

**DHS Confirmed It Has Applied  
Lessons Learned in the Latest  
Financial System  
Modernization Effort**





# DHS OIG HIGHLIGHTS

## *DHS Confirmed It Has Applied Lessons Learned in the Latest Financial System Modernization Effort*

December 19, 2019

### Why We Did This Review

The Department of Homeland Security has undertaken several efforts to modernize its outdated legacy financial management systems. We performed this evaluation to determine whether the Department identified lessons learned from prior modernization projects and applied them to current efforts.

### What We Recommend

No recommendations are included because we did not identify any deficiencies related to this evaluation.

#### **For Further Information:**

Contact our Office of Public Affairs at (202) 981-6000, or email us at [DHS-OIG.OfficePublicAffairs@oig.dhs.gov](mailto:DHS-OIG.OfficePublicAffairs@oig.dhs.gov)

### What We Found

DHS has sought to update its financial systems since its inception. During the past 16 years, DHS has made three major attempts, but did not modernize and consolidate its financial systems. In 2017, DHS initiated its fourth attempt, the Financial Systems Modernization (FSM) TRIO program, to address the incompatible processes and antiquated financial management systems in use department-wide. The ultimate goal of this program is to improve the quality of financial information to support decision-making and improve the ability to provide timely and accurate reporting to ensure efficient stewardship of taxpayer dollars.

In accordance with DHS guidance, the Department developed a strategy to apply lessons learned from prior system updates to its current FSM TRIO effort. According to DHS, the program office has successfully identified 29 lessons from prior modernization efforts and has begun applying them to the FSM TRIO program. DHS' awareness of the importance of identifying and applying lessons learned provides some assurance and a positive outlook for continued future progress of the FSM TRIO project since there was no known strategy to apply lessons learned in earlier attempts. Leveraging successful practices from prior efforts, and avoiding past failures, may help DHS use its resources wisely, mitigate risks, and achieve its goals for FSM TRIO.

### Agency Response

There were no recommendations made in this report. The departmental response is included in appendix A.



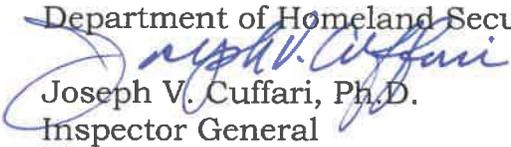
## OFFICE OF INSPECTOR GENERAL

Department of Homeland Security

Washington, DC 20528 / [www.oig.dhs.gov](http://www.oig.dhs.gov)

December 19, 2019

MEMORANDUM FOR: The Honorable Randolph D. Alles  
Acting Under Secretary for Management  
Department of Homeland Security

FROM:   
Joseph V. Cuffari, Ph.D.  
Inspector General

SUBJECT: *DHS Confirmed It Has Applied Lessons Learned  
in the Latest Financial System Modernization Effort*

Attached for your information is our final report, *DHS Confirmed It Has Applied Lessons Learned in the Latest Financial System Modernization Effort*. We incorporated the formal technical comments from the DHS Departmental GAO-OIG Liaison Office in this final report. No recommendations were made.

Consistent with our responsibility under the *Inspector General Act*, we will provide copies of our report to congressional committees with oversight and appropriation responsibility over the Department of Homeland Security. We will post the report on our website for public dissemination.

Please call me with any questions, or your staff may contact Sondra McCauley, Assistant Inspector General for Audits, at (202) 981-6000.



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### Background

The Department of Homeland Security has a critical need to modernize its financial management systems. In 2002, when DHS was first established, more than a dozen separate financial systems existed across its components, operating under disparate policies and business processes. These systems used outdated technology, were mostly non-integrated, and did not fully support DHS' goals of enhanced efficiency and security.

DHS initiated the Financial Systems Modernization (FSM) TRIO<sup>1</sup> program in July 2017 to strengthen access to, and quality of, financial information that supports decision making and improves timeliness and accuracy of reporting. The FSM initiative aims to eliminate the effects of incompatible processes and antiquated financial management systems. The FSM program is focused on efforts to modernize the financial systems of three DHS components — the Domestic Nuclear Detection Office (DNDO), Transportation Security Administration (TSA), and the United States Coast Guard (Coast Guard).

