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March 2016

Audit of the Department of State Process To Select and Approve Information Technology Investments

FINANCIAL MANAGEMENT DIVISION

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OIG HIGHLIGHTS

AUD-FM-16-31

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What Was Found

Kearney found that IRM designed a process to select and approve IT investments in accordance with OMB requirements. However, the policy governing the process did not include a clear definition of an IT investment that complies with OMB's definition, nor did it require bureaus to assess the potential duplication of planned IT acquisitions. The policy was insufficient primarily because the Department did not have a process for IRM management to approve updates to the policy. As a result, the Department cannot ensure that IT investments are made in accordance with OMB requirements.

Kearney also found that the Department generally did not select IT investments in accordance with the process it had designed or with OMB requirements. This occurred, in part, because the Department has not put into practice sufficient Chief Information Officer authority for IT acquisitions. In addition, IRM does not have a sufficient centralized oversight process in place. Further, the Department did not implement adequate controls to assess and avoid duplicative IT investments. The Department also did not use its IT portfolio management system, iMatrix, consistently or to its full capabilities. Specifically, not all bureaus use iMatrix, and IRM does not provide open access to iMatrix information, which limits bureaus' ability to identify duplicative IT investments. Because of these issues, stakeholders lack visibility into the Department's IT portfolio, the Department made duplicative IT investments, and the Department was not well positioned to implement new mandates related to IT investments.

In addition, Kearney found that the Department did not always report to OMB accurate and complete information on its IT investments. This occurred primarily because the process to prepare the reports is manual and involves numerous users across the Department. Further, training on OMB requirements and the functionality of iMatrix was inadequate. Insufficient IRM oversight of the reporting process also contributed to incomplete and inaccurate reports. Because the reports were inaccurate and incomplete, Department stakeholders had limited ability to analyze and assess IT spending.

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What Was Audited

In FY 2014, the Department of State (Department) reported that it had spent \$1.4 billion on 83 IT investments that support Department operations, ranging from property management to passport and visa systems.

Acting on OIG's behalf, Kearney & Company, P.C. (Kearney), an independent public accounting firm, conducted this audit to determine whether the Department designed a process to select and approve IT investments in accordance with Office of Management and Budget (OMB) requirements, followed the process that it had designed to select and approve IT investments, and provided accurate and complete Exhibit 53 and Exhibit 300 reports to OMB.

What OIG Recommends

OIG made 30 recommendations intended to improve the Department's process for selecting, approving, and reporting information on IT investments. Based on the response from the Bureau of Information Resource Management (IRM), OIG considers 11 recommendations resolved, pending further action, and 19 recommendations are unresolved.

IRM's comments are included in this report as Appendix D, the Bureau of Administration's comments are in Appendix E, and the Bureau of Diplomatic Security's comments are in Appendix F.



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Audit of the Department of State Process to Select and Approve Information Technology Investments

Office of Inspector General
U.S. Department of State
Washington, D.C.

Kearney & Company, P.C. (Kearney), has performed an audit of the Department of State process to select and approve information technology investments. This performance audit, performed under Contract No. SAQMMA14A0050, was designed to meet the objectives identified in the report section titled "Objectives" and further defined in Appendix A, "Purpose, Scope, and Methodology," of the report.

Kearney conducted this performance audit from December 2014 through June 2015 in accordance with *Government Auditing Standards*, 2011 Revision, issued by the Comptroller General of the United States. The purpose of this report is to communicate the results of Kearney's performance audit.

Kearney appreciates the cooperation provided by personnel in Department of State offices during the audit.

A handwritten signature in blue ink that reads "Kearney & Company". The signature is stylized and cursive.

Kearney & Company, P.C.
Alexandria, Virginia
March 4, 2016

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OBJECTIVES

The objectives of this audit were to determine whether the Department of State (Department):

- designed a process to select and approve IT investments in accordance with Office of Management and Budget (OMB) requirements,
- followed the process that it had designed to select and approve IT investments, and
- provided accurate and complete Exhibit 53 and Exhibit 300 reports to OMB.

BACKGROUND

Investments in IT can have a dramatic impact on an organization's performance. Well-managed IT investments that are selected carefully and focus on meeting mission needs can propel an organization forward, dramatically improving performance while reducing costs. Likewise, poor investments, those that are inadequately justified, or those with poorly managed costs, risks, and expected mission benefits can hinder and even restrict an organization's performance.¹

The Federal Government spent nearly \$76 billion on IT-related activities in FY 2014.² Although the Government spends significant funds on IT activities, the Government Accountability Office (GAO) reported that, since 2000, the Federal Government has achieved little of the productivity improvements that private industry has realized from IT.³ As noted in the 2015 GAO High-Risk Series Update,⁴ "federal IT investments too frequently fail to be completed or incur cost overruns and schedule slippages while contributing little to mission-related outcomes."

