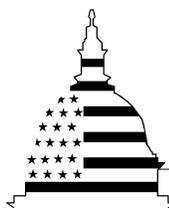


February 2004

INFORMATION  
TECHNOLOGY

OMB and Department  
of Homeland Security  
Investment Reviews



G A O

Accountability \* Integrity \* Reliability



INFORMATION TECHNOLOGY

OMB and Department of Homeland Security Investment Reviews

Highlights of GAO-04-323, a report to the Chairman, House Committee on Government Reform and Chairman, Subcommittee on Technology, Information Policy, Intergovernmental Relations and the Census

Why GAO Did This Study

In July 2002, the Office of Management and Budget (OMB) issued two memorandums directing agencies expected to be part of the Department of Homeland Security (DHS) to temporarily cease funding for new information technology (IT) infrastructure and business systems investments and submit information to OMB on current or planned investments in these areas (see figure below for a timeline).

GAO was asked to (1) explain OMB's implementation of these memorandums, (2) identify any resulting changes to applicable IT investments, and (3) ascertain if DHS has initiated its own investment management reviews and, if so, what the results of these reviews have been.

What GAO Recommends

GAO is making recommendations to DHS to (1) report savings resulting from its consolidation and integration of systems and (2) develop a schedule for reviews of IT investments subject to departmental oversight. In commenting on a draft of the report, OMB representatives stated that they generally agreed with our findings and DHS officials stated that it was factually accurate.

[www.gao.gov/cgi-bin/getrpt?GAO-04-323](http://www.gao.gov/cgi-bin/getrpt?GAO-04-323).

To view the full product, including the scope and methodology, click on the link above. For more information, contact David Powner at (202) 512-9286 or pownerd@gao.gov.

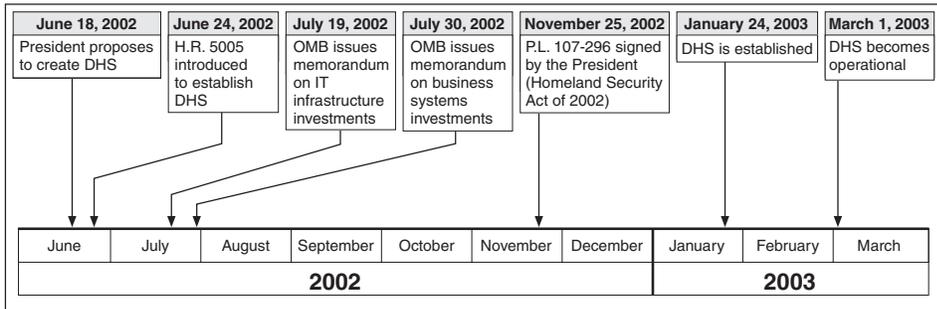
What GAO Found

The July 2002 memorandums established an investment review group co-chaired by OMB and the Office of Homeland Security to review submitted investments and estimated that millions of dollars potentially could be saved as a result of consolidating and integrating component agency investments. The investment review group relied on an informal, undocumented process to fulfill its responsibilities. Nevertheless, according to OMB and DHS IT officials, the review group both reviewed five component agency investments that were submitted and addressed long-term IT strategic issues related to the transition to the new department.

OMB and DHS IT officials cited some changes to agency IT infrastructure and business systems investments because of the July memorandums. In addition, DHS IT officials cited other benefits that resulted from the memorandums. However, it is not known whether, or the extent to which, savings have resulted from the memorandums. In particular, OMB did not track savings associated with the July memorandums because, according to OMB IT staff, anticipated budgetary savings had not occurred at the time the review group was in place. DHS's chief information officer stated that the department plans to track savings related to the consolidation and integration of systems and has established a mechanism for doing so. However, until such savings are identified, tracked, and reported it will remain unknown whether the July memorandums and the subsequent establishment of DHS have achieved the potential economies identified by OMB.

Once DHS became operational and the investment review group no longer existed, the department established its own IT investment management process, which is still evolving. As part of this process, between May 2003 and late January 2004, the DHS's highest level investment management board performed reviews of nine investments that had reached key decision points. Even with this progress, the department has identified about 100 IT programs that are eligible for review by its two top department-level boards. However, DHS has not established a process to ensure that key reviews of such IT investments are performed in a timely manner.

Timeline of Events Related to the OMB Memorandums and the Establishment of DHS



Source: GAO.

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**Abbreviations**

ACE	Automated Commercial Environment
CAPPS II	Computer Assisted Passenger Prescreening System
CIO	chief information officer
DHS	Department of Homeland Security
IRB	Investment Review Board
IT	information technology
OMB	Office of Management and Budget
US-VISIT	United States Visitor and Immigrant Status Indicator Technology

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United States General Accounting Office  
Washington, D.C. 20548

February 10, 2004

The Honorable Tom Davis  
Chairman, Committee on Government Reform  
House of Representatives

The Honorable Adam H. Putman  
Chairman, Subcommittee on Technology, Information  
Policy, Intergovernmental Relations and the Census  
Committee on Government Reform  
House of Representatives

The Homeland Security Act of 2002 (P.L. 107-296), which was enacted in November 2002, brought together 22 diverse agencies and created a new cabinet-level department—the Department of Homeland Security (DHS)—to help prevent terrorist attacks in the United States, reduce the vulnerability of the United States to terrorist attacks, and minimize the damage and assist in recovery from attacks that do occur. The new DHS presents both information technology (IT) challenges and opportunities. For example, DHS (1) faces considerable challenges in integrating the many systems and processes that provide management with information necessary for decision making and (2) offers opportunities to identify and eliminate redundant investments and achieve more efficiencies in IT investments.

To begin to tackle these issues even before the department was formed, the Office of Management and Budget (OMB) in July 2002 issued two memorandums directing federal agencies<sup>1</sup> that were expected to be part of the new department to temporarily cease funding for new IT infrastructure and business systems investments and submit information to OMB on

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<sup>1</sup>The entities that were affected by one or both of the July 2002 memorandums were the Department of Agriculture's Animal and Plant Health Inspection Service, the Federal Emergency Management Agency, the Department of Justice's Immigration and Naturalization Service, the Department of Transportation's Transportation Security Administration and Coast Guard, and the Department of the Treasury's Secret Service and Customs Service. Each of these entities was transferred at least in part to DHS, and will be referred to as component agencies for purposes of this report.

