT&T, the FirstNet Authority has successfully ensured that 3GPP specifications address the needs of first responders.

The FirstNet Authority has employed a two-pronged focus in this work: 1) developing and evolving global specifications for mission-critical services (MCS) such as mission-critical push-to-talk (MCPTT), video, and data; and 2) developing specifications for interworking broadband MCS with legacy public safety technology, such as LMR. The current specifications for MCS were originally targeted for LTE technology. The FirstNet Authority continues engagement

efforts to evolve these standards to support 5G technology.

During FY 2021, 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 were enhancements to mission-critical location services, including support for improved location services over 5G, and completion of the architecture to transport location through the three MCS: MCPTT, video, and data. Another important effort for public safety is the update of the MCS standards suite for 5G. This is critical for the continued evolution of MCS by allowing use of improvements only available in 5G, such as improved support for Quality of Service, Priority, and Preemption in the 5G core network. In FY 2021, the first phase 3GPP standards for MCS over 5G was completed that supports unicast, on-network operation. Subsequent standards updates will support multicast and off-network operation.”

The FirstNet Authority participated in standards development for other features essential to public safety, including new 5G Direct Mode capabilities to support public safety needs including user equipment (UE)-to-network relay to extend the network coverage to enable a remote mobile device to access the network. Progress on other important enablers for public safety include enhanced Multicast Broadcast Services for 5G (5MBS) with multicast service reliability in poorer radio coverage conditions, and 5G running over non-terrestrial networks (satellites) to support both Low-Earth Orbit (LEO) and Geosynchronous Equatorial Orbit (GEO) operation. As a result of our efforts, these critical public safety features are now planned for completion in 3GPP standards.

The 5G Direct Mode feature will allow first responders to communicate when they are beyond network wireless coverage, and 5MBS is critical to avoid network congestion. Additionally, running 5G over satellite systems could offer coverage extension for first responders in areas that do not have terrestrial wireless coverage. In disasters and major incidents, first responders can utilize push-to-talk (PTT) technology to communicate in groups of various sizes, even in a small area covered by only one cell. When utilizing LTE Multimedia Broadcast Multicast Service (MBMS) or the 5MBS capability, each communication group will utilize the radio resources of about two people communicating with one another, regardless of the number of users in the group. As we move to video group communications, which consume significantly more radio bandwidth than voice, this feature will be even more important for conserving radio resources.

In FY 2021, the FirstNet Authority also continued working with 3GPP, the Alliance for Telecommunications Industry Solutions (ATIS), and TIA to support standards work involving the interworking between LTE-based MCPTT systems and legacy LMR-based systems, such as Project 25 (P25) trunking and conventional systems. Through this effort, a wider adoption of LTE MCPTT will be possible as these interworking standards will permit an LMR user to talk to a FirstNet LTE MCPTT user and vice versa. 3GPP work for interworking was completed last year, and a major milestone was achieved in FY 2021 when TIA published two standards addenda to support interworking with P25 systems. Work continues in ATIS and TIA, but most of the important interworking features have now been standardized end-to-end.

Device Ecosystem

The FirstNet device ecosystem continued to evolve during the past year to provide public safety with an ever-expanding list of devices for use on the NPSBN. The National Institute of Standards and Technology (NIST) is required by law to ensure the development of a list of certified devices for use on the NPSBN. The FirstNet Authority and NIST have agreements in place to ensure this requirement is met in full.

In FY 2021, the FirstNet Authority continued working closely with AT&T and NIST to build upon this established device ecosystem. Throughout the year, this collaboration resulted in 10 updates to this NIST list of certified devices for use on NPSBN. As a result, the number of devices grew from about 250 at the end of FY 2020 to about 350 at the end of FY 2021. The certified device list reflects an effective collaboration among device manufacturers, the FirstNet Authority, AT&T, and NIST to enable a robust, diverse device ecosystem for public safety users.

Particularly significant additions to the device ecosystem occurred in the areas of Internet of Things (IoT) devices and rugged devices, such as smartphones, tablets, laptops, and other specialized devices. The availability of FirstNet Ready (Band 14-enabled) devices from a wide range of leading manufacturers represents a significant accomplishment that benefits FirstNet users.

