TELECOMMUNICATIONS

Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs
Why GAO Did This Study

GSA is responsible for contracts providing telecommunications services for federal agencies. Transitions involving previous contracts faced significant delays resulting in increased costs. Because GSA’s current telecommunications program, Networx, expires in May 2020, planning for the next transition has begun.

GAO was asked to review preparations for the transition. This report addresses the extent to which (1) GSA’s plans and guidance to agencies incorporate lessons learned from prior transitions, and (2) agencies are following established planning practices in their transitions. In performing this work, GAO analyzed GSA lessons learned and transition guidance. GAO also selected five agencies—USDA, DOL, DOT, SEC, and SSA—based on size, structure, and Networx spending. GAO then reviewed the agencies’ documentation to determine how they followed five planning practices identified in previous GAO reports.

What GAO Recommends

GAO recommends that GSA disseminate guidance that includes all agency-directed lessons learned. In addition, GAO recommends that USDA, DOL, DOT, SEC, and SSA complete adoption of the planning practices to avoid schedule delays and unnecessary costs. Five agencies agreed with all of our recommendations. SSA agreed with two recommendations, partially disagreed with one, disagreed with two, and provided updated information. GAO stands by the recommendations, as discussed in the report, and revised the report based on SSA’s new information.

What GAO Found

The General Services Administration’s (GSA’s) transition guidance to agencies addressed roughly half of its previously identified lessons learned. GSA identified 35 lessons learned from previous telecommunications contract transitions that identify actions that agencies should take. In transition guidance released to agencies, GSA fully addressed 17 of the 35 lessons. Two lessons from previous transitions were not appropriate for the current transition. GSA partially addressed an additional nine lessons. Seven lessons were not addressed at all (see figure). For example, GSA’s guidance did not address the previous lesson that agencies should not assume that a transition to a new contract with the same vendor will be easier than a change in vendors. By not including all lessons learned in its plans and guidance to agencies, GSA limits agencies’ ability to plan for actions that will need to be taken later in the transition. As a result, agencies face an increased risk that they could repeat prior mistakes, including those that could result in schedule delays or unnecessary costs.

Number of Lessons-Learned Addressed in GSA’s Plans and Guidance

<table>
<thead>
<tr>
<th>Addressed</th>
<th>Partially addressed</th>
<th>Not addressed</th>
<th>No longer appropriate</th>
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<tbody>
<tr>
<td>17</td>
<td>9</td>
<td>7</td>
<td>2</td>
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Source: GAO analysis of General Services Administration data. | GAO-17-464

Selected agencies—the Departments of Agriculture (USDA), Labor (DOL), and Transportation (DOT); the Securities and Exchange Commission (SEC), and the Social Security Administration (SSA)—have yet to fully apply most of the five planning practices previously identified by GAO as key to a successful telecommunications transition. The practices encompass: (1) developing inventories, incorporating strategic needs into transition planning, (2) incorporating strategic needs into transition planning, (3) developing a structured transition-management approach, (4) identifying resources necessary for the transition, and (5) establishing transition processes and measures of success. SEC fully implemented one practice, partially implemented three practices, and did not implement another. The other four agencies partially implemented each of the five practices. Agencies provided various reasons for not following planning practices, including uncertainty due to delays in GSA awarding the new contracts, plans to implement practices later as part of established agency procedures for managing IT projects, and a lack of direction and contractor assistance from GSA. If agencies do not fully implement the practices in the next transition, they will be more likely to experience the kinds of delays and increased costs that occurred in previous transitions.
September 21, 2017

The Honorable Mark Meadows  
Chairman  
The Honorable Gerald E. Connolly  
Ranking Member  
Subcommittee on Government Operations  
Committee on Oversight and Government Reform  
House of Representatives

The Honorable Will Hurd  
Chairman  
The Honorable Robin L. Kelly  
Ranking Member  
Subcommittee on Information Technology  
Committee on Oversight and Government Reform  
House of Representatives

The General Services Administration (GSA) is responsible for ensuring that federal agencies have access to the telecommunications services and solutions that they need to meet mission requirements. As federal agencies have evolved in their use of telecommunications, so too have GSA’s contracts to help support their needs. Currently, these telecommunications contracts not only support agencies’ basic telephone needs, but also provide an acquisition vehicle for wireless and satellite services, as well as managed network services and information technology (IT) security services. In fiscal year 2015 alone, federal agencies spent about $1.6 billion on services acquired through the contracts under GSA’s current telecommunications program, known as Networx.

In preparation for the end of its current telecommunications contracts in 2020, GSA developed a successor program, known as Enterprise Infrastructure Solutions (EIS). It plans to award telecommunications contracts under this program later in the summer of 2017. As such, agencies will have to undertake the difficult task of transitioning their telecommunications services to the EIS contracts. This transition is expected to involve more than 135 agencies, about 32 types of services, and thousands of voice and data circuits. GSA’s role in the transition includes providing guidance and technical assistance to agencies.
The last two GSA government-wide telecommunications contract transitions experienced significant delays that led to hundreds of millions of dollars in increased costs and missed savings. The transition that began in 1998 experienced delays that hindered the timely achievement of program goals and resulted in an estimated $74 million in missed savings. The most recent transition, which began in 2007, took 33 months longer than planned. The delays led to an increase of $66.4 million in costs to GSA and an estimated $329 million in lost savings.

After these transitions, GSA compiled lessons learned as a resource for future transitions. Specifically, the agency identified 96 lessons learned from the previous two transitions, related to topics such as transition planning, execution, and monitoring; regional services, reporting, and risk management, among others. Of the 96 lessons, GSA identified 35 that specifically relate to actions that agencies should take during a telecommunications transition.

This report responds to your request that we examine preparations for the EIS transition. Specifically, our objectives were to determine the extent to which (1) GSA’s plans and guidance to federal agencies for transitioning to EIS incorporate lessons learned from prior transitions and (2) selected agencies are following established planning practices for their transitions.

To address the first objective, we reviewed published GSA documents to identify EIS transition guidance and lessons learned directed to agencies. We then compared the published guidance sources to GSA’s agency-directed lessons learned. We also interviewed knowledgeable officials in the Federal Acquisition Service (FAS), the organization within GSA that is responsible for the transition.

To address the second objective, we selected a nongeneralizable sample of federal agencies to review. Using contract billing data provided by GSA, we identified agencies with total charges of more than $500,000 for fiscal year 2015 for the most-purchased telecommunications services—voice, toll free, private line, and combined (local and long distance) services. From this group of agencies, we selected agencies that

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exhibited a variety of (1) sizes, (e.g., large agencies, medium agencies, and small agencies); and (2) structures (e.g., agencies with and without component organizations). Based on these criteria, we selected five agencies—the Departments of Agriculture (USDA), Labor (DOL), and Transportation (DOT), as well as the Securities and Exchange Commission (SEC) and the Social Security Administration (SSA).

We then obtained and reviewed documentation (including strategic plans, telecommunications inventories, and transition-related plans) and interviewed relevant officials from each of the selected agencies. We assessed each agency’s information against telecommunications transition planning practices identified in our prior work.3

Based on our assessment, we classified the status of agency efforts to address each sound planning practice as “fully implemented” if the agency had implemented all of the aspects of the practice activities or “not implemented” if the agency did not demonstrate that it had taken any steps consistent with the practice. We assigned a status of “partially implemented” if the agency had addressed some, but not all of the practice; or had approved plans to fully implement the practice at a later time.

As part of this analysis, we gathered copies of the selected agencies’ telecommunications inventories and assessed their reliability. To do so, we asked agencies for documentation of their quality control procedures and practices related to ensuring the accuracy of the inventories. In addition, we interviewed knowledgeable agency officials about the systems and processes in place to collect and verify the data. We determined that the inventory information provided by one agency, the Securities and Exchange Commission, was sufficient for our purposes; however, the information provided by the other four agencies was not sufficient, due to the lack of documented policies to ensure the data’s accuracy and completeness. This conclusion was considered during our assessment of the selected agencies’ efforts to apply the planning practice related to inventories. A detailed discussion of our objectives, scope, and methodology can be found in appendix I.

We conducted this performance audit from January 2016 through September 2017, in accordance with generally accepted government auditing standards. Those 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

GSA’s existing government-wide telecommunications program is the successor to a series of programs that have provided data services and long-distance telecommunications to the federal government. In 1998 and 1999, GSA awarded two sets of contracts under the FTS2001 program, which was designed to meet agency needs for various telecommunication services, including long distance voice, video, and data services.

In 2007, GSA awarded successor contracts through an effort called Networx. These contracts, which had an estimated combined value of $20 billion, included a wider array of services provided through two sets of contracts with differing characteristics:

Networx Universal

- GSA awarded Networx Universal contracts to AT&T, Verizon Business Services, and Qwest Government Services. Networx Universal offers voice and data services, wireless services, and management and application services, including video and audio conferencing, as well as mobile and fixed satellite services, with national and international coverage.
- Networx Universal contracts were set to expire in March 2017; however, each participating vendor received a contract extension through March 2020.

Networx Enterprise

- GSA awarded Networx Enterprise contracts to AT&T, Verizon Business Services, Qwest Government Services, Level 3 Communications, and Sprint Nextel. Networx Enterprise offers services similar to those of Networx Universal, with a focus on those that are Internet-based, and does not require coverage of as large a geographic area as does Networx Universal.
Networx Enterprise contracts were set to expire in May 2017; however, each participating vendor, except one, received a contract extension through May 2020.

EIS is the replacement for Networx and all of GSA’s local and regional telecommunications contracts. GSA intends for EIS to address federal agencies’ global telecommunications and information technology infrastructure requirements. It is the first set of contracts to be developed under GSA’s Network Services 2020 (NS2020) strategy.\(^4\)

GSA plans for EIS to provide agencies with traditional and emerging services to meet current and future requirements, by:

- simplifying the government’s process of acquiring information technology and telecommunications products and services;
- providing cost savings to each agency through aggregated volume buying and pricing and spending visibility;
- enabling the procurement of integrated solutions;
- promoting participation by small businesses and fostering competition;
- offering a flexible and agile suite of services supporting a range of government purchasing patterns into the future; and
- providing updated and expanded security services to meet current and future government cybersecurity requirements.

In addition, GSA has identified several benefits that EIS is expected to provide to the agencies that participate in its telecommunications programs. These projected benefits include:

- streamlined contract administration, including catalog-based offerings;
- future-proof contracts (price management mechanism, 15-year period of performance);
- simplified pricing, including simplified contract line item number structure; and
- enhanced management and operations support.

\(^4\)Network Services 2020 (NS2020) is GSA’s strategy for the next generation of telecommunications and information technology (IT) infrastructure services. NS2020 provides a roadmap for the future of GSA’s Network Services Programs.
GSA issued its request for proposals (RFP) for EIS in October 2015. Vendors’ responses to the RFP were received by February 2016. According to FAS officials, GSA held discussions with offerors in 2016 and received proposals in December of that year. However, GSA determined that none of the proposals met the defined requirements. After another round of discussions, GSA received updated proposals on March 31, 2017. While GSA determined that these revised proposals met the requirements, a pre-award protest was filed on April 17, 2017. The protest was then withdrawn in May 2017. On August 1, 2017, GSA announced that it had awarded EIS contracts to ten vendors. GSA expects agencies to issue notices to vendors providing a fair opportunity to be considered for a task order within 2 months of contract awards.\(^5\) According to GSA’s plans, the transition to EIS is expected to be completed by March and May 2020, when the current Networx contracts expire. A timeline of the transition to EIS is provided in figure 1.

