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Washington, DC 20548

August 10, 2007

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

Subject: *Homeland Security: Responses to Posthearing Questions Related to the Department of Homeland Security's Integrated Financial Management Systems Challenges*

Dear Mr. Chairman:

On June 28, 2007, we testified<sup>1</sup> before your subcommittee at a hearing entitled, "Financial Management Systems Modernization at the Department of Homeland Security: Are Missed Opportunities Costing Us Money?" At the hearing, we discussed the Department of Homeland Security's (DHS) failed efforts to implement the Electronically Managing Enterprise Resources for Government Effectiveness and Efficiency (eMerge<sup>2</sup>) program that was expected to integrate financial management systems across the entire department. Our testimony and related report<sup>2</sup> focused on (1) DHS's financial management systems modernization efforts, (2) key financial management system transformation challenges, and (3) the four building blocks that form the foundation for successful financial management system implementation efforts.

This letter responds to your July 10, 2007, request for responses to follow-up questions relating to our June 28, 2007, testimony. The responses are based on work associated with previously issued GAO products. Your questions, along with our responses, follow.

- 1. The Electronically Managing Enterprise Resources for Government Effectiveness and Efficiency (eMerge<sup>2</sup>) program began in January 2004 to integrate financial management systems across the Department. GAO will testify that the Department could not determine or support the cost of \$52 million spent on the eMerge<sup>2</sup> project.**

<sup>1</sup>GAO, *Homeland Security: Transforming Departmentwide Financial Management Systems Remains a Challenge*, GAO-07-1041T (Washington, D.C.: June 28, 2007).

<sup>2</sup>GAO, *Homeland Security: Departmentwide Integrated Financial Management Systems Remain a Challenge*, GAO-07-536 (Washington, D.C.: June 21, 2007).

**Prudently, Mr. Norquist declared the project “dead” before spending an estimated \$229 million on a system that would not provide the desired functionality or performance.**

**GAO has reported there are many long-standing problems that plague financial management system improvement efforts.**

- **Is the Department not getting the message?**
- **What needs to be done to get that message across?**
- **How should the Department incorporate lessons learned to avoid unnecessary spending on projects doomed to fail?**

The consolidation of an entity as large and diverse as DHS poses significant management challenges, including integrating a myriad of redundant financial management systems and addressing existing and newly identified weaknesses in the inherited components. Our report<sup>3</sup> noted that DHS had an inventory of over 500 financial management systems and had inherited 18 material internal control weaknesses<sup>4</sup> from agencies that were transferred to DHS. In order for DHS to avoid unnecessary spending on failed projects like eMerge<sup>2</sup>, it must adopt solutions that reduce the risks associated with these efforts to acceptable levels. We have identified four key concepts that will be critical to DHS’s ability to successfully complete the implementation of an integrated financial management system. The four concepts are (1) developing a concept of operations document, (2) defining standard business practices, (3) developing an implementation or migration strategy, and (4) defining and effectively implementing disciplined processes necessary to properly manage the specific projects. Effective human capital management, such as strategic workforce planning and change management, is also identified as critical to successfully implementing a new financial management system. Our report provides specific recommendations aimed at helping DHS incorporate lessons learned and best practices.

In comments on the draft report, and at the hearing held on June 28, 2007, DHS officials indicated their willingness to adopt these recommendations and discussed the initiatives under way to do so. However, DHS’s financial management system integration effort is in the early stages, and continued focus and commitment, among other things, will be necessary for it to be successful.

**2. The Department is required by law to prepare expenditure plans for information technology (IT) projects (such as United States Visitor and Immigration Status Indicator and Immigration and Customs Enforcement).**

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<sup>3</sup>GAO-07-536.

<sup>4</sup>The definition of a material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected.

- **What level of oversight is needed and by whom?**
- **In light of continued project failures, should expenditure plans be prepared, reviewed, and approved for the Transformation and Systems Consolidation (TASC) project in light of the Emerge<sup>2</sup> project failure?**
- **Are expenditure plans an effective method for helping the Department meet cost, schedule, and performance objectives of its information technology projects?**

Expenditure plan reviews have proven to be an effective method of providing accountability for projects. For example, we recently reviewed<sup>5</sup> DHS's Science and Technology (S&T) Directorate's Expenditure Plan, noting that the projected expenditures were not broken out and justified as required by law. The S&T Directorate was established by the Homeland Security Act of 2002 to, among other things, coordinate the federal government's civilian efforts to identify and develop countermeasures to emerging terrorist threats to our nation. Our review found that the S&T Directorate's fiscal year 2007 expenditure plan, including related documentation and other information provided by S&T program officials, did not fully satisfy the conditions set forth in the Department of Homeland Security Appropriations Act of 2007.<sup>6</sup> Specifically, management and administrative costs were not broken down by program, project, and activity (PP&A) as required by the Act. The Congress could use a similar expenditure plan approach to help provide oversight for DHS's Transformation and Systems Consolidation (TASC) project, particularly in light of the failed eMerge<sup>2</sup> project.

