November 28, 2022

MEMORANDUM FOR: Jeremy Pelter
Acting Chief Financial Officer and Assistant Secretary for Administration
U.S. Department of Commerce

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

Lisa Casias
Acting Executive Director
First Responder Network Authority

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

SUBJECT: FirstNet Authority Could Not Demonstrate Investment Decisions Were the Best Use of Reinvestment Funds or Maximized the Benefits to Public Safety
Final Report No. OIG-23-005-A

Attached is our final report on our audit of the First Responder Network Authority’s (FirstNet Authority’s) process for identifying, developing, and selecting reinvestment opportunities to construct, maintain, operate, and improve the Nationwide Public Safety Broadband Network.

This report is one of a series of reports covering FirstNet Authority’s reinvestment process. Our audit objective was to determine whether FirstNet Authority’s process for reinvesting fee payments is effective and consistent with established practices, procedures, and regulations. This report focuses solely on FirstNet Authority’s process for identifying and selecting reinvestment opportunities for the first two reinvestment task orders totaling up to $\text{CUI}$ million for

- an increase of deployables capabilities (Task Order 6), with an award value of $\text{CUI}$ million and options to extend up to $\text{CUI}$ million, and
- a core upgrade to support the initial 5G upgrade (Task Order 7), with an award value of $\text{CUI}$ million and options to extend up to $\text{CUI}$ million.
Overall, we found that FirstNet Authority has not established a sound process for selecting reinvestment opportunities. FirstNet Authority could not demonstrate that these investment opportunities were the most appropriate or efficient use of resources for (1) reducing performance gaps of the network and (2) meeting first responders’ priorities of evolving operational needs. Specifically, we found that FirstNet Authority

- did not conduct a needs analysis;
- did not conduct an analysis of alternatives or sufficiently justify the need in the business case analysis; and
- relied on information from AT&T that appeared to influence the process of identifying and selecting reinvestment opportunities.

A more effective evaluation process would help FirstNet Authority (1) determine which investment opportunities are most beneficial, (2) determine which should be prioritized for maximum benefits to public safety and (3) ensure funds are spent efficiently. We are making recommendations to improve the reinvestment process that could put up to $296,299,098 in funds to better use and ensure future multibillion-dollar reinvestments are supported and justified and reflect public safety priorities.

On October 7, 2022, we received the National Telecommunications and Information Administration’s (NTIA’s) formal response to our draft report. In response to our draft report, NTIA concurred with all recommendations. FirstNet Authority also provided technical comments. We reviewed the technical comments and, where appropriate, made changes to the report. NTIA’s formal response included a comment letter from FirstNet Authority. NTIA’s formal response and FirstNet Authority’s comment letter are included within the final report as appendix C.

Pursuant to Department Administrative Order 213-5, please submit to us an action plan that addresses the recommendations in this report within 60 calendar days. This final report will be posted on OIG’s website pursuant to sections 4 and 8M of the Inspector General Act of 1978, as amended (5 U.S.C. App., §§ 4 & 8M). At the request of FirstNet Authority, redactions have been placed in this report and memorandum to cover sensitive information about AT&T’s proprietary values protected by the Trade Secrets Act, 18 U.S.C. § 1905.

We appreciate the cooperation and courtesies extended to us by your staff during our audit. If you have any questions or concerns about this report, please contact me at (202) 577-9547 or Analee Striner-Brown, Director of Telecommunications, at (202) 763-6972.

Attachment

cc: Stephanie Weiner, Acting Chief Counsel, NTIA
    Stacy Cheney, Acting Deputy Chief Counsel, NTIA
    Josephine Arnold, Senior Attorney-Advisor, NTIA
    Andrew Coley, Attorney Advisor, NTIA
    Kim Farington, Chief Financial and Administrative Officer, FirstNet Authority
    John Wobbleton, Senior Manager, Policy and Internal Controls, FirstNet Authority
Alice Suh, Senior Analyst, FirstNet Authority
Olivia Bradley, Acting Senior Procurement Executive and Director of Acquisition Management, Office of the Secretary
Mark B. Daley, Deputy for Acquisition Program Management, Office of the Secretary
Rehana Mwalimu, Risk Management Officer and Primary Alternate Department GAO/OIG Liaison, Office of the Secretary
MaryAnn Mausser, Audit Liaison, Office of the Secretary
BACKGROUND
The Middle Class Tax Relief and Job Creation Act of 2012 (the Act) established the First Responder Network Authority (FirstNet Authority) as an independent authority within the National Telecommunications and Information Administration (NTIA) to ensure the building, deployment, and operation of the Nationwide Public Safety Broadband Network (NPSBN) dedicated to first responders. On March 28, 2017, FirstNet Authority entered into a 25-year contract with AT&T for the construction and operation of the NPSBN. FirstNet Authority’s arrangement with AT&T involves (a) the initial obligation of up to $6.5 billion in funds to AT&T to deploy, construct, and operate the NPSBN; (b) AT&T’s use of dedicated broadband spectrum; and (c) annual payments from AT&T to FirstNet Authority over the life of the contract for use of the dedicated spectrum. Per the Act, FirstNet Authority must reinvest a portion of the annual payments into the network to construct, maintain, operate, and improve the NPSBN.

In June 2020, the FirstNet Authority Board approved its first two reinvestment opportunities. They include expanded deployable capabilities and services and an initial investment in Phase 1 of the 5G technology upgrade to the NPSBN core. We audited FirstNet Authority’s reinvestment process due to its importance to the nation’s first responders and the substantial dollars to be reinvested over the next several years.

WHY WE DID THIS REVIEW
Our audit objective was to determine whether FirstNet Authority’s process for reinvesting fee payments is effective and consistent with established practices, procedures, and regulations.

