

Testimony Before the Committee on Homeland Security and Governmental Affairs, U.S. Senate

For Release on Delivery Expected at 10:30 a.m. EDT Tuesday, June 11, 2013

# INFORMATION TECHNOLOGY

OMB and Agencies Need to Focus Continued Attention on Eliminating Duplicative Investments

Statement of David A. Powner, Director Information Technology Management Issues



Highlights of GAO-13-685T, a testimony before the Committee on Homeland Security and Governmental Affairs, U.S. Senate

## Why GAO Did This Study

With the federal government poised to reportedly spend at least \$82 billion on IT in fiscal year 2014, the magnitude of these expenditures highlights the importance of avoiding duplicative investments to ensure the most efficient use of resources. In a series of reports over the last few years, GAO has identified federal programs or functional areas where unnecessary duplication, overlap, or fragmentation exists. In particular, GAO has identified opportunities to reduce duplication and the cost of government operations in critical areas, such as federal data centers and IT investment management.

To help address IT duplication, OMB launched the PortfolioStat initiative. As part of this initiative, agencies are required to conduct an annual review of their IT investments and make decisions on eliminating duplication, among other things.

GAO was asked to testify on the results and recommendations from its selected reports that focused on IT duplication. To prepare this statement, GAO relied on previously published work.

#### What GAO Recommends

GAO has issued numerous recommendations to OMB and selected agencies to utilize existing transparency mechanisms and report the steps taken to avoid making duplicative investments.

View GAO-13-685T. For more information, contact David A. Powner at (202) 512-9286 or pownerd@gao.gov.

# INFORMATION TECHNOLOGY

# OMB and Agencies Need to Focus Continued Attention on Eliminating Duplicative Investments

### What GAO Found

GAO has identified a number of issues related to information technology (IT) duplication across the federal government. For example, GAO has previously reported that hundreds of investments provide similar functions. Specifically, agencies reported 1,536 information and technology management investments, 777 supply chain management investments, and 622 human resource management investments (see table).

| Number of IT Investments Governmentwide by Primary Function |                          |                                  |
|---|--------------------------|----------------------------------|
| Selected category of investment                             | Number of<br>investments | Expenditures<br>(\$ in millions) |
| Information and technology management                       | 1,536                    | \$35,476                         |
| Supply chain management                                     | 777                      | 3,327                            |
| Human resource management                                   | 622                      | 2,406                            |

Source: GAO analysis of the Office of Management and Budget's IT Dashboard, exhibit 53 data as of July 2011.

GAO further reported that while the Office of Management and Budget (OMB) and federal agencies have undertaken several initiatives to address potentially duplicative IT investments, such as consolidating similar functions through "line of business" initiatives, most of OMB's recent initiatives had not yet demonstrated results. Further, agencies were not routinely assessing operational systems to determine if they were duplicative. GAO recommended that OMB require federal agencies to report the steps they were taking to ensure that their IT investments were not duplicative as part of their annual budget and IT investment submissions. OMB agreed with the recommendation.

In addition, GAO reported on potentially duplicative investments at selected federal agencies. More specifically, although the Departments of Defense and Energy used various investment review processes to identify duplicative investments, GAO found that 37 of its sample of 810 investments were potentially duplicative. These investments accounted for about \$1.2 billion in total IT spending for fiscal years 2007 through 2012. For example, GAO identified four Department of the Navy personnel assignment investments—one system for officers, one for enlisted personnel, one for reservists, and a general assignment system—each of which is responsible for managing similar functions. GAO recommended that the agencies report on the progress of efforts to identify and eliminate duplication, where appropriate; the agencies agreed with the recommendations.

In part to address duplicative IT investments, in March 2012 OMB launched PortfolioStat. Specifically, PortfolioStat is designed to assist agencies in assessing the current maturity of their IT portfolio management process, making decisions on eliminating duplication, and moving to shared solutions in order to maximize the return on IT investments across the portfolio. In March 2013, OMB reported that through this effort, agencies had identified and committed to nearly 100 opportunities to consolidate or eliminate commodity IT investments. OMB also believes that PortfolioStat may save the government \$2.5 billion by 2015. GAO has ongoing work looking at PortfolioStat, including determining whether agencies are completing key actions. U.S. GOVERNMENT ACCOUNTABILITY OFFICE

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Chairman Carper, Ranking Member Coburn, and Members of the Committee:

I am pleased to be here today to discuss duplicative information technology (IT) investments and the Office of Management and Budget's (OMB) PortfolioStat initiative. As reported to OMB, federal agencies plan to spend at least \$82 billion on IT in fiscal year 2014. Given the scale of such planned outlays, it is important that federal agencies avoid duplicative investments, whenever possible, to ensure the most efficient use of resources.

