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FINANCIAL MANAGEMENT SYSTEMS

DHS Faces Challenges to Successfully Consolidating Its Existing Disparate Systems





Highlights of GAO-10-76, a report to congressional addressees

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DHS Faces Challenges to Successfully Consolidating Its Existing Disparate Systems

Why GAO Did This Study

In June 2007, GAO reported that the Department of Homeland Security (DHS) had made little progress in integrating its existing financial management systems and made six recommendations focused on the need for DHS to define a departmentwide strategy and embrace disciplined processes. In June 2007, DHS announced its new financial management systems strategy, called the Transformation and Systems Consolidation (TASC) program. House Report No. 110-862 directed GAO to determine whether DHS had implemented GAO's prior recommendations. GAO also assessed whether there were additional issues that pose unnecessary risks to the successful implementation of the TASC program. GAO reviewed relevant documentation, such as the January 2009 request for proposal and its attachments, and interviewed key officials to obtain additional information.

What GAO Recommends

GAO makes seven

recommendations and reaffirms its six prior recommendations to mitigate DHS's risk in acquiring and implementing the TASC program. DHS agreed with GAO's recommendations and described actions it has taken and plans to take to address them. GAO agrees that DHS has completed actions to address one recommendation, but further action is needed to address the others. GAO also received technical comments, which were incorporated as appropriate.

View GAO-10-76 or key components. For more information, contact Kay Daly at (202) 512-9095 or Nabajyoti Barkakati at (202) 512-4499.

What GAO Found

GAO's analysis shows that DHS has begun to take actions to implement four of the six recommendations made in the 2007 report; however, none of these recommendations have been fully implemented. GAO recognizes that DHS cannot fully implement some of the recommendations aimed at reducing the risk in accordance with best practices until the contract for the TASC program is awarded. DHS has taken, but not completed, actions to (1) define its financial management strategy and plan, (2) develop a comprehensive concept of operations, (3) incorporate disciplined processes, and (4) implement key human capital practices and plans for such a systems implementation effort. DHS has not taken the necessary actions on the remaining two recommendations, to standardize and reengineer business processes across the department, including applicable internal control, and to develop detailed consolidation and migration plans since DHS will not know the information necessary to develop these items until a contractor is selected. While some of the details of the department's standardization of business processes and migration plans depend on the selected new system, DHS would benefit from performing critical activities, such as performing a gap analysis and identifying all of its affected current business processes so that DHS can analyze how closely the proposed system will meet the department's needs.

GAO's analysis during this review also identified two issues that pose unnecessary risks to the TASC program—DHS's significant risks related to the reliance on contractors to define and implement the new system and the lack of independence of the contractor hired to perform the verification and validation (V&V) function for the TASC program. DHS plans to rely on the selected contractor to complete key process documents for the TASC program such as detailed documentation that governs activities such as requirements management, testing, data conversion, and quality assurance. The extent of DHS's reliance on contractors to define and implement key processes needed by the TASC program, without the necessary oversight mechanisms to ensure that the processes are properly defined and effectively implemented, could result in system efforts plagued with serious performance and management problems. Further, GAO identified that DHS's V&V contractor was not independent with regard to the TASC program. DHS management agreed that the V&V function should be performed by an entity that is technically, managerially, and financially independent of the organization in charge of the system development, acquisition, or both that it is assessing. Accordingly, DHS officials indicated that they have restructured the contract to address GAO's concerns by changing the organization that is responsible for managing the V&V function.

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Abbreviations

CBP	U.S. Customs and Border Protection
COTR	Contracting Officer Technical Representative
COTS	commercial-off-the-shelf
DHS	Department of Homeland Security
$eMerge^{2}$	Electronically Managing Enterprise Resources for
	Government Effectiveness and Efficiency
ERP	enterprise resource planning
FEMA	Federal Emergency Management Agency
FTE	full-time equivalent
IEEE	Institute of Electrical and Electronics Engineers
IV&V	independent verification and validation
OCFO	Office of the Chief Financial Officer
OIG	Office of Inspector General
RMTO	Resource Management Transformation Office
SBI	Secure Border Initiative
TASC	Transformation and Systems Consolidation
V&V	verification and validation

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United States Government Accountability Office Washington, DC 20548

December 4, 2009

Congressional Addressees

Since the Department of Homeland Security (DHS) began operations in March 2003, it has faced the daunting task of bringing together 22 diverse agencies and developing an integrated financial management system. In January 2009,¹ we reported that although DHS had reduced financial internal control weaknesses, it had not yet integrated its financial management systems and had not developed a comprehensive plan for doing so. We recently testified² that while DHS has redefined its acquisition and investment management policies and practices, the extent to which these policies and practices on major programs have been implemented was at best inconsistent and in many cases quite limited. Moreover, recent GAO reviews have shown that major acquisition programs have not been subjected to executive-level acquisition and investment management reviews at key milestones.