While expenditure plans can provide valuable and useful information, additional types of information are needed to fully assess the effectiveness of the processes being used to manage a project. For example, in addition to all project costs being correctly shown on an expenditure plan, the agency and others need assurance that (1) the risks associated with the project have been reduced to acceptable levels and (2) the future planned costs are realistic. These matters are best determined by effectively implementing the disciplined processes necessary to manage a given project.

Further, given the importance of IT to DHS's mission performance and outcomes, it is vital for the department to adopt and employ an effective institutional approach to IT investment management. We have previously recommended<sup>7</sup> that DHS devote the appropriate attention to the development and implementation of effective investment management processes. This includes fully defining and documenting project- and portfolio-level policies and procedures that oversee (i.e., control) IT projects and systems, including specifying the procedural rules for the investment boards' operations and decision-making during project oversight. Without this, DHS lacks the institutional capability needed to help ensure that it is investing in IT projects that

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<sup>5</sup>GAO, *Department of Homeland Security: Science and Technology Directorate's Expenditure Plan*, GAO-07-868 (Washington, D.C.: June 22, 2007).

<sup>6</sup>Pub. L. No. 109-295, 120 Stat. 1355, 1375 (2006).

<sup>7</sup>GAO, *Information Technology: DHS Needs to Fully Define and Implement Policies and Procedures for Effectively Managing Investments*, GAO-07-424 (Washington, D.C.: Apr. 27, 2007).

best support its strategic mission needs and that ongoing projects will meet cost, schedule, and performance expectations.

**3. Most financial management modernization projects take a long time to complete, and many of the top leaders have a limited tenure, or a stove-piped view.**

- **In your view, is there a shared, department-wide view on how to move forward with financial management modernization?**
- **Who within the Department has a sustainable, long-term view of financial management modernization?**
- **Does this require top leadership buy-in?**

Regardless of the strategy DHS takes, sustained leadership will be key to a successful migration strategy for moving DHS toward a consolidated financial management system. In our *Executive Guide: Creating Value Through World-class Financial Management*,<sup>8</sup> we found that leading organizations made financial management improvement an entitywide priority by, among other things, providing clear, strong executive leadership. We also reported that making financial management a priority throughout the federal government involves changing the organizational culture of federal agencies. Although the views about how an organization can change its culture can vary considerably, leadership (executive support) is often viewed as the most important factor in successfully making cultural changes. Top management, such as the Secretary, must be committed in both words and actions to changing the culture, and this commitment must be sustained and demonstrated to staff. Sustained and committed leadership will be a key factor in the successful migration of DHS's financial management systems.

The federal government has faced a long-standing challenge of sustaining the momentum of transformation because of the limited tenure of key administration officials, and managing the transformation of an organization of the size and complexity of DHS requires comprehensive planning and integration of key management functions across the department. We have previously supported the establishment of a Chief Management Officer (CMO) position at DHS.<sup>9</sup> The CMO would serve as the strategic, enterprisewide integrator of efforts to transform agency business operations, including financial management.

Moreover, a concept of operations document with a clear definition and scope of the financial management activities to be included is another key element that can provide a shared, departmentwide view. A concept of operations defines how an organization's day-to-day operations are or will be carried out to meet mission needs. The concept of operations includes high-level descriptions of information systems, their interrelationships, and information flows. It also describes the operations that

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<sup>8</sup>GAO, *Executive Guide: Creating Value Through World-class Financial Management*, GAO/AIMD-00-134 (Washington, D.C.: April 2000).