\(^5\)Fair opportunity is a process in which the contracting officer must provide each awardee a fair opportunity to be considered for each order exceeding $3,500 issued under multiple delivery-order contracts or multiple task-order contracts, unless exceptions apply. The contracting officer may exercise broad discretion in developing appropriate order placement procedures and each order exceeding the simplified acquisition threshold shall be placed on a competitive basis unless this requirement is waived pursuant to regulation. Federal Acquisition Regulation (FAR), part 16.505.
Central to the successful transition from Networx to EIS are transition planning and execution activities that involve GSA, federal agencies, and Networx and EIS contractors. GSA serves as the facilitator for all transition management activities and is using contract support to assist in tracking transition activities in order to avoid delays and other problems that can arise throughout the process.

To assist agencies with their transitions from the Networx contracts, GSA is working with representatives of the federal agencies, both directly and through an Infrastructure Advisory Group. This group is a collaborative body for aligning government-wide and agency missions with GSA strategies for acquiring and providing the future technology infrastructure services that will enable them.
GSA’s primary responsibility is to provide program management for both Networx and EIS. As part of this, it is responsible for:

- conducting government-wide strategy and project management;
- collecting and validating an inventory of active services on all expiring contracts;
- providing tailored assistance to agencies for transition planning and help with contractor selection and ordering;
- tracking and reporting the use of metrics that convey the relative complexity and transition progress; and
- providing customer support, training, and self-help tools and templates.

According to FAS officials, GSA’s approach to the current transition includes providing direct assistance to agencies, with GSA performing some transition tasks for small agencies and offering contractor assistance to larger agencies. GSA developed two contracting vehicles to support its efforts: (1) a Transition Coordination Center vehicle that includes assistance with inventory validation, transition planning, and solicitation development; and (2) a Transition Ordering Assistance vehicle that addresses tasks including requirements development and source selection assistance, and proposal evaluation. The Coordination Center vehicle was put in place in January 2016, while the Ordering Assistance vehicle was initially awarded in September 2016, but was not finalized until March 2017, due to a bid protest.

GSA’s customer agencies—those federal agencies acquiring services through the Networx program—have principal responsibility for the transition. These agencies are responsible for coordinating transition efforts with the incumbent and EIS contractors to ensure that existing services under Networx are disconnected and that new services are ordered. According to GSA, customer agencies’ responsibilities under EIS include:

- identifying key personnel, chiefly a Senior Transition Sponsor, Lead Transition Manager, and Transition Ordering Contracting Officer;

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Our Prior Work Has Addressed Telecommunications Transition Planning

We have previously reported on efforts by GSA and agencies to transition from one telecommunications program to another. In a June 2006 report, we identified a range of transition planning practices that can help agencies reduce the risk of experiencing adverse effects of moving from one broad telecommunications contract to another.\(^7\) We developed these practices through an analysis of available literature on telecommunications transitions and interviews with those having experience in telecommunications transitions, including industry experts, telecommunications vendors, and private sector companies. These planning practices are to:

- Establish an accurate telecommunications inventory and an inventory maintenance process.
- Identify strategic telecommunications requirements and use the requirements to shape the agency’s management approach and guide efforts when identifying resources and developing a transition plan.
- Establish a structured management approach that includes a dedicated transition management team, key management processes

\(^7\)GAO-06-476.
(project management, configuration management, and change management), and clear lines of communication.

- Identify the funding and human capital resources that the transition effort will require.

- Develop a transition plan that includes objectives, measures of success, a risk assessment, and a detailed timeline.

Each of these transition planning practices consists of various activities. For example, developing a transition plan consists of (1) identifying and documenting objectives and measures of success; (2) determining risks that could affect success; and (3) defining transition preparation tasks and developing a timeline for these tasks.

That same June 2006 report evaluated the progress of six selected agencies in preparing for the transition from FTS2001 to Networx and found that the agencies generally had not implemented the practices, but were planning to do so. We recommended, among other things, that GSA develop and distribute guidance to its customer agencies to ensure that the identified transition planning practices were used. GSA agreed with our recommendations and subsequently issued guidance related to several of the identified practices.

Further, in 2008, we reported on the extent to which six selected agencies were following the transition planning practices during the Networx transition. We noted that the agencies were generally implementing the practices, but three of them had not fully implemented some of the key activities of the practices and were not planning to do so. For example, one agency was using key project management processes in its transition planning efforts, and five had plans to use them. Regarding identifying human capital needs, two agencies had identified their resource needs, and three had plans to identify them. Also, one of the agencies did not plan to identify its human capital needs. We made recommendations to those agencies that had not implemented key practice activities and did not plan to do so, focused on addressing the gaps in transition planning. One agency implemented the recommendation we made to it, one

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8GAO-06-476.

implemented one of the two recommendations directed to it, and one agency implemented one of the seven recommendations we made to it.

In 2013, we reported on factors that had contributed to the delay in the Networx transition and the consequences of the delay. We pointed out that weak project planning and complex acquisition processes were factors that had contributed to the delay. We also reported on the extent to which GSA was documenting and applying lessons learned to prepare for the current EIS transition. In comparing GSA’s lessons-learned process with six key practices necessary for a robust lessons-learned process, we noted that GSA had fully satisfied three of the six key practices. Specifically, it had collected, analyzed, and validated lessons learned from the previous Networx transition.

However, GSA had not fully satisfied the remaining three practices: (1) sharing lessons with its customer agencies, (2) archiving the lessons learned, or (3) prioritizing them to ensure that resources are applied to areas with the greatest return on investment. For example, GSA shared briefings of lessons learned with agencies and OMB; however, it did not make the information in its 2012 lessons-learned report readily available to agencies and other transition stakeholders.

As a result, we recommended that GSA coordinate with the Office of Personnel Management (OPM) for future transitions to examine potential government-wide expertise shortfalls. We also recommended that it provide agencies with guidance on project planning and fully archive, prioritize, and share lessons learned. As of June 2017, GSA had implemented three of the five recommendations we made. Specifically, in accordance with our recommendations, GSA had provided project planning guidance to agencies, updated its transition lessons-learned database, and prioritized its lessons learned. In addition, GSA had begun but not completed implementation of the recommendation applying lessons based on priority and available resources. GSA agreed with the recommendation regarding expertise shortfalls but had not yet implemented it.

\textsuperscript{10}GAO-14-63.
The use of lessons learned ensures that beneficial information is factored into planning, work processes, and activities. Lessons learned can provide a powerful method of sharing good ideas for improving work processes, quality, and cost-effectiveness. Key lessons-learned practices, as described in our earlier work, include disseminating lessons-learned information to all involved parties.\(^\text{11}\) This practice emphasizes that lessons learned should be disseminated through a variety of communication media, such as briefings, bulletins, reports, e-mails, websites, database entries, revised work processes or procedures, and personnel training.

In addition, according to the Project Management Institute’s \textit{Guide to the Project Management Body of Knowledge (PMBOK® Guide)}, distributing lessons learned is important because they can provide insights on both the decisions made regarding communications issues and the results of those decisions in previous similar projects.\(^\text{12}\) The knowledge can be used to plan the communication activities for the current project.

GSA compiled lessons learned from previous telecommunications transitions, including 35 lessons that described actions that agencies should take during future transitions. Two of these lessons address issues that are not appropriate for the current transition, leaving 33 lessons for agencies.

GSA subsequently disseminated a number of these lessons learned to agencies via various sources, including transition plans and guidance. For example, to prepare for the current transition from Networx to EIS, GSA developed plans, documents, presentations, and other transition-related guidance sources in which it discussed lessons learned resulting from the prior transitions.

Table 1 describes the transition guidance for EIS that GSA provided to agencies at two intervals: by December 2016, when GSA had initially


planned to issue the EIS contracts, and between January and April 2017, to account for new guidance issued after contract awards were delayed.

### Table 1: GSA Enterprise Infrastructure Solutions (EIS) Lessons-Learned Guidance Sources

<table>
<thead>
<tr>
<th>GSA transition guidance issued by December 2016</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>GSA White Paper: NS2020 Transition Strategy</td>
<td>High-level recommendations are provided by GSA through its Network Services 2020 (NS2020) strategy. Each task necessary to conduct a successful telecommunications transition is described.</td>
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<tr>
<td>Transition to EIS guidance</td>
<td>The transition, its projected timeline, and the responsibilities of agencies and GSA in completing the transition are described.</td>
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<tr>
<td>Transition handbook Networx to EIS contacts</td>
<td>Activities necessary to facilitate a successful, timely, and orderly transition of telecommunications services from the Networx contract to the EIS contract are provided in a handbook developed by GSA for agencies and stakeholders.</td>
</tr>
<tr>
<td>EIS Acquisition and Transition presentation to small agencies</td>
<td>Presentation created and given to multiple small federal agencies to prepare them for the transition from Networx to EIS.</td>
</tr>
<tr>
<td>Meeting minutes/slides</td>
<td>Accounts of the various meetings between GSA and large agencies to discuss GSA transition assistance are documented.</td>
</tr>
<tr>
<td>2012 Lesson-Learned Report</td>
<td>Key findings resulting from a program-wide review of lessons learned collected during prior GSA Federal Acquisition Service (FAS) network services programs are summarized. This document discusses strengths, weaknesses, and areas for improvement in GSA’s FAS telecommunication transitions, which were identified by GSA’s Network Services Programs stakeholders.</td>
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<tr>
<td>GSA Proposed Scorecard</td>
<td>Transition phases and gates for portfolio.stat, measurement descriptions, and a transition scorecard for large agencies are described.</td>
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<tr>
<td>EIS Fundamentals Presentation</td>
<td>The fundamentals of the EIS course GSA offered to agencies are described, which covered basic contract information and procedures for ordering, service offerings, roles and responsibilities, pricing, and a summary of the transition process.</td>
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<tr>
<td>EIS Concepts for Task Ordering Unique Line Items</td>
<td>Additional information to help clarify the definition and use of specialized contract line items was described.</td>
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<tr>
<td>GSA transition guidance issued between January and April 2017</td>
<td>Handbook was created to assist agency staff in knowing where and how to obtain EIS contract documentation, contractor information, and necessary ordering steps to use the EIS contracts.</td>
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<tr>
<td>EIS Management and Operations Handbook</td>
<td>Guide was created for timely ordering of services on the EIS contracts and transitioning services from previous contracts.</td>
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<tr>
<td>Fair Opportunity and Ordering Guide</td>
<td>This document addresses the program-level, government-wide approach that GSA follows to manage transitioning to EIS.</td>
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Source: GAO analysis of General Services Administration data. | GAO-17-464.