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current or planned investments in these areas.<sup>2</sup> These memorandums also established an investment review group,<sup>3</sup> co-chaired by OMB and the Office of Homeland Security, to review investments that met the criteria in the July memorandums. In October 2002, we testified that it was too early to assess the impact of OMB's action because agency submissions were still being evaluated.<sup>4</sup>

Since DHS has now been established, you requested that we follow up on our prior testimony and (1) explain how OMB implemented the July 2002 memorandums; (2) identify what, if any, changes to agency IT investments resulted from the July memorandums and the Homeland Security IT Investment Review Group's evaluations (hereafter called the review group); and (3) ascertain whether DHS has initiated its own investment management reviews and, if so, what the results of these reviews have been. To address the first objective, we sought available documentation on the criteria and process used by the investment review group to make decisions. Likewise for the second objective, we sought documentation from OMB and applicable DHS component agencies on decisions made by the investment review group and on changes to IT investments that resulted from the July 2002 memorandums. However, according to OMB and DHS IT officials, the processes used and decisions made by the review group and the DHS component agencies were not documented. As a result, we largely relied upon interviews with applicable OMB and DHS IT officials—including representatives from OMB's Office of Information and Regulatory Affairs, the DHS chief information officer (who is also the former Office of Homeland Security co-chair of the investment review group), and DHS component agency IT officials—to address the first two

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<sup>2</sup>According to OMB representatives, the July 2002 memorandums stopped being applicable once DHS became operational in March 2003.

<sup>3</sup>The July 2002 memorandums created two investment review groups, the (1) Homeland Security IT Investment Review Group, which was to review IT infrastructure investments, and (2) Business Systems IT Review Group, which was to review business systems investments. However, according to an OMB IT representative and the Office of Homeland Security co-chair of these groups, because the membership was largely the same (they generally comprised the chief information officers of the component agencies expected to be part of DHS although some chief financial officers were also represented), they acted as a single entity. Accordingly, we refer to these groups as the Homeland Security IT Investment Review Group for purposes of this report.

<sup>4</sup>U.S. General Accounting Office, *Homeland Security: OMB's Temporary Cessation of Information Technology Funding for New Investments*, [GAO-03-186T](#) (Washington, D.C.: Oct. 1, 2002).

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objectives. To address the third objective, we reviewed DHS's IT investment management review policies and documentation of DHS reviews performed of component agency IT investments. This documentation included decision memorandums issued by its highest level investment management board on the results of its reviews. We also interviewed the DHS chief information officer (CIO), chief technology officer, and the coordinator of the DHS investment review process. We performed our work at OMB and DHS in Washington, D.C., between July 2003 and January 2004, in accordance with generally accepted government auditing standards.

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## Results in Brief

The Homeland Security IT Investment Review Group relied on an informal and undocumented process to fulfill its responsibilities under the July 2002 memorandums. Nevertheless, according to OMB and DHS IT officials, the review group both reviewed the few component agency investments that were submitted for approval and addressed long-term issues related to the transition to the new department. In particular, OMB IT representatives stated that when the establishment of DHS became closer in time the investment review group shifted its focus to IT strategic issues related to the transition to the proposed department.

OMB and DHS IT officials cited some changes to agency IT infrastructure and business systems investments because of the July memorandums. The component agencies submitted five requests to the review group, which recommended their approval but with conditions. An example of a request that was recommended for approval was the Secret Service's request to procure search engine software. According to Secret Service, OMB, and DHS IT officials, this request was recommended for approval with the condition that the contractual document allow other component agencies to use the search engine. Four component agencies also reported other changes, including putting planned enhancements on hold, as a result of the July memorandums. However, it is not known whether, or the extent to which, savings have resulted from the memorandums. In particular, OMB did not track the savings associated with the July memorandums because, according to OMB IT staff, budgetary savings had not occurred at the time that the review group was in place. Until savings resulting from the consolidation and integration of systems and services are identified, tracked, and reported it will remain unknown whether OMB's July memorandums and the subsequent establishment of DHS have achieved the potential economies identified by OMB in the memorandums.

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Once DHS became operational and the investment review group no longer existed, the department established its own IT investment management process, which is still evolving. As part of this process, DHS's CIO reported that he approved the department's IT portfolio for the fiscal year 2005 budget cycle. In addition, between May 2003 and late January 2004, the department's highest level investment management board had performed control reviews<sup>5</sup> on nine investments that had reached certain key decision points. In each of these cases the project was allowed to proceed but additional documentation was required and/or conditions set. Although DHS is making progress in reviewing component agency projects, the department has identified about 100 IT programs that are eligible for review by its two top-level departmental investment management boards. According to IT officials, DHS is having difficulty in bringing all of these programs before the boards in a timely manner. Moreover, DHS has not established a process to ensure that key reviews of component agency IT investments subject to departmental reviews are performed in a timely manner, although it has begun to collect information on the priorities and schedules of its top-level investments as a first step.

We are making recommendations to DHS that it report the savings that result from its consolidation and integration of systems and services and develop a control review schedule for IT investments subject to departmental oversight.

We received oral comments on a draft of this report from OMB and DHS representatives, who stated that they generally agreed with our findings and that it was factually accurate, respectively.

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## Background

With the terrorist attacks of September 11, 2001, the threat of terrorism rose to the top of the country's national security and law enforcement agendas. In response to these growing threats, the Congress passed and the President signed the Homeland Security Act of 2002, which created DHS. We have previously identified IT management as critical to the

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<sup>5</sup>During the control phase of the IT investment management process, the organization ensures that, as projects develop and as funds are spent, the project is continuing to meet mission needs at the expected levels of cost and risk.

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transformation of the new department.<sup>6</sup> Not only does DHS face considerable challenges in integrating the many systems and processes that provide management with information for decision making, but it must sufficiently identify its future needs in order to build effective systems that can support the national homeland security strategy in the coming years. To jump start this planning process and also begin to identify opportunities for improved effectiveness and economy, OMB issued two memorandums in July 2002 to selected agencies telling them to “cease temporarily” and report on new IT infrastructure and business systems investments above \$500,000.