According to a September 26, 2017 hearing of the United States House of Representatives, Subcommittee on Oversight and Management Efficiency,<sup>2</sup> DHS has previously conducted three major attempts to modernize and integrate its components' financial, asset, and acquisition management systems. These include (1) the Electronically Managing Enterprise Resources for Government Effectiveness (eMerge<sup>2</sup>), (2) the Transformation and System Consolidation (TASC), and (3) the Interior Business Center (IBC) FSM program.

- 1) Fiscal Years 2004–2006: DHS contracted with Bearing Point, Inc. and spent roughly \$52 million on eMerge<sup>2</sup>. DHS began working on eMerge<sup>2</sup> in January 2004 to integrate department-wide financial management systems while addressing financial management weaknesses. eMerge<sup>2</sup> was expected to establish the strategic direction for migration, modernization, and integration of DHS financial, accounting, procurement, personnel, asset management, and travel systems processes and policies. In December 2005, the Bearing Point contract to acquire and implement eMerge<sup>2</sup> expired. According to former Deputy Under Secretary of Management Chip Fulghum, DHS halted eMerge<sup>2</sup> when Bearing Point did not build the necessary integration among various commercial software products.

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<sup>1</sup> The TRIO (not an acronym) FSM program was established on July 18, 2017.

<sup>2</sup> Chip Fulghum, former Deputy Under Secretary for Management, U.S. Department of Homeland Security, *DHS Financial Systems: Will Modernization Ever Be Achieved*, United States of House of Representative Committee on Homeland Security Subcommittee on Oversight and Management Efficiency, September 26, 2017.



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- 2) FYs 2007–2011: In June 2007, DHS announced its new financial management systems strategy, TASC. TASC was a DHS-wide initiative to modernize, transform, and integrate financial, acquisition, and asset management capabilities of DHS components into a commercial, off-the-shelf software package already configured and operating in the public sector. In June 2011, DHS recognized the Department’s requirements had changed and canceled the program. DHS spent about \$4.2 million on the TASC initiative.
- 3) FYs 2014–2017: On August 26, 2014, DHS and the U.S. Department of the Interior’s (DOI) Interior Business Center (IBC) signed an interagency agreement to provide DHS financial system implementation support to three DHS components — DNDO, TSA, and the Coast Guard. IBC’s project, known as TRIO, was to implement a shared services solution enabling components to perform financial, procurement, and asset management activities. In 2016, a TRIO pilot was successfully implemented for DNDO. However, DHS later determined DOI could not deliver a viable financial management solution that met DHS’ requirements.
- 4) FY 2017 to present: The IBC TRIO program was migrated in 2017 from DOI to the DHS data center and DHS resumed its efforts to modernize DNDO, TSA, and Coast Guard financial systems. Specifically, in September 2017, DHS developed a strategy to apply lessons learned from prior financial system management attempts to the new FSM TRIO program. According to the August 2018 FSM Joint Program Management Office (JPMO)<sup>3</sup> newsletter, DOI successfully transitioned the TRIO program from IBC to the DHS data center. The program was implemented in the DHS data center on August 22, 2018, allowing DHS financial and procurement users to process transactions.

DHS has spent millions of dollars on efforts to modernize its financial management systems that often resulted in delayed deliverables, and did not provide anticipated system functionality when implemented. Several Government Accountability Office (GAO) and DHS audit reports highlight DHS’ challenges to modernize its financial management systems. Figure 1 summarizes the findings from those reports.

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<sup>3</sup> The FSM JPMO was established to manage, from a portfolio perspective, all FSM programs across DHS. The FMS JPMO is responsible for governance and successful execution, maintenance scheduling, and risk management for all DHS FSM programs and projects. FSM JPMO functions include information technology (IT) management, business transformation, portfolio management, acquisition and program management, and financial management. Individual FSM initiatives and designated investment programs will be implemented at the program level by the FSM JPMO, in close collaboration with DHS components pursuing a FSM project or program.