However, while the transition plans and guidance that GSA issued to agencies included discussions of lessons learned, they did not do so comprehensively or consistently. First, none of these sources addressed all 33 of the agency-focused lessons that GSA had identified. For
example, the 2012 Lessons-Learned Report addressed 19 lessons (the most of any source), but did not address the remaining 14. The EIS Acquisition and Transition presentation to small agencies addressed 6 of the 33 lessons. Second, even when GSA guidance addressed a previous lesson, it did not always include all aspects of the lesson. Overall, when GSA’s guidance addressed a lesson, it more frequently addressed the lesson partially rather than fully. For example, one lesson called for agencies to recognize the possibility that they might change vendors and to develop plans to mitigate the risks from such a change. However, although one guidance source (the 2012 Lessons-Learned report) told agencies to plan for a change in vendors, it did not specify that they plan to mitigate associated risks. In addition, another lesson stressed that the coordination of service disconnects and activations by different vendors was essential. One guidance source (GSA White Paper: NS2020 Transition Strategy) discussed the need for coordinated disconnects, but did not discuss activations by different vendors. Figure 2 lists the number of lessons that were fully, partially, or not addressed within each of GSA’s various transition guidance documents.
When the information provided in GSA’s guidance is considered collectively, significant gaps in communicating previous lessons learned are evident. In the initial guidance released by December 2016, 15 lessons were fully addressed in the body of the guidance, 9 lessons were partially addressed, and 9 lessons were not addressed at all. Additional guidance that GSA released between January and April 2017 addressed more lessons learned, but did not include all of the lessons learned that were not previously disseminated. In total, the 12 guidance sources released by April 2017 fully addressed 17 of the 33 lessons learned and partially addressed another 9. The guidance sources did not address 7 lessons, including those related to agencies (1) bearing the costs associated with contract extensions resulting from delays in their contract selections, transition planning, or ordering; and (2) not assuming that a
transition to a new contract with the same vendor will be easier than a change in vendors. Figure 3 shows the collective number of lessons that were fully, partially, and not addressed in the GSA guidance. In addition, appendix II describes each lesson learned and the extent to which it was addressed in the guidance.

FAS officials responsible for the transition cited several reasons for not fully addressing lessons learned from the prior telecommunication transitions in the planning and guidance documents for the EIS transition. These reasons included:

- Lessons were originally developed to encourage agencies to consider the actions; however, GSA has since changed its thinking on a number of these lessons learned and believes they are no longer applicable or relevant during the transition to EIS.
Several lessons are not specifically addressed in current guidance because the agencies are not at the point in the transition where that level of detail would be useful.

We agree that two of the 35 lessons—those addressing the ordering of wide area network and trusted Internet connection services—are not appropriate to the current transition due to changes in the proposed contracts. However, we do not agree with many of GSA’s assessments of the lessons that were not addressed. For example, one lesson that GSA said was not applicable in December 2016 addressed being prepared for the possibility that the agency’s current vendor will not be chosen for the new contract. Because the EIS contracts had not been awarded, this was still a possibility which agencies should consider. Another lesson that was not addressed is the need to allow service changes during the transition—an issue we maintain is still relevant due to the length of time needed to complete a transition.

In addition, one lesson that GSA said was more appropriate for later in the transition states that agency contracting officers should meet with GSA contracting officers for advice. In our view, however, this lesson is appropriate for all phases of transition planning efforts.

By not including all lessons learned in its plans and guidance to agencies, GSA limits agencies’ ability to plan for actions that will need to be taken later in the transition. As a result, the risk is increased that agencies could repeat prior mistakes, including those that could result in schedule delays or unnecessary costs.

As discussed earlier, we previously identified a set of planning practices that can mitigate the risks associated with a complex telecommunications transition. These practices, which we reported on in 2006 and 2008, call for agencies to:

1. Develop asset and service inventories.
2. Incorporate strategic needs into transition planning.
3. Develop a structured transition-management approach.
4. Identify resources necessary for the transition.
5. Establish transition objectives, risks, and measures of success.

However, as of May 2017, none of the five agencies selected for our review had fully implemented all five of the practices. These agencies
(DOL, DOT, SEC, SSA, and USDA) had generally addressed parts of all five practices and one agency had fully implemented one practice.

The selected agencies provided various reasons for not fully adopting the practices, ranging from their uncertainty due to delays in awarding the EIS contracts and the lack of specific direction and planned contractor assistance from GSA to implement the practices, to having plans to implement practices later as part of established agency procedures for managing IT projects. However, going forward, if the agencies do not fully implement the practices, they will be more likely to experience the kinds of delays and increased costs that occurred in previous transitions.

To accomplish Practice 1—developing an accurate inventory of current telecommunications assets and services—the transition planning practices we previously identified state that agencies should complete two activities. First, agencies should have a detailed and complete transition inventory that reflects all of their facilities, components, field offices, and any other managed sites. The inventory should include information such as telecommunications services, traffic volumes, equipment, and applications being used. In addition, agencies should use their transition inventories to identify opportunities for optimizing their current technology during strategic planning.

Second, agencies should have a documented inventory-maintenance process that can be used to ensure that inventories remain current and reflect changes leading up to, during, and after the transition. An inventory-maintenance process can ensure that changes are captured and allow agencies to verify vendor bills against their inventories throughout the life of the contract.

Consistent with the first activity in this practice, all five selected agencies had begun to develop service inventories. However, only one of the agencies had completed its inventory. Specifically, SEC had identified an inventory that included all agency components receiving telecommunications services, validated the inventory with data provided by GSA, and demonstrated that it had adequate procedures for ensuring the completeness of the inventory. The four other agencies had

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developed telecommunications inventories, but had not verified that the inventories were complete.

SEC was also the only agency to complete the second activity related to having a documented inventory maintenance process. In this regard, it had documented procedures for updating its inventory. A second agency, SSA, had established procedures for the reconciliation and maintenance of local and long distance telecommunications services, but not for other contracted services. The remaining three agencies did not have documented procedures requiring inventory updates.

Table 2 summarizes the extent to which transition planners at the five agencies had implemented the practice to establish telecommunications inventories.

### Table 2: Extent to Which Telecommunications Inventory Practices Have Been Implemented

<table>
<thead>
<tr>
<th>Practice activities</th>
<th>Department of Labor</th>
<th>Department of Transportation</th>
<th>Securities &amp; Exchange Commission</th>
<th>Social Security Administration</th>
<th>Department of Agriculture</th>
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<tr>
<td>a. The agency identified complete telecommunications inventories at every site, facility, and component for the transition from Networx.</td>
<td>◔</td>
<td>◔</td>
<td>●</td>
<td>◔</td>
<td>◔</td>
</tr>
<tr>
<td>b. The agency had a documented process for updating and maintaining its inventories.</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>○</td>
</tr>
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</table>

- • Practice activity has been fully implemented.
- ◔ Agency has partially implemented practice activity.
- ○ Agency has not implemented practice activity.

Source: GAO analysis of DOL, DOT, SEC, SSA, and USDA data. | GAO-17-464.

The four agencies that did not have complete inventories or procedures to update their inventories cited several reasons for their status. Officials responsible for the transitions at the three agencies with components (Labor, DOT, and USDA) said that they have decentralized inventory maintenance among their components. However, none of these agencies has written policies that require components to develop a complete inventory and keep them updated. As a result, some of the agencies’
components could demonstrate that their inventories were complete, while other components could not.

In addition, SSA’s Division Director for Integrated Telecommunications Management (who is within the agency’s Office of the Chief information Officer (OCIO)) attributed that agency’s delay in developing a complete inventory and a maintenance process to GSA not providing promised contractor assistance with validating its inventory. However, while the contracting vehicle for supporting later planning tasks was delayed due to the bid protest, the vehicle that GSA provided for agency assistance with inventory validation had been in place since January 2016.

Two of the four agencies identified several actions they plan to take to address these gaps. USDA and DOT officials responsible for their agencies’ transitions (who are within their departments’ OCIOs) said they plan to develop a department-wide process that components will be expected to use. DOT officials also discussed the possibility that the Department would centralize the inventory maintenance process in the future. The two agencies, however, did not have established deadlines for completing these actions. Further, with regard to Labor, officials responsible for its transition said they did not plan to develop a policy or procedures governing how components should maintain an inventory of telecommunications assets and believed such an approach to be unnecessary.

Without complete and accurate telecommunications inventories, the selected agencies are less likely to be prepared to address strategic considerations and may be unable to avoid unnecessary transition delays associated with inventory identification. Additionally, without a documented inventory-maintenance process, the agencies may not consistently and accurately capture the changes to their telecommunications inventories during and after transition, thus, hindering their ability to ensure that they are billed appropriately by the vendor or to determine areas for optimization and sharing of telecommunications and IT resources across the agency.
Selected Agencies Have Begun Performing Strategic Analyses of Their Telecommunications Requirements

To accomplish Practice 2—performing a strategic analysis of telecommunications requirements—the transition planning practices we previously identified state that agencies should complete four activities. First, agencies should use their inventories of existing services to determine current and future telecommunications needs. Next, they should use the transition as an opportunity to identify areas for optimization or sharing of telecommunications and IT resources across the agency. Agencies should also evaluate the costs and benefits of introducing new technology and alternatives for meeting the agency’s telecommunications needs. Finally, they should align the identified needs and opportunities with the agency’s mission, long-term IT plans, and enterprise architecture plans.

Two of the selected agencies (SSA and USDA) had partially addressed the first activity, related to determining future telecommunications needs. Specifically, SSA documented future requirements based on interviews with stakeholders. However, SSA did not document that it based the identified needs on its existing inventory. In addition, USDA created a preliminary set of future telecommunications needs. However, these needs had not been finalized. According to officials responsible for USDA’s transition, finalization is expected in October 2017, which will allow time for USDA components and vendors to provide feedback that will be integrated into the preliminary set of future telecommunications needs. The remaining three agencies (DOL, DOT, and SEC) had not begun to identify future needs based on their current inventories.

With regard to the second activity of the practice, two agencies (DOL and SSA) had completed efforts to identify areas for the optimization and sharing of telecommunications and IT resources. In addition, one agency had partially implemented this activity. Specifically, USDA had identified options for optimization, but as of July 2017, it was still working with its components and vendors to evaluate the options. According to agency officials, they expect to reach a decision on options in October 2017, but this schedule is not documented.

With regard to the two other agencies, DOT’s future plans were unclear because it was awaiting IT investment management approval. Further, officials with SEC stated that the commission would address this practice

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later in 2017. None of these agencies had documented plans or timeframes for completing this activity.

Consistent with the third activity of this practice, USDA had evaluated the costs and benefits of new technology and alternative options for meeting its telecommunications needs. SSA had partially addressed this activity in that it had begun to evaluate the cost and benefits of upgrading agency bandwidth, but had not yet evaluated costs and benefits for introducing other new technology and alternatives for meeting the agency’s telecommunications needs. SSA officials said they planned to conduct such an analysis at a later time but had not documented plans to do so. The other three agencies had not yet addressed this activity.