DHS officials have long recognized the need to integrate their financial management systems, which are used to account for over \$40 billion in annual appropriated funds. The department's prior effort, known as the Electronically Managing Enterprise Resources for Government Effectiveness and Efficiency (eMerge²) project,³ began in January 2004 and was expected to integrate financial management systems departmentwide and address existing financial management weaknesses. However, DHS officials ended the eMerge² project in December 2005, acknowledging that this project had not been successful. DHS officials stated that they had identified existing financial management systems, currently used by some of DHS's components, which could be leveraged by migrating these existing financial management systems to its other components.⁴

¹GAO, *High-Risk Series: An Update*, GAO-09-271 (Washington, D.C.: January 2009).

²GAO, Homeland Security: Despite Progress, DHS Continues to Be Challenged in Managing Its Multi-Billion Dollar Annual Investment in Large-Scale Information Technology Systems, GAO-09-1002T (Washington, D.C.: Sept. 15, 2009).

³The eMerge² project was expected to establish the strategic direction for migration, modernization, and integration of DHS's financial, accounting, procurement, personnel, asset management, and travel systems, processes, and policies.

⁴Statement by Scott Charbo, Chief Information Officer, and Eugene Schied, Deputy Chief Financial Officer, Department of Homeland Security, March 29, 2006.

In June 2007, we reported⁵ that the department had made little progress since December 2005 in replacing its existing financial management systems problems and that, from an overall perspective, the decision to halt its eMerge² project was prudent. We made six recommendations focused on the need for DHS to define a departmentwide strategy and embrace disciplined processes⁶ to reduce risk to acceptable levels.⁷

Also, in June 2007, DHS officials announced its new financial management systems strategy, called the Transformation and Systems Consolidation (TASC) program. At that time, the TASC program was described as the migration of other DHS components' systems to two existing financial management systems already in use at several components. After a bid protest was filed regarding the proposed approach, the TASC request for proposal was revised to acquire an integrated financial, acquisition, and asset management commercial-off-the-shelf software (COTS) solution to be implemented departmentwide. The House Committee on Appropriations' September 2008 report on the fiscal year 2009 Department of Homeland Security Appropriations Bill⁸ included a mandate requiring us to review the TASC program, including following up on DHS's efforts to implement the six recommendations made in our June 2007 report. The Chairman, House Committee on Homeland Security became a cosponsor of that follow-up work. Further, the Ranking Member of the Senate Committee on Homeland Security and Governmental Affairs also became a cosponsor as did the Chairman of the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, Senate Committee on Homeland Security and Governmental Affairs.

⁶Disciplined processes represent best practices in systems development and implementation efforts that have been shown to reduce the risks associated with software development and acquisition efforts to acceptable levels and are fundamental to successful system implementations.

⁷The use of the term "acceptable levels" acknowledges the fact that any systems acquisition has risks and can suffer the adverse consequences associated with defects.

⁸The mandate is in House Report No. 110-862, Homeland Security Appropriation Bill, 2009, (H.R. 6947), Title I, Departmental Management and Operations, Financial System Transformation, at p. 21 (Sept. 18, 2008).

⁵GAO, Homeland Security: Departmentwide Integrated Financial Management Systems Remain a Challenge, GAO-07-536 (Washington, D.C.: June 21, 2007), and Homeland Security: Transforming Departmentwide Financial Management Systems Remains a Challenge, GAO-07-1041T (Washington, D.C.: June 28, 2007).

Our objectives for this report were to determine whether DHS had implemented our prior recommendations and assess whether there were additional issues that pose unnecessary risks to the successful implementation of the TASC program. We reviewed the January 2009 request for proposal and its attachments, such as the Statement of Objectives and Solution Process Overview, to understand DHS's plans for implementing the TASC program. We also reviewed other available planning documents, such as the acquisition plan and the draft concept of operations, and determined the status of these plans and others to see if DHS had fully implemented our recommendations. We interviewed key officials from DHS's Office of the Chief Financial Officer (OCFO) and the Resource Management Transformation Office (RMTO), within OCFO, including its Director and Deputy Director for elaboration and to provide additional perspectives on the information contained in these documents. We also reviewed the Statement of Work for an independent verification and validation (IV&V) contractor and confirmed key information about this contract with the Director of RMTO.

We conducted this performance audit from March 2009 through November 2009 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. In October 2009,⁹ we discussed our preliminary findings in a hearing before the Subcommittee on Management, Investigations, and Oversight, House Committee on Homeland Security. We requested comments on a draft of this report from the Secretary of Homeland Security or her designee. We received written comments from the DHS Acting Chief Financial Officer, which are reprinted in appendix I.

Background

DHS was established by merging 22 disparate agencies and organizations with multiple missions, values, and cultures. Some of the agencies that became DHS components include the Federal Emergency Management Agency (FEMA), Federal Law Enforcement Training Center,

⁹GAO, Financial Management Systems: DHS Faces Challenges to Successfully Consolidate Its Existing Disparate Systems, GAO-10-210T (Washington, D.C.: Oct. 29, 2009).