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**Figure 1: Summary of Prior Reports on DHS’ Efforts to Modernize Its Financial Systems**

<b>Report Date</b>	<b>Report Title</b>	<b>Findings</b>
June 2007	<i>HOMELAND SECURITY: Department-wide Integrated Financial Management Systems Remain a Challenge, GAO-07-536</i>	DHS had not defined a department-wide financial management strategy nor embraced best practices to foster systems development, including key human capital practices.
May 2008	<i>Letter Report: Review of DHS’ Financial Systems Consolidation Project, OIG-08-47</i>	DHS had not conducted an analysis of possible service providers in the Federal Government, including Office of Management and Budget centers of excellence, to determine if any of these systems could meet DHS’ financial management needs. In addition, DHS needed to improve its change control process.
December 2009	<i>FINANCIAL MANAGEMENT SYSTEMS: DHS Faces Challenges to Successfully Consolidating Its Existing Disparate Systems, GAO-10-76</i>	DHS had increased levels of risk when it relied on contractors to define and implement the new system and did not ensure contractors hired to perform the verification and validation function were independent.
July 2010	<i>DHS Needs to Address Challenges to Its Financial Systems Consolidation Initiative, OIG-10-95 (revised)</i>	DHS did not: (1) have approved planning documents, (2) include all project costs in the total lifecycle cost estimates, (3) finalize staffing projections, or (4) fully involve the Office of the Chief Information Officer (OCIO) in the overall initiative, increasing the risk the DHS Enterprise Architecture and security requirements would not be incorporated into the new system.
September 2013	<i>DHS FINANCIAL MANAGEMENT: Additional Efforts Needed to Resolve Deficiencies in Internal Controls and Financial Management Systems, GAO-13-561</i>	When deploying component-level integrated financial management systems, DHS had not developed (1) a description of its future financial management system environment (target state), (2) a description of how components would transition to the target state (transition plan), (3) procedures for validating the completion of and updating the milestones dates for activities reflected in its integrated master schedule, or (4) procedures for addressing key elements of a lessons learned process.
September 2017	<i>DHS FINANCIAL MANAGEMENT: Better Use of Best Practices Could Help Manage System Modernization Project Risks, GAO-17-799</i>	DHS did not follow best practices when conducting the analysis of alternatives (AOA) process and managing project risks.

Source: DHS Office of Inspector General (OIG)

DHS’ financial management systems efforts have also been the subject of repeated legal proceedings before the U.S. Court of Federal Claims and the Court of Appeals for the Federal Circuit. For example, according to DHS’ congressional testimony of September 2017, DHS’ interagency agreement



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process with the DOI was challenged in a bid protest.<sup>4</sup> However, in 2015, DHS prevailed in that litigation, as well as on appeal in 2016.<sup>5</sup>

According to a JPMO official, DHS FSM initiatives are managed by the JPMO, within the DHS Office of the Chief Financial Officer (OCFO). The JPMO is staffed with DHS headquarters and component subject matter experts who work together to better identify and mitigate risk with risk mitigation plans, increase component integration, and support business process standardization department-wide. Figure 2 shows the FSM JPMO leadership structure.

**Figure 2: DHS FSM JPMO Leadership (partial)**



Source: OIG-generated based on DHS FSM Program Manager data

The JPMO was established to manage, from a portfolio perspective, all FSM programs across DHS. The JPMO oversees the development and implementation of FSM programs across the Department and provides subject matter expertise, policy guidance, risk management, and logistics support.

We performed this evaluation to determine whether the Department identified lessons learned from prior modernization projects and applied them to the current FSM TRIO effort.

<sup>4</sup> Chip Fulghum, former Deputy Under Secretary for Management, U.S. Department of Homeland Security, *DHS Financial Systems: Will Modernization Ever Be Achieved*, United States of House of Representative Committee on Homeland Security Subcommittee on Oversight and Management Efficiency, September 26, 2017.