FIRST RESPONDER NETWORK AUTHORITY
FirstNet Authority Could Not Demonstrate Investment Decisions Were the Best Use of Reinvestment Funds or Maximized the Benefits to Public Safety
OIG-23-005-A

WHAT WE FOUND
We found that FirstNet Authority has not established a sound process for selecting reinvestment opportunities. FirstNet Authority could not demonstrate that these investment opportunities were the most appropriate or efficient use of resources for (1) reducing performance gaps of the network and (2) meeting first responders’ priorities of evolving operational needs. Specifically, we found the following:

I. FirstNet Authority did not conduct a needs analysis.
II. FirstNet Authority did not conduct an analysis of alternatives or sufficiently justify the need in the business case analysis.
III. FirstNet Authority relied on information from AT&T that appeared to influence the process of identifying and selecting reinvestment opportunities.

WHAT WE RECOMMEND
We recommend that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator, in conjunction with the Senior Procurement Executive and Director of Acquisition Management, do the following:

I. Sufficiently define roles and responsibilities of NTIA and the Office of Acquisition Management regarding specific control activities to provide effective monitoring and oversight of the investment process to mitigate deficiencies identified within this report.

We recommend that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator do the following:

2. Establish oversight procedures to ensure FirstNet Authority (a) follows established U.S. Department of Commerce and FirstNet Authority policies and procedures and (b) maintains an appropriate arm’s-length relationship with contractors.

3. Require FirstNet Authority to develop and implement updated reinvestment policies and procedures prior to awarding and executing future network reinvestment task orders.

We recommend that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator direct FirstNet Authority’s Chief Executive Officer to do the following:

4. Develop, implement, and execute sufficient policies and procedures to identify, select, manage, and oversee the selection of the investment opportunities to address performance gaps of the network and stakeholder needs so that the $296,299,098 in potential monetary benefits can be used more efficiently.

5. Conduct formal needs analysis to help guide current and future reinvestment task orders and update FirstNet Authority’s analysis periodically.

6. Conduct an analysis of alternatives, once a capability gap is identified, and determine possible solutions for achieving the required capability.

7. Develop an engagement methodology to appropriately gather and document public safety and Public Safety Advisory Committee needs.

8. Ensure that all policies are approved at the appropriate level and that documentation used in decision-making includes authoritative signatures and dates.

9. Ensure all reinvestment opportunity decisions made by the Senior Management Council are documented.
Contents

Background ................................................................................................................................. 1

Objective, Findings, and Recommendations ............................................................................ 4

I. FirstNet Authority Did Not Conduct a Needs Analysis ............................................................ 5
II. FirstNet Authority Did Not Conduct an Analysis of Alternatives or Sufficiently Justify the Need in the Business Case Analysis ........................................................................ 7
III. FirstNet Authority Relied on Information from AT&T that Appeared to Influence the Process of Identifying and Selecting Reinvestment Opportunities ...................................... 8

Other Contributing Factors ........................................................................................................ 10

Conclusion ................................................................................................................................ 11

Recommendations ..................................................................................................................... 12

Summary of Agency Response and OIG Comments ............................................................... 13

Appendix A: Objective, Scope, and Methodology ................................................................. 14

Appendix B: Potential Monetary Benefits ............................................................................. 16

Appendix C: Agency Response ............................................................................................... 17

Cover: Herbert C. Hoover Building main entrance at 14th Street Northwest in Washington, DC. Completed in 1932, the building is named after the former Secretary of Commerce and 31st President of the United States.
Background

The Middle Class Tax Relief and Job Creation Act of 2012 (the Act)\(^1\) established the First Responder Network Authority (FirstNet Authority) as an independent authority within the National Telecommunications and Information Administration (NTIA) to ensure the building, deployment, and operation of the Nationwide Public Safety Broadband Network (NPSBN) dedicated to first responders.

On March 28, 2017, FirstNet Authority\(^2\) entered into a 25-year indefinite-delivery, indefinite-quantity contract with AT&T for the construction and operation of the NPSBN. FirstNet Authority’s arrangement with AT&T involves (a) the initial obligation of up to $6.5 billion in funds to AT&T to deploy, construct, and operate the NPSBN; (b) AT&T’s use of dedicated broadband spectrum; and (c) annual payments\(^3\) from AT&T to FirstNet Authority over the life of the contract for use of the dedicated spectrum.

Per the Act, FirstNet Authority must reinvest a portion of the annual payments into the network to construct, maintain, operate, or improve the NPSBN.\(^4\) Of the $18 billion to be received from AT&T over 25 years, about $15 billion is expected to be used for reinvestments. FirstNet Authority received its first payment in April 2018 and, to date, has received six payments\(^5\) totaling $795 million. In June 2020, the FirstNet Authority Board (the Board) approved its first two reinvestment opportunities. They include

- expanded deployable capabilities and services (deployables)\(^6\) and
- an initial investment in Phase 1 of the 5G Technology Upgrade to the NPSBN core.\(^7\)

The deployables investment task order was to expand and optimize the existing deployable fleet. Task Order 6 added the services of 15 FirstNet Authority dedicated deployables, to

---

\(^1\) See Pub. L. No. 112-96, *Middle Class Tax Relief and Job Creation Act of 2012*, §§ 6204(a), 6206(b).

\(^2\) 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.

\(^3\) Although payment amounts are fixed, the amounts received vary annually based on the NPSBN contract.

\(^4\) Pub. L. No. 112-96 § 6208(d).

\(^5\) Per the NPSBN contract, with the exception of the first payment, the payments are due 2 weeks before the start of the subsequent fiscal year.

\(^6\) *Deployables* are vehicles that function like mobile cell phone towers and can be deployed during public safety emergencies.

include Satellite Cell on Light Trucks, command and coverage vans,\(^8\) and SatRunners.\(^9\) The task order specifies that the deployables will be available to respond to catastrophic incidents, noncatastrophic incidents, and preplanned events.

The 5G upgrade investment task order was for phase 1 (of potentially 3 phases) which added 5G Option 3X\(^{10}\) capability to the FirstNet Core. Task Order 7 allows public safety subscribers, who have 5G-capable devices and an appropriate rate plan, to access the throughput of 5G. The 5G phase 1 included (1) a FirstNet Authority dedicated Option 3X Core and (2) access to AT&T’s 5G millimeter wave and mid-band spectrum where deployed. In phase 1, quality of service, priority and preemption, and all mission-critical services remain on the Long-Term Evolution (LTE) Core.