GAO also reported⁵ that 24 percent of 759 Federal Government IT projects (worth \$10 billion) are at medium to high risk of failure at 27 agencies. Further, GAO reported that agencies continued to identify duplicative IT spending. To address these issues, GAO stated that "given the scale of such planned [IT] outlays and the criticality of many of these systems to the health, economy, and security of the nation, it is important that OMB and federal agencies provide appropriate oversight and transparency into these programs and avoid duplicative investments, whenever possible, to ensure the most efficient use of resources."⁶

¹ GAO, *Assessing Risks and Returns: A Guide for Evaluating Federal Agencies' IT Investment Decision-making* (GAO/AIMD-10.1.13, February 1997).

² As reported on the OMB IT Dashboard, <<https://itdashboard.gov/>>, accessed on December 7, 2015.

³ *Leveraging Best Practices and Reform Initiatives Can Help Agencies Better Manage Investments* (GAO-14-568T, May 2014) at <<http://www.gao.gov/assets/670/663038.pdf>>.

⁴ *Report to Congressional Committees, High Risk Series, An Update* (GAO-15-290, February 2015) at <<http://www.gao.gov/assets/670/668415.pdf>>.

⁵ *Information Technology: Reform Initiatives Can Help Improve Efficiency and Effectiveness* (GAO-14-671T, June 2014) at <<http://www.gao.gov/products/GAO-14-671T>>.

⁶ Ibid.

Capital Planning and Investment Control Requirements

In 1996, Congress enacted the Information Technology Management Reform Act⁷ (more commonly referred to as the Clinger-Cohen Act), which established the foundation for improvements in the way the Federal Government selects and invests in IT. The Clinger-Cohen Act established a comprehensive approach for executive agencies to improve the acquisition and management of their information resources by:

- focusing information resource planning to support strategic missions;
- implementing a capital planning and investment control (CPIC) process that links to budget formulation and execution; and
- rethinking and restructuring [reengineering] work processes before investing in information systems.

According to Federal guidance, an IT CPIC process should include three phases: selection, control, and evaluation. In the selection phase, the organization determines priorities and makes decisions about which projects will be funded. The systems and projects that are selected for funding make up the portfolio of IT investments. The selection phase helps ensure that the organization:

- selects those IT projects that will best support mission needs and
- identifies and analyzes a project's risks and proposed benefits before a significant amount of project funds is spent.

A critical aspect of the CPIC selection phase is management participation and decision-making that is driven by accurate, up-to-date data and an emphasis on using IT to enhance mission performance. After the selection phase, all IT projects in the portfolio should be consistently controlled and managed. Progress reviews, during which the progress of projects is compared against projected costs, schedules, and expected mission benefits, should be conducted at key milestones in each project's life cycle.

To implement the requirements of the Clinger-Cohen Act, OMB developed policies to which agencies must adhere during the selection phase of the CPIC process (Appendix B provides details of significant OMB and other requirements). OMB policies outline requirements for an agency's due diligence prior to investment. For example, OMB requires that an agency document its business need for an investment, its consideration of alternative investments, and its analysis of the estimated costs and benefits associated with the investment.

⁷ Pub. L. No. 104-106, Division E.

To further enforce the requirements for IT investments established in the Clinger-Cohen Act, Congress passed the Federal Information Technology Acquisition Reform Act⁸ (FITARA) in FY 2014. Beginning in 2015, FITARA required agencies to tailor their CPIC process to allow for a higher level of scrutiny over IT capital investment spending. FITARA reaffirms that it is the responsibility of the Chief Information Officer (CIO) to annually review and approve the investments within an agency's IT portfolio and states that the CIO should functionally be a part of the technical and business review of the implementation of new IT investments across all bureaus.

The Clinger-Cohen Act⁹ requires agencies to develop a process for selecting and approving an IT investment. OMB has issued requirements for developing IT acquisition processes. Specifically, OMB Circular A-130¹⁰ provides requirements for IT acquisitions. These requirements were designed to ensure that IT investments support the agency's core mission, reduce cost, reduce duplication and redundancy, improve effectiveness, and meet agency needs. In addition, OMB Circular A-11¹¹ provides requirements on the acquisition of major IT investments and identifies key elements for an agency capital plan to ensure that the investments selected limit both the risk and failure of the investment.¹² The Bureau of Information Resource Management (IRM) designed a policy,¹³ set forth in the CPIC Program Guide, to support the selection and approval of both major and non-major Department IT investments.

