

July 18, 2024

#### MEMORANDUM FOR:

Alan Davidson

Assistant Secretary of Commerce for Communications and Information and NTIA Administrator National Telecommunications and Information Administration

FROM:

Arthur L. Scott Jr. Assistant Inspector General for Audit and Evaluation

SUBJECT:

Management Alert: February 2024 FirstNet Authority's Nationwide Public Safety Broadband Network Outage Raised a Significant Risk to the Readiness of First Responders Across the Country Final Memorandum No. OIG-24-030-M

Attached is a management alert about the nationwide outage on February 22, 2024, of the First Responder Network Authority's (FirstNet Authority's) Nationwide Public Safety Broadband Network (NPSBN). Our objective was to determine the impact of the February 22, 2024 NPSBN outage on first responders. The outage and subsequent lack of communication and transparency regarding network performance put public safety at jeopardy and posed a risk to the readiness of first responders across the country.

Consistent with the Inspector General Act of 1978, as amended (IG Act),<sup>1</sup> we are notifying you of the potential risks that could affect first responders' ability to serve the public effectively during emergencies.

We briefed the contents of this management alert to the National Telecommunications and Information Administration (NTIA) and FirstNet Authority officials on May 2, 2024. On May 29, 2024, we issued a draft of this management alert to NTIA for comment. In response to our draft alert, NTIA and FirstNet Authority provided technical comments. We considered NTIA's and FirstNet Authority's comments and made changes to the final management alert where appropriate. Technical comments provided did not change our conclusions or proposed actions for change.

Pursuant to Pub. L. No. 117-263, Section 5274, non-governmental organizations and business entities specifically identified in this management alert have the opportunity to submit a written

<sup>&</sup>lt;sup>1</sup> The IG Act establishes that offices of inspectors general will "provide a means for keeping the head of the establishments and Congress fully and currently informed about problems and deficiencies relating to the administration of those programs and operations and the necessity for and progress of corrective action[.]" 5 U.S.C. 402(b)(3).

response for the purpose of clarifying or providing additional context to any specific reference. Any response must be submitted to Analee Striner-Brown, Division Director, at <u>astriner-brown@oig.doc.gov</u> and <u>OAE\_Projecttracking@oig.doc.gov</u> within 30 days of the alert's publication date. The response will be posted on our public website. If the response contains any classified or other non-public information, those portions should be identified as needing redaction in the response, and a legal basis for the proposed redaction should be provided.

We will post this management alert on our public website. If you have any questions or concerns, please contact me at (202) 577-9547 or Analee Striner-Brown, Director for Telecommunications, at (202) 893-8759.

#### Attachment

 cc: Joseph Wassel, Executive Director and Chief Executive Officer, FirstNet Authority Stephanie Weiner, Chief Counsel, NTIA
William B. Fillman, Acting Chief Financial and Administrative Officer, FirstNet Authority Puja Satiani, Assistant Vice President – Senior Legal Counsel, AT&T Public Sector Solutions Marcellus Brooks, Director, AT&T Global Public Sector Contracts, AT&T Global Public Sector Solutions, Operations & Wholesale



# **Management Alert**

February 2024 FirstNet Authority's NPSBN Outage Raised a Significant Risk to the Readiness of First Responders Across the Country

July 18, 2024

Final Memorandum No. OIG-24-030-M

#### **Key Issues**

AT&T's network, including the Nationwide Public Safety Broadband Network (NPSBN), suffered a multi-hour outage on February 22, 2024, that impacted public safety agencies that use NPSBN services (commonly known as FirstNet). The impact of the nationwide outage on public safety varied across the country, but almost all the agencies we spoke with said they were affected. We found that agencies were not always notified that an outage had occurred, nor were they provided updates on restoration efforts. Without a notification that an outage had occurred, the safety of our nation's first responders was at jeopardy and their ability to perform their critical mission was compromised.

#### **Proposed Actions for Change**

To address our concerns, the National Telecommunications and Information Administration (NTIA) and First Responder Network Authority (FirstNet Authority) should take steps to:

- 1. Investigate the root cause of the outage and ensure AT&T implements mitigating controls to lessen the likelihood of a future outage and provide reasonable assurance that the network will meet the contractually required 99.99 percent uptime going forward.
- Coordinate with AT&T to establish an effective communication plan for outages to ensure public safety agencies are aware when an outage is taking place and receive information regarding the services and geographies impacted, status updates on progress to restore service, and estimates regarding how long the network will be down.