Finally, in addressing the fourth activity, three of the five agencies had begun to determine whether their needs and opportunities were aligned with their mission, long-term IT plans, and enterprise architecture plans, although they had not yet completed these activities. Specifically, DOT had demonstrated that its identified needs and opportunities aligned with its mission. However, it did not demonstrate a similar alignment with its long-term IT plans and enterprise architecture plans. In addition, SSA had begun to align identified transition needs and opportunities with the agency mission and long-term IT plans. However, it had not fully identified its transition needs or evaluated those needs against its enterprise architecture. SSA also had determined that its identified telecommunications needs aligned with its long-term plans, as they related to two ongoing modernization projects. However, the agency did not show that the needs aligned with its enterprise architecture. USDA also had aligned identified needs with its mission and enterprise architecture plans. However, the agency had not aligned identified needs and opportunities with its long-term IT plans. The remaining two agencies, DOL and SEC, had not yet implemented this practice.

Table 3 summarizes the extent to which the five agencies performed a strategic analysis of their telecommunications requirements.
Table 3: Strategic Analysis of Telecommunications Requirements

<table>
<thead>
<tr>
<th>Practice activities</th>
<th>Department of Labor</th>
<th>Department of Transportation</th>
<th>Securities &amp; Exchange Commission</th>
<th>Social Security Administration</th>
<th>Department of Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The agency identified current and future telecommunications needs</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>b. The agency identified areas for optimization and sharing</td>
<td>●</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>c. The agency evaluated the costs and benefits of any new technology and alternative options.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>d. The agency determined that needs and opportunities are aligned with its mission, long-term IT plans, and enterprise architecture plans.</td>
<td>○</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

● Practice activity has been fully implemented.
○ Agency has not implemented practice activity.
○ Agency has partially implemented practice activity.

Source: GAO analysis of DOL, DOT, SEC, SSA, and USDA data. | GAO-17-464.

Three of the agencies attributed their limited progress on this practice to their use of established agency IT management processes and their related time frames. DOL transition officials (who are within the department’s OCIO) stated that they had begun to manage the transition within the agency’s systems development life cycle process, but it was too early for most planning activities to be completed. DOT officials stated that their agency was conducting a network assessment, causing a delay in fulfilling this planning practice. The officials also said that their agency’s specific management plans had not been finalized because the agency intended to manage the transition as a project within its IT investment management process; however, they had not yet gotten approval to do so. Further, officials from SEC’s OCIO stated that they were following internal agency best practices for managing a project and adherence to the systems development life cycle.

Additionally, officials at three agencies described plans to address this practice at a later time. DOL officials stated that they planned to issue a request for information to ask vendors what new technologies are available to meet the Department’s needs and to suggest changes to the existing telecommunications infrastructure. When we discussed this issue
in December 2016, SEC officials stated that some actions could not be completed until GSA awards the EIS contract because they do not yet know what services will be available or their prices. In addition, SSA’s telecommunications management division director stated that several activities were initially delayed due to GSA not providing promised contractor assistance, which required the agency to obtain assistance on its own. However, the director added that SSA’s transition is now on schedule, and it has begun addressing this practice using contractor support.

While the selected agencies’ established IT management processes can contribute to the fulfillment of the practice related to identifying strategic needs, the limited time available for the transition leaves agencies with a short window in which to make such determinations. As a result of the delays in identifying their needs, agencies will have less time to implement the resulting changes while meeting the deadlines for transitioning off of the Networx contracts.

Also, agencies that do not fully assess the costs and benefits of alternatives for meeting their telecommunications needs may not be taking full advantage of the transition as an opportunity to optimize their telecommunications services. Further, agencies that do not identify areas for optimization and sharing miss opportunities to upgrade their telecommunications services, or to shift service to more cost-effective technology. If agencies do not incorporate strategic requirements into their planning, they risk making decisions that are not aligned with their long-term goals. Without aligning needs and opportunities with missions and plans, agencies risk missing opportunities to use the new contract to address their highest priorities.

Selected Agencies Have at Least Partially Developed a Structured Transition Management Approach

To accomplish Practice 3—establishing a structured transition management approach—the previously identified transition planning practices state that agencies should complete three activities. They should establish a transition management team to be involved in all phases of the transition, and in clearly defining the responsibilities for key transition activities, such as project management, asset management, contract and legal expertise, human capital management, and information security management. Agencies should also ensure that all transition

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team members are clear on who is involved and how transition plans and objectives will be communicated. Finally, agencies should ensure that they use established project management, configuration management, and change management processes during the transition.

All five selected agencies established transition-management teams, as outlined in the first activity of Practice 3. Transition plans written by the agencies identified management teams and stakeholders responsible for their transitions. However, of the five agencies, only SSA had defined all of the roles and responsibilities identified in the practice. For example, DOT and SEC defined roles for project and information security management and contract expertise, but did not define roles for asset and human-capital management and legal expertise. DOL and USDA defined roles for project management and contract expertise, but did not define roles for asset, human capital, and information security management, and legal expertise.

The selected agencies generally had made more limited progress on the second activity of Practice 3, regarding communicating their transition plans. SSA had implemented this practice, while three other agencies had not yet done so. One other agency, SEC, had partially implemented the practice. Specifically, it had developed a plan that identified those who are to be involved in the transition. However, the plan did not address other key aspects of this practice, including identifying key local and regional transition officials and points of contact responsible for disseminating information to employees and working with the vendor to facilitate transition activities.

Four of the five agencies had begun using the types of management processes described in the third activity in Practice 3. Specifically, DOT, SEC, SSA, and USDA had demonstrated the use of established project management processes for their transitions, which included the use of schedules, task lists, and risk assessments. However, none of these agencies demonstrated that configuration or change management processes, which reduce the risks associated with technical and operational changes, were being applied to the transition. Further, the fifth agency, DOL, had not addressed this practice.

Table 4 summarizes the extent to which the five selected agencies had established a structured transition management approach.
Table 4: Structured Transition Management Approach

<table>
<thead>
<tr>
<th>Practice activities</th>
<th>Department of Labor</th>
<th>Department of Transportation</th>
<th>Securities &amp; Exchange Commission</th>
<th>Social Security Administration</th>
<th>Department of Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The agency established a transition management team and clearly defined responsibilities for key transition roles.</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>●</td>
<td>☒</td>
</tr>
<tr>
<td>b. The agency identified communication plans in order to facilitate information sharing during transition planning and execution.</td>
<td>○</td>
<td>○</td>
<td>☒</td>
<td>●</td>
<td>○</td>
</tr>
<tr>
<td>c. The agency used project management, configuration management, and change management processes in its transition planning efforts.</td>
<td>○</td>
<td>☒</td>
<td>☒</td>
<td>○</td>
<td>☒</td>
</tr>
</tbody>
</table>

● Practice activity has been fully implemented.
☒ Agency has partially implemented practice activity.
○ Agency has not implemented practice activity.

Source: GAO analysis of DOL, DOT, SEC, SSA, and USDA data. | GAO-17-464.

The agencies cited several reasons for not fully implementing the practice. Regarding the establishment of a management team with defined roles, DOT officials stated that some stakeholders were not involved in the early stages of the transition because the department typically does not involve all stakeholders until later in the project management life cycle. The officials also said that development of a communications plan and implementation of change and configuration management would be completed at a later time. However, DOT had not documented a plan or schedule for doing so.

SEC officials stated that the agency had legal and human capital expertise on the project; however, because SEC is a small agency, individuals cannot always be dedicated to a project. The officials also stated that the agency intended to handle communications through its established practice of weekly calls between IT staff and regional managers, although this process had not been documented. Additionally, the officials stated that formal change and configuration management practices apply to all of the agency’s IT projects, but did not demonstrate that those practices applied to its telecommunications transition.
For SSA, the telecommunications management division director stated that, the EIS transition is part of a modernization effort that is subject to agency requirements to use established change and configuration management processes. As a result such practices will also be used in the transition. However, SSA did not document this approach.

In addition, DOL officials stated that once an integrated project team has been formed, the transition effort is expected to proceed through the traditional systems development life cycle, which will address the practice activities related to project and change management. Similarly, USDA officials stated that the department plans to assign human capital resources later in the management process. Both departments' officials also described plans to use configuration and change management processes during the transition to EIS, but those plans were not documented. These officials did not identify specific dates by which their planned actions are expected to be completed.

Agencies that do not use a sound management approach risk additional financial costs, extended timelines, and disruptions to the continuity of their telecommunications systems. Further, without establishing lines of communication and identifying local and regional points of contact, agencies may lack the quality of information that is necessary for comprehensive understanding, accountability, and shared expectations among all those with transition responsibilities. Finally, by not defining key roles and responsibilities for the transition, the agencies risk extending their transition period as they attempt to assign appropriate personnel and update them on transition progress and issues. Due to the short time available to complete the current transition, effectively employing these practices will require expeditious action.

Selected Agencies Have Taken Initial Steps to Identify Resources Necessary for Transition Planning

To accomplish Practice 4—identifying the resources required to successfully plan for the transition—the transition planning practices we previously identified state that agencies should complete four activities.\(^{16}\)

First, they should identify the level of funding needed for their transition planning efforts to ensure that needed resources are available. Next, agencies should identify the organizational need for investments and assess benefits versus costs to justify any resource requests. Agencies should also determine staffing levels that may be required throughout the

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transition effort, as well as ensure that personnel with the right skills are in place to support the transition effort. Skills needed for this activity are project management, asset management, contract and legal expertise, human capital management, and information security expertise. Finally, agencies should require training for those carrying out the transition or operating and maintaining newly transitioned technology.

One selected agency (USDA) fully implemented the first activity in Practice 4, having identified the level of funding needed to support its transition planning. Three other agencies (DOT, DOL, and SSA) identified funding for part of the transition effort but did not identify funding to support other parts of the effort. Specifically, DOT developed a rough estimate for transition planning support, but this estimate had not been approved and it did not account for funds used for planning efforts completed prior to fiscal year 2017. Further, cost projections that DOL and SSA developed did not account for all years of transition support and the agencies did not provide evidence that the costs accounted for the transition management team. The fifth agency (SEC) had not identified its funding needs for the transition.

For the second activity of Practice 4, DOL demonstrated that it had identified the funding needed for transition project management, but not for software and hardware upgrades, the establishment of a reliable inventory, or the costs and benefits to justify any resource requests. In addition, SSA and USDA identified the need for transition resources, including staffing, but did not document cost-benefit justifications for those resources. The remaining two agencies (DOT and SEC) had not implemented this activity.

Three agencies also had partially implemented the third activity of the practice. Specifically, DOL, SSA, and USDA had identified staffing levels required for their near-term transition efforts. However, these agencies had not substantiated that the staff identified will be sufficient to support their entire transition efforts. DOT and SEC had not addressed this practice.

With regard to the fourth activity of the practice, four agencies (DOL, DOT, SEC, and USDA) demonstrated that their agencies had provided training to transition support staff. However, none of these agencies showed that they had conducted an analysis to identify all of the training needed for the transition, including training on new equipment or services. The fifth agency (SSA) had not implemented this practice. Table 5
summarizes the extent to which the five agencies identified resources for their transitions.

