



April 19, 2021

MEMORANDUM FOR: Stephen Kunze
Deputy Chief Financial Officer and Director for Financial
Management, Office of Financial Management
U.S. Department of Commerce

FROM: Frederick J. Meny, Jr.
Assistant Inspector General for Audit and Evaluation

SUBJECT: *Management Alert: BAS Program's Focus on Technology May Overlook
Risks Related to Business Processes*
Final Memorandum No. OIG-21-023-M

Attached is a management alert on the Business Applications Solution (BAS) program's approach to business process reengineering, which requires immediate attention, given that the program is in a crucial design phase of the overall effort. The BAS program seeks to modernize the U.S. Department of Commerce's (the Department's) legacy financial applications and processes by acquiring commercial off-the-shelf software supported by cloud-based infrastructure. In April 2020, the Department awarded a contract to Accenture Federal Services worth approximately \$341 million for fiscal years 2020 through 2040 for services in designing, implementing, migrating, and maintaining a BAS system under a Software-as-a-Service model.

The objective of our ongoing audit is to assess the Department's management and implementation of the BAS program.¹ We are conducting this audit because the BAS program is linked to a Department strategic objective² and there are challenges inherent to a large modernization effort.

During our fieldwork, we observed that the BAS program lacks plans for business process reengineering and its ongoing process change efforts are not consistent with best practices. These conditions present risk that financial management processes may not be adequately

¹ See U.S. Department of Commerce Office of Inspector General, November 12, 2020. *Audit of the Business Applications Solution Program, #2021-390*. Washington, DC: DOC OIG. Available at <https://www.oig.doc.gov/OIGPublications/Audit-of-the-Business-Applications-Solution-Program.pdf> (accessed March 24, 2021).

² U.S. Department of Commerce. *2018–2022 Strategic Plan: Helping The American Economy Grow*. Washington, DC: DOC, 25–28. Available at https://www.commerce.gov/sites/default/files/us_department_of_commerce_2018-2022_strategic_plan.pdf (accessed February 8, 2021). Strategic Objective 5.2: Accelerate Information Technology Modernization.

supported by the new BAS system, which could ultimately lead to schedule delays and cost increases. This approach may also miss an opportunity to fundamentally improve how the Department conducts its financial business.

Consistent with the Inspector General Act of 1978, as amended (IG Act),³ we are notifying the Department's leadership of the potential risks that could affect the Department and its bureaus.

We are not requesting a formal response to this management alert, as the key issues discussed in it were briefed to cognizant Department officials in advance of issuance. This management alert will be posted to our public website.

We plan to include information from this management alert in an audit report to be issued at a later date. The planned subsequent report will comment on the actions taken by your office to address the issues identified here, and a final version of that report will be posted in accordance with sections 4 and 8M of the IG Act.

If you have any questions or concerns about this management alert, please contact me at (202) 482-1931 or Kevin Ryan, Director for Audit and Evaluation, at (202) 695-0791.

Attachment

cc: MaryAnn Mausser, Audit Liaison, Office of the Secretary
Albert Moesle, Director of Enterprise Risk Management and Deputy Chief Risk Officer,
Office of the Secretary
Rehana Mwalimu, Risk Management Officer and Primary Alternate Department GAO/OIG
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Lindsay Hochberg, Program Analyst and BAS Project Manager, Office of Financial
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³ The IG Act establishes that offices of inspectors general will “provide a means for keeping the head of the establishment and the Congress fully and currently informed about problems and deficiencies relating to the administration of such programs and operations and the necessity for and progress of corrective action[.]” 5 U.S.C. App., § 2(3).



Management Alert

BAS Program's Focus on Technology May Overlook Risks Related to Business Processes

April 19, 2021

Final Memorandum No. OIG-21-023-M

Key Issue(s)

The Business Applications Solution (BAS) program lacks a business process reengineering plan and its process change efforts are not consistent with best practices for federal agencies.

Proposed Action(s) for Change

To ensure the U.S. Department of Commerce's (the Department's) ongoing BAS program efforts are most effective, the program should develop a BAS business process reengineering plan and align process change efforts with best practices.

Background

Program Information

The BAS program is modernizing the Department's legacy financial systems and processes by acquiring a new system containing financial software, an enterprise data warehouse (EDW), and a business intelligence reporting capability. This new Department-wide system, which will be cloud-based and supported under a Software-as-a-Service model, will replace disparate, bureau-level information technology (IT) infrastructure, data, software, and reporting systems. The program is a top priority IT investment and its business case links to Strategic Objective 5.2, "Accelerate Information Technology Modernization" in the Department's *2018–2022 Strategic Plan: Helping The American Economy Grow*.⁴

On April 24, 2020, the Department awarded a firm, fixed-price contract to Accenture Federal Services (Accenture) for the BAS system and related services worth about \$341 million through fiscal year (FY) 2040. Through this contract, the Department will acquire licensing and hosting services for the BAS system's three new software applications: (1) Oracle Electronic Business Suite for financial management, (2) Procurement Request Information System Management for acquisition management, and (3) Sunflower for property management. BAS will also consolidate and incorporate Department-wide administrative data into EDW and business intelligence systems to provide an enterprise-wide reporting solution for the entire agency.