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## Mission, Organization, and Role of IT in DHS

On March 1, 2003, DHS assumed operational control of nearly 180,000 employees from 22 incoming agencies and offices. In establishing the new department, the Congress articulated a seven-point mission for DHS:

- Prevent terrorist attacks within the United States.
- Reduce the vulnerability of the United States to terrorism.
- Minimize the damage and assist in the recovery from terrorist attacks.
- Carry out all functions of entities transferred to the department, including by acting as a focal point regarding natural and man-made crises and emergency planning.
- Ensure that the functions of the agencies within the department that are not directly related to securing the homeland are not diminished or neglected.
- Ensure that the overall economic security of the United States is not diminished by efforts aimed at securing the homeland.
- Monitor connections between illegal drug trafficking and terrorism, coordinate efforts to sever such connections, and otherwise contribute to efforts to interdict illegal drug trafficking.

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<sup>6</sup>U.S. General Accounting Office, *Major Management Challenges and Program Risks: Department of Homeland Security*, [GAO-03-102](#) (Washington, D.C.: January 2003).

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To help DHS accomplish its mission, the Homeland Security Act of 2002 establishes four mission-related directorates, the (1) Border and Transportation Security directorate, (2) Emergency Preparedness and Response directorate, (3) Science and Technology directorate, and (4) Information Analysis and Infrastructure Protection directorate. In addition to these directorates, the U.S. Secret Service and the U.S. Coast Guard remain intact as distinct entities within DHS; Immigration and Naturalization Service adjudications and benefits programs report directly to the deputy secretary as the Bureau of Citizenship and Immigration Services, and the Management directorate is responsible for budget, human capital, and other general management issues.<sup>7</sup>

According to the most recent President's budget, DHS expects to make about \$4 billion in IT investments in fiscal year 2004—the third largest IT investment budget in the federal government.<sup>8</sup> In addition, as we have testified, information management and technology are among the critical success factors that the new department should emphasize in its initial implementation phase.<sup>9</sup> For example, DHS currently has several ongoing IT projects that are critical to the effective implementation of its mission, such as the

- Integrated Surveillance Intelligence System, which is to provide “24 by 7” border coverage through ground-based sensors, fixed cameras, and computer-aided detection capabilities;
- Student Exchange Visitor Information System, which is expected to manage information about nonimmigrant foreign students and exchange visitors from schools and exchange programs;

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<sup>7</sup>DHS's Office of the CIO is part of the Management directorate.

<sup>8</sup>Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2005, Report on IT Spending for the Federal Government for Fiscal Years 2003, 2004, and 2005*. We did not verify these data.

<sup>9</sup>U.S. General Accounting Office, *Homeland Security: Proposal for Cabinet Agency Has Merit, But Implementation Will be Pivotal to Success*, [GAO-02-886T](#) (Washington, D.C.: June 25, 2002).

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- Automated Commercial Environment project, which is to be a new trade processing system;<sup>10</sup> and
  - United States Visitor and Immigrant Status Indicator Technology (US-VISIT), a governmentwide program intended to improve the nation's capacity for collecting information on foreign nationals who travel to the United States, as well as control the pre-entry, entry, status, and exit of these travelers.<sup>11</sup>

Moreover, as all of the programs and agencies are brought together in the new department, it will be an enormous undertaking to integrate their diverse communication and information systems. Among the IT challenges that the new department will have to face and overcome are developing, maintaining, and implementing an enterprise architecture,<sup>12</sup> and establishing and enforcing a disciplined IT investment management process (which includes establishing an effective selection, control, and evaluation process).<sup>13</sup> The department's ability to overcome these challenges is complicated by the IT management problems that its major components had when they transferred to DHS. Specifically, as we previously reported, we still have numerous outstanding IT management recommendations that require action at component agencies, such as the Customs Service and the Coast Guard.<sup>14</sup>

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<sup>10</sup>We have previously issued reports on this initiative. For example, see U.S. General Accounting Office, *Customs Service Modernization: Automated Commercial Environment Progressing, but Further Acquisition Management Improvements Needed*, [GAO-03-406](#) (Washington, D.C.: Feb. 28, 2003).

<sup>11</sup>We have previously issued reports on this initiative. For example, see U.S. General Accounting Office, *Homeland Security: Risks Facing Key Border and Transportation Security Program Need to Be Addressed*, [GAO-03-1083](#) (Washington, D.C.: Sept. 19, 2003).

<sup>12</sup>An enterprise architecture is a blueprint for institutional modernization and evolution that consists of models describing how an entity operates today and how it intends to operate in the future, along with a plan for how it intends to transition to this future state.

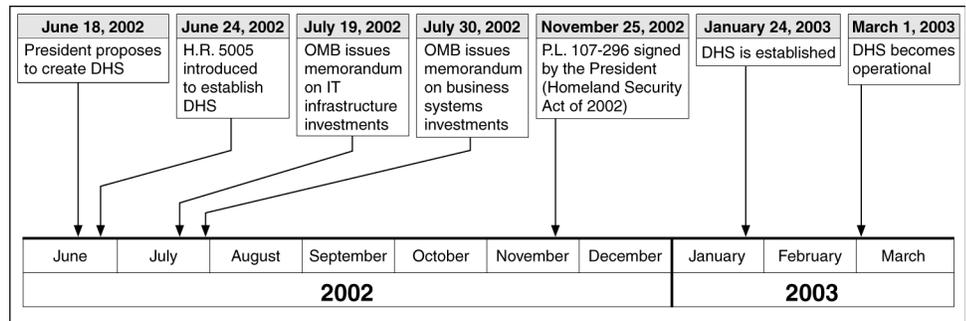
<sup>13</sup>We have issued guidance to agencies related to enterprise architecture, IT investment management, and other management issues. For example, see U.S. General Accounting Office, *Information Technology: A Framework for Assessing and Improving Enterprise Architecture Management (Version 1.1)*, [GAO-03-584G](#) (Washington, D.C.: Apr. 1, 2003) and *Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity*, [GAO/AIMD-10.1.23](#), Exposure Draft (Washington, D.C.: May 2000).

<sup>14</sup>U.S. General Accounting Office, *Homeland Security: Information Technology Funding and Associated Management Issues*, [GAO-03-250](#) (Washington, D.C.: Dec. 13, 2002).