Transportation Security Administration, U.S. Coast Guard, and U.S. Secret Service. Other former agencies were divided by function into new components or had their responsibilities distributed within a DHS component. For example, the former U.S. Customs Service became two DHS components—the U.S. Customs and Border Protection (CBP) and the U.S. Immigration and Customs Enforcement. Given the number of agencies that merged to become part of DHS and the diversity of their missions, an integrated financial management system that captures all of DHS's financial activities is imperative to provide reliable, timely, and useful information for managing day-to-day operations.

DHS has described the TASC program in its Solution Process Overview as a departmentwide initiative to modernize, transform, and integrate the financial, acquisition, and asset management capabilities of its components. According to DHS officials, the new system is to be a COTS package that is already configured and operating in the public sector.

Bid protests and related litigation have resulted in changes to DHS's approach for the TASC program as well as contributing to a significant delay in awarding a contract. The initial TASC approach was to migrate its components to two financial management systems—Oracle Federal Financials and SAP—already in use by several DHS components.¹⁰ Under its pre-protest timeline, DHS anticipated that several of its smaller components, including the Office of Health Affairs and the Directorate for Science and Technology, would have "gone live" with the department's new baseline system by November 30, 2008. Because of changes in the TASC approach and the delays shown in figure 1, DHS officials stated that the department now expects to select a vendor by the second quarter of fiscal year 2010.

¹⁰Oracle Federal Financials was already in use within the U.S. Coast Guard, the Transportation Security Administration, and the Domestic Nuclear Detection Office. SAP was already in use within U.S. Customs and Border Protection.

2007	A	8/07	DHS issued a request for proposal for managing the migration of DHS's five different financial management software solutions to a shared system baseline (Oracle or SAP systems).
	S O	10/07	DHS canceled the request for proposal because no offerors had submitted proposals.
	-	11/07	DHS issued a new, revised request for proposal with the same purpose as the 8/07 proposal.
	D		
2008	J	1/08	A financial services company, which was a potential offeror to DHS's 2007 request for proposal, filed a bid protest with the U.S. Court of Federal Claims. ^a
	F	3/08	The Court opicined DHS from proceeding with the November 2007 request for proposal until DHS conducted a
	M A M	3/00	The Court enjoined DHS from proceeding with the November 2007 request for proposal until DHS conducted a "competitive procurement," in accordance with the law."
	J J		
	Α		
	S	9/08	DHS issued a notice concerning a new request for proposal to be issued shortly.
	0	10/08	DHS issued a draft of a new request for proposal for public comment.
	Ν	11/08	The original protestor filed a motion with the Court to enforce the March 2008 injunction. ^c
	D		
2009	J	1/09	DHS issued a new TASC request for proposal for provision of "an integrated financial management, asset management and acquisition management systems solution and performance of TASC support services." ^d
	F	2/09	The original protestor filed a new bid protest with the Court, alleging that DHS violated the March 2008 injunction by proceeding with the January 2009 request for proposal.
	~	4/09	The Court dismissed the bid protestor's complaint, which allowed DHS to proceed with its TASC request for proposal.
	M		
		7/09	The original protestor filed an appeal of the Court's April 2009 judgment.
	A		
		9/09	DHS responded to the July 2009 appeal.
	-		

Figure 1: Key Events Affecting the TASC Program

Source: DHS.

^aThe offeror alleged that DHS had conducted an improper sole source procurement.

	^b Under 28 U.S.C. § 1491(b), the U.S. Court of Federal Claims has jurisdiction to render judgments and award relief to an interested party objecting to a request for proposal issued by federal agencies. The U.S. Court of Federal Claims issued an order enjoining DHS from proceeding with this procurement until DHS conducted a competitive procurement, in accordance with the Competition in Contracting Act (41 U.S.C. § 253), which generally requires executive agencies to procure property and services through the use of competitive procedures that allow for full and open competition.
	[°] The potential offeror filed a motion with the U.S. Court of Federal Claims alleging that DHS had violated the Court's March 2008 injunction against proceeding with the original request for proposal.
	^d Unlike the first two TASC requests for proposal, this request was issued to the public in anticipation of a new contract. The first two requests for proposal were issued only to awardees of existing indefinite delivery, indefinite quantity contracts with the expectation of awarding a task order under one of the existing contracts.
DHS Has Made Limited Progress in Implementing Our Prior Recommondations	DHS has begun to take actions toward the implementation of four of the recommendations we made in June 2007, ¹¹ as shown in table 1. However, all six recommendations remain open. We do recognize that DHS cannot fully implement all of our recommendations until a contract is awarded because of its selected acquisition approach.
Recommendations	

¹¹GAO-07-536.

Table 1: DHS's Progress toward Addressing GAO's Recommendations

		Not completed	
Recommendation	Completed	Some actions taken	No action taken
Clearly define and document a departmentwide financial management strategy and plan to move forward with its financial management system integration efforts.		Х	
Develop a comprehensive concept of operations document.		Х	
Utilize and implement these specific disciplined processes to minimize project risk: (1) requirements management, (2) testing, (3) data conversion and system interfaces, (4) risk management, (5) configuration management, (6) project management, and (7) quality assurance.		X	
Reengineer business processes and standardize them across the department, including applicable internal control.			Х
Develop a detailed plan for migrating and consolidating various DHS components to an internal shared services approach if this approach is sustained.			Х
Carefully consider key human capital practices as DHS moves forward with its financial management transformation efforts so that the right people with the right skills are in place at the right time.		Х	

Source: GAO analysis of DHS information.