According to the U.S. Department of Commerce’s (the Department’s) DOC Scalable Acquisition Project Management Guidebook (the Guidebook)\(^{11,12}\) acquisition process\(^{13}\) guidance, an agency first identifies the unfilled need (capability gap) and starts the process of exploring potential solution options. During this conceptual phase, the agency focuses on determining what capability is needed and not how to fulfill the need. Once the need has been validated, the agency transitions into the project definition phase, where requirements are refined and details are developed on how to fulfill the identified need, to include analyzing alternatives and developing capabilities requirements.

This process, utilized by FirstNet Authority, required submitting an investment idea on an Opportunity Intake Form,\(^{14}\) meant to provide an overview of the proposed opportunity—to include description, scope, schedule, and cost—and contain enough information to make informed decisions. Once the opportunity has been approved by the Opportunity Review Forum.

---

\(^8\) Command and communications vehicles provide connectivity via Long-Term Evolution and/or Wi-Fi and provide space for two communications personnel with multiple monitors, televisions, and charging stations. See FirstNet Authority. FirstNet Deployable Fleet [online]. https://www.firstnet.gov/network/TT/deployables (accessed February 8, 2022).

\(^9\) SatRunners are units that can be towed behind a sport utility vehicle, deployed by one person, and run for up to 60 hours between refueling.

\(^10\) According to Task Order 7, Option 3X is “the 4G Core upgraded to support both 4G and 5G access; control plane functions on 4G, [and] user plane on both 4G and 5G.”


\(^12\) Department Administrative Order (DAO) 208-16, Acquisition Project Management, applies to all Departmental operating units’ programs and projects with a particular emphasis on those that meet the definition of high-profile. The DOC Scalable Acquisition Project Management Guidebook incorporates the requirements of DAO 208-16 into the Guidebook’s text and the DAO is included in the Guidebook as Appendix F.

\(^13\) The acquisition process, as outlined by the Guidebook, includes the following phases: Conceptual; Project Definition; Project Development; Project Execution Phase; and Operations and Disposal.

\(^14\) An Opportunity Intake Form, completed by the Opportunity Lead, includes a summary of the potential opportunity and is submitted to the Opportunity Review Forum (internal to FirstNet Authority) for consideration.
Forum (ORF), a business case is completed and submitted to the Board for investment opportunity approval and funding approval.

According to the U.S. Government Accountability Office’s (GAO’s) Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs (GAO Cost Guide), a business case analysis should remain unbiased by considering all possible alternatives and should not be developed solely for supporting a predetermined solution. Moreover, a business case analysis should be rigorous enough that independent auditors can review it and clearly understand why a particular alternative was chosen.

We audited FirstNet Authority’s reinvestment process due to its importance to the nation’s first responders and the substantial dollars to be reinvested over the next several years. In our October 2019 Top Management and Performance Challenges Facing the Department of Commerce final report, we identified effectively and efficiently reinvesting capital to upgrade and modernize the NPSBN as a continuous challenge facing the FirstNet Authority. Subsequent top management challenges reports have continued to state that reinvestment into the network is still a challenge.

15 During the period this audit covers, the ORF served as the sole investment advisory group to the FirstNet Authority Chief Executive Officer, responsible for the review, analysis, recommendation, and oversight of all investment opportunities. Subsequent policy changes have created the Senior Management Council, which has taken over responsibilities of the ORF related to evaluating investment opportunities.
17 Ibid, pg. 33.
Objective, Findings, and Recommendations

The objective of our audit was to determine whether FirstNet Authority’s process for reinvesting fee payments is effective and consistent with established practices, procedures, and regulations. This report focuses solely on FirstNet Authority’s process for identifying and selecting reinvestment opportunities for the first two reinvestment task orders totaling up to $218 million for:

- an increase of deployables capabilities (Task Order 6), with an award value of $18 million and options to extend up to $45 million, and
- a core upgrade to support the initial 5G upgrade (Task Order 7), with an award value of $61 million and options to extend up to $90 million.

Appendix A provides a more detailed description of our scope and methodology.

The Board approved investment funds totaling $218 million for these first two reinvestments. The $218 million amount is less than the total expected contract costs of the two reinvestment task orders. FirstNet Authority requested that our office not disclose the current total value for the task orders. FirstNet Authority views the values as a trade secret of AT&T that has not been publicly disclosed.

It is crucial that FirstNet Authority’s reinvestment decision-making process is sound, transparent, logical, and justified, and supports its evolving mission and the risk-based needs of public safety prior to approval of new, high-stakes investments. Overall, we found that FirstNet Authority has not established a sound process for selecting reinvestment opportunities. FirstNet Authority could not demonstrate that these investment opportunities were the most appropriate or efficient use of resources for (1) reducing performance gaps of the network and (2) meeting first responders’ priorities of evolving operational needs. Specifically, we found that FirstNet Authority:

- did not conduct a needs analysis;
- did not conduct an analysis of alternatives or sufficiently justify the need in the business case analysis; and
- relied on information from AT&T that appeared to influence the process of identifying and selecting reinvestment opportunities.

---

20 For our separate report on cost estimates, see DOC OIG, August 25, 2022. FirstNet Authority Did Not Have Reliable Cost Estimates to Ensure It Awarded Two Reinvestment Task Orders at Fair and Reasonable Prices, OIG-22-029-A. Washington, DC: DOC OIG. We will issue a third report on the oversight of the first two reinvestment task orders.

A more effective evaluation process would help FirstNet Authority (1) determine which investment opportunities are most beneficial, (2) determine which should be prioritized for maximum benefits to public safety, and (3) ensure funds are spent efficiently. We are making recommendations to improve the reinvestment process that could put up to $296,299,098 in funds to better use and ensure future multibillion-dollar reinvestments are supported and justified and reflect public safety priorities.