Over the past few years, we have issued a series of reports that have identified federal programs or functional areas where unnecessary duplication, overlap, or fragmentation exists; the actions needed to address such conditions; and the potential financial and other benefits of doing so.<sup>1</sup> In particular, we identified opportunities to reduce duplication and the cost of government operations in several critical IT areas, including avoiding investing in duplicative and unnecessary systems and underutilized federal data centers.

To help address IT duplication, in March 2012 OMB launched PortfolioStat, which requires agencies to conduct annual reviews of their IT investments and make decisions on eliminating duplication, among other things. According to OMB, PortfolioStat has the potential to save the government \$2.5 billion over the next 3 years.

You asked us to testify on the results and recommendations from our selected reports that focused on IT duplication.<sup>2</sup> Accordingly, my testimony specifically discusses our past work reporting on duplication,

<sup>&</sup>lt;sup>1</sup>GAO, 2013 Annual Report: Actions Needed to Reduce Fragmentation, Overlap and Duplication, and Achieve Other Financial Benefits, GAO-13-279SP (Washington, D.C.: Apr. 9, 2013); 2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue, GAO-12-342SP (Washington, D.C.: Feb. 28, 2012); and Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue, GAO-11-318SP (Washington, D.C.: Mar. 1, 2011).

<sup>&</sup>lt;sup>2</sup>GAO, Information Technology: Departments of Defense and Energy Need to Address Potentially Duplicative Investments, GAO-12-241 (Washington, D.C.: Feb. 17, 2012); and Information Technology: OMB Needs to Improve Its Guidance on IT Investments, GAO-11-826 (Washington, D.C.: Sept. 29, 2011).

|  | overlap, and fragmentation across the federal government and OMB's<br>efforts to identify and address potentially duplicative IT investments<br>through PortfolioStat. All work on which this testimony is based was<br>performed in accordance with generally accepted government auditing<br>standards. Those standards require that we plan and perform the audit to<br>obtain sufficient, appropriate evidence to provide a reasonable basis for<br>our findings and conclusions based on our audit objectives. We believe<br>that the evidence obtained provides a reasonable basis for our findings<br>and conclusions based on our audit objectives.   |
|--|---|
| Background   | Information technology should enable government to better serve the American people. However, according to OMB, despite spending more than \$600 billion on IT over the past decade, the federal government has achieved little of the productivity improvements that private industry has realized from IT. <sup>3</sup> Too often, federal IT projects run over budget, behind schedule, or fail to deliver promised functionality. In combating this problem, proper oversight is critical. Both OMB and federal agencies have key roles and responsibilities for overseeing IT investment management. OMB is responsible for working with agencies to ensure investments are appropriately planned and justified. Additionally, each year, OMB and federal agencies work together to determine how much the government plans to spend on IT projects and how these funds are to be allocated. As reported to OMB, federal agencies plan to spend more than \$82 billion on IT investments in fiscal year 2014, which is the total expenditure for not only acquiring such investments, but also to operate and maintain them. |
| Opportunities to Reduce<br>Duplication and Achieve<br>Cost Savings Exist in<br>Critical IT-related Areas | Over the past several years, we have reported that overlap and fragmentation among government programs or activities could be harbingers of unnecessary duplication. <sup>4</sup> Thus, the reduction or elimination of duplication, overlap, or fragmentation could potentially save billions of tax dollars annually and help agencies provide more efficient and effective services. Many of the government programs or activities with opportunities to reduce duplication and the cost of government operations are related to critical IT areas, including the following:   |

<sup>3</sup>OMB, 25 *Point Implementation Plan to Reform Federal Information Technology Management* (Washington, D.C.: December 2010).

<sup>4</sup>GAO-13-279SP, GAO-12-342SP, and GAO-11-318SP.

- IT Dashboard. Given the importance of transparency, oversight, and management of the government's IT investments, in June 2009 OMB established a public web site, referred to as the IT Dashboard, that provides detailed information on approximately 700 major IT investments<sup>5</sup> at 27 federal agencies, including ratings of their performance against cost and schedule targets. The public dissemination of this information is intended to allow OMB; other oversight bodies, including Congress; and the general public to hold agencies accountable for results and performance. As of August 2012, 190 of the federal government's approximately 700 major IT investments—totaling almost \$12.5 billion—were in need of management attention.
- Federal data centers. As federal agencies have modernized their operations, put more of their services online, and increased their information security profiles, they have demanded more computing power and data storage resources. According to OMB, the number of federal data centers grew from 432 in 1998 to more than 2,000 in 2010. The growth in the number of federal data centers, many offering similar services and resources, has resulted in overlap and duplication among the centers. In addition, according to OMB, in August 2009 the average utilization rate for servers ranged from 5 percent to 15 percent.
- IT investment management. OMB and agencies need to address potentially duplicative IT investments to avoid investing in unnecessary systems. In fiscal year 2011, there were approximately 7,200 reported investments (includes major and nonmajor investments) totaling at least \$79 billion. The Department of Defense (Defense) reported the largest number of IT investments (2,383 investments at \$37 billion), followed by the Department of Energy (Energy) (876 investments and \$2 billion).