These recommendations, made to help DHS reduce the risks associated with acquiring and implementing a departmentwide financial management system, are based on four building blocks, which were developed in accordance with industry best practices and our work at other federal agencies. These four building blocks, integral to the success of DHS's TASC program, are

- developing a concept of operations,
- defining standard business processes,
- developing a migration strategy for DHS components, and
- defining and implementing the disciplined processes necessary to properly manage the project.

Fully embracing these four building blocks will be critical to the success of the TASC program, once that program has been clearly defined and documented. For example, defining standard business processes promotes consistency in operations within the department. Further, by reengineering and standardizing business processes, DHS should realize productivity gains and staff portability among its components. Underlying these four building blocks is the need for effective human capital management, which includes having sufficient human resources with the requisite training and experience to implement the system as well as operate the system once it has been put into service.

DHS Faces Significant Challenges to Implementing Its Financial Management Strategy and Plan	DHS has developed certain elements for its financial management strategy and plan for moving forward with its financial system integration efforts but it faces significant challenges in completing and implementing its strategy. DHS has defined its vision for the TASC program, which is to consolidate and integrate departmentwide mission-essential financial, acquisition, and asset management systems, by providing a seamless, real-
	time, Web-based system to execute mission-critical, end-to-end integrated business processes. DHS has also established several major program goals for the TASC program which include, but are not limited to
• • •	creating and refining end-to-end standard business processes and a standard line of accounting; supporting timely, complete, and accurate financial management and reporting; enabling DHS to acquire goods and services of the best value that ensure that the department's mission and program goals are met; and enabling consolidated asset management across all components.
	DHS officials stated that the strategy for the TASC program is to acquire a COTS-based system already configured and being used at a federal entity as a starting point for the department's efforts. This approach differs from other financial management system implementation efforts we have reviewed in which an agency first acquired a COTS product and then performed the actions necessary to configure the product to meet the agency's specific requirements. ¹²
	Our review found that the strategy being taken by DHS does not contain the elements needed to evaluate whether the acquired system will provide the needed functionality or meet users' needs. For example, it does not require DHS to (1) perform an analysis of the current processes to define the user requirements to be considered when evaluating the various

¹²GAO, Business Modernization: Improvements Needed in Management of NASA's Integrated Financial Management Program, GAO-03-507 (Washington, D.C.: Apr. 30, 2003), and DOD Business Systems Modernization: Navy ERP Adherence to Best Business Practices Critical to Avoid Past Failures, GAO-05-858 (Washington, D.C.: Sept. 29, 2005).

	systems, (2) perform a gap analysis ¹³ before the system is selected, ¹⁴ and (3) assess the extent to which the COTS-based system used at another agency has been customized for the respective federal entities. Studies have shown that when an effective gap analysis was not performed, program offices and contractors later discovered that the selected system lacked essential capabilities. Furthermore, adding these capabilities required expensive custom development and resulted in cost and schedule overruns that could have been avoided. ¹⁵ Without a comprehensive strategy and plan for the TASC program that considers these issues, DHS risks implementing a financial management system that will be unnecessarily costly to maintain.
DHS Has Recently Developed a Concept of Operations for the TASC Program	The January 2009 request for proposal states that the selected contractor will be required to provide a concept of operations for the TASC program. This concept of operations is expected to provide an operational view of the new system from the end users' perspective and outline the business processes as well as the functional and technical architecture for their proposed systems. In October 2009, DHS officials provided us with a concept of operations for the TASC program and they stated that the document was prepared in accordance with the Institute of Electrical and Electronics Engineers (IEEE) standards. ¹⁶ However, it is unclear how the DHS-prepared concept of operations document will relate to the selected contractor's concept of operations document called for in the request for proposal.
	According to the IEEE standards, ¹⁷ a concept of operations is a user- oriented document that describes the characteristics of a proposed system from the users' viewpoint. A concept of operations document also describes the operations that must be performed, who must perform them,
	¹³ A gap analysis is an evaluation performed to identify the gaps between needs and system capabilities.
	¹⁴ Software Engineering Institute, <i>Rules of Thumb for the Use of COTS Products</i> , CMU/SEI-2002-TR-032 (Pittsburgh: December 2002).
	¹⁵ Department of Defense, <i>Commercial Item Acquisition: Considerations and Lessons Learned</i> (Washington, D.C., June 26, 2000).
	¹⁶ IEEE Guide for Information Technology – System Definition – Concept of Operations (ConOps) Document, Standard 1362-1998.
	¹⁷ IEEE Standard 1362-1998.