I. FirstNet Authority Did Not Conduct a Needs Analysis

We found that FirstNet Authority did not conduct any needs analysis to validate the basis of the need or requirement for the first two investments to address operational needs of the network or public safety needs as required by the Guidebook.22 A needs analysis is defined as an analysis performed to identify gaps between existing capabilities and capabilities required to achieve an organization’s strategic plan, goals, and objectives,23 and is required of all programs designated as high-profile by the Department.24

Since the NPSBN is a high-profile, missional-critical program, a needs analysis is required to be conducted and is essential to understanding whether capabilities exist that can meet requirements, or if they must be developed. Generally, this analysis25 involves (1) identifying the scope and basis of the analysis based on the strategic context, mission, and scenarios; (2) identifying necessary capabilities; (3) assessing current capabilities; (4) identifying the gaps between necessary and current capabilities; (5) assessing the risk of the capability gaps; (6) assessing alternative solutions to address the gaps; and (7) documenting the results of the analysis. However, we found that FirstNet Authority did not conduct the required needs analysis26 and did not have any documentation to support that any type of needs analysis was conducted. If FirstNet Authority had conducted a needs analysis, it would have been able to assess those needs and priorities when addressing capability gaps in networks or within the public safety community.

Instead, FirstNet Authority conducted a survey to identify public safety needs and priorities for reinvestment opportunities during the period from December 2018 to March 2019. However, we found that the survey conducted by FirstNet Authority was inadequate. For example, FirstNet Authority used a faulty methodology in selecting respondents. FirstNet Authority hand-selected the majority of the public safety respondents to solicit responses and conducted surveys of internal FirstNet Authority personnel. Since the survey respondents did not reflect the total population of the FirstNet Authority public safety community, it creates the appearance of a biased sample. According to GAO, the survey sample should represent a population that corresponds with the population the surveyors

22 DOC, Guidebook, pg. 20.
23 Ibid, pg. 24.
24 Ibid, pg. 5.
25 Ibid, pgs. 52 and 54–56.
26 Ibid, pg. 20.
are targeting. Furthermore, FirstNet Authority did not develop a survey plan to define the overall goal, testing procedures, or how it would gather and document survey information. Without conducting a viable survey, FirstNet Authority could not demonstrate it (1) produced the appropriate information necessary to meet user needs or (2) properly identified and prioritized all potential capability gaps and needs of the NPSBN and the public safety community. To further compound the problem, we found that the survey results did not identify the two selected investment opportunities as the top priorities of public safety needs. For instance, deployables were not listed in the top 15 priorities in any of the survey results.

Additionally, FirstNet Authority identified availability, reliability, resiliency, and hardening as top priorities of public safety. Within the 5G task order, intended benefits to first responders included. However, we identified that the phase 1 5G upgrade does not improve the availability, reliability, resiliency, or hardening of the NPSBN beyond what the NPSBN LTE network already offers. Because the phase 1 upgrade uses the existing LTE network, there is no improvement with the capability addressing additional availability, reliability, resiliency, or hardening.

In addition, FirstNet Authority officials could not provide a clear explanation about how they selected the two investments from the surveys. They stated that FirstNet Authority’s Roadmap was the key driver in selecting the first two investment opportunities. However, we found that FirstNet Authority was developing the Roadmap simultaneously while the 5G and deployable reinvestment opportunities were progressing through the investment approval process. Ultimately, the first Roadmap was not approved nor published until months after the deployables and 5G upgrade were approved by the ORF (now known as the Senior Management Council (SMC)). This seems contrary to what FirstNet Authority reported to Congress when it stated that these investments were a “direct result of Roadmap priorities in the Core and Coverage domains and represent the first strategic

28 According to the National Institute for Standards and Technology, hardening is defined as a process to eliminate a means of attack by patching vulnerabilities and turning off nonessential services. See DOC National Institute for Standards and Technology Computer Security Resource Center. Hardening (definition) [online]. https://csrc.nist.gov/glossary/term/hardening (accessed June 1, 2022).
29 Availability, reliability, resiliency, or hardening were listed as the top priority. The second priority was identified as data sharing/interoperability and the third priority was data access.
30 Quoted wording cited directly from the Overview/Introduction section of the 5G task order.
31 A telecommunication subject matter expert conducted an analysis for this determination.
33 Deployables were approved on June 6, 2019, and 5G was approved on May 9, 2019, while the Roadmap was published August 2019.
investments toward advancing the network beyond its contractual baseline and responding to first responders’ evolving operational needs.”

We asked FirstNet Authority personnel how they selected the first two investment opportunities. They stated that the upgrade to 5G was needed for competitive parity; however, based on our review this investment idea appeared predetermined. Further, FirstNet Authority chose deployables because it wanted to use the remaining funds in a way that would quickly benefit the public safety community and would not be costly.

As a result, FirstNet Authority personnel did not conduct any analysis to determine whether its identified priorities sufficiently address the operational deficiencies, needs of the network, or needs of the public safety community. Without documentation of the processes, discussions, analyses, decisions, or any other activities performed to identify and prioritize capability gaps, it is unclear what rationale FirstNet Authority used for the identification and prioritization of the NPSBN capability needs and gaps. Identifying and prioritizing capability gaps enables the proper allocation of resources to the highest-priority needs. Thus, without a capability needs gap analysis, FirstNet Authority may not have identified and prioritized all capability needs and gaps and also may not have (1) allocated resources to meet its highest-priority mission needs and (2) selected investments that provided the maximum benefit to public safety.

II. FirstNet Authority Did Not Conduct an Analysis of Alternatives or Sufficiently Justify the Need in the Business Case Analysis

According to the Cost Guide, a business case analysis is a comparative analysis that presents facts and supporting details among competing alternatives. The Cost Guide also states that a business case analysis should be unbiased by considering all possible alternatives and should not be developed solely for supporting a predetermined solution. Moreover, a business case analysis should be rigorous enough that independent auditors can review it and clearly understand why a particular alternative was chosen.