<sup>&</sup>lt;sup>5</sup>According to OMB guidance, a major investment is a system or acquisition requiring special management attention because of its importance to the mission or function of the agency, a component of the agency, or another organization; is for financial management and obligates more than \$500,000 annually; has significant program or policy implications; has high executive visibility; has high development, operating, or maintenance costs; is funded through other than direct appropriations; or is defined as major by the agency's capital planning and investment control process.

- Geospatial investments. The federal government collects, maintains, • and uses geospatial information-information linked to specific geographic locations<sup>6</sup>—to help in decision making and to support many functions, including national security, law enforcement, health care, and environmental protection. Many activities, such as maintaining roads and responding to natural disasters-floods. hurricanes, and fires—can depend on critical analysis of geospatial information. Multiple federal agencies may provide services at the same geographic locations and may independently collect similar geospatial information about those locations. In August 2012, the Department of the Interior estimated that the federal government invests billions of dollars in geospatial data annually and reported that duplication among investments is common. Better coordination among these agencies could help reduce duplication of geospatial investments and provide the opportunity for potential savings of millions of dollars.
- Cloud computing. As an emerging approach to delivering IT services, cloud computing provides on-demand access to a shared pool of scalable computing resources. According to OMB, cloud computing has the potential to address IT inefficiencies by providing services both more quickly and at a lower cost. OMB further noted that IT services costing billions of dollars annually could potentially be migrated to cloud computing. Accordingly, agencies have reported saving millions of dollars from implementing cloud-based solutions. In particular, the Department of Homeland Security (DHS) reported that its implementation of enterprise content delivery services avoids an estimated \$5 million in costs annually.
- Enterprise architecture. An enterprise architecture is a modernization blueprint that is used by organizations to describe their current state and a desired future state and to leverage IT to transform business and mission operations. In light of the importance of developing well-defined enterprise architectures, we issued a seven-stage enterprise architecture management maturity framework that defines actions

<sup>&</sup>lt;sup>6</sup>For example, entities such as houses, rivers, road intersections, power plants, and national parks can all be identified by their location. In addition, phenomena such as wildfires, the spread of the West Nile virus, and the thinning of trees because of acid rain can also be identified by their geographic locations.

|   | alternative, as our work has shown, is the perpetuation of the kinds of<br>operational environments that burden most agencies today, where a<br>lack of integration among business operations and the IT resources<br>supporting them leads to systems that are duplicative, poorly<br>integrated, and unnecessarily costly to maintain.   |
|---|--|
| OMB Initiated Recent<br>Major Initiatives for<br>Reducing Duplication and | OMB has implemented a series of initiatives to manage IT more effectively, reduce duplication, and achieve cost savings. These efforts include the following:  |
| Achieving Cost Savings  | • <i>TechStat reviews</i> . In January 2010, the Federal Chief Information Officer (CIO) began leading reviews—known as "TechStat" sessions—of selected IT investments involving OMB and agency leadership to increase accountability and transparency and improve performance. Subsequently, OMB empowered agency CIOs to hold their own TechStat sessions within their respective agencies. As of April 2013, OMB reported that it had led 79 sessions that resulted in improvements to or termination of IT investments with performance problems. According to the former Federal CIO, the efforts of OMB and federal agencies to improve management and oversight of IT investments have resulted in almost \$4 billion in savings. |
|   | • Federal Data Center Consolidation Initiative. In February 2010, the Federal CIO established the Federal Data Center Consolidation Initiative to address the growing number of federal data centers. This initiative's four high-level goals are to promote the use of "green IT" <sup>8</sup> by reducing the overall energy and real estate footprint of government data centers; reduce the cost of data center hardware, software, and operations; increase the overall IT security posture of the government; and shift IT investments to more efficient computing platforms and technologies. OMB believes that this initiative has the potential to provide about \$3 billion in savings by the end of 2015.                     |

<sup>&</sup>lt;sup>7</sup>GAO, Organizational Transformation: A Framework for Assessing and Improving Enterprise Architecture Management (Version 2.0), GAO-10-846G (Washington, D.C.: August 2010).

needed to effectively manage an architecture program.<sup>7</sup> The

<sup>&</sup>lt;sup>8</sup>"Green IT" refers to environmentally sound computing practices that can include a variety of efforts, such as using energy efficient data centers, purchasing computers that meet certain environmental standards, and recycling obsolete electronics.