### Table 5: Agencies’ Identification of Transition Resources

<table>
<thead>
<tr>
<th>Practice activities</th>
<th>Department of Labor</th>
<th>Department of Transportation</th>
<th>Securities &amp; Exchange Commission</th>
<th>Social Security Administration</th>
<th>Department of Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The agency identified the level of funding needed to support transition planning</td>
<td>☐</td>
<td>☐</td>
<td>○</td>
<td>☐</td>
<td>●</td>
</tr>
<tr>
<td>b. The agency identified the organizational need for investments and justified resource requests.</td>
<td>☐</td>
<td>☐</td>
<td>○</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. The agency identified human capital needs for the entire transition effort.</td>
<td>☐</td>
<td>☐</td>
<td>○</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. The agency required training for the transition.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>○</td>
<td>☐</td>
</tr>
</tbody>
</table>

- ● Practice activity has been fully implemented.
- ♦ Agency has partially implemented practice activity.
- ○ Agency has not implemented practice activity.

Source: GAO analysis of DOL, DOT, SEC, SSA, and USDA data. | GAO-17-464.

Officials at the five agencies generally explained that they had not developed specific resource estimates for their transition efforts because they did not have an immediate need to do so. DOL officials explained that, prior to fiscal year 2017, the department had not required additional funding for the transition because it had leveraged resources from an existing funded project. In addition, DOT officials stated that they had conducted early transition planning using existing resources. SEC officials stated that, based on past experience, the department did not require additional funding or resources to support the transition because it was considered to be a part of ongoing support funding from its operations and maintenance budget. SEC officials added that, if something in the new contracts required a change in current SEC telecommunications services, they would follow the existing agency process for requesting supplemental funding.

In addition, when we discussed these topics July 2017, officials at two agencies generally expressed uncertainty about the scope of the transition because they do not know what services would be available under the new contracts. Once the contracts are awarded, according to the officials, they expected to be better positioned to plan for needed
resources. SEC officials also said that they planned to take advantage of transition-related training from GSA when it becomes available. Further, SSA’s telecommunications management division director said that the agency plans staffing annually and relies on current year resource usage to plan staffing needs for future years. The director added that, if additional staffing or other resources are needed, the request would be justified to the agency’s oversight board. In addition, the director believed, based on prior experience, that SSA’s staff are adequately trained, but did not have any documented analysis to support this assertion.

While it may be premature to estimate all transition-related resource needs, agencies that do not take steps to analyze their needs may be underestimating the complexity and demands of the transition effort. Additionally, without determining staffing needs for their transition efforts, agencies risk experiencing gaps in staffing, which may lead to delays and unexpected costs. Moreover, agencies that do not plan for required training are likely to incur unnecessary costs and experience delays as they try to quickly address gaps in staff competencies during the transition’s short time frame.

To accomplish Practice 5—developing a plan that identifies objectives, risks, and measures of success, and that approaches the process as a critical project with a detailed timeline—the previously identified transition planning practices state that agencies should complete three activities. Agencies should first identify transition objectives and measures of success. Transition objectives should be based on a strategic analysis of telecommunications requirements and aligned with an overall mission and business objectives. Agencies should also identify agency-specific risks that could affect transition success. The importance of the risks should be evaluated relative to the agency’s mission-critical systems and continuity of operations plans. This risk assessment should include an analysis of information security risks to determine what controls are required to protect networks and what level of resources should be expended on controls. Lastly, agencies should develop a transition plan that depicts a management strategy with clearly defined transition preparation tasks and includes a timeline that allows for periodic reporting and takes into account mission-critical priorities, such as contingency plans and identified risks. This timeline should take into account priorities relative to

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the agency’s mission-critical systems, contingency plans, and identified risks.

One selected agency (DOL) had fully implemented the first activity of this practice by identifying objectives and measures of success linked to the agency’s requirements and business needs. The remaining four agencies partially implemented the activity. Specifically, DOT, SEC, and USDA documented agency-specific transition objectives and measures of success. However, these agencies did not demonstrate that their transition objectives were based on a strategic analysis of telecommunications requirements and were aligned with the agency’s overall mission and business objectives. SSA had documented agency-specific transition objectives but had not documented measures of success. According to officials responsible for SSA’s transition, the agency plans to develop such objectives in the future, but had not established a deadline for doing so.

All five selected agencies at least partially addressed the second activity of Practice 5 by identifying agency-specific risks that could affect transition success and by clearly defining transition preparation tasks. Three agencies (SEC, SSA, and USDA) identified information security risks, as called for in the practice activity. However, DOL and DOT risk assessments did not include information security risks. Moreover, none of the agencies considered continuity of operations in their risk assessments nor took into account priorities relative to their mission-critical systems.

With respect to the third activity of the practice, each of the agencies at least partially defined transition preparation tasks and developed a timeline. However, the timelines did not take into account priorities relative to the agencies’ mission-critical systems, contingency plans, and identified risks. For example, in its transition plan, SEC identified multiple risks that could delay the transition, if realized, such as compliance with Office of Management and Budget security requirements. However, SEC provided no evidence that such risks or associated mitigation activities were accounted for in transition preparation tasks. Table 6 identifies the extent to which the agencies had developed plans for the transition.
## Table 6: Agencies’ Transition Plans

<table>
<thead>
<tr>
<th>Practice activities</th>
<th>Department of Labor</th>
<th>Department of Transportation</th>
<th>Securities &amp; Exchange Commission</th>
<th>Social Security Administration</th>
<th>US Department of Agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The agency identified and documented agency-specific transition objectives and measures of success.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>b. The agency identified agency-specific risks that could affect transition success including information security risks.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>c. The agency clearly defined transition preparation tasks and developed a time line.</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

- ● Practice activity has been fully implemented.
- ○ Agency has not implemented practice activity.
- ○ Agency has not implemented practice activity.

Source: GAO analysis of DOL, DOT, SEC, SSA, and USDA data. | GAO-17-464.

Officials responsible for the transitions at the agencies we reviewed generally described their intent to complete the practices related to planning later in their transitions. DOL officials explained that the next step in their planning process would be to form an Integrated Project Team for the transition. The officials stated that, once formed, the transition effort will proceed through the traditional systems development life cycle and begin to document plans and decisions, which would contribute to the last two practice activities.

With regard to DOT, an official stated that the agency was conducting a network assessment, causing a delay in completing this practice. SEC officials stated that the goal and primary measure of success for the transition would be zero downtime, but that it did not expect to trace other measures of success to business objectives.

Additionally, officials at the other two agencies explained that while they had not fully implemented this practice, they plan to do so later, but did not identify a deadline. SSA’s telecommunications management division director stated that the agency could not complete a detailed transition timeline because such a timeline would have to be based on the winning contractor bids. In addition, USDA officials stated that the agency was still working on a Statement of Objectives for transition services and expected to tie transition objectives to strategic analysis of telecommunications.
requirements and overall business and mission objectives as part of that effort.

Three agencies (DOL, DOT, and SSA) also cited GSA requirements, in part, as the reason for not completing the second and third practice activities. DOL officials stated that the agency had not completed these activities, in part, because GSA set no such expectations. A DOT official stated that tasks to include mission-critical systems and contingency plans were still being developed and that the agency had not provided detailed tasks within its transition plan because GSA did not require them. SSA’s telecommunications management division director offered a similar explanation.

However, while the lack of awarded contracts constrained agencies’ ability to plan the transition in detail prior to August 2017, the limited time available to conduct the transition makes it critical that agencies conduct early planning with the information available, including information on previous transitions. In addition, agencies that do not document measurable objectives and clearly define transition tasks that take into account agency priorities and risks may find it difficult to provide those involved in the transition with clear expectations. Specifically, without measurable objectives, managers will lack information that could be used to track progress toward transition objectives and inform management decisions. Further, agencies that do not analyze risks relevant to the transition may encounter problems and delays during the process because they are not adequately prepared to mitigate such risks.

GSA has identified lessons learned from previous telecommunications contract transitions, and has communicated a number of lessons to agencies through a series of plans and guidance. However, GSA did not address all of its lessons in its guidance, and several of the lessons were not communicated comprehensively. As a result, GSA made it more difficult for agencies to take advantage of the lessons. Comprehensive dissemination of lessons learned and agency planning guidance that aligns with those lessons would provide agencies with information needed to successfully plan for the complex transition effort that has already begun.

The five agencies we reviewed had begun preparations for the transition to a new government-wide telecommunications contract. However, none had fully adopted the transition planning practices we previously identified that can reduce the risk of unplanned delays. Several agencies stated

Conclusions
that they are planning to apply many of the management processes outlined in the practices to their transition efforts later this year, often in conjunction with existing IT management processes. While agencies’ use of existing IT management processes can align with a number of the identified practices, delaying the implementation of the established planning practices to follow standard IT management timeframes can also reduce agencies’ ability to fully apply the practices within the limited time available to complete their transitions.

We are making a total of 25 recommendations to six agencies, including one to GSA, five to USDA, five to DOL, four to SEC, five to SSA, and five to DOT.

The Administrator of General Services should disseminate the 16 agency-focused lessons learned that have not been fully incorporated in GSA guidance to the agencies involved in the current transition. (Recommendation 1)

The Secretary of Agriculture should ensure that the Department’s Chief Information Officer verifies the completeness of its inventory of current telecommunications assets and services and establishes a process for ongoing maintenance of the inventory. (Recommendation 2)

The Secretary of Agriculture should ensure that the Department’s Chief Information Officer completes efforts to identify future telecommunications needs and areas for optimization, identifies the costs and benefits of new technology, and aligns USDA’s approach with its long-term plans. (Recommendation 3)

The Secretary of Agriculture should ensure that the Department’s Chief Information Officer identifies transition-related roles and responsibilities related to the management of assets, human capital, and information security, and legal expertise; develops a transition communications plan; and uses configuration and change-management processes in USDA’s transition. (Recommendation 4)

The Secretary of Agriculture should ensure that the Department’s Chief Information Officer documents the costs and benefits of transition investments, identifies staff resources needed for the remainder of the transition, and analyzes training needs for staff assisting with the transition. (Recommendation 5)
The Secretary of Agriculture should ensure that the Department’s Chief Information Officer demonstrates that the Department’s transition goals and measures align with its mission, identifies transition risks related to critical systems and continuity of operations, and identifies mission-critical priorities in USDA’s transition timeline. (Recommendation 6)

The Secretary of Labor should ensure that the Department’s Chief Information Officer verifies the completeness of DOL’s inventory of current telecommunications assets and services and establishes a process for ongoing maintenance of the inventory. (Recommendation 7)

The Secretary of Labor should ensure that the Department’s Chief Information Officer identifies the agency’s future telecommunications needs, completes a strategic analysis of the agency’s telecommunications requirements, and incorporates the requirements into transition planning. (Recommendation 8)

The Secretary of Labor should ensure that the Department’s Chief Information Officer identifies transition-related roles and responsibilities related to the management of assets, human capital, and information security, and legal expertise; develops a transition communications plan; and uses project, configuration, and change-management processes in DOL’s transition (Recommendation 9)

The Secretary of Labor should ensure that the Department’s Chief Information Officer identifies the resources needed for the full transition, develops justifications for the costs of changes to hardware and software, identifies staff resources needed for the remainder of the transition, and analyzes training needs for staff assisting with the transition. (Recommendation 10)