# Background

Across the United States, public safety agencies respond to routine and emergency situations at a moment's notice regardless of severity. These situations occur daily across every city and town in the country, and their response depends on a reliable communication network. Whether the event is a fire, apprehension of a suspect, or vehicular collision, the key factor in their response is the ability to communicate.

The terrorist attacks of 9/11 brought attention to the many communication challenges first responders face during emergencies. To address these challenges and improve coordination, the Middle-Class Tax Relief and Job Creation Act of 2012 (the Act) established FirstNet Authority as an independent authority within NTIA. The Act authorized FirstNet Authority to enter a public-private arrangement to establish the NPSBN, a network dedicated to emergency responders and public safety. The Act also requires FirstNet Authority to ensure the safety, security, and resiliency of the network.

In March 2017, FirstNet Authority<sup>2</sup> signed a 25-year contract with AT&T for the construction and operation of the NPSBN. The contract requires the network to be a resilient, secure, and highly reliable broadband service with availability 99.99 percent of the time.

On Thursday, February 22, 2024, AT&T customers, including FirstNet customers, experienced a nationwide service outage. According to news reports, customers were left unable to place calls, send text messages, or access the internet. AT&T acknowledged that it had a widespread outage but initially did not provide a reason for the system failure. AT&T later issued a statement asserting that the outage was caused by "the application and execution of an incorrect process used as we were expanding our network."

## **Our Observations**

On February 22, 2024, AT&T customers, including FirstNet customers, experienced a nationwide outage of services. According to FirstNet Authority, the NPSBN was affected by the outage for about 3 hours. We met with 10 public safety agencies from fire, police, and emergency medical services (EMS) disciplines to determine the impact of the outage. Although impacts to public safety agencies across the country varied, 9 of 10 agencies we spoke with were not contacted by AT&T or FirstNet Authority when the outage occurred. One agency expressed frustration about AT&T and FirstNet Authority not reaching out to it regarding the outage or restoration efforts. We also found that the impacted agencies had to rely on their own contingency plans to maintain communication during the approximately 3-hour NPSBN outage. When we asked FirstNet Authority if there was an interim plan for first responders while the outage was being resolved, it said that it was up to each state and territory to have its own PACE (Primary, Alternate, Contingency, Emergency) plan for communications during an outage.

Although the outage occurred during a low call volume timeframe for most agencies, the agencies expressed concerns about the potential of their NPSBN services being interrupted during high call volumes or when responding to a serious incident. For example, an EMS squad we interviewed said connectivity to the NPSBN is "especially important" to communicate with hospitals and physicians to provide critical patient care while enroute to hospitals, such as transmitting electrocardiograms for heart attack victims. This agency said it was fortunate the outage occurred at a time when it did not need to transmit patient care data.

Notification of an outage is especially necessary so that agencies can determine the need to implement their own contingency plans for an alternate communication solution. For example, a large sheriff's department said that the impact of the NPSBN outage was minimal because it subscribes to both FirstNet and another national wireless carrier to establish a dual-subscriber identity module (SIM)<sup>3</sup> solution for its vehicular routers. During the February 22 NPSBN outage, these routers seamlessly switched to the second wireless network. Had this agency not proactively designed a backup solution to FirstNet, deputies' mobile data computers in their patrol vehicles would have lost connectivity to critical law enforcement systems. However, not all agencies have the resources to adopt a dual-SIM solution. For example, one police department said that its police force was unable to make calls during the outage and had to rely on personal devices and landlines, and that adopting a dual-SIM solution would be financially difficult.

<sup>&</sup>lt;sup>2</sup> The U.S. Department of the Interior signed the contract on behalf of the U.S. Department of Commerce and FirstNet Authority. The management of the contract was transferred from the U.S. Department of the Interior to FirstNet Authority in December 2017.

<sup>&</sup>lt;sup>3</sup> These devices have the capacity to use two SIM cards, allowing for two networks on a single device.