FirstNet Authority conducted a business case analysis as part of its decision-making process recommending the 5G upgrade and deployables to the ORF for approval. According to FirstNet Authority representatives, the purpose of the business case analysis was to examine the details of the benefits to public safety, conduct a cost-benefit analysis, consider alternatives, and set the deliverability case for risks, costs, project management, and so forth. However, we found that FirstNet Authority did not have a sound business case for justifying the two reinvestment opportunities primarily because it did not include any other alternatives. Since no other alternatives were analyzed or presented, it appeared that the 5G upgrade and deployables were predetermined. Furthermore, the business case analysis

---

34 FirstNet Authority, Fiscal Year 2020 Annual Report. This report was submitted to the United States Senate Committee on Commerce, Science, and Transportation and the United States House Committee on Energy and Commerce.
did not provide other critical information for the Board to consider and make an informed decision. Examples follow:

- **5G upgrade business case analysis.** The 5G upgrade business case analysis did not sufficiently justify the need for the 5G upgrade investment, as it did not consider or evaluate the total upgrade cost (life cycle cost) for decision makers to make an informed decision. According to GAO’s Cost Guide, a business case analysis is a comparative analysis that presents facts and supporting details among competing alternatives, including program life cycle costs. Furthermore, FirstNet Authority’s draft procedures outline that it must consider investment life cycle costs. However, FirstNet Authority did not evaluate the life cycle cost when presenting the idea of starting the upgrade to the Board. As such, the Board decided to move forward on an upgrade solution without complete information essential to evaluate the upgrade to 5G in its entirety.

The 5G upgrade task order is solely for phase 1 of the upgrade, which provides very limited benefit to public safety. To fully benefit public safety, all three phases of the upgrade would need to be implemented, and AT&T unofficially provided FirstNet Authority a rough estimate of $6 billion for all three phases.

However, as previously stated, within the business case analysis, FirstNet Authority did not evaluate total program costs. Therefore, this investment decision may not have been the best use of reinvestment funds nor provided the maximum benefit to public safety.

- **Deployable business case analysis.** The deployables business case analysis did not sufficiently justify the need for the investment or analyze alternatives to the investment. For example, the analysis did not consider the 300 commercial deployables that AT&T is contractually required to provide and have available for use or explain how these assets are not currently fulfilling public safety needs. In addition, the business case analysis did not include an analysis on how purchasing more deployables would benefit existing FirstNet Authority subscribers. Further, the staging locations outlined in the business case analysis overlapped with where AT&T already has deployables, so it was not clear how public safety would benefit from the additional deployables.

Without a sound business case analysis, there is no assurance that the decisions for the 5G upgrade and deployables were the most important and best alternatives to reinvest in network improvements and that all costs, risks, and benefits of making those decisions were considered.

III. **FirstNet Authority Relied on Information from AT&T that Appeared to Influence the Process of Identifying and Selecting Reinvestment Opportunities**

FirstNet Authority’s process (see findings 1 and 2) appears to reflect that the 5G upgrade and deployables reinvestments were predetermined without considering other

---

36 Ibid, pg. 33.
opportunities. We found that certain aspects of the decision-making process for the two reinvestment decisions created the potential for bias. Specifically, we found that AT&T provided information that could have influenced FirstNet Authority’s decision-making process before any formal decision was made regarding the reinvestment opportunities. For example, FirstNet Authority received information from AT&T that included defining the technical requirements, benefits to public safety, anticipated costs, and major program milestones for the two investments. This amount of information caused us to question the degree of AT&T’s influence on the selection of the 5G upgrade and deployables. For example:

- FirstNet Authority’s contracting officer’s representative (COR) requested that AT&T define technical requirements and provide estimated pricing for the 5G upgrade by email.

- FirstNet Authority briefed the ORF with briefing slides containing information copied directly from AT&T slides regarding the proposed phased approach to upgrading to 5G. This demonstrates its reliance on AT&T to define the requirements associated with the upgrade.

- FirstNet Authority briefed the ORF that three unsolicited proposals were received from AT&T for deployables, the 5G upgrade, and innovation.

- AT&T provided FirstNet Authority capability statements outlining detailed program requirements and anticipated costs for deployables and phase 1 of the 5G upgrade. For instance, for the phase 1 5G upgrade, we found that information was copied from the capability statement and included in the business case analysis that was used to brief the ORF and the Board.

- Intake forms for both deployables and 5G upgrade investment opportunities indicated reliance on AT&T for completing required information, such as opportunity description, proposed solution, benefits to public safety, and estimated costs.

When we questioned FirstNet Authority personnel about its reliance on AT&T, they acknowledged that they had received and used information from AT&T to develop the investments and confirmed that they did not issue a Request For Information for either investment opportunity. We also requested documentation support for the AT&T-provided information mentioned in FirstNet Authority’s briefing charts. However, FirstNet Authority could not clearly articulate how, when, why, and what documentation AT&T provided early in the reinvestment process. For instance, FirstNet Authority claimed receiving unsolicited proposals from AT&T in briefing charts, yet when we requested supporting documentation from FirstNet Authority personnel, they responded that they had used “unsolicited proposals” incorrectly in referring to the AT&T capability statements. Nevertheless, our

---

37 According to Federal Acquisition Regulation 2.101, Unsolicited proposal means a written proposal for a new or innovative idea that is submitted to an agency on the initiative of the offeror for the purpose of obtaining a contract with the Government, and that is not in response to a request for proposals, Broad Agency Announcement, Small Business Innovation Research topic, Small Business Technology Transfer Research topic, Program Research and Development Announcement, or any other Government-initiated solicitation or program.
review of the capability statements could not substantiate FirstNet Authority’s claim. Additionally, the capability statement alleged to have been used was dated May 2019; however, the briefing charts in question were developed in April 2019. FirstNet Authority was unable to provide the information it received from AT&T to support any of its briefing charts that utilized or referenced AT&T-derived information.