The Secretary of Labor should ensure that the Department’s Chief Information Officer identifies transition risks related to information security, critical systems, and continuity of operations, and identifies mission-critical priorities in DOL’s transition timeline. (Recommendation 11)

The Chairman of the Securities and Exchange Commission should ensure that the Commission’s Chief Information Officer identifies the agency’s future telecommunications needs, areas for optimization, and the costs and benefits of new technology; completes a strategic analysis of the commission’s telecommunications requirements; and incorporates the identified requirements into transition planning. (Recommendation 12)
The Chairman of the Securities and Exchange Commission should ensure that the Commission’s Chief Information Officer identifies roles and responsibilities related to the management of assets and human capital and legal expertise for the transition; includes key local and regional officials in SEC’s transition communications plan; and completes efforts to use configuration and change management processes in the transition. (Recommendation 13)

The Chairman of the Securities and Exchange Commission should ensure that the Commission’s Chief Information Officer identifies the resources needed for the full transition, justifies requests for transition resources, identifies staff resources needed for the full transition, and completes efforts to analyze training needs for staff assisting with the transition. (Recommendation 14)

The Chairman of the Securities and Exchange Commission should ensure that the Commission’s Chief Information Officer completes efforts to demonstrate that the commission’s transition goals and measures align with its mission, identifies transition risks related to critical systems and continuity of operations, and identifies mission-critical priorities in SEC’s transition timeline. (Recommendation 15)

The Commissioner of the Social Security Administration should ensure that the Administration’s Chief Information Officer verifies the completeness of SSA’s inventory of current telecommunications assets and services and establishes a process for ongoing maintenance of the inventory regarding services other than local and long-distance telecommunications. (Recommendation 16)

The Commissioner of the Social Security Administration should ensure that the Administration’s Chief Information Officer completes identification of the agency’s future telecommunications needs and aligns its approach with the agency’s enterprise architecture. (Recommendation 17)

The Commissioner of the Social Security Administration should ensure that the Administration’s Chief Information Officer uses configuration and change-management processes in its transition. (Recommendation 18)

The Commissioner of the Social Security Administration should ensure that the Administration’s Chief Information Officer identifies the resources needed for the full transition, documents the costs and benefits of transition investments, identifies staff resources needed for the remainder
of the transition, and analyzes training needs for all staff working on the transition. (Recommendation 19)

The Commissioner of the Social Security Administration should ensure that the Administration’s Chief Information Officer completes efforts to identify measures of success for the transition, identifies transition risks related to critical systems and continuity of operations, and identifies mission-critical priorities in SSA’s transition timeline. (Recommendation 20)

The Secretary of Transportation should ensure that the Department’s Chief Information Officer verifies the completeness of DOT’s inventory of current telecommunications assets and services and establishes a process for ongoing maintenance of the inventory. (Recommendation 21)

The Secretary of Transportation should ensure that the Department’s Chief Information Officer identifies the agency’s future telecommunications needs, areas for optimization, and costs and benefits of new technology; and completes efforts to align DOT’s approach with its long-term plans and enterprise architecture. (Recommendation 22)

The Secretary of Transportation should ensure that the Department’s Chief Information Officer identifies roles and responsibilities related to the management of assets and human capital and legal expertise for the transition; develops a transition communications plan; and fully uses configuration and change-management processes in DOT’s transition. (Recommendation 23)

The Secretary of Transportation should ensure that the Department’s Chief Information Officer fully identifies the resources needed for the full transition, justifies requests for transition resources, identifies staff resources needed for the full transition, and fully analyzes training needs for staff assisting with the transition. (Recommendation 24)

The Secretary of Transportation should ensure that the Department’s Chief Information Officer fully demonstrates that DOT’s transition goals and measures align with its mission; completely identifies transition risks related to information security, critical systems, and continuity of operations; and fully identifies mission-critical priorities in the transition timeline. (Recommendation 25)
Agency Comments and Our Evaluation

We provided a draft of this report to GSA, USDA, DOL, SEC, DOT, and SSA for comment. Four of the agencies (GSA, DOL, SEC, and SSA) provided written comments on the draft report, while two agencies (USDA and DOT) provided comments via email. In total, five agencies concurred with our recommendations directed to them. One agency agreed with two recommendations and disagreed wholly or in part with three other recommendations.

- In written comments, GSA agreed with our recommendation that it disseminate the 16 agency-focused lessons learned that had not been incorporated in GSA guidance. The agency stated that it plans to revise its guidance to include all of its agency-focused lessons learned. The agency also stated that it believes it has fully implemented a recommendation we made in 2013 regarding applying lessons based on priority and available resources. We intend to follow up with GSA and seek supporting evidence to determine whether the recommendation has been fully implemented. GSA’s comments are reprinted in appendix III.

- In written comments, DOL agreed with our five recommendations, noting that the department plans to develop policies governing how its components should maintain telecommunications inventories. The Department also stated that it plans to have in place a documented inventory process prior to services being awarded under the EIS contracts. DOL’s comments are reprinted in appendix IV.

- In written comments, SEC concurred with our four recommendations. The agency stated that it plans to take several actions to address the recommendations, including ensuring that all requirements are reflected in its plans, as well as managing the transition according to project and configuration management practices. SEC’s comments are reprinted in appendix V.

- In written comments, SSA agreed with two of our five recommendations to the agency. Specifically, SSA agreed with our recommendation on strategic analysis of telecommunications requirements, reporting that the agency intends to conduct an analysis of technologies and alternatives once a winning contractor bid is in place. Regarding a second recommendation—to identify transition resources—SSA agreed, but also stated that cost-benefit justifications would prove extremely difficult and that no further training is immediately necessary. We continue to believe that
justifying funding requests is key to identifying the appropriate level of resources needed to conduct a transition. Also, with regard to training, SSA did not provide any evidence to show that it had analyzed its training needs. Without such information, the agency risks transition delays if it later identifies a need for training that cannot be provided quickly.

SSA partially disagreed with one recommendation—to identify measures of success and risks related to continuity of operations and critical systems. Specifically, SSA agreed to use several critical milestones to monitor performance, but disagreed with the need to identify the specified risks. The agency believes those risks were already identified in one of its planning documents. However, we reviewed the planning documents and did not find any specific discussions of continuity of operations or critical systems, which are essential to assuring that the transition does not have a negative impact on the agency’s ability to complete its mission. We, therefore, believe that the recommendation is appropriate and disagree with SSA’s position.

SSA disagreed with our remaining two recommendations. Specifically, it disagreed with the recommendation to implement telecommunications inventory practices. SSA indicated that its inventory was complete and that the inventory described its process for maintaining services procured through GSA’s contracts. However, we reviewed the information SSA provided and concluded that it did not include complete information on the sites where each service was provided, limiting the agency’s ability to plan for transition tasks requiring the physical presence of staff. Further, while the agency had procedures to update inventory information on local and long distance services, it did not have similar procedures to update information on other services ordered from the GSA contracts, such as wireless (cellular), satellite, fixed data, and collaboration services. We, therefore, continue to believe that it is important for SSA to complete these steps.

Additionally, SSA disagreed with our recommendation to identify legal expertise and utilize a structured transition management approach. The agency indicated that it had previously identified legal expertise in its transition plan. Although legal expertise was not discussed in the plan that the agency initially provided for our review, SSA provided an updated plan subsequent to its comments that included this information. Thus, we revised our report to reflect that the agency had
completed this activity. We also deleted the reference to this activity in our recommendation.

Further, in commenting on the second activity discussed in this recommendation, SSA stated that the telecommunications transition was part of a broader modernization effort which was subject to agency guidance that includes the use of configuration and change management. However, the agency did not provide evidence to substantiate this position. As a result, we stand by this aspect of our recommendation. SSA’s comments are reprinted in appendix VI.

- In e-mail comments, USDA’s Senior Advisor stated that the Department agreed with our five recommendations.

- In e-mail comments, an official in DOT’s Office of the Secretary stated that the Department concurred with our five recommendations.

Finally, we received technical comments from GSA and USDA, which we incorporated, as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Administrator of GSA, Chairman of the SEC, Commissioner of SSA, Secretary of Agriculture, Secretary of Labor, Secretary of Transportation and other interested parties. In addition, this report is available at no charge on the GAO website at http://www.gao.gov.

Should you or your staffs have any questions on information discussed in this report, please contact Carol Harris at (202) 512-4456 or Harrisc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix VII.

Carol C. Harris
Director
Information Technology Acquisition Management Issues
Our objectives were to determine to what extent: (1) GSA’s plans and guidance to agencies for transitioning to EIS incorporate lessons learned from prior transitions, and (2) selected agencies are following established planning practices for their transitions.

To determine the extent to which GSA’s plans and guidance to agencies for transitioning to EIS incorporate lessons learned from prior transitions, we first obtained and reviewed GSA’s documented lessons learned for the FTS2000 to FTS2001 and FTS2001 to Networx transitions. Second, we identified (with input from GSA) those lessons learned that were specific to agencies. Third, we reviewed transition plans, guidance, and other EIS documentation developed by GSA, including presentations, meeting minutes, and projected timelines provided to agencies. Fourth, we evaluated each of the planning and guidance sources that GSA disseminated to agencies to evaluate how completely the lessons learned were addressed in the guidance. We did this by comparing the key concepts identified in each lesson learned to the concepts described in the guidance.

Based on our assessment, we classified the status of a lesson learned as “fully addressed” if the lesson learned appeared in at least one planning and guidance source or if all of the concepts described in a practice were found collectively in multiple guidance sources; “partially addressed,” if part of the lesson learned appeared in at least one document; or “not addressed,” if the lesson learned did not appear in any of the planning and guidance sources.

To determine the extent to which federal agencies are following established transition planning practices, we selected five agencies for review. Using Networx billing data provided by GSA, we identified total charges for each service and each of 96 agencies for fiscal year 2015. We first identified the four services with the most fiscal year 2015 spending. We then selected agencies representing a variety of (1) agency sizes (two large agencies, two medium agencies, and a small agency); (2) varying agency structures (e.g., two agencies with components vs. three agencies without); and (3) agency charges for the four most commonly identified services: Voice Services, Toll Free Service, Private Line Services, and Combined (Local and Long Distance) at $20 million dollars for two large agencies, $3 million dollars for two medium agencies, and $557 thousand for a single small agency. The resulting five departments and agencies’ selected for review were the U.S. Department of Agriculture; U.S. Social Security Administration; Department of
Because we did not review a statistically representative sample of federal agencies, we cannot conclude that our results represent the entire federal government’s level of preparation. However, the five cases studied illustrate various challenges that these agencies have faced in planning for the transition to EIS.

To determine the extent to which the selected agencies have made adequate preparations for their upcoming transitions, we obtained and reviewed agency documentation, including strategic plans, telecommunications inventories, and transition-related documentation, and interviewed agency officials. We then assessed this information against each of the activities within the five transition planning practices identified in our prior report on agency transition planning. Based on our assessment, we classified the status of agency transition planning efforts to address each sound planning practice activity as “fully implemented,” if the agency had fully implemented the practice activity or “not implemented,” if the agency did not demonstrate that it had taken any actions consistent with the activity. We assigned a status of “partially implemented” if the agency had taken some, but not all of the actions included in an activity; had begun the processes to fully implement the activity; or had approved plans to fully implement the activity at a later time.