<sup>5</sup> See *Savantage Financial Services, Inc. v. United States*, 123 Fed. Cl. 7 (Aug. 28, 2015), *aff'd*, 668 Fed. Appx. 366 (Aug. 16, 2016).



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**Results of Audit**

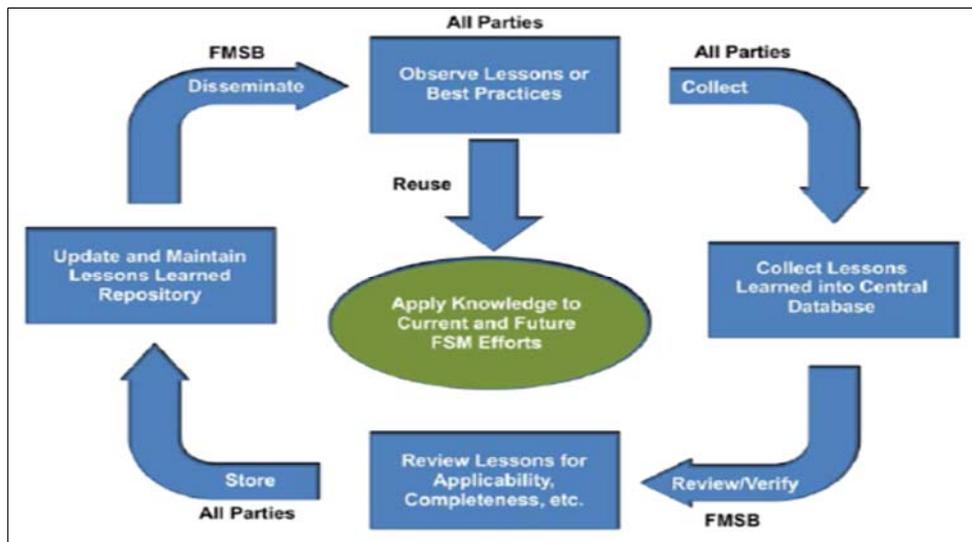
**DHS Identified Lessons Learned from Prior Modernization Initiatives**

DHS has taken action to identify lessons from prior FSM initiatives to help guide its current modernization effort. According to the *DHS Systems Engineering Life Cycle Guidebook*,<sup>6</sup> the process for incorporating lessons learned in a system initiative includes the following steps:

- identifying lessons learned,
- providing recommendations based on lessons learned,
- agreeing on the appropriate process improvements, and
- applying the process improvements to future programs.

The *DHS Life Cycle Guidebook* requires specific actions designed to improve DHS’ program success rates and remove or revise non-value added activities. Figure 3 shows the decision-making process JPMO used to implement FSM TRIO.

**Figure 3: DHS FSM JPMO Decision Process**



Source: *FSM Lessons Learned Standard Operating Procedure*, June 25, 2013

After the Financial Systems Modernization Solution (FSMS) completed migration in 2018 from DOI to the DHS data center, DHS resumed its efforts to

<sup>6</sup> *DHS Guidebook, 102-01-103-01, Systems Engineering Life Cycle Guidebook April 18, 2016*



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modernize DNDO, TSA, and Coast Guard financial systems. Specifically, in September 2017, DHS developed a strategy to apply lessons learned from prior financial system modernization attempts to the new FSM TRIO program. Accordingly, during the September 26, 2017 hearing before the House Subcommittee on Oversight and Management Efficiency, former Deputy Under Secretary Fulghum stated:

We [DHS] will continue to move forward, exercising sound business judgment, obtaining the best value for the Department, and striving for a wise use of public resources while maintaining our clean audit opinion, mitigating risks, and incorporating lessons learned.

In line with this commitment, DHS OCFO's Financial Management Systems Branch now maintains a central repository containing an expansive inventory of lessons learned from previous financial system consolidation and modernization attempts dating back to 2013. JPMO staff advised us they use this repository to identify specific lessons learned they determined were relevant to the FSM TRIO. The JPMO views the lessons-learned identification process both as essential to effective program management and as a key method minimizing exposure to risks that could negatively affect how programs fulfill their defined objectives.