## OMB's July 2002 Memorandums on IT Infrastructure and Business Systems Investments

Figure 1 illustrates the timing of OMB's July 2002 memorandums. These memorandums instructed selected agencies to (1) cease temporarily new IT infrastructure and business systems (i.e., financial management, procurement, and human resources systems) investments above \$500,000 pending a review of the investment plans of all proposed DHS component agencies; (2) identify and submit to OMB information on any current or planned spending on these types of initiatives; and (3) participate in applicable IT investment review groups co-chaired by OMB and the Office of Homeland Security.

**Figure 1: Timeline of Events Related to the OMB Memorandums and the Establishment of DHS**



Source: GAO.

According to OMB, its goal in issuing these memorandums was to seek opportunities for improved effectiveness and economy. In addition, according to officials from OMB's Office of Information and Regulatory Affairs, another purpose was to obtain an inventory of current and planned IT infrastructure and business systems investments for organizations to be moved to DHS, which was expected to help in the administration's transition planning.

Although OMB directed selected agencies to temporarily cease these investments, it did not necessarily mean that work was to be stopped on all IT infrastructure and business systems projects at the applicable agencies. First, the memorandums only pertained to funding for new development efforts and not to existing systems in a "steady state" using operations and maintenance funding. Second, the cessation did not apply if funds pertaining to a development or acquisition contract had already been obligated. Third, agencies could request an expedited review to obtain the

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approval to proceed if they had an emergency or critical need. The following are examples of how OMB's direction to temporarily cease IT investments would apply in certain circumstances.

- If an agency had an existing procurement system in a steady state in which no major modifications or modernization efforts were planned, there would have been no effect on the funding of this system.
- If an agency had an ongoing contract with available obligations for the development of a financial management system, there would have been no effect on this contract, but new obligations for development or modernization efforts would have been required to be approved by the review group.
- If an agency wanted to award a contract over \$500,000 for a new or modernized IT infrastructure item such as a local area network, it would have been required to obtain approval from the investment review group before proceeding.

Our testimony of October 2002, stated that it was not possible to assess the full effect of the July memorandums on the selected agencies at that time.<sup>15</sup> Except for emergency requests, according to representatives from OMB's Office of Information and Regulatory Affairs, the review group had not taken any action at the time of our review on the agencies' submissions in response to the July memorandums because neither they nor OMB had completed their reviews of these documents.

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## Implementation of OMB's July 2002 Memorandums

The July memorandums called on the Homeland Security IT Investment Review Group to assess individual IT investments as part of considering whether to consolidate or integrate component agency efforts. In fulfilling this role, the review group relied on an informal process, which was not documented. Although the review group reviewed the few investments that component agencies submitted, according to OMB and DHS IT officials, the group generally addressed broader issues related to the transition to the new department. In particular, these officials noted that the review group concentrated on longer term IT strategic issues, such as those related to

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<sup>15</sup>[GAO-03-186T](#).

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the development of an enterprise architecture, associated with the transition to the proposed department.

The investment review group was tasked with (1) reviewing component agency IT investment submissions that met the criteria in the memorandums, and (2) making recommendations related to these submissions, including looking for opportunities to consolidate and integrate component agency investments. According to OMB IT representatives, the group generally met once a week but did not have a documented process for performing reviews of the few component agency investments that were submitted for review. These officials reported that in the review process that was implemented, (1) agencies requested approval of selected IT investments, (2) OMB and the investment review group reviewed the agency submission, and (3) the review group made a recommendation. Once this recommendation was made, the normal budget execution process was implemented. Moreover, according to these representatives, the investment review group used the principles contained in section 300 of OMB Circular A-11 and section 8(b) of OMB Circular A-130 as the criteria for evaluating submitted investments.<sup>16</sup> In addition, in commenting on a draft of this report, representatives from OMB's Office of Information and Regulatory Affairs and Office of the General Counsel stated that although the activities of the Homeland Security IT Investment Review Group were generally conducted on an informal basis, the group relied on the already-existing processes documented in these circulars to fulfill its responsibilities.

According to OMB IT representatives, when the establishment of DHS became closer in time, the focus of the review group shifted from reviewing individual investments to addressing the IT strategic issues involved with establishing the department. In particular, according to DHS officials, the review group created six working groups to address, respectively, business architecture, networks, information security, Web management, directory services (e.g., e-mail capability), and technical reference model issues. In addition, according to these officials, the investment review group took

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<sup>16</sup>These circulars instruct agencies to develop, implement, and use capital programming processes that, for example: (1) evaluate and select capital asset investments that will support core mission functions and demonstrate projected returns on investments that are clearly equal to or better than alternative uses of public resources, (2) ensure that improvements to existing and planned information systems do not unnecessarily duplicate IT capabilities within the same agency, and (3) institute performance measures and management processes that monitor and compare actual performance with planned results.

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into account transition work being performed by other entities. For example, the review group worked with a liaison from the Chief Financial Officers Council, which was looking at financial management system matters related to the new department.

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## Some Changes Were Made to Component Agency IT Infrastructure and Business Systems Investments

The July 2002 memorandums resulted in some changes to agency IT infrastructure and business systems investments. Specifically, according to OMB and DHS IT officials, the review group recommended approval with conditions the five IT investments submitted to it and four component agencies reported that they changed other initiatives as a result of the memorandums. However, it is not known whether, or the extent to which, savings have resulted from the memorandums. In particular, OMB did not track the savings associated with the July memorandums because, according to OMB IT representatives, budgetary savings had not occurred when the review group was in place. Nevertheless, OMB and DHS IT officials cited other benefits that resulted from the memorandums, such as the identification of ongoing component agency efforts or resources that were important to the operation of the department at its inception.

Four component agencies submitted five IT investment requests to be reviewed by the review group. According to OMB and DHS IT officials, all of these requests were recommended for approval with conditions. In addition, four component agencies reported that on their own initiative that they terminated, delayed, or changed other initiatives as a result of the July memorandums. (See table 1.)