<sup>9</sup>GAO, *Federal Financial Management: Critical Accountability and Fiscal Stewardship Challenges Facing Our Nation*, GAO-07-542T (Washington, D.C.: Mar. 1, 2007).

must be performed, who must perform them, and where and how the operations will be carried out. Our review<sup>10</sup> of the concept of operations prepared as part of the eMerge<sup>2</sup> project found that it lacked several key attributes called for by best practices. For example, the eMerge<sup>2</sup> concept of operations did not take into consideration the over 500 financial management and related legacy systems in operation at DHS. Because of the large number of systems, DHS needs to define in its concept of operation (1) which legacy systems will be migrated to the new environment and (2) how this transition is envisioned to occur in order to achieve an integrated environment. Not only is this needed from an investment management point of view, it is a key element in addressing human capital challenges relating to change management strategies. DHS has recognized the importance of a well-defined concept of operations and is drafting one that it expects to address component-specific legacy systems and how they will interact or be replaced.

**4. During the Emerge<sup>2</sup> program, the Department had identified over 7,000 system and business requirements. Department officials believe many of these requirements are reusable for future information technology projects. However, GAO raised concerns about whether any of the 7,000 requirements are salvageable. You have raised concerns about the ability of the Department to use some of the 7,000 requirements developed during its Emerge<sup>2</sup> program for another project.**

- **What are your concerns and could you outline possible remedies?**
- **If the Department purchases a commercially available system, would this eliminate the need to develop requirements?**

Although DHS officials told us that they expect the requirements developed for eMerge<sup>2</sup> to be salvageable and provide a foundation for its future efforts, our review found that key requirements developed for eMerge<sup>2</sup> did not have attributes associated with good requirements developed using best practices. The attributes of good requirements include being correct, unambiguous, complete, consistent, ranked for order of importance, verifiable, modifiable, and traceable. Some of the missing attributes of the eMerge<sup>2</sup> requirements were clarity, traceability, and completeness. Most importantly, the eMerge<sup>2</sup> requirements were not based on (1) a good concept of operations, (2) reengineered business processes, and (3) an appropriate internal control structure. For example, we were unable to identify critical requirements relating to inventory in the eMerge<sup>2</sup> documentation, even though DHS's fiscal year 2006 financial statements identified approximately \$677 million in inventory and supplies. To help reduce the risks associated with consolidating its financial management systems, we recommended<sup>11</sup> that DHS implement a disciplined requirements management process. DHS concurred with this recommendation, and we are encouraged that DHS recognized that attention is needed and is developing plans to address these financial management systems issues.

Such detailed requirements are still necessary even with the acquisition of a commercial off-the-shelf (COTS) system to make sure the implementation decisions that are required to make the COTS package operational result in a system that

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<sup>10</sup>GAO-07-536.

<sup>11</sup>GAO-07-536.

addresses the needs of the users. Major commercial software packages, such as those being acquired by the Defense Logistics Agency, National Aeronautics and Space Administration, the Departments of the Army, Navy, and Health and Human Services, and others to improve their financial management operations, are similar to the ones DHS is contemplating and are extremely complex. Therefore, it is critical that DHS understands what its users want the system to do, in order to configure the system to ensure that its expectations are met. Fundamental to this effort is an understanding of the requirements that are needed to achieve the desired functionality.

**5. The main takeaway in GAO’s testimony is that the Department needs to follow systematic methods or “disciplined processes.” We continue to hear about failed federal agency projects due in large part to failures by agency managers to follow “disciplined processes.”**

- **Why are the Department managers not following these processes?**
- **What actions are being taken to address this?**
- **What is your recommendation about how to correct this problem?**

History has shown a direct relationship between the effectiveness of the processes used to manage a project and how well that project meets its cost, schedule, and performance objectives—projects with strong processes have a far greater probability of meeting their objectives than projects that have weak processes. These disciplined processes are based on the best practices identified by the Software Engineering Institute (SEI),<sup>12</sup> the Institute of Electrical and Electronics Engineers, Inc. (IEEE),<sup>13</sup> the Project Management Institute, and other experts, which have been proven to reduce the risk in implementing systems. A disciplined software implementation management process can maximize the likelihood of achieving the intended results (performance) within established resources (costs) on schedule. Moreover, it is critical to have the right people in the right place at the right time to efficiently apply disciplined processes.

As we do more work in this area, we continue to find that the quality of these processes is a leading indicator of future successes and failures. These observations are consistent with those of experts reviewing private sector system development efforts. We previously recommended<sup>14</sup> that the Office of Management and Budget (OMB) develop specific guidance for agencies on disciplined processes for financial systems implementation and provide a standard set of practices to guide the migrations from legacy systems to new systems and application service providers.

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<sup>12</sup>SEI is a federally funded research and development center operated by Carnegie Mellon University and sponsored by the U.S. Department of Defense. The SEI objective is to provide leadership in software engineering and in the transition of new software engineering technology into practice.