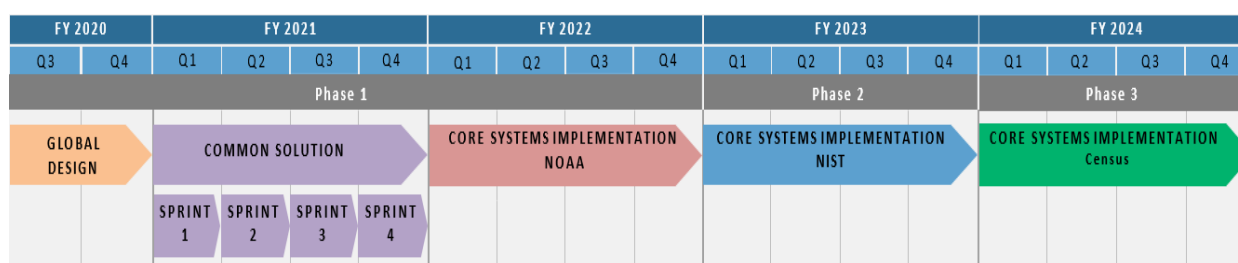
⁴ U.S. Department of Commerce. *2018–2022 Strategic Plan: Helping The American Economy Grow*. Washington, DC: DOC, 25–28. Available at https://www.commerce.gov/sites/default/files/us_department_of_commerce_2018-2022_strategic_plan.pdf (accessed February 8, 2021).

In addition, Accenture is providing services in business process analysis, reengineering, and design to assist the BAS program in its process change efforts. The Department is requiring each bureau to adopt standardized business processes that leverage the BAS applications. The program intends to reengineer processes when necessary to avoid customizing these applications.

The BAS system's design, implementation, and migration will happen across three phases. Each phase will migrate BAS to one of the three main finance bureaus and their respective client bureaus.⁵ During each of these three phases, the program will configure the BAS system to any remaining, bureau-specific requirements. Figure I depicts the phases of the program from FY 2020 to FY 2024.

Currently, the program is undertaking a sub-activity of Phase I to design the "common solution."⁶

Figure I. BAS Program Three Phases from FY 2020 to FY 2024



Source: OIG adaptation of BAS program documentation

To complete its design of the common solution, the program is utilizing an Agile methodology to examine existing processes through working group meetings with stakeholders across four sprints.⁷ In each sprint, the program meets with stakeholders and collects their input on processes that inform configurations of BAS applications. Then the program analyzes an application's ability to produce needed business outcomes and collects additional data from stakeholders. At the end of the sprint, the program conducts validation sessions to obtain commitment from stakeholders on how well the application fulfills business outcomes.

⁵ All Department bureaus are included within the scope of this modernization effort, except for the United States Patent and Trademark Office (USPTO). USPTO is not included in the system scope of BAS, but will be included in the scope of the EDW. The Department's three finance bureaus are National Oceanic and Atmosphere Administration (NOAA), National Institute for Standards and Technology (NIST), and U.S. Census Bureau. NOAA's client bureaus are Bureau of Industry and Security and Economic Development Administration. NIST's clients are National Telecommunications and Information Administration, Office of the Secretary, International Trade Administration, First Responder Network Authority, Office of Inspector General, National Technical Information Service, Bureau of Economic Analysis, Economics and Statistics Administration, and Minority Business Development Agency. U.S. Census Bureau does not support any clients.

⁶ The program will leverage this common solution system design and transition NOAA and its client bureaus to the new system by the end of Phase I in October 2022. The program will transition NIST and its clients in Phase 2, ending October 2023, and transition the U.S. Census Bureau in Phase 3, ending in October 2024.

⁷ In Agile, a program accomplishes work—planned in advance and prioritized by customer feedback—within a predefined, time boxed, and recurring period or sprint. During common solution, the BAS program's sprints for core applications are 3-month periods.

Best Practices for Business Process Reengineering

Two key practices in business process reengineering include (1) developing a business process reengineering plan and (2) leveraging a proven process improvement methodology.⁸ These two foundational practices are particularly relevant to the BAS program given that it is early in the process reengineering lifecycle.

Our Observations to Date

During our fieldwork, we reviewed BAS program documents, interviewed Department and program officials and stakeholders, and observed BAS working groups, including a requirements gathering session. We found that the BAS program has not developed plans for business process reengineering and the process change efforts underway are not consistent with federal best practices.

I. Program Lacks Plans for Business Process Reengineering

Business process reengineering (BPR) is a method for redesigning how organizations do work to better support the mission and reduce costs.⁹ Best practice calls for agencies to develop a BPR plan to outline key reengineering activities and timelines and establish a common understanding among stakeholders of the BPR's scope.¹⁰ Without defined plans and key reengineering project details, the program may not apply the necessary discipline to sufficiently reengineer business processes.