**Table 1: Summary of Changes to Component Agencies' IT Investments**

Component agency <sup>a</sup>	Reported investment request/decision by the Homeland Security IT Investment Review Group	Investment decision reported by the component agency
Animal and Plant Health Inspection Service	Did not request any decisions.	<ul style="list-style-type: none"> <li>• Stopped expansion and maintenance of the Plant Protection and Quarantine Small Site Data Communications Infrastructure.</li> <li>• Put on hold further development of the Automated Target System. Future enhancements to this system are still on hold pending DHS-wide decisions.</li> </ul>
Coast Guard	Submitted an emergency request to proceed with a licensing agreement with Microsoft. This was recommended for approval with the condition that the agreement be expanded to include other DHS entities. (According to Coast Guard IT officials, the licensing agreement was not expanded to include other DHS entities, but they could not explain why the review group's condition was not met.) <sup>b</sup>	Did not report any other changes as a result of the July memorandums.
Customs Service	Submitted a nonemergency request to procure a new e-mail system. The review group agreed with the procurement of a new e-mail system but recommended a different technical solution. As of early January 2004, this solution had not yet been implemented.	Did not report any other changes as a result of the July memorandums.
Federal Emergency Management Agency	Did not request any decisions.	<ul style="list-style-type: none"> <li>• Terminated a planned correspondence tracking system.<sup>c</sup></li> <li>• Terminated a planned personnel resources information system.</li> <li>• Integrated five infrastructure projects into ongoing DHS initiatives.</li> <li>• Scaled back its enterprise resource planning project pending DHS-wide decisions.</li> <li>• Scaled back planned upgrades to its financial management system pending DHS-wide decisions.</li> </ul>

(Continued From Previous Page)

Component agency <sup>a</sup>	Reported investment request/decision by the Homeland Security IT Investment Review Group	Investment decision reported by the component agency
Immigration and Naturalization Service	Did not request any decisions.	<ul style="list-style-type: none"> <li>• Put on hold planned enhancements to its core financial management system pending DHS-wide decisions. These enhancements are still on hold.</li> <li>• Put on hold a planned replacement of its Correspondence Control and Task Tracking System, which remains on hold.</li> <li>• Put on hold planned enhancements to Atlas, an initiative to upgrade its IT infrastructure, pending DHS-wide decisions. These enhancements are still on hold.</li> </ul>
Secret Service	Submitted an emergency request to procure a search engine that would conduct database searches across the agency. This request was recommended for approval with the condition that the procurement include other DHS entities.	Did not report any other changes as a result of the July memorandums.
Transportation Security Administration	<ul style="list-style-type: none"> <li>• Submitted an emergency request to proceed with a task order for a managed services contract, which was recommended for approval with the condition that the contract be expanded to include other DHS entities.</li> <li>• Submitted a nonemergency request to procure network infrastructures at airports. This request was recommended for approval with the condition that the agency use, to the extent possible, the existing airport infrastructure capabilities of the Customs Service and the Immigration and Naturalization Service. The Transportation Security Administration was also directed to work with these agencies when a need for network infrastructure is identified at specific airports.</li> </ul>	Delayed the agency's plans for "back office" systems, such as human resources and payroll systems. According to the Transportation Security Administration's CIO, a final decision on these efforts is awaiting DHS-wide decisions.

Source: OMB, DHS, and component agency IT officials.

<sup>a</sup>For the purposes of this table, we used the names of the component agencies that were employed at the time of the July 2002 memorandums. Some of these names changed after DHS was established.

<sup>b</sup>According to the DHS CIO, this lack of compliance with the investment review group's condition was mitigated by the later implementation of a DHS-wide Microsoft enterprise license.

<sup>c</sup>The Federal Emergency Management Agency reported that this project was terminated, in part, because of the July 2002 memorandums.

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The July memorandums stated that initial estimates indicated that potential savings of between \$100 million and \$200 million (IT infrastructure) and \$65 million and \$85 million (business systems) could be achieved over a 2-year period<sup>17</sup> as a result of consolidating and integrating component agency investments. OMB reported to congressional committees that these estimates were based primarily on best practices in the federal government and private industry. However, an OMB IT representative stated that these estimates were a rough approximation and that no documentation existed to support how they were derived.

The July memorandums also stated that the review group would track these savings. Moreover, OMB reported to congressional committees that this tracking would include a breakout of the savings, the cause of the savings, and the time period in which the savings would be generated. However, a tracking process was not established because, according to an OMB IT representative, no budgetary savings had occurred at the time that the investment review group was in place since no investment was terminated by the group. According to this representative, OMB still believes that budgetary savings will occur and expects that DHS will track these savings. Moreover, this representative stated that OMB will be actively working with DHS as part of its budgetary and management processes to ensure that such savings occur.

DHS's CIO agreed that savings are expected to result from the department's consolidation and integration of systems. Moreover, he stated that DHS will be tracking such savings and has established a mechanism for doing so. Specifically, the CIO pointed to DHS's establishment of IT commodity councils—groups that are responsible for a collection of related materials or services—that would perform this function. According to the Director of Strategic Sourcing and Acquisition Systems, the councils have established project teams that are responsible for tracking savings. According to this official, each project is in the process of developing their project plans, departmental requirements, and savings targets. Until savings resulting from the consolidation and integration of systems and services are identified, tracked, and reported, it will remain unknown whether OMB's July memorandums and the subsequent establishment of DHS have achieved the potential economies identified by OMB. In addition, DHS IT officials stated that they were not aware of any plans to report budgetary

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<sup>17</sup>OMB did not specify the 2 years. The DHS CIO believes that the OMB savings estimates are achievable, but are not likely to be realized in the first 2 years of DHS's establishment.

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savings resulting from the consolidation and integration of systems to applicable congressional committees. Such savings information is an important element for the Congress to consider when deliberating DHS budget requests and overseeing its IT management. Moreover, the Chairman of the House Committee on Government Reform has previously expressed concern that there has been a tremendous push for additional IT spending at DHS component agencies without ensuring appropriate management or accountability.