Public safety requires specialized devices because equipment used for emergency response has different functional requirements than commercial devices. Besides technical capability requirements, such as the ability for responders to communicate between LTE and LMR, public safety entities have other daily needs that must be considered. For example, devices specialized for ambulances must be capable of withstanding regular sanitization that would damage regular commercial devices. The NIST list contains a

multitude of devices designed to meet rigorous ruggedized standards that can perform in the harsh environments in which first responders operate. The inventory of approved devices includes options that have been designed with high levels of ingress protection against dust, water, and other foreign bodies.

Additionally, FY 2021 saw the initial release of devices that support 5G capabilities and services. This includes over 50 devices that now support 5G speeds. This helps ensure FirstNet continues to maintain parity with commercial offerings while supporting cutting-edge technology that will help meet the ever-evolving needs of public safety.

Application Ecosystem

FY 2021 continued to be another year of growth for the FirstNet App Ecosystem, with the number of FirstNet Verified apps growing to more than 180 from 150 in FY 2020. The FirstNet App Catalog only lists apps that have undergone a rigorous vetting and approval process. To be FirstNet Verified in the FirstNet App Catalog, an app is reviewed to verify it is directly relevant to the needs of first responders; ensure it is secure and protects data; and ensure it has a history of limited unplanned outages with 99.9% or better availability.

Once an app qualifies to be listed in the FirstNet App Catalog, it can earn the additional rating of FirstNet Certified if it demonstrates the ability to limit unplanned outages with four 9s (99.99%) availability and meets additional criteria of resiliency, scalability, optimized use of mobility resources and more rigorous security testing.

This catalog of iOS and Android operating system apps now encompasses the breadth and depth of unique public safety needs. This gives public safety options to choose from depending on their needs, focus area, budget, and region.

The FirstNet App Ecosystem supports six service domains and eight functional categories. The domains include critical infrastructure, dispatch, EMS, fire and rescue, hazmat, and law enforcement. The functional categories address public safety needs in the areas of cloud solutions, cybersecurity, device security, public safety communications, secure connections, situational awareness, video surveillance, and PTT.

Spectrum Management

The FirstNet Authority continued to actively manage and maximize the utilization of the 700 MHz Band 14 Public Safety Broadband Spectrum in support of the NPSBN deployment and operations. During FY 2021, the FirstNet

Authority and AT&T conducted the technical assessment of 15 commercial experimental license applications and 16 federal entity spectrum use requests. These applications and requests sought access to FirstNet Authority-licensed Band 14 spectrum on a secondary, not-to-interfere basis in support of public safety wireless technology research, experimentation, and national defense training and readiness programs. Additionally, the FirstNet Authority filed and coordinated the investigation of 13 public safety spectrum interference (PSIX) reports with the FCC Enforcement Bureau. These PSIX reports were filed to seek FCC assistance in resolving cases of radio frequency interference to the FirstNet Authority licensed Band 14 spectrum.

The FirstNet Authority's spectrum stewardship was also evident in the international arena. The FirstNet Authority continued to work closely with the FCC and U.S. Department of State in their efforts to resolve chronic radio frequency interference issues to FirstNet Authority-licensed Band 14 spectrum along the U.S. – Mexico border. The FirstNet Authority also supported the development of mutually

beneficial long-term diplomatic and technical solutions for 700 MHz broadband spectrum sharing and utilization along the borders with both Mexico and Canada.

During FY 2021, the FirstNet Authority began working with the FCC related to the renewal of its Band 14 spectrum license, which must be renewed in 2022. Renewal of this license is fundamental and essential to the continued operation of the NPSBN. The FirstNet Authority's enabling legislation does not provide for an automatic renewal; as a result, the FirstNet Authority must re-apply for the license to the Band 14 spectrum through the FCC to continue providing this dedicated spectrum to public safety.



The Pueblo of Laguna Fire and Rescue Program uses FirstNet devices in their daily operations.