Furthermore, we found that the FirstNet Authority COR directed AT&T to perform a task of defining technical requirements and providing estimated pricing for the 5G upgrade prior to the two investment opportunities being identified as an idea and submitted for approval. Additionally, this direction is not in accordance with the COR delegation authority that emphasizes the need for an appropriate arms-length relationship with the contractor, as well as outlines the responsibilities that include not directing the contractor to perform work.

FirstNet Authority needs to ensure it has a thorough and rigorous process and free from the appearance of bias such as contractor influence.

Other Contributing Factors

The following factors also contributed to the issues discussed in our findings:

- When the initial investments were going through the informal investment opportunity process, the now-existing policies or procedures were not in place to establish sufficient oversight roles and responsibilities for NTIA or the Department’s Office of Acquisition Management (OAM). After the initial investments were approved by the Board to proceed through the procurement process, NTIA and FirstNet Authority established a standard operating procedure (SOP) for the investment process, which was most recently updated on July 26, 2021. While the SOP established high-level roles and responsibilities for NTIA and OAM, it continues to lack sufficiently defined roles and responsibilities, as well as defined control activities, to identify and correct the issues noted in our findings.

- FirstNet Authority did not have sufficient policies and procedures in place to identify, select, manage, and oversee the selection of the investment opportunities to address performance gaps of the network and stakeholder needs, and instead created an investment process while it was simultaneously identifying and selecting the first two reinvestments. Internal procedures at the time of the investments, were in draft with no official date or signature to demonstrate approval or their effective date. These draft procedures did not provide specific guidelines on how to (1) gather data, (2) integrate and subsequently use the data, (3) log supporting documentation, (4) develop methodology for surveying public safety personnel, or (5) document the approval or disapproval of investment opportunities. Establishing

38 The documentation provided does not support FirstNet Authority’s claim because it was not consistent with the timeline of events.

sufficient policies and procedures would help put $296,299,098 of reinvestment funds to better use.

FirstNet Authority’s current policy still does not adequately provide specific guidelines on how to gather and use data, log supporting documentation, or utilize Public Safety Advisory Committee (PSAC) feedback in the investment process. The policy also does not have a defined scoring system for FirstNet Authority’s “Detailed Evaluation Criteria,” which is used in evaluating investment opportunities. Without a set of metrics to define “Pass” or “Fail,” these evaluations may carry little value when deciding whether to invest in an opportunity.

Conclusion

Without having a sound business process for generating and selecting its initial two investments, FirstNet Authority could not demonstrate that these investment opportunities were the most appropriate or efficient use of resources for (1) reducing performance gaps of the network and (2) meeting first responders’ priorities of evolving operational needs. It is imperative that FirstNet Authority establishes and maintains a robust and sound reinvestment process for identifying and selecting investment opportunities because it will be investing at least $14.5 billion over the remaining life of the contract. If FirstNet Authority does not take appropriate actions, then there will be no assurance that public safety’s highest-priority needs will be appropriately prioritized in the future, ensuring that the reinvestment funds are spent in the most efficient manner. By implementing sufficient policies and procedures, FirstNet Authority has the opportunity to utilize the $296,299,098 more efficiently.

---

40 This amount was calculated by taking the current balance of the reinvestment funds, plus the next two annual AT&T payments to FirstNet Authority, minus the next two fiscal years of estimated operating costs for FirstNet Authority. This amount only represents the next two years of reinvestment funds out of the approximately $14.5 billion of reinvestment funds from the remaining life of the contract.

41 PSAC assists FirstNet Authority in maintaining dialogue and relationships with public safety leaders and local, state, tribal, and federal governments. PSAC also provides the opportunity for FirstNet Authority to receive feedback from and exchange ideas with important stakeholders.
Recommendations

We recommend that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator, in conjunction with the Senior Procurement Executive and Director of Acquisition Management, do the following:

1. Sufficiently define roles and responsibilities of NTIA and OAM regarding specific control activities to provide effective monitoring and oversight of the investment process to mitigate deficiencies identified within this report.

We recommend that Assistant Secretary of Commerce for Communications and Information and NTIA Administrator do the following:

2. Establish oversight procedures to ensure FirstNet Authority (a) follows established Department and FirstNet Authority policies and procedures and (b) maintains an appropriate arms-length relationship with contractors.

3. Require FirstNet Authority to develop and implement updated reinvestment policies and procedures prior to awarding and executing future network reinvestment task orders.

We recommend that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator direct FirstNet Authority’s Chief Executive Officer to do the following:

4. Develop, implement, and execute sufficient policies and procedures to identify, select, manage, and oversee the selection of the investment opportunities to address performance gaps of the network and stakeholder needs so that the $296,299,098 in potential monetary benefits can be used more efficiently.

5. Conduct formal needs analysis to help guide current and future reinvestment task orders and update FirstNet Authority’s analysis periodically.

6. Conduct an analysis of alternatives, once a capability gap is identified, and determine possible solutions for achieving the required capability.

7. Develop an engagement methodology to appropriately gather and document public safety and PSAC needs.

8. Ensure that all policies are approved at the appropriate level and that documentation used in decision-making includes authoritative signatures and dates.

9. Ensure all reinvestment opportunity decisions made by the SMC are documented.
Summary of Agency Response and OIG Comments

On October 7, 2022, we received NTIA’s response to our draft report. In response to our draft report, NTIA concurred with all recommendations. NTIA’s formal response included a comment letter from FirstNet Authority. We reviewed FirstNet Authority’s comment letter and determined that it does not warrant altering our findings and recommendations. FirstNet Authority also suggested minor changes for technical accuracy, which we reviewed and incorporated into the final report where appropriate. At the request of FirstNet Authority, redactions have been placed in this report and memorandum to cover sensitive information about AT&T’s trade secrets. NTIA’s formal response and FirstNet Authority’s comment letter are included within this final report as appendix C.
Appendix A: Objective, Scope, and Methodology

The objective of our audit was to determine whether FirstNet Authority’s process for reinvesting fee payments is effective and consistent with established practices, procedures, and regulations. We separated the audit objective into different components. This report focuses on the generational portion of FirstNet Authority’s reinvestment process used to identify and select the first two reinvestment opportunities. We issued a separate report titled FirstNet Authority Did Not Have Reliable Cost Estimates to Ensure It Awarded Two Reinvestment Task Orders at Fair and Reasonable Prices. We will issue a third report on the oversight of the first two reinvestment task orders.