Although budgetary savings have not yet been identified, DHS IT officials, including the CIO, cited other benefits to the July memorandums. In particular, DHS IT officials estimated that several million dollars in costs have been avoided as a result of the Secret Service decision. (A Secret Service IT official provided an explanation of how this estimate was derived, but we could not validate this amount because it was not clearly supported by the documentation provided.) In addition, the CIO stated that the investment review group evolved into the department's CIO Council, which is responsible for developing, promulgating, implementing, and managing a vision and direction for information resources and telecommunications management. Further, the DHS chief technology officer reported that the review group provided the new department with a head start on day one operations by, for example, deciding to use the Immigration and Naturalization Service's network backbone for the department. Finally, these and DHS component agency IT officials stated that the memorandums facilitated the department's long-term IT planning efforts, including the development of an enterprise architecture.<sup>18</sup>

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## DHS Has Initiated Reviews of Component Agency IT Investments, but Its Processes Are Still Evolving

Once DHS became operational and the investment review group established by the July memorandums no longer existed, the department established an IT investment management process that includes departmental reviews of component agency IT investments meeting certain criteria. As part of the selection phase<sup>19</sup> of this process, DHS's CIO reported that he approved the department's IT portfolio as part of the fiscal year 2005 budget cycle. In addition, as of January 26, 2004, the department's

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<sup>18</sup>In September 2003, DHS completed the first version of its target enterprise architecture.

<sup>19</sup>During the selection phase of an IT investment management process, the organization (1) selects projects that will best support its mission needs and (2) identifies and analyzes each project's risks and returns before committing significant funds.

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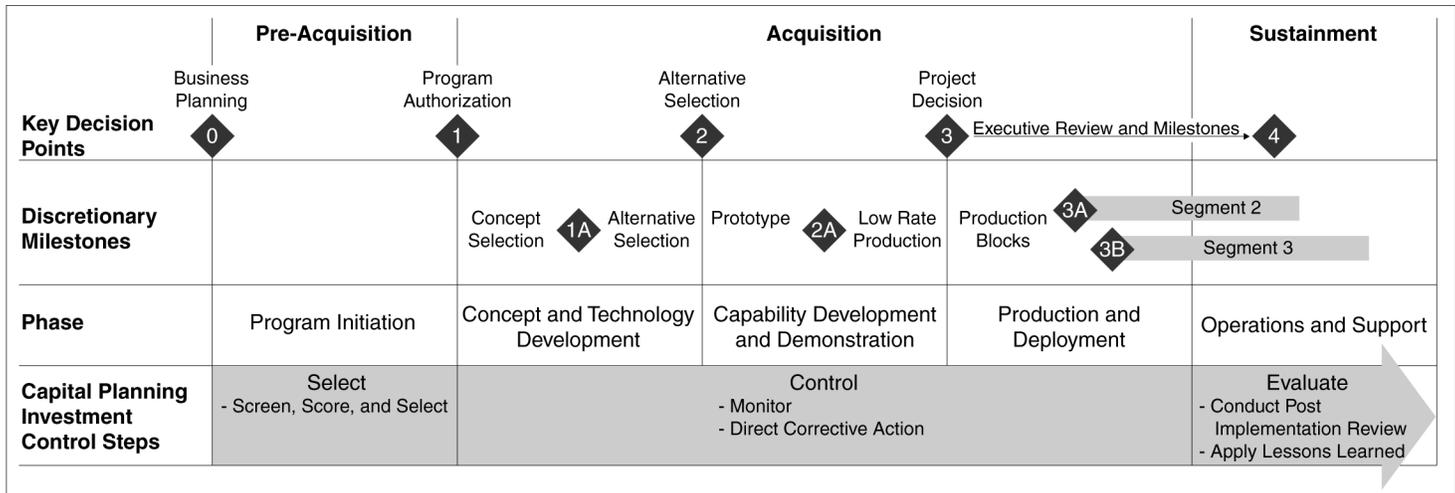
highest level investment management board had performed control reviews<sup>20</sup> of nine investments that had reached key decision points. In each of these cases, the project was allowed to proceed although additional documentation was required and/or conditions were set. Finally, the department's investment management process is still evolving as the department attempts to deal with a large number of IT investments eligible for departmental reviews.

In May 2003, DHS issued an investment review management directive and IT capital planning and investment control guide, which provide the department's entities with requirements and guidance on documentation and review of IT investments. In particular, the management directive establishes four levels of investments, the top three of which are subject to review by department-level boards—the Investment Review Board (IRB), Management Review Council, and Enterprise Architecture Board. Appendix I provides a description of these department-level boards and the investments that they are responsible for. The directive also establishes a five-phase acquisition process that calls for these investments to be reviewed at key decision points, such as program authorization. In addition, the IT capital planning and investment control guide lays out a process for selecting, controlling, and managing investments. Figure 2 provides an overview of the review process outlined in the management directive and capital planning and investment control guide.

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<sup>20</sup>During the control phase of the IT investment management process, the organization ensures that, as projects develop and as funds are spent, the project is continuing to meet mission needs at the expected levels of cost and risk.

**Figure 2: DHS Investment Review Process**



Source: DHS.

As part of the selection phase of its capital planning and investment control process, DHS reviewed component agency IT investments for its fiscal year 2005 budget submission. Specifically, according to DHS IT officials, (1) the CIO approved the department’s IT portfolio and (2) all of the major IT systems submitted to OMB for the fiscal year 2005 budget were assessed and scored by an investment review team.<sup>21</sup>

In addition, beginning in May 2003, DHS’s top-level board (the IRB) began reviewing the department’s highest priority projects. As of January 26, 2004, the department had performed 12 control reviews of nine investments. Table 2 summarizes the results of these reviews.

<sup>21</sup>The investment review team was made up of representatives from the offices of the CIO, chief financial officer, and the chief procurement officer, as well as several component agencies.