FINANCIAL CONDITION

In FY 2021, the FirstNet Authority continued its strong financial stewardship by achieving a clean financial statement audit opinion for the eighth consecutive year. Throughout FY 2021, 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 2021 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, 2021, we had a cash balance of \$1.9 billion.

The FirstNet Authority's audited FY 2021 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. On September 15, 2021, the FirstNet Authority received \$120 million from AT&T as the FY 2021 payment due under the contract, to fund FY 2022 operations.

Changes in Assets, Liabilities, and Net Position

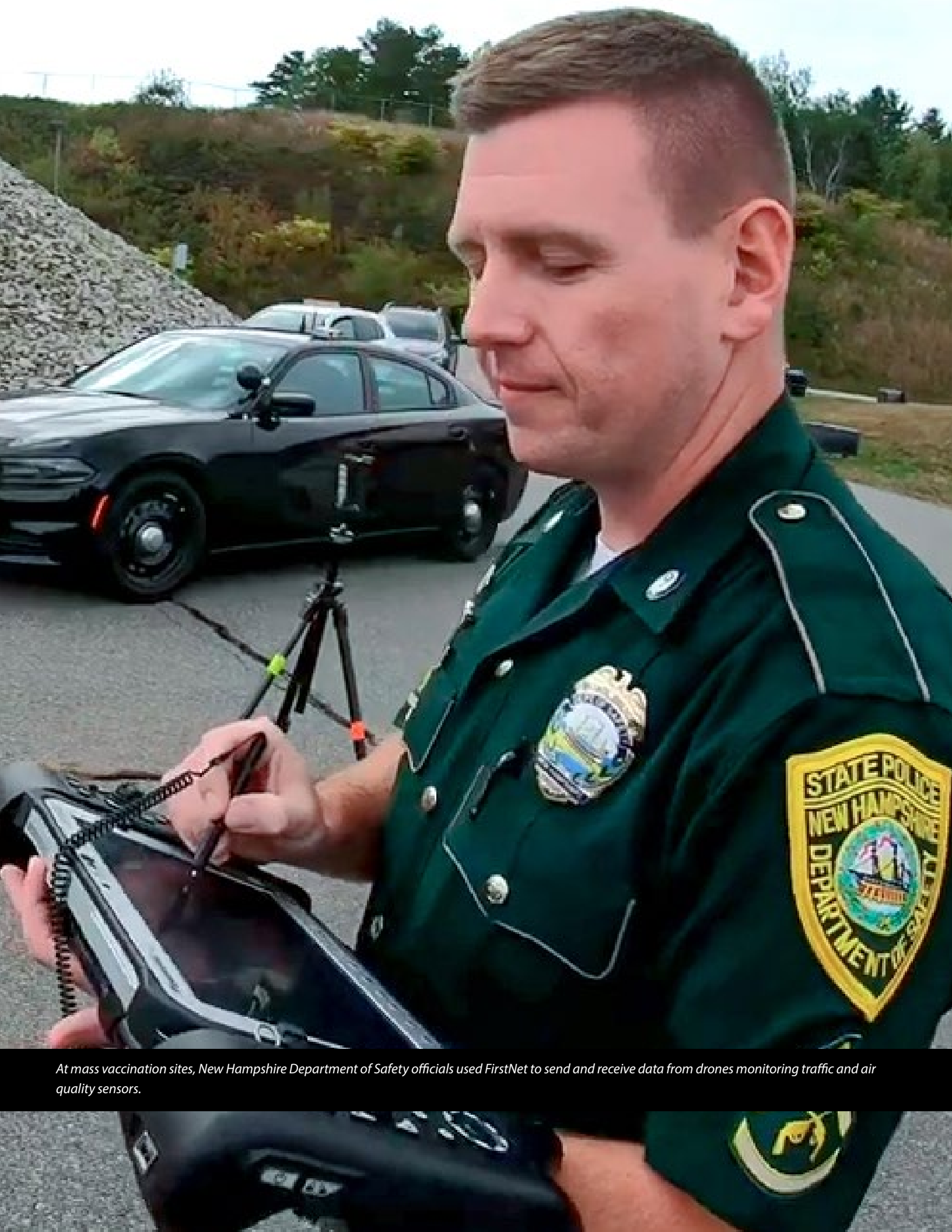
The FirstNet Authority had \$7.4 billion in total assets as of September 30, 2021, compared to \$8.1 billion for FY 2020 offset by a \$507 million, or 49 percent, decrease in total liabilities. As a result, our net position decreased \$163 million.