The JPMO identified 29 relevant lessons learned and grouped them into the following three major categories:

- 1) Governance and Program Management – 10 lessons
- 2) Systems Engineering – 16 lessons
- 3) Organizational Change Management – 3 lessons

These lessons learned remain critical to the success of FSM TRIO. Appendix B contains a complete list of the 29 lessons learned DHS identified and implemented into the FSM TRIO effort.

### **DHS Applied the Lessons Learned to FSM TRIO**

According to DHS, as of April 2019, the JPMO had applied all 29 lessons learned to the FSM TRIO effort. Although we did not confirm the extent to which DHS incorporated lessons learned, we interviewed program officials and reviewed contracts, plans, and schedules to learn about the activities conducted. Based on our work we determined that DHS' awareness of the importance of identifying and applying lessons learned provides some assurance and a positive outlook for continued future progress of the FSM



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TRIO project since there was no known strategy to apply lessons learned in earlier attempts.

Specifically, 10 of the 29 lessons learned (34%) involved governance and program management. Program management is the centralized coordination of a program to achieve strategic objectives and benefits.<sup>7</sup> According to JPMO staff, DHS used a governance and program management framework to make project decisions and oversee the application of knowledge, skills, tools, and techniques to meet program requirements. The following is an example from the governance and program management group.

**Lesson Learned:** Support contractors need to provide key support/participation in the risk planning/mitigation/reporting process.

**Implementation:** JPMO formed a DHS-wide FSM Risk Management Integrated Project Team and working group to update the Risk Management Standard Operating Procedure. The JPMO Risk Management Plan was developed and approved and the Standard Operating Procedure updated.

The largest group (55%) of lessons learned pertained to systems engineering. Systems engineering is an interdisciplinary approach governing the total technical and managerial effort required to transform customer needs, expectations, and constraints into a product solution and support that solution throughout the product's life.<sup>8</sup> This involves designing, developing, and maintaining integrated systems and incorporating software and hardware into the lifecycle interconnections and operational environment. The following is one example of a lesson learned implemented from the systems engineering group.

**Lesson Learned:** A complete Disaster Recovery Plan is not in place.

**Implementation:** According to the JPMO staff, DHS Data Center 1 is currently being set up as a Disaster Recovery site for the TRIO Financial Systems Modernization Solution, a plan establishing procedures for recovery following a system disruption. The System Deployment Agent develops such disaster recovery plans.

Three of the 29 lessons learned (10%) addressed concerns with organizational change management. Organizational change management risks include

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<sup>7</sup> DHS Lexicon Instructional Manual, 262-12-001-01, 2018 Edition, Rev.4 April 23, 2018, page 579

<sup>8</sup> DHS Lexicon Instructional Manual, page 720



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cultural resistance to change and standardization.<sup>9</sup> According to the JPMO, DHS used an organizational change management framework to address its evolving needs and capabilities and resolve concerns around organizational culture and physical environment; policies and procedures; and staff roles, responsibilities, and skills. An example of organizational change management includes:

**Lesson Learned:** Workarounds, as identified by the component to supplement undelivered functionality, should be tested and confirmed in production and lead to an updated Standard Operating Procedure.

**Implementation:** DHS will identify and perform a full analysis of any workarounds and their impacts. The workarounds are tracked and will be communicated to the components per the Communications Plan and managed by the JPMO Production Support team. For issues that have no workaround, a “Rapid Response” team is provided to the user community to ensure operations continue.

### Conclusion

DHS has already spent millions of dollars and more than 16 years in repeated attempts to modernize its financial systems. Those funds could have been better spent had a more focused attention been dedicated to identifying and applying lessons learned throughout that period. The Department cannot afford to repeat prior mistakes, such as failed contractor performance and working in an environment with insufficient change controls. By identifying and applying lessons learned, DHS can provide better assurance it effectively utilizes its resources, mitigates risks, and achieves its goals using the ongoing FSM initiative.