	and where and how the operations will be carried out. DHS needs to develop a concept of operations that is based on a vision statement, outlined in the TASC strategy, and the enterprise architecture. The concept of operations for the TASC program should, among other things,
	 define how DHS's day-to-day financial management operations are and will be carried out to meet mission needs, clarify which component and departmentwide systems are considered financial management systems, include a transition strategy that is useful for developing an understanding of how and when changes will occur, develop an approach for obtaining reliable information on the costs of its financial management systems investments, and link DHS's concept of operations for the TASC program to its enterprise architecture.
	A completed concept of operations prior to issuance of the request for proposal would have benefited the offerors in developing their proposals so that they could identify and propose systems that more closely align with DHS's vision and specific needs.
DHS Has Not Fully Incorporated Disciplined Processes into the TASC Program	While DHS has draft risk management, project management, and configuration management plans, DHS officials told us that other key plans relating to these disciplined processes generally considered to be best practices will not be completed until after the TASC contract is awarded. These other plans include the requirements management, ¹⁸ data conversion and system interfaces, ¹⁹ quality assurance, and testing plans. ²⁰ Offerors were instructed in the latest request for proposal to describe their testing, risk management, and quality assurance approaches as well as component migration and training approaches. The approaches proposed by the selected contractor will become the basis for the preparation of

¹⁸According to the Software Engineering Institute, requirements management is a process that establishes a common understanding between the customer and the software project manager regarding the customer's business needs that will be addressed by a project. A critical part of this process is to ensure that the requirements development portion of the effort documents, at a sufficient level of detail, the problems that need to be solved and the objectives that need to be achieved.

¹⁹Data conversion is defined as the modification of existing data to enable them to operate with similar functional capability in a different environment.

²⁰Testing is the process of executing a program with the intent of finding errors.

these plans. While we recognize that the actual development and implementation of these plans cannot be completed until the TASC contractor and system have been selected, it will be critical for DHS to ensure that these plans are completed and effectively implemented prior to moving forward with the implementation of the new system.

Disciplined processes represent best practices in systems development and implementation efforts that have been shown to reduce the risks associated with software development and acquisition efforts to acceptable levels and are fundamental to successful system implementations. The key to having a disciplined system development effort is to have disciplined processes in multiple areas, including project planning and management, requirements management, configuration management, risk management, quality assurance, and testing. Effective processes should be implemented in each of these areas throughout the project life cycle because change is constant. Effectively implementing the disciplined processes necessary to reduce project risks to acceptable levels is hard to achieve because a project must effectively implement several best practices, and inadequate implementation of any one may significantly reduce or even eliminate the positive benefits of the others.

As we have previously reported, other agencies' business transformation efforts have failed because of a lack of commitment to disciplined processes. For example, we reported²¹ in 2005 that the Navy's failure to adhere to requirements management contributed to a largely wasted investment of approximately \$1 billion in four pilots of enterprise resource planning (ERP)²² solutions. Because the pilots would not meet its overall requirements, the Navy started over and developed a new ERP system to standardize the Navy's business processes across its dispersed organizational environment.²³

²³As we later reported, the Navy had later effectively implemented an important requirements management activity, traceability, in its ERP.

²¹GAO-05-858.

²²An ERP solution is an automated system using COTS software consisting of multiple, integrated functional modules that perform a variety of business-related tasks such as payroll, general ledger accounting, and supply chain management.

DHS Has Not Yet Identified All Business Processes Needing Reengineering and Standardization across the Department	Although DHS has identified nine end-to-end business processes ²⁴ that will be addressed as part of the TASC program, the department has not identified all of its existing business processes that will be reengineered and standardized as part of the TASC program. It is important for DHS to identify all of its business processes so that the department can analyze the offerors' proposed systems to assess how closely each of these systems aligns with DHS's business processes. Such an analysis would position DHS to determine whether a proposed system would work well in its future environment or whether the department should consider modifying its business processes. Without this analysis, DHS will find it challenging to assess the difficulties of implementing the selected system to meet DHS's unique needs.
	For the nine processes identified, DHS has not yet begun the process of reengineering and standardizing those processes. DHS has asked offerors to describe their proposed approaches for the standardization of these nine processes to be included in the TASC system. According to an attachment to the TASC request for proposal, there will be additional unique business processes or subprocesses, beyond the nine standard business processes identified, within DHS and its components that also need to be supported by the TASC system. For DHS's implementation of the TASC program, reengineering and standardizing these unique business processes will be critical because the department was created from 22 agencies with disparate processes. A standardized process that addresses, for example, the procurement processes at the U.S. Coast Guard, FEMA, and the U.S. Secret Service, as well as the other DHS components, is essential when implementing the TASC system and will be useful for training and ensuring the portability of staff.
DHS Has Not Yet Developed Plans for Migrating the New System to Its Components	Although DHS officials have stated that they plan to migrate the new system first to its smaller components and have recently provided a high- level approach the department might use, DHS has not outlined a conceptual approach or plan for accomplishing this goal throughout the department. Instead, DHS has requested that TASC offerors describe their migration approaches for each of the department's components, as well as

²⁴These nine processes are Request to Procure, Procure to Pay, Acquire to Dispose, Bill to Collect, Record to Report, Budget Formulation to Execution, Grants Management, Business Intelligence Reporting, and Reimbursable Management.

data conversion, overall migration strategy, training approach, and staffing.