|   | • <i>PortfolioStat reviews</i> . In March 2012, OMB launched the PortfolioStat initiative, which requires agencies to conduct an annual agency-wide IT portfolio review to, among other things, reduce commodity IT <sup>9</sup> spending and demonstrate how their IT investments align with the agency's mission and business functions. <sup>10</sup> PortfolioStat is designed to assist agencies in assessing the current maturity of their IT investment management process, making decisions on eliminating duplicative investments (such as geospatial information), and moving to shared solutions (such as cloud computing) in order to maximize the return on IT investment-level, PortfolioStat reviews are intended to examine IT performance at the specific project or investment-level, PortfolioStat reviews are intended to examine the portfolio as a whole and draw on the agency's enterprise architecture to help identify and eliminate areas of duplication and waste. OMB believes that the PortfolioStat effort has the potential to save the government \$2.5 billion over the next 3 years by, for example, consolidating duplicative systems. |
|---|--|
| GAO Has Previously  | During the past few years, we have reported on IT investment   |
| Reported on IT Investment<br>Management at Selected<br>Agencies | management—an important mechanism for identifying and analyzing duplicative investments—at key agencies. For example, in July 2011, we reported <sup>11</sup> that the Internal Revenue Service (IRS) had established most of the foundational practices needed to manage its IT investments, but that additional improvements were needed. Specifically, the agency had executed 30 of the 38 key practices identified by GAO's Information Technology Investment Management framework <sup>12</sup> as foundational for successful IT investment oversight and capture investment information. For   |
|   | <sup>9</sup> According to OMB, commodity IT includes services such as IT infrastructure (data centers, networks, desktop computers and mobile devices); enterprise IT systems (e-mail, collaboration tools, identity and access management, security, and web infrastructure); and business systems (finance, human resources, and other administrative functions).  |
|   | <sup>10</sup> OMB, <i>Implementing PortfolioStat,</i> Memorandum M-12-10 (Washington D.C.: Mar. 30, 2012).   |
|   | <sup>11</sup> GAO, Investment Management: IRS Has a Strong Oversight Process But Needs to<br>Improve How It Continues Funding Ongoing Investments, GAO-11-587 (Washington,<br>D.C.: July 20, 2011).  |
|   | <sup>12</sup> GAO, Information Technology Investment Management: A Framework for Assessing and Improving Process Maturity, GAO-04-394G (Washington, D.C.: March 2004).   |
|   |  |

instance, IRS had defined and implemented a tiered governance structure to oversee its projects and had several mechanisms for the boards to regularly review IT investments' performance. However, we reported that, despite these strengths, IRS could improve its investment management process in two key areas. First, IRS did not have an enterprisewide IT investment board with sufficient representation from IT and business units that was responsible for the entire investment management process, and as a result may not have been optimizing its decision-making process. Second, IRS did not have a process, including defined criteria, for reselecting (i.e., deciding whether to continue funding) ongoing projects. We concluded that, given the size of its IT budget, IRS could be spending millions of dollars with no assurance that the funds are being used wisely. Accordingly, we made recommendations to IRS to, among other things, assign responsibilities for implementing the investment management process to optimize decision making, and define and implement a process for deciding whether to continue funding ongoing projects; the agency concurred with our recommendations.

More recently, in July 2012, we reported<sup>13</sup> that DHS was making progress in developing and implementing a new IT governance process that focused on portfolio management and eliminating duplication. Specifically, we found that DHS had developed a new governance framework and that the associated policies and procedures were generally consistent with recent OMB guidance and with best practices for managing projects and portfolios identified in GAO's Information Technology Investment Management framework.<sup>14</sup> For example, DHS's new governance framework included the establishment of portfolio governance boards to oversee functional portfolios with the goals of eliminating duplication and leveraging services and programs across the department. However, the agency had not yet finalized most policies and procedures and was not fully using best practices for the implementation. Accordingly, we made recommendations to DHS to, among other things, strengthen its new governance process and related IT management capabilities; the agency agreed to implement the recommendations.

<sup>&</sup>lt;sup>13</sup>GAO, *Information Technology: DHS Needs to Further Define and Implement Its New Governance Process*, GAO-12-818 (Washington, D.C.: July 25, 2012).