### Recommendations

We did not make any recommendations because we did not identify any deficiencies related to the scope of this evaluation.

### Management Comments and OIG Analysis

Appendix A contains DHS management comments in their entirety. We received technical comments on the draft report and revised the final report, as appropriate. We recognize this report’s limited objective and scope does not provide a complete assessment of DHS’ efforts to incorporate lessons learned into its recently reinvigorated FSM efforts, as noted by DHS in the management

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<sup>9</sup> DHS Lexicon Instructional Manual, page 517



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comments. Resource constraints restricted our ability to use the work of a prior audit team, required that we reduce the scope of the project, and ultimately delayed completion of this report. Additionally, our analyses were not extended to include validating the Department's statements in the management response concerning its data collection efforts, upgrade of the Federal Law Enforcement Training Center financial system, or technical refresh of the Federal Emergency Management Agency system. We appreciate DHS' cooperation in working with us throughout this review, during which time our OIG team faced organizational changes.

### **Objective, Scope, and Methodology**

The Department of Homeland Security (DHS) Office of Inspector General (OIG) was established by the *Homeland Security Act of 2002* (Public Law 107-296) by amendment to the *Inspector General Act of 1978*. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness in the Department's operations.

Our objective for this evaluation was to determine whether DHS identified and applied lessons learned from previous financial systems modernization initiatives to the FSM TRIO effort. Our scope was the FSM TRIO project, which was in development during FYs 2014–2018.

We conducted this evaluation in two phases. During the first phase, the initial evaluation team conducted fieldwork and collected evidence to support our findings. In the second phase, DHS OIG management assigned a second evaluation team to analyze the evidence collected and draft this report. The evaluation teams did not conduct procedures to verify the reliability and accuracy of DHS' claims and draws no conclusion on the extent to which the lessons learned have been implemented.

To answer the evaluation objective, we interviewed JPMO and component personnel and visited the DHS data center. We also researched and evaluated Federal, DHS, and DHS components' criteria related to financial systems, shared service providers, and information technology (IT) effectiveness. In addition, we reviewed relevant Government Accountability Office and DHS OIG reports, DHS documents and congressional testimonies.



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DHS officials provided us a status report on their progress with applying 29 lessons learned the JPMO identified as being relevant to the FSM TRIO project. However, we did not validate the reliability of the DHS' status report.

We conducted this review between October 2017 and April 2019 pursuant to the *Inspector General Act of 1978*, as amended, and in accordance with the *Council of Inspectors General on Integrity and Excellence Quality Standards for Inspection and Evaluation*.



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**Appendix A**  
**Management Comments to the Draft Report**

U.S. Department of Homeland Security  
Washington, DC 20528



October 4, 2019

MEMORANDUM FOR: Sondra F. McCauley  
Assistant Inspector General for Audits  
Office of the Inspector General

FROM: Jim H. Crumpacker, CIA, CFE   
Director  
Departmental GAO-OIG Liaison Office

SUBJECT: Management Response to Draft Report: "DHS Confirmed It  
Has Applied Lessons Learned in the Latest Financial System  
Modernization Effort" (Project No.17-093-ITA-CFO)

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the work of the Office of Inspector General (OIG) in planning and conducting its review and issuing this report.

DHS initiated the Financial Systems Modernization (FSM) program to fully implement its vision for financial management, which includes aligning components to standard business practices with a common accounting line, and leveraging modern, integrated financial system solutions. This vision aligns with the Government-wide strategy outlined in Office of Management and Budget Memorandum M-19-16, "Centralized Mission Support Capabilities for the Federal Government," that focuses on making improvements to Government mission-support services and better enabling the delivery of high-quality outcomes to the American people.

Although DHS senior leadership had looked forward to the OIG's draft report as an independent assessment of the incorporation of lessons learned into recently reinvigorated FSM efforts, leadership is generally disappointed with the report because:

- The scope and objectives of the report varied so greatly from that which OIG originally announced nearly 2 years ago, resulting in a much less value-added report for Department leadership, program officials, and others.