Transparency regarding network performance and outages is essential to maintaining confidence in the NPSBN within the public safety community. A public safety agency we spoke with said it had been told the NPSBN core network was separate from AT&T's commercial network. In another interview, officials said it was their understanding that the NPSBN was the "shield" and that it would never go down, until it did. In its fiscal year 2023 annual report to Congress, FirstNet Authority stated that, "The FirstNet network has its own core, which processes and secures FirstNet users' traffic separate from the AT&T commercial network." In the aftermath of the February 22 outage, AT&T stated that the outage was caused by "application and execution of an incorrect process used as we were expanding our network." Given that an error expanding the AT&T network caused a FirstNet outage, we question whether all elements of the FirstNet core network are independent from the AT&T mobility core or whether some elements are indeed shared. Because AT&T is required by the contract to "implement a high availability, high performance NPSBN for FirstNet that meets 99.99 percent end-to-end service availability," it is paramount that FirstNet Authority ensures that the NPSBN delivers public safety with the dedicated, reliable network that it was promised.

We found that there has previously been a lack of transparency regarding network performance and outage incidents that undermines agencies' confidence. For instance, the FirstNet Authority Office of Public Safety Advocacy issued a 2023 Annual Review Report that highlighted this lack of transparency regarding several network outages as well as the effect this had on agency confidence. Specifically, the report stated, "The FirstNet Authority team learned of this outage from stakeholders while attending a large national conference; this example demonstrates a lack of alerting and transparency from AT&T regarding network performance and outages." The report also said that knowledge of outages is sometimes based on local relationships with AT&T personnel rather than a consistent, timely approach nationwide. We found that the outage on February 22, 2024, is another example that demonstrates the lack of communication and transparency from AT&T, as 9 of 10 agencies we spoke with were not notified by AT&T or FirstNet Authority of the outage or restoration efforts.

Overall, timely communication and transparency regarding network performance and outages is essential to the success of the NPSBN in support of our nation's first responders. Without a reliable communication network during the outage, the safety of our nation's first responders was jeopardized and their ability to perform their critical mission was compromised.

# **Proposed Actions for Change**

To address our concerns, NTIA and FirstNet Authority should take steps to:

- 1. Investigate the root cause of the outage and ensure AT&T implements mitigating controls to lessen the likelihood of a future outage and provide reasonable assurance that the network will meet the contractually required 99.99 percent uptime going forward.
- 2. Coordinate with AT&T to establish an effective communication plan for outages to ensure public safety agencies are aware when an outage is taking place and receive information regarding the services and geographies impacted, status updates on progress to restore service, and estimates regarding how long the network will be down.

Our objective was to determine the impact of the February 22, 2024 NPSBN outage on first responders. We conducted our fieldwork from February 2024 through May 2024. We conducted our work in accordance with *Quality Standards for Inspection and Evaluation* issued by the Council of the Inspectors General on Integrity and Efficiency. Those standards require that evidence must sufficiently and appropriately support our findings and

provide a reasonable basis for our conclusions. We believe that the evidence obtained provides a reasonable basis for our observations and conclusions. We will post the final management alert on our public website.

#### Summary of Agency Response and OIG Comments

On May 29, 2024, we provided NTIA with a draft of this management alert for comment. On June 3, 2024, we received combined technical comments to our draft alert from NTIA and FirstNet Authority. They did not provide comments related to the primary findings identified in this management alert. For example, they did not comment on the need for transparency, the extent to which the lack of transparency has had a harmful effect on agency confidence, or the concerns we set forth regarding the separation between the AT&T mobility core and the FirstNet core network. Instead, NTIA and FirstNet Authority provided comments (1) questioning the sample size and (2) suggesting that the alert does not provide evidence of risk to public safety.

In the alert, we explicitly identify that we spoke with 10 FirstNet-subscribed public safety agencies to determine the impact of the outage. Moreover, the alert highlights the evidence obtained during those interviews. Additionally, as we identify in the alert, there was a significant risk to public safety in terms of (1) loss of functionality needed to perform mission-critical services and (2) lack of transparency regarding the outage, to alert public safety agencies of the need to determine if implementing contingency plans was appropriate.

## **Our Future Work**

The concerns presented in this management alert and any action taken by FirstNet Authority as a result will be considered in our future audits of FirstNet Authority. Additionally, we will address FirstNet Authority's oversight and acceptance of AT&T's business continuity/disaster recovery plan in an upcoming audit report.