<sup>&</sup>lt;sup>14</sup>GAO-04-394G.

| OMB and Agencies<br>Have Taken Steps to<br>Reduce Duplicative IT<br>Investments, but More<br>Remains to Be Done | In September 2011, we reported <sup>15</sup> that, although OMB's guidance to federal agencies on how to categorize IT investments allowed for analysis of investments with similar functions, it did not go far enough to allow identification of potentially duplicative investments. Specifically, since the fiscal year 2004 budget cycle, OMB had required agencies to categorize their IT investments according to primary function and subfunction. In their fiscal year 2011 submissions, agencies reported the greatest number of IT investments in Information and Technology Management (1,536 investments), followed by Supply Chain Management (622 investments). Similarly, planned expenditures on investments were greatest in Information and Technology Management, at about \$35.5 billion. Figure 1 depicts, by primary function, the total number of investments within the 26 |
|---|---|
|   | federal agencies that report to the IT Dashboard, as of July 2011.  |

#### Figure 1: Number of Government IT Investments by Primary Function, as of July 2011



We also found that the at least \$79 billion in IT investments for fiscal year 2011 did not include IT investments by 58 independent executive branch

<sup>15</sup>GAO-11-826.

agencies, including the Central Intelligence Agency and Securities and Exchange Commission, or by the legislative or judicial branches. A closer look at the investments for the 26 agencies also revealed that some agencies excluded systems that fit the definition of an IT investment, such as space systems and systems that are in research and development.

Further, we reported that, while OMB guidance stated that an investment needs to be mapped to a single functional category within the Federal Enterprise Architecture,<sup>16</sup> IT investments could fit into more than one category. For example, an agency could identify an inventory system as a financial management system or a supply chain management system. Thus, if an organization planned to develop an inventory system and searched for potentially duplicative investments in a group labeled as financial management systems, it would miss seeing potentially duplicative systems categorized as supply chain management systems. As an example, we cited our May 2009 finding that a Defense financial management system was identified in a different functional category—supply chain management.<sup>17</sup> We noted that because Defense had categorized the system as supply chain management, the cost of this system was not included in OMB's estimate for financial management systems.

Finally, we reported that OMB and federal agencies had undertaken several initiatives to address potentially duplicative IT investments. For example, OMB had efforts under way to consolidate similar functions through its "line of business" and Federal Enterprise Architecture initiatives and had eliminated duplicative systems identified during its TechStat sessions. In addition, several of the agencies we evaluated had established guidance for ensuring new investments were not duplicative with existing systems. However, we found that most of OMB's recent initiatives had not demonstrated results. Further, several agencies did not

<sup>&</sup>lt;sup>16</sup>The Federal Enterprise Architecture is intended to provide federal agencies and other decision makers with a common frame of reference or taxonomy for informing agencies' individual enterprise architecture efforts and their planned and ongoing investment activities, and to do so in a way that identifies opportunities for avoiding duplication of effort and launching initiatives to establish and implement common, reusable, and interoperable solutions across agency boundaries.

<sup>&</sup>lt;sup>17</sup>GAO, *Financial Management Systems: OMB's Financial Management Line of Business Initiative Continues but Future Success Remains Uncertain*, GAO-09-328 (Washington, D.C.: May 7, 2009).

|  | routinely assess legacy systems to determine if they were duplicative. We concluded that, until agencies routinely assess their entire IT portfolios to identify and remove or consolidate duplicative systems, such duplication will continue to exist.<br>Accordingly, we recommended that OMB require federal agencies to report the steps they take to ensure that their IT investments are not duplicative as part of their annual budget and IT investment submissions. OMB agreed with our recommendation and has since taken action to implement it. Specifically, in March 2012, the OMB issued a memorandum to federal agencies regarding implementing PortfolioStat reviews. As previously mentioned, these reviews are intended to assist in ending the investment in duplicative IT investments. In addition, as part of this effort, OMB is requiring agencies to document their cost savings and cost avoidance due to consolidation beginning in their fiscal year 2014 budget submissions.   |
|--|---|
| Selected Federal Agencies<br>Have Potentially<br>Duplicative Investments | In February 2012, we reported <sup>18</sup> that although Defense, Energy, and DHS utilized various processes to prevent and reduce investment in duplicative programs and systems, potentially duplicative IT investments existed. Specifically, each of the agencies we reviewed had IT investment management processes in place that were, in part, intended to prevent, identify, and eliminate unnecessary duplicative investments. For example, Defense's <i>Information Technology Portfolio Management Implementation</i> guide required the evaluation of existing systems to identify duplication and determine whether to maintain, upgrade, delete, or replace identified systems. Similarly, Energy's <i>Guide to IT Capital Planning and Investment Control</i> specified that investment business case summaries should be reviewed for redundancies and opportunities for collaboration. Additionally, according to DHS's <i>Capital Planning and Investment Control Guide</i> , proposed investments were to be reviewed at the department level to determine if the proposed need is, among other things, being fulfilled by another DHS program, or already fulfilled by an existing capability. |

<sup>18</sup>GAO-12-241.