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- The report's conclusion that money spent on the FSM program could have been better spent lacks context and, as such, is misleading, especially to those end users of the report outside of DHS, including Congress and the public.

In short, the report essentially restates previously published U.S. Government Accountability Office (GAO) reports, Congressional testimony, and OIG reporting on DHS's efforts to modernize its financial systems and highlights what DHS says it has done to apply lessons learned to the FSM TRIO<sup>1</sup> effort, as opposed to providing any new assessment of DHS efforts.

#### Scope and Objectives Varied Greatly from Those Announced Resulting in Less Value

On October 13, 2017, the OIG announced it was initiating an audit of DHS's FSM Initiative which would be conducted in accordance with GAO auditing standards. More than a year later, on December 18, 2018, the OIG advised that the audit was being changed to an evaluation conducted in accordance with Council of the Inspectors General on Integrity and Efficiency standards, which is a much less rigorous review compared to an audit. The objective of the audit and the evaluation was "to determine whether the Department adequately addressed lessons learned . . . by assessing the financial systems modernization plans and activities, communications, and oversight."

DHS, however, does not believe that OIG's draft report, released for management comment on September 17, 2019, fulfills this objective, as it states only that "According to DHS . . ." lessons learned have been applied. Specifically, the report does not address the adequacy of DHS efforts and only confirms "DHS' [sic] awareness of the importance of identifying and applying lessons learned . . ." This fact is further confirmed by the "Objectives, Scope, and Methodology" section of the report which states, "The evaluation teams did not conduct procedures to verify the reliability and accuracy of DHS' [sic] claims and draws no conclusion on the extent to which the lessons learned have been implemented."

#### Report Conclusion Lacks Context and Is Misleading

DHS disagrees with the draft report's conclusion that resources spent on previous FSM efforts could have been better spent had more focused attention been dedicated to identifying and applying lessons learned through those years. Although the OIG's report does not provide any context concerning the value received from prior FSM efforts (i.e., investments), the fact is DHS has realized significant benefits from these efforts.

Examples include:

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<sup>1</sup> "TRIO" is not an acronym, but simply a reference to FSM program efforts within the Domestic Nuclear Detection Office (now part of the Countering Weapons of Mass Destruction Office (CWMD)), Transportation Security Administration (TSA), and the United States Coast Guard (USCG).



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- The resources invested in previous modernization efforts contributed to the collection of more than 8,000 system requirements, documentation of as-is business processes, and Department-level program management documents used as foundational materials for the current modernization program.
- Those resources also supported an upgrade to the current Federal Law Enforcement Training Center financial system and a technical refresh of the Federal Emergency Management Agency system, extending the life of the current solutions and demonstrating DHS's conscientious approach to investing taxpayer dollars.

Furthermore, previous FSM investments have delivered a modernized system that is currently in use and poised for future expansion. Specifically, the DHS FSM solution deployed for production use by the CWMD Office during Fiscal Year (FY) 2016 was successfully transitioned from a Federal shared service provider into a DHS data center in FY 2018, and will be expanded to TSA and the USCG in FY 2021. For other DHS component organizations with a critical need to move to a modern financial management solution, DHS is implementing a competitive acquisition strategy to acquire the necessary software solution and integration services.

Through the previous FSM efforts, DHS learned that a strong governance structure and diligent monitoring of contractor performance is necessary to manage a program of this size and effort. DHS has an extremely talented and engaged executive steering committee driving this modernization effort. The Department has also taken steps to ensure adequate program staffing, including a large team of full-time federal employees with expertise in project management, financial business processes, change management, acquisition management, business intelligence, accounting services, and systems engineering. Support also includes a program support contractor and an independent verification and validation team dedicated to the program.

When the FSM vision is fully realized, DHS will have fully automated and streamlined solutions with integrated financial, procurement, asset, and financial assistance (grants and insurance) functions. Modernized financial management systems will improve functionality and integration, minimize information security issues, provide a consolidated view of project costs across components, and increase transparency and reliability of information. DHS will leverage solutions that have the technical capability to respond in a timely manner to new requirements and federal mandates and sustain the Department's clean financial statements audit opinion that has been achieved for the past six years.