<sup>13</sup>IEEE is a nonprofit, technical professional association that develops standards for a broad range of global industries, including the information technology and information assurance industries, and is a leading source for defining best practices.

<sup>14</sup>GAO, *Financial Management Systems: Additional Efforts Needed to Address Key Causes of Modernization Failures*, GAO-06-184 (Washington, D.C.: Mar. 15, 2006).

OMB agreed with our recommendation and in September 2006 issued high-level guidance to federal agencies. The guidance identified various disciplined processes, such as project management, requirements management, and data conversion, to reduce the risks associated with financial management systems implementations. While OMB's guidance is a notable first step, more detailed guidance is needed to help ensure a consistent understanding of the needed processes.

A key for DHS to avoid the long-standing implementation problems identified at other agencies is to successfully implement the recommendations in our report.<sup>15</sup> These recommendations are consistent with OMB's high-level guidance. Toward this end, DHS has recognized the importance of disciplined processes, and acknowledged that the success of its efforts is predicated on having a disciplined set of processes from requirements development to acceptance. In comments on our draft report,<sup>16</sup> DHS also indicated that it planned to add staff with program management and systems capabilities experience to manage its risks.

**6. We have been told that the long-term vision of the Department is to consolidate its financial management systems down to 2 from about 500. Mr. Norquist and Mr. Charbo testified that by 2011 97% of the Department will be on consolidated financial management systems. According to their testimony, they will move to Phase 2 and move the entire department to one financial management system. It is not clear what they mean by Phase 2.**

- What are your views on this two-phased approach that Mr. Norquist and Mr. Charbo have outlined?**

The scope of our review did not include an analysis of DHS's two-phased approach to consolidating financial management systems because DHS first announced this approach at the June 28, 2007, hearing. As noted in DHS's comments to our draft report,<sup>17</sup> it expects to use several financial management systems for an extended period. For example, DHS noted that the systems used by the Secret Service and the Federal Law Enforcement Training Center were not going to be migrated to one of the two consolidated financial management systems until at least 2011. Accordingly, it is unclear whether one or more of these systems will also need to undergo major upgrades before they are transitioned to one of the two planned financial management systems. Significant cost, time, and effort are associated with maintaining and upgrading financial management systems over an extended period of time. Therefore, it is important to recognize that such an approach may result in excessive costs.

**7. OMB has recently taken over the responsibilities of the former Joint Financial Management Improvement Program (JFMIP) to perform tests on financial management systems or packages used by agencies to ensure that the packages met a set of "core requirements." Once the financial management packages pass the tests, OMB certifies them as "JFMIP compliant" and ready for use by the agencies.**

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<sup>15</sup>GAO-07-536.

<sup>16</sup>GAO-07-536.

<sup>17</sup>GAO-07-536.

**However, GAO has reported that agencies that have implemented these “certified” packages still had significant problems.**

- **Has the OMB process for certifying financial management systems or packages improved agencies ability to successfully implement these systems?**
- **In your view, have these “certified” systems helped the Department?**

The certification process has been helpful but it is just one part of the equation. First, the certification process covers a subset of the financial management requirements needed to meet the requirements called for in the Federal Financial Management Improvement Act (FFMIA) of 1996.<sup>18</sup> Agencies must be mindful of this distinction. Second, agencies must fully understand that these packages are extremely complex and the user does not simply open a box, install the software, and turn it on. Agencies must make many decisions when installing these complex systems, and these decisions will affect the ultimate success of a project. An agency has little assurance that even though the package is certified, its implementation of a new system will also be compliant with FFMIA. This is due to (1) configuration decisions made during system implementation and (2) manual and non-COTS processes that are needed for successful implementation. While the certification tests are useful, federal agencies need to perform a great deal of their own testing to ensure that the system as ultimately implemented meets their needs and complies with FFMIA requirements. For example, although the COTS products adopted by DHS were tested and certified by JFMIP,<sup>19</sup> DHS still needs to test whether the products were implemented in a manner that ensured the packages continued to comply with the federal financial management systems requirements.

Further, the certification testing by necessity focuses on the technology portion of the equation. As noted in our report, each of the two financial management systems selected by DHS has significant material weaknesses, some of which were caused by factors outside the COTS package technology, such as people and process problems. Accordingly, DHS will also need to focus on these areas and correct these weaknesses before it can have reasonable assurance that its consolidation efforts will result in compliant systems.