While the actual migration approach will depend on the selected system and events that occur during the TASC program implementation, critical activities include (1) developing specific criteria requiring component agencies to migrate to the new system rather than attempting to maintain legacy business systems; (2) defining and instilling new values, norms, and behaviors within component agencies that support new ways of doing work and overcoming resistance to change; (3) building consensus among customers and stakeholders on specific changes designed to better meet their needs; and (4) planning, testing, and implementing all aspects of the migration of the new system. For example, a critical part of a migration plan for the new systems are fully prepared to be migrated to the new system.

An important element of a migration plan is the prioritizing of the conversion of the old systems to the new systems. For example, a FEMA official stated that the agency has not replaced its outdated financial management system because it is waiting for the implementation of the TASC program. However, in the interim, FEMA's auditors are repeatedly reporting weaknesses in its financial systems and reporting, an important factor to be considered by DHS when preparing its migration plan. Because of the known weaknesses at DHS components, it will be important for DHS to prioritize its migration of components to the new system and address known weaknesses prior to migration where possible. Absent a comprehensive migration strategy, components within DHS may seek other financial management systems to address their existing weaknesses. This could result in additional disparate financial management system that DHS needs.

DHS Has Begun Hiring, but	While DHS's RMTO has begun recruiting and hiring employees and
Has Not Developed a	contractors to help with the TASC program, the department has not
Human Capital Plan for the	identified the gaps in needed skills for the acquisition and implementation
TASC Program	of the new system. DHS officials have said that the department is unable to
IASC I logialli	determine the adequate staff levels necessary for the full implementation
	of the TASC program because the integrated solution is not yet known;

however, as of May 2009, the department had budgeted 72 full-time equivalents (FTE)²⁵ for fiscal year 2010. The 72 FTEs include 38 government employees and 34 contract employees, (excluding an IV&V contractor). DHS officials told us that this level of FTEs may be sufficient for the first deployments of the new system.

In its comments dated November 16, 2009, DHS stated that RMTO staff included the following: 1 level III program manager, 13 project management professionals, 14 certified contracting officer technical representatives, 3 certified public accountants, 5 level II program managers, and 5 level I program managers. In addition, according to RMTO officials, the OCFO and some of DHS's larger components, such as U.S. Immigration and Customs Enforcement have dedicated staff to work on the TASC program. Moreover, as stated in its agency comments, DHS plans to continue to build the capabilities within RMTO.

Many of the department's past and current difficulties in financial management and reporting can be attributed to the original stand-up of a large, new, and complex executive branch agency without adequate organizational expertise in financial management and accounting. Having a plan that includes sufficient human resources with the requisite training and experience to successfully implement a financial management system is critical to the success of the TASC program.

²⁵According to Office of Management and Budget guidance, an FTE or work year generally includes 260 compensable days or 2,080 hours. These hours include straight-time hours only and exclude overtime and holiday hours.

Planned TASC Implementation Efforts Pose Unnecessary Risks	While updating the status of the six prior recommendations, we identified two issues that pose unnecessary risks to the success of the TASC program. These risks are DHS's significant reliance on contractors to define and implement the new system and the lack of independence of DHS's V&V function ²⁶ for the TASC program.
Significant Reliance Placed on Contractors to Define and Implement the TASC Program	The department plans to have the selected contractor prepare a number of key documents including plans needed to carry out disciplined processes, define additional business processes to be standardized, and propose a migration approach. However, DHS has not developed the necessary contractor oversight mechanisms to ensure that its significant reliance on contractors for the TASC program does not result in an unfavorable outcome.
	Other systems acquisition and implementation efforts that have placed too much reliance on contractors have resulted in systems efforts plagued with serious performance and management problems. For example, regarding the U.S. Coast Guard's Deepwater Program, ²⁷ we reported ²⁸ that the Commandant of the U.S. Coast Guard stated in April 2007 that the U.S. Coast Guard had relied too heavily on contractors to do the work of the government and that both industry and government had failed to accurately predict and control costs. The Commandant announced improvements to program management and oversight that would "change the course of Deepwater." The major change was that the U.S. Coast Guard took over the lead role in systems integration. As part of this shift to an acquisition managed and controlled by the U.S. Coast Guard, the Commandant noted his plan to build a government workforce to manage
	²⁶ Institute of Electrical and Electronics Engineers Standard 1012-2004—Standard for Software Verification and Validation (June 8, 2005) states that the verification and validation processes for projects are used to determine whether (1) the products of a given activity conform to the requirements of that activity and (2) the software satisfies its intended use and user needs. This determination may include analyzing, evaluating, reviewing, inspecting, assessing, and testing software products and processes. The verification and validation processes should assess the software in the context of the system, including the operational environment, hardware, interfacing software, operators, and users.
	²⁷ The Deepwater Program, using a system-of-systems approach, is intended to recapitalize the U.S. Coast Guard's fleet and includes efforts to build or modernize five classes each of

the U.S. Coast Guard's fleet and includes efforts to build or modernize five classes each of ships and aircraft and procure other key capabilities.