Even with such investment review processes, of the 810 investments we reviewed,<sup>19</sup> we identified 37 potentially duplicative investments at Defense and Energy within three Federal Enterprise Architecture categories (Human Resource Management, Information and Technology Management, and Supply Chain Management).<sup>20</sup> These investments accounted for about \$1.2 billion in total IT spending for fiscal years 2007 through 2012. Specifically, we identified

- 31 potentially duplicative investments totaling approximately \$1.2 billion at Defense and
- 6 potentially duplicative investments totaling approximately \$8 million at Energy.

The 37 investments comprised 12 groups of investments that appeared to have duplicative purposes based on our analysis of each investment's description, budget information, and other supporting documentation from agency officials (see table 1). For example, we identified three investments at Energy that were each responsible for managing the backend infrastructure at three different locations. We also identified four Department of the Navy (Navy) personnel assignment investments—one system for officers, one for enlisted personnel, one for reservists, and a general assignment system—each of which was responsible for managing similar assignment functions. Additionally, the Department of the Air Force had five investments that were each responsible for contract management, and within the Navy there were another five contract management investments. Table 1 summarizes the 12 groups of potentially duplicative investments we identified by purpose and agency.

<sup>&</sup>lt;sup>19</sup>We reviewed 11 percent of the total number of IT investments that agencies reported to OMB through the IT Dashboard (810 of 7,227). The investments we reviewed represented approximately 24 percent of Defense's IT portfolio in terms of the number of investments reported to the Dashboard, 19 percent of Energy's, and 16 percent of DHS's.

<sup>&</sup>lt;sup>20</sup>Within the three selected functions, we narrowed our review to the following seven subfunctions: Benefits Management, Organization and Position Management, Employee Performance Management, Information Management, Information Security, Inventory Control, and Goods Acquisition.

#### Table 1: Potentially Duplicative Investments

| Dollars in millio | ons  |   |                          |  |
|-------------------|--|---|--------------------------|--|
| Department        | Branch or bureau   | Purpose                                       | Number of<br>investments | Planned and actual<br>spending fiscal<br>years 2007-2012 |
| Defense           | Air Force  | Contract Management                           | 5                        | \$41   |
|                   | Army   | Personnel Assignment Management               | 2                        | \$12   |
|                   | Navy   | Acquisition Management                        | 4                        | \$407  |
|                   |  | Aviation Maintenance and Logistics            | 2                        | \$85   |
|                   |  | Contract Management                           | 5                        | \$17   |
| De                |  | Housing Management                            | 2                        | \$5  |
|                   |  | Personnel Assignment Management               | 4                        | \$28   |
|                   |  | Promotion Rating                              | 2                        | \$3  |
|                   |  | Workforce Management                          | 3                        | \$109  |
|                   | Defense Enterprisewide                                       | Civilian Personnel Management                 | 2                        | \$504  |
| Energy            | Energy Programs  | Back-end Infrastructure                       | 3                        | \$1  |
|                   | Energy Programs & Environmental and Other Defense Activities | Electronic Records and Document<br>Management | 3                        | \$7  |
| Total             |  |   | 37                       | \$1,219  |

Source: GAO analysis of agencies' data.

We did not identify any potentially duplicative investments at DHS within our sample; however, DHS independently identified several duplicative investments and systems. Specifically, DHS officials identified and, more importantly, reduced duplicative functionality in four investments by consolidating or eliminating certain systems within each of these investments, including a personnel security investment, time and attendance investment, human resources investment, and an information network investment. DHS officials also identified 38 additional systems that they determined to be duplicative. For example, officials identified multiple personnel action processing systems that could be consolidated.

Officials from the three agencies reported that duplicative investments existed for a number of reasons, including decentralized governance within the departments and a lack of control over contractor facilities. For example, Energy investments for the management of back-end infrastructure were for facilities which Energy oversaw but does not control. In addition, Defense officials indicated that a key reason for potential duplication at the Navy is that it had traditionally used a decentralized IT management approach, which allowed offices to develop systems independent of any other office's IT needs or acquisitions.

Further complicating the agencies' ability to prevent investment in duplicative systems or programs was the miscategorization of investments. Among the 810 investments we reviewed, we identified 22 investments where the selected agencies assigned incorrect Federal Enterprise Architecture primary functions or subfunctions. Specifically, we identified 13 miscategorized investments at Defense, 4 at Energy, and 5 at DHS. For example, DHS's Federal Emergency Management Agency— Minor Personnel/Training Systems investment was initially categorized within the Employee Performance Management subfunction, but DHS agreed that this investment should have been assigned to the Human Resources Development subfunction.

Agency officials agreed that they had inadvertently miscategorized 15 of the 22 investments we identified. However, our report noted that proper categorization is necessary in order to analyze and identify duplicative investments, both within and across agencies. Each improper categorization represented a possible missed opportunity to identify and eliminate an unjustified duplicative investment. We concluded that, until agencies correctly categorize their investments, they could not be confident that their investments were not duplicative and were justified, and they may continue expending valuable resources developing and maintaining unnecessarily duplicative systems.