In accomplishing our objective to date, we did the following:

- Reviewed the following practices, procedures, and guidance:
  - Middle Class Tax Relief and Job Creation Act of 2012, Public Law 112-96
  - Federal Acquisition Regulation Part 15—Contracting by Negotiation
  - GAO Cost Estimating and Assessment Guide
  - GAO Standards for Internal Control in the Federal Government
  - Department Scalable Acquisition Project Management Guidebook
  - Commerce Acquisition Manual 1307.1, Acquisition Planning
  - Commerce Acquisition Manual 1301.71, Legal Review of Acquisition-Related Actions
  - FirstNet Authority Reinvestment Procedures:
    - Opportunity Review Process, version 1.0
    - Investment Strategy, version 1.0
    - Investment Procedures, version 6.1

- Obtained and reviewed the 5G upgrade and deployables task orders

- Interviewed FirstNet Authority, NTIA, and OAM officials identified as being involved with the reinvestment process

- Obtained and reviewed documentation from the generation process, such as the intake forms, business cases, ORF briefing charts, and 2019 Roadmap

We gained an understanding of the internal controls significant within the context of the audit objective by interviewing FirstNet Authority and Department personnel and reviewing policies and procedures. In satisfying our audit objective, we did not rely on computer-processed data. Instead, we reviewed documentation submitted by FirstNet Authority; therefore, we did not

42 OIG-22-029-A.
test reliability of FirstNet Authority’s information technology systems. We identified weaknesses in internal control as noted in the Objective, Findings, and Recommendations section of this report. We found no instances of fraud, waste, or abuse.

We conducted our review from September 2020 through March 2022 under the authority of the Inspector General Act of 1978, as amended (5 U.S.C. App.), and Department Organization Order 10-13, October 21, 2020. We performed our fieldwork remotely.

We conducted this performance audit in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.
## Appendix B: Potential Monetary Benefits

<table>
<thead>
<tr>
<th>Finding and Recommendation</th>
<th>Questioned Costs</th>
<th>Unsupported Costs</th>
<th>Potential Funds to Be Put to Better Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding 1 and Recommendation 4</td>
<td>$0</td>
<td>$0</td>
<td>$296,299,098</td>
</tr>
</tbody>
</table>
Appendix C: Agency Response

October 7, 2022

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

FROM: Alan Davidson
Assistant Secretary of Commerce for Communications and Information and NTIA Administrator

SUBJECT: Response for Audit Report entitled FirstNet Authority Could Not Demonstrate Investment Decisions were the Best Use of Reinvestment Funds or Maximized the Benefits to Public Safety

This memorandum contains the response from the National Telecommunications and Information Administration (NTIA) to the Office of the Inspector General (OIG) draft report entitled FirstNet Authority Could Not Demonstrate Investment Decisions were the Best Use of Reinvestment Funds or Maximized the Benefits to Public Safety.

The Nationwide Public Safety Broadband Network (NPSBN or Network) has provided a critical step forward in supporting the communications requirements of first responders to meet their public safety mission. Since the FirstNet Authority awarded the 25-year contract to AT&T in 2017, the Network has become fully operational with over 3.7 million device connections and over 21,800 public safety organizations subscribers. Over 450 FirstNet-ready devices and 150 deployable assets are available to support planned and unplanned incidents.

As envisioned by Congress, the FirstNet Authority must ensure the NPSBN evolves to provide first responders with the best technology and communications systems available.1 The FirstNet Authority’s pursuit of a generational upgrade to 5G technology fulfills FirstNet Authority’s statutory obligation to maintain and improve the network and the phased approach to 5G implementation allows the FirstNet Authority to make the necessary upgrades within its budgetary resources.

Given the long-term relationship established by the contract with AT&T and building on the government’s substantial initial Core and Radio Access Network investments, the FirstNet Authority and AT&T must collaborate closely on foundational investments such as 5G network

---

upgrades. NTIA welcomes the OIG’s recommendations as to how FirstNet might best ensure it meets the needs of public safety while taking all appropriate steps to ensure government resources are properly and carefully invested.

As set forth below, NTIA concurs with all recommendations in the report. We will prepare a formal action plan in response to the OIG’s final report consistent with recommendations made therein.

- OIG recommends that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator, in conjunction with the Senior Procurement Executive and Director of Acquisition Management, do the following:
  1. Sufficiently define roles and responsibilities of NTIA and Office of Acquisition Management (OAM) regarding specific control activities to provide effective monitoring and oversight of the investment process to mitigate deficiencies identified within this report. (Concur)

We accept the OIG recommendation #1. Roles and responsibilities will be defined by NTIA and OAM.

- OIG recommends that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator do the following:
  2. Establish oversight procedures to ensure FirstNet Authority (a) follows established Department and FirstNet Authority policies and procedures and (b) maintains an appropriate arms-length relationship with contractors. (Concur)
  3. Require FirstNet Authority to develop and implement updated reinvestment policies and procedures prior to awarding and executing future reinvestment task orders. (Concur)

We accept the OIG recommendation #2. The FirstNet Authority will continue to maintain appropriate relationships with all contractors.

Regarding recommendation #3, we concur that the FirstNet Authority will develop and implement updated reinvestment policies and procedures prior to awarding and executing future network reinvestment task orders while also planning for the full 5G deployment of the NPSBN consistent with FirstNet Authority’s responsibility to maintain and improve the network.