**Table 2: Summary of IRB Control Reviews<sup>a</sup>**

Sponsoring component entity	IT investment	Decision	Comments
Border and Transportation Security Directorate	Automated Commercial Environment (ACE)	Two reviews of this program were held. First, on September 25, 2003, the IRB designated this investment as a DHS level I investment and approved its strategic direction. The IRB also decided to reconvene when a DHS review team assessing the ACE program documentation had completed its review. Second, on November 20, 2003, the IRB agreed with the findings of this review team and directed that the team's recommendations be implemented. The IRB also authorized the approval of the program's fiscal year 2004 expenditure plan.	In both reviews, the IRB directed the sponsor to submit additional documentation. In addition, in the second review the IRB stated that DHS's Planning Analysis and Evaluation office would hold working group meetings with ACE program staff to review the department's comments and develop an oversight action plan.
Border and Transportation Security Directorate	United States Visitor and Immigrant Status Indicator Technology (US-VISIT)	Three reviews on this program were held. First, on May 30, 2003, US-VISIT was approved to continue work but did not receive approval to enter into the capability development and demonstration acquisition phase. Second, on September 8, 2003, DHS stated that US-VISIT had not satisfied the exit criteria for increment 1 and 2. Nevertheless, because of its importance to improving security, US-VISIT was allowed to continue the design and deployment of its first increment and planning for future increments concurrent with it working on satisfying the DHS requirements set forth in the decision memorandum. Third, the IRB reviewed US-VISIT on November 25, 2003, but the decision memorandum was not available as of January 26, 2004.	At the time of the first review, the sponsor was provided with exit criteria and dates for submission of documentation, such as the configuration management plan and life-cycle cost estimate, which constitutes the exit criteria for the next acquisition phase.
Border and Transportation Security Directorate	Computer Assisted Passenger Prescreening System (CAPPS II)	Designated as a DHS level I investment, approved its strategic direction, and authorized the program to proceed with the capability development and demonstration phase.	Stated that program must provide updated information prior to requesting the next key decision point approval and required that it address various areas of concern, such as ensuring interoperability of data transfer, addressing privacy and policy issues, and identifying industry savings associated with the project.

(Continued From Previous Page)

Sponsoring component entity	IT investment	Decision	Comments
Citizenship and Immigration Services Bureau	Immigration Services Modernization	Designated as a DHS level I investment and provided interim approval to commence the capability development and demonstration phase.	Required that the sponsor (1) develop a transition plan that is approved by the DHS CIO; (2) develop a plan to accelerate the development of paperless processes and electronic archives; and (3) submit systems documentation, such as a mission needs statement and test and evaluation plan.
Coast Guard	Integrated Deepwater Systems Program	Designated as a DHS level I investment and approved its strategic direction.	Established an oversight process in which (1) DHS's Planning Analysis and Evaluation office is to establish a reporting system to capture key/critical program/platform activities and attend Deepwater program reviews, (2) the IRB deferred decisions on Key Decision Points related to specific asset/capability types to the Coast Guard Acquisition Executive, and (3) the IRB is to be briefed annually on the program.
Management Directorate	Consolidated IT Security Program	Designated as a DHS level I investment and provided interim approval to commence the capability development and demonstration phase.	Directed the sponsor to submit a mission needs statement and other planning documents, including a program management plan and operational requirements document, the successful completion of which constitutes the exit criteria for the next acquisition phase.
Management Directorate	Homeland Secure Data Network	Decision memorandum was not available as of January 26, 2004.	
Management Directorate	Resource Management Transformation Program	Approved mission needs statement and authorized the program's entry into the concept & technology development phase.	Decision memorandum included exit criteria for the next acquisition phase, such as the successful completion of a risk management plan and test and evaluation plan, the successful completion of which constitutes the exit criteria for the next acquisition phase.
Science and Technology Directorate	Wireless Public Safety Interoperable Communications Program	Designated as a DHS level I investment and approved its strategic direction.	Directed the sponsor to submit a mission needs statement and other planning documents, the successful completion of which constitute the exit criteria for the next acquisition phase and required that a review team be established to study funding issues.

Source: DHS.

<sup>a</sup>According to DHS IT officials, the Enterprise Architecture Board approved each of these projects' presentations to the IRB prior to their submission.

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Although DHS is making progress in reviewing component agency projects, its investment management process continues to evolve. In particular, as of January 2, 2004, the department had identified about 100 IT programs<sup>22</sup> that were eligible for review by its two top-level departmental boards and, according to IT officials, is having difficulty in bringing all of these programs before the boards in a timely manner. Moreover, DHS has not established a process to ensure that control reviews of component agency IT investments are performed in a timely manner. Specifically, although DHS's capital planning and investment control guide states that the Office of the CIO will maintain a control review schedule for all initiatives in the department's IT investment portfolio, as of January 2, 2004, this schedule has not been developed. According to the DHS IRB coordinator and IT officials, DHS has requested information from its component entities related to the schedules and priorities of its level 1, or top-level, investments. These officials stated that such information can then be used to develop a master milestone calendar for control reviews.<sup>23</sup> Control review schedules, or master milestone calendars, are important to ensure that DHS is reviewing its highest priority IT investments in a timely manner so as to be able to affect changes to component agency approaches or even terminate a poorly managed or strategically unnecessary investment, if appropriate.

DHS's CIO also stated that the department's CIO Council is developing a peer review process for major IT projects that is expected to include defining a life-cycle management process and a quarterly reporting process. The CIO stated that the new process is expected to be instituted by the end of March 2004.

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## Conclusions

OMB took a prudent step in issuing its July memorandums directing federal agencies that were expected to be part of the new department to temporarily cease funding for new IT infrastructure and business systems investments in anticipation of the establishment of DHS. Although documentation of the implementation of the memorandums was lacking,

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<sup>22</sup>As of January 2, 2004, DHS was still in the process of finalizing its list of level 1, level 2, and level 3 IT investments.

<sup>23</sup>The DHS IRB coordinator and IT officials stated that after the level 1 investment process is stabilized, they intend to implement a comparable process for level 2 investments; however, they did not yet know how level 3 investments were going to be addressed. Level 1, 2, and 3 investments are subject to review by department-level boards.

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OMB and DHS IT officials outlined an approach that included both reviewing specific IT investments and the beginning of planning for the transition to the new department. Further, DHS component agencies identified actions that they took, such as putting initiatives on hold, and other benefits that resulted from the memorandums. Nevertheless, according to OMB IT representatives, budgetary savings as a result of the July memorandums had not occurred at the time that the review group was in place. Although DHS has begun to establish a mechanism to track such savings in the future, until savings resulting from the consolidation and integration of systems and services are identified, tracked, and reported, it will remain unknown whether OMB's July memorandums and the subsequent establishment of DHS have achieved the millions of dollars in potential economies identified by OMB. The Congress would benefit from such information in its deliberations on the department's budget and in its oversight of DHS's management of IT. Finally, DHS has begun to perform high-level oversight of component agency IT investments, although much remains to be accomplished and the process for this oversight is still evolving. Accordingly, DHS continues to face challenges in providing robust and constructive oversight of component agency IT investments. A significant challenge remaining is determining the current status and upcoming major milestones of IT investments subject to departmental review in order to schedule timely control reviews.