As part of our review of agency efforts to establish telecommunications inventories, we gathered copies of the inventories and assessed their reliability. Specifically, we asked agencies for documentation of their quality control procedures and practices related to ensuring their accuracy. Additionally, we also interviewed knowledgeable agency officials about the systems and processes in place to collect and verify the data. We determined that the inventory information provided by the Securities and Exchange Commission was sufficient for our purposes, but the information provided by the other agencies was not due to the lack of documented procedures to ensure the completeness and accuracy of the data. This conclusion was considered during our assessment of their efforts to apply the planning practice related to inventories.

1GAO-06-476.
We conducted this performance audit from January 2016 through August 2017, in accordance with generally accepted government auditing standards. Those 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
Appendix II: Summary of GSA Lessons Learned

Based on experiences during previous telecommunications transitions, the General Services Administration (GSA) identified 96 lessons learned. Specifically, it identified 28 lessons learned documented during the transition to FTS2001 and 68 lessons learned documented during the transition to Networx. The combined 96 lessons learned relate to transition planning, execution, and monitoring; regional services, reporting, and risk management, among others. Of the total 96 lessons, GSA identified 35 that specifically relate to actions that federal agencies should take.

Table 7 describes the 35 agency-focused lessons learned identified by GSA during previous telecommunication transitions and the extent to which each was addressed in GSA’s EIS transition plans and guidance.

<table>
<thead>
<tr>
<th>Lesson Learned</th>
<th>Telecommunications Transition the Lesson Was Based On</th>
<th>Addressed in GSA’s Transition Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The replacement of the telecommunications infrastructure for a large part of the federal community is a huge task. The transition stakeholders (that is GSA, the user agencies and the gaining service providers) need to be fully prepared for the undertaking.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>A complete and accurate &quot;baseline&quot; inventory prior to contract award is critical. In order to facilitate this requirement it is suggested that inventory validation should be an ongoing effort during the life of the contract to provide a complete and accurate baseline for not only transition, but also other operations such as billing validation and service optimization.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>The roles and responsibilities of all transition stakeholders (that is GSA, agencies, and service providers) should be clearly defined and communicated to ensure critical activities are appropriately performed.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>Many government requirements cannot be met by standard commercial services. Although commercial solutions are encouraged, solicitation documents and all planning must include unique government requirements.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>Agencies should be prepared for the &quot;worst case&quot; scenario of their FTS2001 service provider either not being awarded a successor contract or not being selected through the fair opportunity process and plan accordingly in order to ensure a rapid transition effort with minimal impact on the continuity of service.</td>
<td>FTS2001</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Agencies should anticipate and account for the new service provider’s possible inability or unwillingness to execute all transition requirements as promised, thus ensuring that they: • Establish and maintain effective oversight throughout transition. • Escalate problems with the service providers to GSA Federal Technology Service (FTS) with documentation. GSA FTS should anticipate and be prepared to deal with service provider’s possible inability or unwillingness to meet contractual obligations. (This portion is specific to GSA internal action; therefore we will not evaluate it).</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
</tbody>
</table>
## Appendix II: Summary of GSA Lessons Learned

<table>
<thead>
<tr>
<th>Lesson Learned</th>
<th>Telecommunications Transition the Lesson Was Based On</th>
<th>Addressed in GSA’s Transition Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall transition planning should have sufficient flexibility so that agencies can coordinate transition with other ongoing activities regardless of the impact of external events. Likewise, contracts should be flexible to accommodate unforeseen marketplace issues.</td>
<td>FTS2001</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>Coordinated and synchronized disconnects and activation by different service providers are essential to ensure transition success.</td>
<td>FTS2001</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>Network optimization should be addressed as part of normal network management and not as a mandatory task during transition.</td>
<td>FTS2001</td>
<td>Not addressed</td>
</tr>
<tr>
<td>The planning activities of the transition stakeholders (that is GSA, agencies, and service providers) should be coordinated to ensure all activities are appropriately accounted for and that dependencies are adequately addressed.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>The task of transition is not limited to transitioning a static list of services on a like-for-like basis. Therefore, agencies should anticipate the need for changing connectivity during the transition effort and mitigate those factors in their transition plan(s).</td>
<td>FTS2001</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>Agency procedures and resources were inadequate to manage the extraordinary volume of service orders associated with the transition effort.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>Agencies responsible for slow contractor selection, transition planning and/or order entry that directly results in extension of incumbent contract(s) and services should bear the costs associated with those extensions.</td>
<td>FTS2001</td>
<td>Not addressed</td>
</tr>
<tr>
<td>Agencies should ensure their plans can accommodate potential issues associated with access facilities, as often service providers do not control the entire provisioning process.</td>
<td>FTS2001</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>Some delays could be avoided if agencies:</td>
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<tr>
<td>• Take care not to approve a transition project specific plans or site survey if services are not in fact what they need to operate (e.g., all 800 numbers were not included in site survey).</td>
<td>FTS2001</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>• Advise service provider of any special access requirements for the site.</td>
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<td>• Make arrangements for the entry of service provider technicians into site in order to avoid unnecessary “turn aways.”</td>
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<tr>
<td>• Ensure that they know and understand the plan for their site including the type of cutover (parallel, managed, or coordinated) planned.</td>
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<tr>
<td>• Have material/equipment installed and ready on scheduled cutover date (e.g. cabling, inside wiring, private branch exchange (PBX) cards, or other government furnished equipment).</td>
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<tr>
<td>• Have needed technicians on hand for both pre-test and cutover (e.g., PBX technician was not present on scheduled test dates resulting in dialing plan problems).</td>
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<tr>
<td>GSA FTS and agencies should proactively examine invoices during transition to verify that services are being invoiced against the right contract and the right rate and that the details of billing meet contract requirements. Also, billing discrepancies should be brought to the attention of service providers promptly and GSA FTS must hold them responsible for resolving billing problems expeditiously.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>The progress of transition should be measured by both the “old” services replaced and disconnected as well as by the “new” services installed.</td>
<td>FTS2001</td>
<td>Fully addressed</td>
</tr>
</tbody>
</table>
### Appendix II: Summary of GSA Lessons Learned

<table>
<thead>
<tr>
<th>Lesson Learned</th>
<th>Telecommunications Transition the Lesson Was Based On</th>
<th>Addressed in GSA’s Transition Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government should specify the information required from the service providers</td>
<td>FTS2001</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>relative to transition progress as opposed to the method by which it is</td>
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<td>delivered. Further, how information is captured and presented by the service</td>
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<td>provider and GSA needs to be carefully documented for the agencies and the</td>
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<tr>
<td>agencies need to be flexible as to how they can manipulate and use this data.</td>
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<tr>
<td>The process used for monitoring the installation of new services was not done</td>
<td>FTS2001</td>
<td>Fully addressed</td>
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<tr>
<td>in a consistent manner; therefore, effective transition metrics should be</td>
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<td>established and agreed upon by all transition stakeholders prior to contract</td>
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<tr>
<td>award. Investigate ways to improve the timeliness of fair-opportunity decisions</td>
<td>Networx</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>Transition Planning—Engage agency CO in the beginning of the transition</td>
<td>Networx</td>
<td>Fully addressed</td>
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<tr>
<td>process. Suggest creating agency Tiger Teams (with key stakeholders) for</td>
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<td>appropriate dissemination of pertinent transition related information.</td>
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<tr>
<td>Transition Planning—Build lead/lag time into the transition plan to</td>
<td>Networx</td>
<td>Partially addressed</td>
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<tr>
<td>accommodate time for contract modifications.</td>
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<tr>
<td>Transition Planning—Capture Local Government Contact (LGC) information from</td>
<td>Networx</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>order to Service Order Completion Notice (SOCN) then to inventory.</td>
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<tr>
<td>Transition Managers—Transition Managers should be associated with AB Codes.</td>
<td>Networx</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>Transition Planning—Do not assume that a back-office transition will be</td>
<td>Networx</td>
<td>Not addressed</td>
</tr>
<tr>
<td>easier than change of provider. Many of the same transition elements still</td>
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<td>need to be coordinated with a back-office transition.</td>
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<tr>
<td>Ordering—Centralize ordering system process but decentralize ordering.</td>
<td>Networx</td>
<td>Fully addressed</td>
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<tr>
<td>VERIZON equipment replacement actions were unacceptable and took an excessive</td>
<td>Networx</td>
<td>Not addressed</td>
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<tr>
<td>amount of time. Vendors BOT process’ were not rapid, efficient and</td>
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<tr>
<td>non-service-affecting. Transition Planning—Agency COs should meet with GSA’s</td>
<td>Networx</td>
<td>Not addressed</td>
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<tr>
<td>program COs for and advice and scope determinations questions.</td>
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<tr>
<td>Categorize—Separate Wide Area Network (WAN) decision from other systems.</td>
<td>Networx</td>
<td>Not appropriate for the current</td>
</tr>
<tr>
<td>Categorize—Separate Trusted Internet Connections solution Fair Opportunities</td>
<td>Networx</td>
<td>transition</td>
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<tr>
<td>from Transition Fair Opportunity decisions.</td>
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<tr>
<td>RFI’s—Agency should conduct requests for information (RFI) when writing their</td>
<td>Networx</td>
<td>Fully addressed</td>
</tr>
<tr>
<td>SOW.</td>
<td></td>
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<tr>
<td>Prioritize—Complete decisions on definitized CLINS first before the other</td>
<td>Networx</td>
<td>Partially addressed</td>
</tr>
<tr>
<td>decisions needed for the Agency.</td>
<td></td>
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<tr>
<td>Agencies need a vendor-supplied website that will provide a physical address</td>
<td>Networx</td>
<td>Not addressed</td>
</tr>
<tr>
<td>for all data Networx services for validation of demark or service addresses.</td>
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<tr>
<td>Baseline Inventory—Agencies should continuously and regularly validate their</td>
<td>Networx</td>
<td>Fully addressed</td>
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<tr>
<td>inventory throughout the Networx contract-monthly if possible.</td>
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</tbody>
</table>

Source: GAO analysis of GSA documentation and data. | GAO-17-464.
Appendix III: Comments from General Services Administration

August 24, 2017

The Honorable Gene L. Dodaro
Comptroller General of the United States
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Dodaro:

The U.S. General Services Administration (GSA) appreciates the opportunity to review and comment on the draft report, "TELECOMMUNICATIONS: Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs" (GAO-17-464). Working with GAO through the audit and the report has been beneficial, and the feedback has helped GSA provide improved telecommunications solutions, particularly through the recently awarded Enterprise Infrastructure Solutions contracts.

The U.S. Government Accountability Office (GAO) recommends that the Administrator of General Services disseminate the 18 agency-focused lessons learned that have not been fully incorporated in GSA guidance to the agencies involved in the current transition. We agree with the findings and the recommendation, and we will take appropriate action. GSA is committed to disseminating and providing guidance on the agency-focused lessons learned, as well as addressing all 96 of the lessons learned, as appropriate, throughout the transition program.

Specific action being taken in response to the recommendation is enclosed. We are confident this action will satisfactorily remedy the concerns raised by GAO.