- OIG recommends that the Assistant Secretary of Commerce for Communications and Information and NTIA Administrator direct FirstNet Authority’s Chief Executive Officer to do the following:
  4. Develop, implement, and execute sufficient policies and procedures to identify, select, manage, and oversee the selection of the investment opportunities to address performance gaps of the network and stakeholder needs so that the $296,299,098 in potential monetary benefit can be used more efficiently. (Concur)
  5. Conduct formal needs analysis to help guide current and future reinvestment task orders and update its analysis periodically. (Concur)
  6. Conduct an analysis of alternatives, once a capability gap is identified, and determine possible solutions for achieving the required capability. (Concur)
7. Develop an engagement methodology to appropriately gather and document public safety and PSAC needs. (Concur)
8. Ensure all policies are approved at the appropriate level and that documentation used in decision-making includes authoritative signatures and dates. (Concur)
9. Ensure all reinvestment opportunity decisions made by the SMC are documented. (Concur)

We concur with the OIG recommendations #4 through #9.

NTIA appreciates your team’s work on this audit, and we thank you for considering these comments. We look forward to working with you as we continue to address the recommendations in this report.

Should you have questions, please contact Josephine Arnold, NTIA Audit Liaison at jarnold@ntia.gov.

Addendum: FirstNet Authority Response
MEMORANDUM FOR: Arthur Scott  
Assistant Inspector General for Audit and Evaluation

FROM: Lisa Casias  
Acting Executive Director

DATE: October 7, 2022

SUBJECT: Response of the First Responder Network Authority

The First Responder Network Authority (FirstNet Authority) provides additional information and context for the National Telecommunications and Information Administration (NTIA) response to the Office of the Inspector General’s Draft Report entitled “FirstNet Authority Could Not Demonstrate Investment Decisions were the Best Use of Reinvestment Funds or Maximized the Benefits to Public Safety” (Draft Report). As discussed further below, the FirstNet Authority will implement the recommendations in accordance with the NTIA response.

Background

Every minute of every day in communities across the nation a first responder is working to save someone’s life, protect property, and respond to, manage, and resolve events that are sometimes unthinkable. Not long ago, there was an obvious gap in the communications capabilities for our first responders that the commercial marketplace could not, or would not, fill. Through both man-made and natural disasters, the nation learned that filling this gap was an imperative.

Congress enacted creating the FirstNet Authority to establish the only nationwide network dedicated to first responders. The statute authorized the FirstNet Authority to enter into contracts and agreements with non-federal entities to build, operate and maintain the Nationwide Public Safety Broadband Network (NPSBN). The statute also directed the FirstNet Authority to maintain and improve the NPSBN and to reinvest amounts received as fees to carry out construction, operations and improvements to the network.

To carry out those congressionally mandated responsibilities, the FirstNet Authority entered into a long-term contract with AT&T following a competitive process consistent with the statute. Under this public-private arrangement and pursuant to the FirstNet Authority’s enabling statute, AT&T uses federal government-provided resources, as well as its own skills, expertise, and resources, to construct and operate the NPSBN or FirstNet network. The FirstNet network is operating on a nationwide basis and serves federal, state/territorial, local, and tribal first responders, including serving over 21,000 agencies with 3.7 million first responder and allied user connections, and it continues to grow each quarter.
Comments on the Draft Report

As stated in your draft report, the FirstNet Authority made two investments to improve the NPSBN, by making upgrades to the NPSBN to allow first responder access to initial 5G capabilities and the expansion of coverage for first responders through additional dedicated deployables. Deployables can be used in areas where coverage is non-existent or has been interrupted. In 2022 alone, FirstNet-dedicated deployables have been used hundreds of times to help secure large, planned events or respond to emergencies or natural disasters. This has included response to Hurricanes Fiona and Ian, as well as wildfires, tornadoes, and other natural disasters and man-made incidents.

Although the draft report assesses the process for identifying and selecting reinvestment opportunities for the first two reinvestment task orders, it does not appear to take into account the FirstNet Authority’s established investment principles and procedures the FirstNet Authority followed to support the two initial investments. These included collaboration with organizations throughout Department of Commerce (DOC), including the Office of Acquisition Management and the National Telecommunications and Information Administration. We also conferred externally with the Office of Management and Budget. In addition, the FirstNet Public Safety Advisory Committee was directly involved and we had thousands of engagements and inputs from the public safety community, as well as the advice and expertise of the FirstNet Authority Board. The FirstNet Authority stands behind these investments because they enhance network capabilities that are beneficial for first responders, enhancing their ability to save lives and protect communities.

Advanced communications capabilities are critical to the success of our first responders, and advances in wireless communications march quickly and steadily forward. Congress anticipated that the NPSBN would need to be advanced by the FirstNet Authority and, under its enabling Act, the FirstNet Authority has a statutory obligation to evolve and improve the FirstNet network. The NPSBN is not static and, because it takes years to deploy generational technology upgrades, the investments made by the FirstNet Authority must be proactive and look to the future.

Thus, the FirstNet Authority’s reinvestment obligations require that it go beyond addressing gaps and needs only after they arise. Considering the FirstNet Authority’s statutory responsibility to evolve and improve the network, the fact that wireless technology is advancing quickly, and the significant time it takes to implement major network improvements, the FirstNet Authority must and will continue to look to the future and be proactive in addressing technology and public safety capability gaps and needs when prioritizing NPSBN investments. The success of the FirstNet Authority’s investment strategy hinges on its ability to ensure that advanced communications capabilities are available to public safety when they have a mission requirement – not years later.

The FirstNet Authority also provides additional context with respect to the public-private arrangement between the FirstNet Authority and AT&T. The execution of each party’s duties and responsibilities under the contract requires joint planning and coordination, which is required to fulfill the FirstNet Authority’s statutory mission and its contractual obligations. The FirstNet Authority follows all federal procurement standards to maintain appropriate relationships with all of its contractors.

As an organization, the FirstNet Authority strives to improve our processes. In line with that objective, the FirstNet Authority Board Chair has directed the management team to implement the OIG’s recommendations to improve investment processes and procedures consistent with our statutory obligations. As always, the FirstNet Authority will continue to support public safety through investments...
and enhancements to the NPSBN that enhance the ability of first responders to save lives and protect communities, every day and in every emergency.

Please feel free to contact me at Lisa.Casias@FirstNet.gov if you have any questions.