²⁸GAO, Coast Guard: Change in Course Improves Deepwater Management and Oversight, but Outcome Still Uncertain, GAO-08-745 (Washington, D.C.: June 24, 2008). this large acquisition, citing the dearth of federal contracting expertise and a loss of focus on critical government roles and responsibilities for managing and overseeing systems acquisitions such as Deepwater.²⁹

Moreover, in a recent report,³⁰ DHS's Office of Inspector General (OIG) reported that CBP had not established adequate controls and effective oversight of contract workers responsible for providing Secure Border Initiative (SBI) program support services. Given the department's aggressive SBI program schedule and shortages of program managers and acquisition specialists, CBP relied on contractors to fill the staffing needs and get the program under way. However, CBP had not clearly distinguished between roles and responsibilities that were appropriate for contractors and those that must be performed by government employees. CBP also had not provided an adequate number of contracting officer's technical representatives (COTR) to oversee support services contractors' performance. As a result, according to the OIG report, contractors were performing functions that should have been performed by government workers. According to the OIG, this heavy reliance on contractors increased the risk of CBP relinquishing its responsibilities for SBI program decisions to support contractors, while remaining responsible and accountable for program outcomes.

Verification and Validation (V&V) Review Function for the TASC Program Was Not Independent We found that DHS's V&V contractor was not an independent reviewer because RMTO was responsible for overseeing the contractor's work and authorizing payment of the V&V invoices. Specifically, the V&V contractor was reporting on work of RMTO, the program manager for the TASC program, and the RMTO Director was serving as the COTR³¹ for the V&V contract. As part of the COTR's responsibilities, RMTO approved the V&V

contractor's invoices for payment. On October 21, 2009, DHS officials

²⁹U.S. Coast Guard leadership has increased accountability by bringing the Deepwater Program in-house and restructuring its acquisition function and vesting its government project managers with responsibilities formally held by the system integrator. U.S. Coast Guard project managers are now responsible for defining, planning, and executing the acquisition projects within established cost, schedule, and performance constraints.

³⁰Department of Homeland Security, Office of Inspector General, *Better Oversight Needed* of Support Services Contractors in Secure Border Initiative Programs, OIG-09-80 (Washington, D.C., June 17, 2009).

³¹COTRs are responsible for monitoring the contractors' progress in fulfilling the technical requirements specified in the contracts. COTRs often approve invoices submitted by contractors for payment.

indicated that they had restructured the V&V contract to address our concerns by changing the reporting relationship and the organization that is responsible for managing the V&V contract. However, at that time, these officials did not provide us with documentation to support this reorganization. The independence of the V&V contractor is a key component of a reliable verification and validation function.

Use of the V&V function is a recognized best practice for large and complex system development and acquisition projects, such as the TASC program. The purpose of the V&V function is to provide management with objective insight into the program's processes and associated work products. For example, the V&V contractor would review system strategy documents that provide the foundation for the system development and operations. According to industry best practices, the V&V activity should be independent of the project and report directly to senior management to provide added assurance that reported results on the project's status are unbiased.³² An effective V&V review process should provide an objective assessment to DHS management of the overall status of the project, including a discussion of any existing or potential revisions to the project with respect to cost, schedule, and performance. The V&V reports should identify to senior management the issues or weaknesses that increase the risks associated with the project or portfolio so that they can be promptly addressed. DHS management has correctly recognized the importance of such a function; however, to be effective, the V&V function should be performed by an entity that is technically, managerially, and financially independent of the organization in charge of the system development, or acquisition, or both that it is assessing.

Conclusions

Six years after the department was established, DHS has yet to implement a departmentwide, integrated financial management system. DHS receives billions of taxpayer dollars and continues to need a financial management systems solution that will help it overcome its financial management deficiencies, while strengthening its ability to meet programmatic and mission needs. DHS has started, but not completed implementation of the six recommendations we made in June 2007, aimed at helping the department to reduce risk to acceptable levels, while acquiring and implementing an integrated departmentwide financial management system. We reaffirm the open recommendations from our prior report, as

³²To provide this objective evidence, V&V contractors analyze, evaluate, review, inspect, assess, and test software products and processes.