DHS is committed to continuing to move the FSM program forward by building on past successes, exercising sound business judgment, obtaining the best value for the



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government, maintaining its clean audit opinion, mitigating program risks, and incorporating additional lessons learned, as appropriate.

Again, thank you for the opportunity to review and comment on this draft report. DHS previously submitted technical comments under a separate cover. Please feel free to contact me if you have any questions.



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**Appendix B**  
**Lessons Learned Identified and Applied to FSM TRIO**

DHS identified 29 lessons learned and grouped them into three major categories: Systems Engineering, Governance and Program Management, and Organizational Change Management. The three groups and associated lessons learned are listed in this appendix.

**I. GOVERNANCE AND PROGRAM MANAGEMENT**

1	A fully integrated and streamlined process for hardware procurements is needed and should be inserted in the Integrated Master Schedule (IMS).
2	DHS must define the security requirements and activities in the IMS process.
3	Accessibility (Section 508) testing should be detailed with agreed upon procedures, which are resourced and inserted into the IMS.
4	The planning for testing events should account for the number of hours, personnel, and teams needed to support.
5	The continued reluctance to resource-load staff into the IMS has created a schedule risk in completing critical tasks such as development and completion of recommended testing events.
6	Management responsibilities will grow during the transition period due to the addition of contractors and technical complexity.
7	IMS scheduling should account for failure in testing including re-testing, workaround creation, and an SOP update.
8	Required details and artifacts are needed for transition inventory.
9	Ensure that transition contractor(s) are in keeping with key/implied contract provisions.
10	Support contractors need to provide key support/participation in the risk planning/mitigation/reporting process.

**II. SYSTEMS ENGINEERING**

11	Release notes and process for release to test and production (test/approval/sign-off) should be clearly defined. Procedures to implement should enable audit trail.
12	The JPMO and contractors/SDA should have agreement to include transfer of System Requirements (SR) in transition award. Transition contractors should verify the capability to build on Oracle support agreements to resolve incoming SRs. Prior to completion of the current contract work, SRs should note complete details enabling transfer following completion of migration.



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13	Ensure that quality control and reporting of Key Performance Parameters are required and agreed upon.
14	Conduct performance testing before deployment of release into production.
15	The test events should be auditable and tie requirements, test scripts, and events to results officially reported.
16	There needs to be a defined approval process and path for addressing major and minor system fixes. They should not be the same.
17	Maintain a regular and visible process for updates to the system operating environment, collection of requirements, and testing for FSM migration.
18	Contingency planning should be in place to account for projects deemed a failure. Assessment points in the program should be established to decide passage/failure of critical program performance.
19	A complete Disaster Recovery Plan is not in place.
20	Planning should account for the potential and DR failure.
21	Data transition process should be considered a major process to include the whole of data cleansing, collection, turnover, and updated processing.
22	Interface requirements may need to be customized.
23	Establish who maintains custodial rights to the developed system throughout the development process. Ensure the custodian is afforded all needed release documentation detailing receipt of the asset.
24	Requirements/processes should be documented and integrated into the testing process.
25	The process for Reports, Interfaces, Conversions, Enhancements / Extensions (RICE) testing systems fixes identified by Oracle SR should be documented and include results of testing events for the SR.
26	All components planned for testing must have well defined, end-to-end operational scenarios or use cases of the business processes. This will provide guidance for future test events in prioritizing critical paths for system functionality and meeting requirements.

**III. ORGANIZATIONAL CHANGE MANAGEMENT**

27	Workarounds, as identified by the component to supplement functionality not delivered, should be tested/confirmed in production and translate into an updated Standard Operating Procedure.
28	Coordination between contractors, components, Integrated Project Team, and JPMO management should be improved to execute end to end.
29	The helpdesk service design process and documentation should be updated to include new functionality.



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**Appendix C**  
**Report Distribution**

**Department of Homeland Security**

Secretary  
Deputy Secretary  
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Deputy Chiefs of Staff  
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