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## Recommendations for Executive Action

To demonstrate its progress in consolidating and integrating its systems and services, we recommend that the Secretary of Homeland Security direct the Chief Information Officer to periodically report to appropriate congressional committees, the budgetary savings that have resulted from the department's IT consolidation and integration efforts, including a breakout of the savings, the cause of the savings, and the time period in which the savings have been, or will be, generated.

To ensure that IT investments subject to departmental review undergo timely control reviews, we recommend that the Secretary of Homeland Security direct the Chief Information Officer to develop a control review schedule for IT investments subject to departmental oversight (i.e., level 1, 2, and 3 investments).

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## Agency Comments

We received oral comments on a draft of this report from OMB and DHS. Representatives from OMB's Office of Information and Regulatory Affairs

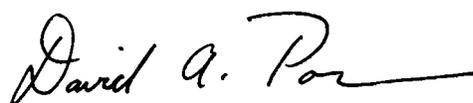
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and Office of the General Counsel generally agreed with the findings of the report. These representatives also provided a technical comment that we included in the report, as appropriate. In addition, DHS's Office of the CIO capital planning and investment control officials stated that the report was factually accurate.

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As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the Secretary of Homeland Security and the Director, Office of Management and Budget. Copies will also be available at no charge on the GAO Web site at [www.gao.gov](http://www.gao.gov).

If you have any questions on matters discussed in this report, please contact me at (202) 512-9286 or Linda J. Lambert, Assistant Director, at (202) 512-9556. We can also be reached by e-mail at [pownerd@gao.gov](mailto:pownerd@gao.gov) and [lambertl@gao.gov](mailto:lambertl@gao.gov), respectively. Another key contributor to this report was Niti Bery.



David A. Powner  
Director, Information Technology  
Management Issues

# DHS Department-Level Investment Management Boards

Board	Membership	Types of investments reviewed	Investment threshold level and criteria	Other comments
Investment Review Board <sup>a</sup>	<ul style="list-style-type: none"> <li>• Deputy Secretary (Chair)</li> <li>• Under Secretary of Management (Vice-Chair)</li> <li>• Under Secretary, Border and Transportation Security</li> <li>• Under Secretary, Emergency Preparedness and Response</li> <li>• Under Secretary, Science and Technology</li> <li>• Under Secretary, Information Analysis and Infrastructure Protection</li> <li>• Deputy Chief of Staff for Policy</li> <li>• Chief Information Officer (CIO)</li> <li>• Chief Financial Officer</li> <li>• Chief Procurement Officer</li> <li>• Privacy Officer</li> <li>• General Counsel</li> </ul>	All capital assets meeting the investment threshold criteria	<p>Level 1 investments:</p> <ul style="list-style-type: none"> <li>• Contract costs exceeds \$50 million</li> <li>• Importance to DHS strategic and performance plans</li> <li>• High development, operating, or maintenance cost</li> <li>• High risk</li> <li>• High return</li> <li>• Significance in resource administration</li> <li>• For IT investments only:                             <ul style="list-style-type: none"> <li>• life-cycle costs exceed \$200 million</li> </ul> </li> </ul>	

**Appendix I  
DHS Department-Level Investment  
Management Boards**

*(Continued From Previous Page)*

<b>Board</b>	<b>Membership</b>	<b>Types of investments reviewed</b>	<b>Investment threshold level and criteria</b>	<b>Other comments</b>
Management Review Council <sup>a</sup>	<ul style="list-style-type: none"> <li>• CIO</li> <li>• Chief Financial Officer</li> <li>• Chief Procurement Officer</li> </ul>	All capital assets meeting the investment threshold criteria	Level 2 investments: <ul style="list-style-type: none"> <li>• Contract cost \$5-\$50 million</li> <li>• Affects more than one DHS component</li> <li>• Significant program or policy implication</li> <li>• High executive visibility</li> <li>• For IT investments only:               <ul style="list-style-type: none"> <li>• life-cycle costs of \$20-\$200 million</li> <li>• financial system with operational cost exceeding \$500,000</li> <li>• was major in fiscal year 2004 budget submission</li> <li>• is E-government related</li> <li>• is directly tied to the top two layers of the Federal Enterprise Architecture business reference model</li> <li>• is an integral part of the DHS modernization blueprint (enterprise architecture)</li> <li>• affects more than one component entity through the sharing of data or facilities, and/or affects the sharing of facilities, data, and/or information with state and local governments</li> <li>• common administrative services for which a single, DHS-wide solution may be possible or for which a joint DHS team has been established or planned</li> <li>• new technology initiatives</li> <li>• sensitive initiatives</li> </ul> </li> </ul>	

**Appendix I  
DHS Department-Level Investment  
Management Boards**

*(Continued From Previous Page)*

<b>Board</b>	<b>Membership</b>	<b>Types of investments reviewed</b>	<b>Investment threshold level and criteria</b>	<b>Other comments</b>
Enterprise Architecture Board	<ul style="list-style-type: none"> <li>• CIO (Chair)</li> <li>• Chief Financial Officer designee</li> <li>• Chief Procurement Officer designee</li> <li>• Business unit and program representatives</li> <li>• Information officers in the directorates/organizational elements</li> </ul>	IT investments meeting the investment threshold criteria	<ul style="list-style-type: none"> <li>• Annual costs of \$1-\$5 million</li> <li>• Life-cycle costs of \$5-\$20 million</li> <li>• E-government transformation focus area</li> </ul>	This board also reviews all level 1 and 2 IT investments and makes recommendations to the Investment Review Board and Management Review Council

Source: DHS.

<sup>a</sup>DHS also plans to employ a Joint Requirements Council to serve as a working group to make recommendations to the Investment Review Board and Management Review Council on cross-cutting IT investments. The Joint Requirements Council, whose membership includes the Chief Technology Officer, Director of Strategic Sourcing and chief operating officers of DHS's component entities, met for the first time on January 7, 2004.

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