	they continue to be vital to the success of the TASC program. In addition, as DHS moves toward acquiring and implementing a departmentwide financial management system, it has selected a path whereby it is relying heavily on contractors to define and implement the TASC program. Therefore, adequate DHS oversight of key elements of the system acquisition and implementation will be critical to reducing risk. Given the approach that DHS has selected, it will be critical that DHS develop oversight mechanisms to minimize risks associated with contractor-developed documents such as the concept of operations, migration plans, and plans associated with a disciplined development effort including requirements management plans, quality assurance plans, and testing plans. Another important factor will be having the right people with the right skills to acquire and implement the system. Moreover, independence of DHS's V&V function is important to provide objective information to key decision makers. In closing, DHS faces a monumental challenge in consolidating and modernizing its financial management systems. Failure to minimize the risks associated with this challenge could lead to the department developing a system that does not meet cost, schedule, and performance goals.
Recommendations for Executive Action	To mitigate the risks of heavy reliance on contractors for acquiring and implementing an integrated departmentwide financial management system, we recommend that the Secretary of Homeland Security take the following seven actions:
•	 Direct RMTO to expedite the completion of the development of the TASC financial management strategy and plan so that the department is well positioned to move forward with an integrated solution. Identify the business processes needing standardization to facilitate implementation of the new system. Establish contractor oversight mechanisms to monitor the TASC program. Such oversight mechanisms should emphasize the following critical elements for guiding and implementing the TASC program: completion of the concept of operations to guide the acquisition and implementation of the integrated solution; development and implementation of disciplined process plans, such as those for requirements management, data conversion and system interfaces, quality assurance, and testing to minimize the risks associated with systems acquisition and implementation of existing financial management weaknesses, to determine the order in which the new system will be implemented in the components.

	 Develop a human capital plan for the TASC program that identifies needed skills for the acquisition and implementation of the new system. Designate a COTR for the IV&V contractor that is not in RMTO, but at a higher level of departmental management, in order to achieve the independence needed for the V&V function.
Agency Comments and Our Evaluation	We received written comments on a draft of this report from the DHS Acting Chief Financial Officer, which are reprinted in appendix I. In commenting on the report, the department agreed with our recommendations and appreciated that GAO had recognized that progress on addressing certain recommendations will not be made until after the contract award. The department agreed that it must be vigilant and disciplined in its oversight and management of major acquisition projects, such as the TASC program, to ensure their success. Regarding our recommendation to designate a COTR for the verification and validation contractor that is independent of RMTO, DHS noted in its comments that it had taken immediate actions to do so. On November 18, 2009 DHS provided us with documentation confirming that the new COTR was independent of RMTO. We are encouraged that DHS acted so expeditiously to address this recommendation. DHS also described actions it has taken and plans to take regarding our other recommendations. We are particularly concerned that some of the actions DHS described in its comments may not fully address the recommendations we made related to the concept of operations document and the financial management strategy.
	In its comments, DHS stated that the department has developed a robust concept of operations in accordance with the IEEE standard, as recommended by GAO. DHS also acknowledges in its comments that the concept of operations document will need to be updated when the system is acquired to include system-specific information. Further, as we discussed in the report, DHS has also asked the selected contractor to provide a concept of operations document for the TASC program, so it is unclear which concept of operations document will ultimately be used to implement the program.
	With respect to our recommendation that DHS complete the development of a financial management strategy and plan, in commenting on the report, DHS stated that it has a clearly defined strategy and plan to move forward with its financial management systems integration efforts. However, we take exception with this statement because as we stated earlier in the report, the approach being taken by DHS does not contain the elements

needed to evaluate whether the acquired system will provide the needed functionality or meet users' needs. For example, one of the most critical missing elements in DHS's strategy and plan is the gap analysis. DHS does not plan to perform a gap analysis before the system is selected. When an effective gap analysis is not performed, program offices and contractors have later discovered that the selected system lacked essential capabilities. Further this strategy does not consider the current business processes needed to define the user requirements to be considered when evaluating the various systems. As a result, DHS cannot determine with any certainty which of the department's current business processes that must be reengineered until the configured system is selected. By selecting an already configured system from another federal entity, the department is also purchasing the other entity's reengineered processes, which may or may not address the DHS's mission and component needs.

DHS also provided technical comments on a draft of this report that we have incorporated throughout the report, as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Homeland Security, and other interested parties. The report is available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions about this report or wish to discuss the matter further, please contact Kay L. Daly at (202) 512-9095 or dalykl@gao.gov or Nabajyoti Barkakati at (202) 512-4499 or barkakatin@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Other key contributors include Chris Martin, Senior Level Technologist; Chanetta Reed, Assistant Director; Sandra Silzer; and Michael Grimes.

Kay L. Daly

Kay L. Daly Director Financial Management and Assurance

Barkeketi Nabajyoli

Nabajyoti Barkakati Director Center for Technology and Engineering

List of Congressional Addressees

The Honorable David E. Price Chairman The Honorable Harold Rogers Ranking Member Subcommittee on Homeland Security Committee on Appropriations House of Representatives

The Honorable Susan M. Collins Ranking Member Committee on Homeland Security and Governmental Affairs United States Senate

The Honorable Bennie G. Thompson Chairman Committee on Homeland Security House of Representatives

The Honorable Robert C. Byrd Chairman The Honorable George V. Voinovich Ranking Member Subcommittee on Homeland Security Committee on Appropriations United States Senate

The Honorable Thomas R. Carper Chairman Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security Committee on Homeland Security and Governmental Affairs United States Senate

Appendix I: Comments from the Department of Homeland Security

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