Therefore, we recommended in our report that Defense and Energy utilize existing transparency mechanisms, such as the IT Dashboard, to report on the results of the departments' efforts to identify and eliminate, where appropriate, each potentially duplicative investment we have identified, as well as any other duplicative investments. In response, Defense and Energy stated that they agreed with our recommendations. In addition, Energy's Office of the CIO stated that the agency was committed to increasing its IT investment oversight.

## To Address Duplicative IT Investments, OMB Launched PortfolioStat

In March 2012, OMB launched the PortfolioStat initiative, which requires agencies to conduct an annual agency-wide IT portfolio review to, among other things, reduce commodity IT spending and demonstrate how its IT investments align with the agency's mission and business functions.<sup>21</sup> PortfolioStat is designed to assist agencies in assessing the current maturity of their IT portfolio management process, making decisions on eliminating duplication, and moving to shared solutions in order to maximize the return on IT investments across the portfolio. According to OMB, while TechStat reviews examine IT performance at the specific project or investment-level, PortfolioStat reviews examine the portfolio as a whole and draw on the agency's enterprise architecture to help identify and eliminate areas of duplication and waste. OMB believes that the PortfolioStat effort has the potential to save the government \$2.5 billion over the next 3 years by, for example, consolidating duplicative systems.

As part of this initiative, OMB required agency Chief Operating Officers to lead a PortfolioStat review on an annual basis-working in coordination with CIOs, Chief Financial Officers, and Chief Acquisition Officers. Such an effort is appropriate given the numerous investments performing the same function, as we reported in February 2012.<sup>22</sup> For example, as noted previously, 26 major federal agencies had planned to spend \$2.7 billion on 580 financial management systems in 2011. According to OMB, agencies were required to designate a lead with direct reporting authority to the Chief Operating Officer for implementing the PortfolioStat process and OMB requirements by April 2012, and develop a baseline of their commodity IT investments by June 15, 2012. Using this portfolio data, agencies were asked to consolidate commodity IT spending under the agency CIO, hold a PortfolioStat session by July 31, 2012, with key stakeholders, and submit a final plan to consolidate their IT portfolio by August 31, 2012, including outlining at least 3 years of agency consolidation activities and migrating at least two duplicative commodity IT services by December 31, 2012.

Subsequently, in March 2013, OMB issued a memorandum documenting additional guidance to help strengthen the PortfolioStat initiative and noted that the results from PortfolioStat so far had been significant—including that agencies had identified and committed to nearly 100

<sup>&</sup>lt;sup>21</sup>OMB, Memorandum M-12-10.

<sup>&</sup>lt;sup>22</sup>GAO-12-241.

opportunities to consolidate or eliminate commodity IT investments.<sup>23</sup> Among other things, OMB's memorandum describes plans to strengthen the initiative by integrating PortfolioStat and the Federal Data Center Consolidation Initiative,<sup>24</sup> streamlining agency reporting requirements, and establishing guidance for conducting PortfolioStat sessions in fiscal year 2013. For example, to improve the outcomes of PortfolioStat and to advance agency IT portfolio management, OMB's memorandum consolidated previously collected IT plans, reports, and data calls into three primary collection channels-an information resources management strategic plan,<sup>25</sup> an enterprise road map,<sup>26</sup> and an integrated data collection channel.<sup>27</sup> Agencies' draft versions of their strategic plans and enterprise road maps were due to OMB in May 2013. as well as their first integrated data collections. The integrated data collections are to be updated quarterly beginning in August 2013 and the strategic plans and road maps are to be updated after Congress receives the President's budget for fiscal year 2015.

We recently reported<sup>28</sup> and testified<sup>29</sup> on, among other things, OMB's efforts to integrate the Federal Data Center Consolidation Initiative with

<sup>23</sup>OMB, Fiscal Year 2013 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management, Memorandum M-13-09 (Washington, D.C.: Mar. 27, 2013).

<sup>25</sup>OMB, Management of Federal Information Resources, Circular A-130 (Washington, D.C.: Nov. 30, 2000). According to OMB Circular A-130, an agency's information resources management strategic plan should describe how information resources management activities help accomplish agency missions, and ensure that information resource management decisions are integrated with organizational planning, budget, procurement, financial management, human resources management, and program decisions.

<sup>26</sup>OMB, Increasing Shared Approaches to Information Technology Services (Washington, D.C.: May 2, 2012). The enterprise road map is to include a business and technology architecture, an IT asset inventory, a commodity IT consolidation plan, a line of business service plan, and an IT shared service plan.

<sup>27</sup>The integrated data collection channel will be used by agencies to report structured information, such as progress in meeting IT strategic goals, objectives, and metrics, as well as cost savings and avoidances resulting from IT management actions.