Program officials told us they expect to conduct BPR activities after the completion of the common solution design as the program implements the BAS system at finance bureaus (see figure 1). However, the program does not currently have a BPR plan. Program officials expect Accenture to develop and deliver plans related to BPR within its organizational change management (OCM) plan. We determined, however, that the program's draft OCM plan does not contain key elements of a BPR plan, such as methodology, tasks, and deliverables for identifying existing processes and analyzing potential alternatives. When we pointed this out, program officials told us that an update to the OCM plan would include BPR plans.

II. Program's Ongoing Process Change Efforts Are Not Consistent with Best Practices

We determined that the BAS program has not documented existing financial management processes and its ongoing change efforts are not leveraging a proven process improvement methodology, including documenting existing processes and conducting process analysis to identify alternatives ahead of acquiring supporting IT.

⁸ U.S. Government Accountability Office, May 1997. *Business Process Reengineering Assessment Guide*, AIMD-10.1.15 (Version 3). Washington, DC: GAO. Available at <https://www.gao.gov/products/aimd-10.1.15> (accessed April 14, 2021), p. 18-19, 38, and 40-46. The U.S. Government Accountability Office's *Business Process Reengineering Assessment Guide (BPR Guide)* establishes a framework of best practices for agencies electing to plan and select, reengineer, and implement new or redesigned business processes.

⁹ *Ibid*, p. 5.

¹⁰ *Ibid*, p. 38.

A. *BAS program has not documented existing financial management processes*

The BAS program does not have or plan to create documentation of the Department's existing financial management processes. The program identified 10 processes affected by its systems modernization and, during common solution design, is conducting working group meetings with stakeholders to understand how well the three BAS applications can support existing business outcomes.

Program officials stated that they were confident that their numerous, involved, and vocal stakeholders would describe existing processes and business outcomes in sufficient detail and identify potential gaps in their needs during the common solution design working groups. In addition, the program's requirements traceability matrix contains 1,684 functional requirements and, as of January 2021, program officials stated that the BAS system would meet 99.5 percent—all but about 9 of the 1,684 requirements—without customizing the new applications.¹¹

Program officials also stated that instead of documenting existing processes, the program's resources were better spent on configuring BAS applications to provide the same business outcomes and training staff to use them.

However, documenting existing processes with appropriate details early in a reengineering project is a significant factor for success when an agency implements new or reengineered business processes.¹² Best practices require at least a high-level mapping of affected processes to obtain a common understanding, among program staff and its stakeholders, of how the Department conducts financial business. The lack of such documentation means that the program may not fully understand affected processes, identify baseline performance data for processes, and manage potential impacts of changed processes, including impacts to processes not within program scope.

For example, the program has excluded most budgeting activities (except budget execution) from its scope, and plans to import budget data into Oracle from various software programs across the current budget formulation process. Without sufficiently documenting existing financial management processes, the program risks adding inefficiencies to bureaus' budget planning and execution activities. During our fieldwork, some line-office stakeholders expressed concern with the program's lack of attention to budget planning activities thus far.

Until the program documents existing financial management processes with appropriate details, it will remain uncertain about the steps within a process that should be considered in common solution design's discussion workshops. Further, the program will be unable to identify the process performance baseline from which the program could measure both process and program-wide performance improvements. As such, the program may learn too late that additional process steps or performance outcomes are critical. Ultimately, this could lead to schedule delays and cost increases stemming from the need to adjust plans and program scope.

¹¹ BAS defined its users' business needs in its functional requirements traceability matrix. The BAS system must fulfill each functional requirement through a combination of methods, such as configuring the applications and implementing new or reengineered business processes.

¹² U.S. Government Accountability Office, *BPR Guide*, p. 18.

B. BAS program is focused on replicating business outcomes rather than optimizing business processes

Program officials told us their goal is to replace, rather than reengineer, existing processes with new ones, based on the acquired applications' available configurations, in order to achieve the same process outcomes. Specifically, program officials said they did not believe there was value in spending resources and time on documenting, analyzing, and redesigning existing processes. Instead, they would spend these resources on executing the OCM plan and training staff.

However, "acquiring technology in the belief that its mere presence will somehow lead to process innovation is a root cause of bad investments in information systems."¹³ By allowing IT to drive change without analyzing and reengineering processes in advance, the program risks wasting resources and automating inherently inefficient processes. This approach may also miss an opportunity to fundamentally improve how the Department conducts its financial business.

Instead of developing alternatives from an analysis of existing processes, the BAS program is deriving new processes from the features and configurations of the newly procured applications to meet stakeholders' existing business outcomes. However, this software-first approach is likely to force bureaus to change their processes within the limits imposed by the delivered system, rather than an approach that optimizes process alternatives—independent of technology—to be more efficient or effective.

Our Future Work

The concerns presented in this memorandum and any action taken by the Department as a result of this management alert will be considered in our ongoing audit of the Department-wide BAS program.

We are not requesting a formal response to this management alert, as the key issues discussed in it were briefed to cognizant Department officials in advance of issuance. This management alert will be posted to our public website.

¹³ *Ibid*, p. 9.