(\$ in Thousands)

As of September 30:	FY 2021 (Audited)	(FY 2020 Audited)
Changes in Net Position		
Total Assets	\$7,410,148	\$8,080,424
Total Liabilities	\$1,030,450	\$1,537,378
Net Position	\$6,379,698	\$6,543,046

Limitation on Administrative Expenses

Under 47 U.S.C. § 1427(b), the FirstNet Authority's administrative expenses are limited to \$100.0 million in the 10-year period beginning February 22, 2012. Since its inception through September 30, 2021, the FirstNet Authority has expended \$65.5 million of the initially authorized \$100.0 million for administrative expenses. The agency spent \$9.0 million on administrative expenses in FY 2021, which reflects a \$300,000 decrease compared to FY 2020. As of September 30, 2021, we have available \$34.5 million of the originally allocated \$100.0 million for administrative expenses.



At mass vaccination sites, New Hampshire Department of Safety officials used FirstNet to send and receive data from drones monitoring traffic and air quality sensors.

CONCLUSION

The FirstNet Authority is proud of our work in FY 2021 and over the past ten years. The dedicated staff, many of whom are former or current first responders, have taken a bold idea originated in 2012 and turned it into a critical resource serving the American people and their first responders every day. The need for FirstNet is clear from history and the more than 18,500 first responder agencies that have adopted the service in just four years.

In FY 2022, we will focus on working with the FCC to renew our spectrum license for the next ten years so that public safety's network can continue. Additionally, we look forward to working with Congress upon the release of GAO's report on whether to sunset or reauthorize the program in 2027.

As we look forward to the next decade and beyond, we are honored to continue serving the American people by providing their first responders with the best possible broadband communications resources to help keep our communities safe and secure.

APPENDIX A: FIRSTNET AUTHORITY BOARD



STEPHEN BENJAMIN (CHAIR)
Mayor, Columbia, South Carolina



CHIEF RICHARD CARRIZZO (VICE CHAIR)
Chief of the Southern Platte Fire Protection District, Kansas City, Missouri



BRIAN CRAWFORD
Senior Vice President, Chief Administrative Officer of Willis-Knight Health System



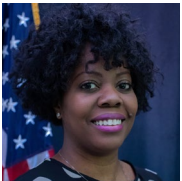
ALEXANDRA FERNANDEZ-NAVARRO
Associate Member, Puerto Rico Public Service Regulatory Board



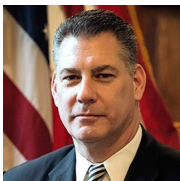
KRISTIN GRAZIANO
Sheriff, Charleston County Sheriff's Office, South Carolina



BILLY HEWES
Mayor, Gulfport, Mississippi



KARIMA HOLMES
Senior Director, ShotSpotter Inc.



PETER KOUTOUJIAN
Sheriff, Middlesex County, Massachusetts



WARREN MICKENS
Former VP of Wholesale Operations, Centurylink/Quest



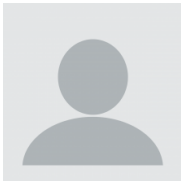
SYLVIA MOIR
Chief of Police, City of Tempe, Arizona



JOCELYN MOORE
Technology and Business Executive



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



VACANT
Director of the Office of Management and Budget



TIA BOATMAN PATTERSON
Office of Management and Budget Designee



ALEJANDRO MAYORKAS
Secretary of the Department of Homeland Security



BILLY BOB BROWN, JR.
Department of Homeland Security Designee



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



DARRIN E. JONES
Department of Justice Designee



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](https://www.firstnet.gov)**.



FirstNet CRD LTE

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Tuesday, June 22

No Signal

FIRST



First Responder Network Authority

info@FirstNet.gov | FirstNet.gov | 571-665-6100      @firstnetgov