<sup>28</sup>GAO, Data Center Consolidation: Strengthened Oversight Needed to Achieve Cost Savings Goal, GAO-13-378 (Washington, D.C.: Apr. 23, 2013).

<sup>&</sup>lt;sup>24</sup>OMB established the Federal Data Center Consolidation Initiative, under the direction of the Federal CIO, in February 2010 to reduce the size of the federal data center inventory and improve the efficiency, performance, and the environmental footprint of federal data center activities.

PortfolioStat and found that key performance metrics were not yet fully defined. More specifically, OMB's March 2013 memorandum<sup>30</sup> stated that, to more effectively measure the efficiency of an agency's data center assets, agencies would also be measured by the extent to which their data centers are optimized for total cost of ownership by incorporating metrics for data center energy, facility, labor, and storage, among other things. However, we found that although OMB had indicated which performance measures it planned to use going forward, it had not documented the specific metrics for agencies to report against. OMB's March 2013 memorandum indicates that these would be developed by the Data Center Consolidation Task Force,<sup>31</sup> but did not provide a time frame for when this will be completed.

Further, our report noted that OMB's integration of the Federal Data Center Consolidation Initiative with PortfolioStat also included a modification to the previous data center consolidation goal of closing approximately 40 percent of the total number of agency data centers. Specifically, OMB stated an agency's data center population will now be placed into one of two categories—core and non-core data centers—but for which the memorandum did not provide specific definitions. OMB further stated that its new goal is to close 40 percent of non-core data centers but, as noted, the definition of a core and non-core data center was not provided. Therefore, the total number of data centers to be closed under OMB's revised goal could not be determined.

We also reported that, although OMB had previously stated that PortfolioStat was expected to result in savings of approximately \$2.5 billion through 2015, its March 2013 memorandum did not establish a new cost savings goal that reflected the integration of the Federal Data Center Consolidation Initiative. Instead, OMB stated that all cost savings goals previously associated with the Federal Data Center Consolidation Initiative would be integrated into broader agency efforts to reshape their IT portfolios, but did not provide a revised savings estimate. We

<sup>30</sup>OMB, Memorandum M-13-09.

<sup>&</sup>lt;sup>29</sup>GAO, Data Center Consolidation: Strengthened Oversight Needed to Achieve Billions of Dollars in Savings, GAO-13-627T (Washington, D.C.: May 14, 2013).

<sup>&</sup>lt;sup>31</sup>The Data Center Consolidation Task Force is comprised of the data center consolidation program managers from each agency. According to its charter, the Task Force is critical to supporting collaboration across the Federal Data Center Consolidation Initiative agencies, including identifying and disseminating key pieces of information, solutions, and processes that will help agencies in their consolidation efforts.

concluded that the lack of a new cost savings goal would limit OMB's ability to determine whether or not the new combined initiative is on course toward achieving its planned objectives. As a result, we recommended that OMB track and annually report on key data center consolidation performance measures, such as the size of data centers being closed and cost savings to date. OMB agreed with our recommendation.

We have ongoing work looking at OMB's PortfolioStat initiative, including determining whether agencies completed key required PortfolioStat actions, evaluating selected agencies' plans for making portfolio improvements and achieving associated cost savings, and describing OMB's plans to improve the PortfolioStat process.

In summary, while OMB and agencies have taken steps to improve their ability to identify and categorize IT investments, duplicative IT investments still exist at federal agencies. Because these investments account for billions of dollars in spending, it will be important for OMB and agencies to implement our prior recommendations to better ensure that duplicative investments are identified and eliminated.

To help agencies better address duplicative IT investments, OMB established PortfolioStat as a means of assisting agencies with the assessment of the maturity of their IT investment management processes and eliminating areas of duplication and waste. OMB recently released additional guidance that expanded this important initiative's scope and reported that significant progress had been made to date, including more than 100 opportunities to consolidate or eliminate commodity IT investments. Moving forward, it will be important for OMB to be transparent on agencies' progress against key performance metrics, such as cost savings, in order to ensure that the PortfolioStat initiative is meeting its established objectives.

Chairman Carper, Ranking Member Coburn, and Members of the Committee, this completes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

| GAO Contact and<br>Staff<br>Acknowledgments | If you or your staffs have any questions about this testimony, please<br>contact me at (202) 512-9286 or at pownerd@gao.gov. Individuals who<br>made key contributions to this testimony are Dave Hinchman (Assistant<br>Director), Justin Booth, Kate Feild, Rebecca Eyler, Valerie Hopkins,<br>Sabine Paul, Colleen Phillips, Bradley Roach, Jonathan Ticehurst and |
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|   | Kevin Walsh.  |

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