We have one substantive comment to the draft report:

- Page 12, third full paragraph: GAO refers to the five recommendations from GAO-14-63. GSA believes the agency has now fully implemented the fifth recommendation and requests that GAO consider confirmation of that in the final report.
Technical comments that update and clarify statements in the draft report are included in the enclosed document.

If you have any questions or concerns, please contact me, or P. Brennan Hart III, Associate Administrator, Office of Congressional and Intergovernmental Affairs, at (202) 501-0563.

Sincerely,

[Signature]

Timothy O. Horne
Acting Administrator

Enclosures

cc: Carol C. Harris, Director, Information Technology, Acquisition Management Issues
U.S. General Services Administration
Actions Planned to Address the Recommendation in the
GAO Draft Report, TELECOMMUNICATIONS: Agencies Need to Apply
Transition Planning Practices to Reduce Potential Delays and Added Costs
(GAO-17-464)

Recommendation
The Administrator of General Services should disseminate the 16 agency-focused
lessons learned that have not been fully incorporated in GSA guidance to the agencies
involved in the current transition.

Action
GSA is revising the Transition Handbook to address the following:

- Fully address the 16 remaining transition-appropriate, agency-focused lessons
  learned, and
- Include the full list of all 35 lessons learned.

This Transition Handbook will be disseminated to agencies and released publicly.

As an immediate solution, on August, 7, 2017, GSA posted the full list of all 96 lessons
U.S. Department of Labor

AUG 2 2 2017

Ms. Carol C. Harris
Director, Information Technology
Acquisition Management Issues
Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Ms. Harris:

Thank you for the opportunity to review and comment on draft report GAO-17-464 Telecommunications: Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs. We appreciate the Government Accountability Office’s (GAO) efforts and insights.

The Department of Labor (DOL) agrees with the report’s five recommendations and looks forward to successfully completing this project in collaboration with the General Services Administration.

I would like to take this opportunity to clarify a statement on page 21 of the draft report. With regard to the Department’s plans to develop policy or procedures governing how components should maintain an inventory of telecommunications assets, we intend to have in place a documented inventory process prior to services being awarded (via task orders) under Enterprise Infrastructure Solutions. Though we provided statements to that effect during the engagement, we failed to clarify this issue in the Statement of Facts prior to the release of the draft report. We would be happy to discuss further if additional information is needed.

Should you have any questions regarding the Department’s response, please have your staff contact Gundeep Ahluwalia, Chief Information Officer, at (202) 693-4200.

Sincerely,

Edward C. Hugger
Acting Assistant Secretary for
Administration and Management
Appendix V: Comments from the Securities and Exchange Commission

August 21, 2017

Ms. Carol C. Harris
Director, Information Technology
Acquisition Management Issues
United States Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Harris:

Thank you for the opportunity to review and comment on the Government Accountability Office's (GAO) draft report related to preparedness for the General Services Administration’s (GSA) Enterprise Infrastructure Solutions (EIS) contract. Because the SEC like many other agencies relies on existing GSA telecommunications contracts for core communications infrastructure services, we understand the importance of planning for a smooth transition when the current GSA contracts expire in 2020 and are succeeded by the EIS contract.

To plan for this transition, in FY16, the SEC’s Office of Information Technology (OIT) established a cross-functional team to be responsible for managing the SEC’s migration of services to those offered by EIS. To date, OIT has authored an EIS transition plan and executed an Interagency Agreement with GSA to assist in preparing for EIS network services. We are also pleased that the GAO found that the SEC had fully or partially implemented best practices previously identified by GAO as key to successful telecommunication transition in the areas of structured transition management approach, transition plans, and telecommunications inventory practices.

The report provides four recommendations (below) for management action. We concur and plan to take the following actions to implement the recommendations.

- **Recommendation 12**: Identify the agency’s future telecommunications needs, areas for optimization, and the costs and benefits of new technology; complete a strategic analysis of the agency’s telecommunications requirements and incorporate the requirements into transition planning.

  **Response**: The SEC will ensure that all agency business requirements are accurately reflected and accounted for in its telecommunications plans. Further, the SEC will ensure that new technologies are appropriately researched and considered in future telecommunications architecture planning.

- **Recommendation 13**: Identify roles and responsibilities related to the management of assets and human capital and legal expertise for the transition; include key local and regional officials in its transition communications plan; and use configuration and change management processes in its transition.

  **Response**: The SEC will enlist all appropriate staff members, including contractors, to ensure that the Commission’s transition to EIS is fully documented, coordinated and managed according to accepted project management and configuration management practices.
Recommendation 14: Identify the resources needed for the full transition, justify requests for transition resources, identify staff resources needed for the full transition, and analyze training needs for the staff assisting with the transition.

Response: The SEC has identified the issues, timelines and consequences attached to the transition from Networx to EIS, and will ensure all appropriate resources are applied to this transition process.

Recommendation 15: Demonstrate that the Commission’s transition goals and measures align with its mission, identify transition risks related to critical systems and continuity of operations, and identify mission-critical priorities in its transition timeline.

Response: The SEC will ensure that the goals of the Networx to EIS transition are fully aligned with the SEC’s mission and business requirements. Additionally, the SEC will ensure that all related managerial procedures, including risk management, CONOPS, and priority business requirements are applied to the EIS transition.

With the GSA’s August 1, 2017 award of the EIS contract, the SEC now has sufficiently detailed pricing and offering information to move to the next phase of our transition planning efforts.

Thank you again for your work in this area. If you have any questions, or you would like to discuss this response in more detail, please contact me at (202) 551-7095.

Sincerely,

Pamela C. Dyson
Chief Information Officer
Appendix VI: Comments from the Social Security Administration

August 22, 2017

Ms. Carol C. Harris
Director, Information Technology Acquisition Management Issues
United States Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Harris:

Thank you for the opportunity to review the draft report, “Telecommunications: Agencies Need to Apply Transition Planning Practices to Reduce Potential Delays and Added Costs” (GAO-17-464). Please see our enclosed comments.

If you have any questions, please contact Gary S. Hatcher, Senior Advisor for the Audit Liaison Staff, at (410) 965-0680.

Sincerely,

Stephanie Hall
Acting Deputy Chief of Staff

Enclosure
Appendix VI: Comments from the Social Security Administration

COMMENTS ON THE GOVERNMENT ACCOUNTABILITY OFFICE DRAFT REPORT, “TELECOMMUNICATIONS: AGENCIES NEED TO APPLY TRANSITION PLANNING PRACTICES TO REDUCE POTENTIAL DELAYS AND ADDED COSTS” (GAO-17-464)

GAO Recommendations:

The Commissioner of the Social Security Administration should ensure that the Administration’s Chief Information Officer:

Recommendation 1

Verifies the completeness of its inventory of current telecommunications assets and services and establish a process for ongoing maintenance of the inventory regarding services other than local and long-distance telecommunications.

Response

We disagree. During the course of the review, we provided the requested documentation between our agency and the General Services Administration (GSA). We believe the documentation provided demonstrates our collaboration with GSA and supports our attestation that our inventory was valid and complete. We also included the complete inventory in our Agency Transition Plan, which we provided to GSA in the fall of 2016. In addition, in April 2017, we provided the supporting document, “Data Reconciliation Plan”, which outlines our process for reconciling and maintaining all services procured through GSA contract vehicles.

We believe all the documentation previously provided supports a score of “fully implemented.”

Recommendation 2

Completes identification of the agency’s future telecommunications needs, the costs and benefits of new technology, and align its approach with the agency’s enterprise architecture.

Response

We agree. The Enterprise Infrastructure Solution (EIS) is a key part of the multi-channel customer service model that enables the public to interact with us in many different ways. We intend to interact with our customers through their preferred communication channel. Our approach to the future supports all types of customers, as we believe over time, customer behavior will change towards the digital channels and away from phones. Our Next Generation Telephony Project initiative provides us the immediate ability to meet telephone demand in the near term while providing the flexibility to shift our approach as customers migrate to more digital interactions and self-service.
Appendix VI: Comments from the Social Security Administration

We will not dismiss the fact that we have existing inventory that we need to maintain during our transition. We plan to include our existing inventory in with our solicitations for bid in order to accommodate any current service in operation today to support our customers.

In addition, to provide a more accurate cost-benefit analysis moving forward, we will conduct future analysis of new technologies and alternatives once we have a firm, fixed-priced service catalog from a winning contractor bid in place.

Finally, we recently briefed our internal Architecture Review Board on a major project, Video Service Delivery, one of the main consumers of our bandwidth expansion projects within our EIS Transition Program.

**Recommendation 3**

Identifies the legal expertise needed for the transition, and use configuration and change management processes in its transition.

**Response**

We disagree. We identified legal expertise early in the transition planning stage and they have assisted in early discussions and planning. During this review, to document our efforts, we provided the Agency Transition Plan that we released to GSA. The plan contains the roles and responsibilities of over 45 program team members, including an attorney from our Office of the General Counsel.

In addition, we require project management disciplines for all projects from our internal Information Technology Investment Process. The Quantum Leap initiative requires the adherence to PRIDE (Project Resource Guide), which by definition contains the requirements for change management and configuration management. The Quantum Leap initiative is the first and largest part of our transition; therefore, is the default authority requiring these practices. We provided all the authoritative sourcing and supporting documentation in January 2017.

We believe all the documentation previously provided supports a score of “fully implemented.”

**Recommendation 4**

Identifies the resources needed for the full transition, document the costs and benefits of transition investments, identify staff resources needed for the remainder of the transition, and analyze training needs for all staff working on the transition.

**Response**

We agree. However, our transition management team performs similar duties in other projects and operational activities across other parts of our telecommunications division, and providing a cost benefit justification for these same resources for this program alone would prove extremely difficult. In addition, most of our staff assigned to the transition already have the required certifications and no further training is immediately necessary.
Recommendation 5

Identifies measures of success for the transition, identify transition risks related to critical systems and continuity of operations, and identify mission-critical priorities in its transition timeline.

Response

We partially agree.

We agree to use several critical milestones as a baseline to monitor, track, and report performance to produce measurable results. In addition, we have a very detailed chart with over 530 preparation tasks for our EIS Transition Program. In our solicitations, we will require a transition plan detailing the tasks, resources, durations, etc., to transition every site throughout the program.

We disagree with the need to identify transition risks related to critical systems and continuity of operations. The risk assessments in our Agency Transition Plan document details our consideration of the continuity of operations. To mitigate the risk we implemented a dual carrier strategy that decreases the risk of total connectivity loss of mission-critical systems at any of our sites.
# Appendix VII: GAO Contact and Staff Acknowledgments

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<tr>
<th><strong>GAO Contact</strong></th>
<th>Carol C. Harris, (202) 512-4456 or <a href="mailto:harriscc@gao.gov">harriscc@gao.gov</a></th>
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<th><strong>Staff Acknowledgments</strong></th>
<th>In addition to the contact named above, James R. Sweetman, Jr., (Assistant Director), Kendrick Johnson (Analyst in Charge), Mathew Bader, Paris Hawkins, Sukhjoot Singh, and Priscilla Smith made key contributions to this report.</th>
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