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<sup>18</sup>Pub. L. No. 104-208, div. A., §101(f), title VIII, 110 Stat. 3009, 3009-389 (Sept. 30, 1996). FFMIA requires the heads of the 24 major departments and agencies (“Chief Financial Officer (CFO) Act agencies”) to maintain systems that comply substantially with three requirements: (1) federal financial management systems requirements, (2) federal accounting standards, and (3) the U.S. Standard General Ledger (SGL) at the transaction level.

<sup>19</sup>The former Joint Financial Management Improvement Program (JFMIP) was formed under the Budget and Accounting Procedures Act of 1950, Pub. L. No. 81-784, § 111 (f), 64 Stat. 832, 835 (Sept. 12, 1950) (*codified at* 31 U.S.C. § 3511), as a joint and cooperative undertaking of GAO, the U.S. Department of the Treasury, OMB, and Office of Personnel Management (OPM), working in cooperation to improve financial management practices in the federal government. In an effort to eliminate duplicative roles and streamline financial management improvement efforts, some of the former responsibilities of the JFMIP were placed under the Financial Systems Integration Office. (See OMB, *Realignment of Responsibilities for Federal Financial Management Policy and Oversight*, Memorandum (Washington, D.C.: Dec. 2, 2004)). As a result of the realignment, JFMIP ceased to exist as a separate organization, although the principals will continue to meet at their discretion.

8. **GAO and the Department auditors have reported since its inception that internal control and financial management weaknesses have prevented the Department from implementing successful financial management systems that improve Department business operations and provide accurate and reliable day-to-day financial and performance information. For fiscal years 2006 and 2005, the Department auditors were unable to provide an opinion on the Department consolidated financial statements. GAO points out in its report that achieving a “clean” opinion is not the end game. The Department needs to resolve its outstanding internal control issues.**
- **How will obtaining a clean opinion on the Department’s financial statements impact its financial management modernization?**

While there continues to be much focus on agency and governmentwide audit opinions, getting a clean audit opinion, though important in itself, is not the end goal. The end goal is the establishment of a fully functioning Chief Financial Officer (CFO) operation that includes (1) modern financial management systems that provide reliable, timely, and useful information to support day-to-day decision-making and oversight and for the systematic measurement of performance; (2) a cadre of highly qualified senior-level and supporting financial management staff; and (3) sound internal controls that safeguard assets and ensure proper accountability. Ultimately, DHS must be able to provide reliable, useful, and timely financial management information so that DHS leadership and the Congress are well-positioned to make fully informed decisions to secure America’s homeland. Because of the 10 material weaknesses reported<sup>20</sup> by DHS financial statement auditors, DHS management, the Congress, and others do not have reliable financial data for managing the agency. It is imperative that DHS reengineer its processes across the agency as part of addressing these material weaknesses.

In early March 2007, DHS officials issued a high-level plan to address these material weaknesses, referred to as the *Internal Control Over Financial Reporting Playbook*. However, the Playbook is not a comprehensive effort to address DHS’s financial management systems needs because it is limited to financial statement preparation based on two tracks. The first track focuses on corrective action strategies for material weaknesses, and the second track focuses on building support for the Secretary’s internal control over financial reporting assurance statement. Much more detail is needed to provide a financial management strategy or plan for integrating and modernizing DHS’s financial management systems. In addition, it is important to fix the problems that are embedded in the existing financial management systems before other DHS components are migrated to the any of these systems.

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We are sending a copy of this report to the Secretary of Homeland Security, and other interested parties. This report is also available on GAO’s home page at <http://www.gao.gov>. Should you have any questions on matters discussed in this

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<sup>20</sup>Department of Homeland Security, *Performance and Accountability Report Fiscal Year 2006* (Washington, D.C.: November 2006).

report or need additional information, please contact McCoy Williams at (202) 512-9095 or at [williamsm1@gao.gov](mailto:williamsm1@gao.gov) or Keith A. Rhodes at (202) 512-6412 or at [rhodesk@gao.gov](mailto:rhodesk@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report include Chris Martin, Senior-Level Technologist; Kay Daly, Assistant Director; Chanetta Reed; Francine DelVecchio; and Felicia Brooks.

Sincerely yours,

A handwritten signature in black ink that reads "McCoy Williams". The signature is written in a cursive, flowing style.

McCoy Williams  
Director  
Financial Management and Assurance

A handwritten signature in black ink that reads "Keith A. Rhodes". The signature is written in a cursive, flowing style.

Keith A. Rhodes  
Chief Technologist  
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