OMB Circular A-11¹⁴ allows agencies to have separate CPIC policies for major investments and investments that "are small in dollar relative to the agency's budget." However, the process for selecting and approving non-major investments still must comply with the basic criteria of the agency's CPIC policy and OMB Circular A-130. In accordance with OMB requirements, IRM allows bureaus and offices to develop their own policies and procedures for selecting and approving non-major IT investments. Specifically, the Department's CPIC Program Guide states that bureaus and offices can "tailor and consolidate control gates¹⁵ to specifically meet their IT project's development and maintenance requirements." However, the CPIC Program Guide

⁸ Pub. L. No. 113-291, Title VIII, Subtitle D, of the National Defense Authorization Act for Fiscal Year 2015. FITARA increases the authority of agency CIOs over IT as well as strengthens IT acquisition practices in the Federal Government. The Act also has provisions for eliminating duplicative IT systems, including duplicative contracts, across the Federal Government.

⁹ Pub. L. No. 104-106, Division E. Clinger-Cohen Act: "IT Management Reform Act" – Section 5112 (c): Use of Budget Process.

¹⁰ OMB Circular A-130, "Management of Federal Information Resources."

¹¹ OMB Circular A-11, Part 7, "Capital Programming Guide."

¹² Appendix B provides details of significant IT investment requirements.

¹³ CPIC Program Guide, Electronic Government Portfolio Management Office, December 5, 2014.

¹⁴ OMB Circular A-11, Introduction, "Threshold for Capital Programming."

¹⁵ Control gates are key points in a decision process where documents are produced and approvals are obtained before proceeding to the next step. Control gates are designed to stop a project from proceeding if it is not well designed, costs are not appropriate for the benefits, or other operational risks exist.

requires bureaus and offices to coordinate IT investments and projects¹⁶ with the E-Gov Program Management Office (E-Gov PMO) to ensure the bureau-specific process is sufficient. Some Department bureaus have developed their own processes for approving non-major IT investments and projects.

Federal IT Investment Reporting

Federal agencies must report their IT investments and IT spending to OMB during the annual budget process in the Exhibit 53 and Exhibit 300 reports, which are used to create the “IT Portfolio,” which is published as part of the President’s budget. Agencies report information for each of the investments in their IT portfolios, including a description of the investment, development costs, the costs for operations and maintenance (O&M), and the technology architecture in the Exhibit 53 report. Agencies have some flexibility in how they provide the information to OMB. For example, agencies can organize their IT portfolio in accordance with their mission needs. However, every agency must divide its IT portfolio into two categories of investments: major¹⁷ and non-major.¹⁸ Agencies submit the Exhibit 53 report to OMB in August and January. The initial submission provides a baseline of the investments that will be funded and the expected level of spending. Upon completion of the fiscal year, when final spending information is available, agencies submit an updated Exhibit 53 report that includes 3-year spending information for all investments. With respect to the Exhibit 300 report, agencies are expected to report specific information on major IT investments, including the progress, risks, and spending for each investment. In addition to the 3-year spending data, Exhibit 300 reports require projected spending data for at least 4 years in the future to assist OMB in monitoring the true life-cycle cost of the major investment.

Agencies submit their Exhibit 53 and Exhibit 300 reports through OMB’s MAX Federal Community website.¹⁹ OMB publishes each agency’s IT portfolio data online on the Federal IT Dashboard website.²⁰ The submission of the IT information allows agencies and OMB to review

¹⁶ Within the Department, an IT investment can be a single application or can consist of related systems, including IT projects or programs that support the investment. Two bureaus (Diplomatic Security (DS) and IRM) have the components of investments (that is, projects or programs) go through a bureau-specific CPIC approval process. Kearney selected some of these projects or programs to test whether the bureau-specific process complied with OMB requirements. In this report, the term “project” is used to represent both projects and programs.

¹⁷ According to OMB Circular A-130 and OMB Memorandum M-10-27, “Information Technology Investment Baseline Management Policy,” a major IT investment is a system or acquisition requiring special management attention because of its importance to the mission or function to the government; has significant program or policy implications; has high executive visibility; has high development, operating, or maintenance costs; uses an unusual funding mechanism; or is defined as such by the agency.

¹⁸ Non-major investments include all IT investments that are not identified as a major investment. Although not considered a major investment, agencies must follow the basic IT selection factors outlined in OMB Circular A-11 and OMB Circular A-130 for all non-major investments.

¹⁹ MAX Federal Community is also the central location for Federal guidance and training on IT investments.

²⁰ OMB has established a website, <<https://itdashboard.gov/>>, for the public to review agency IT investments, their risk, and the reported value of those investments.

and evaluate IT spending and to compare IT spending across the Federal Government. Specifically, the information helps agencies and OMB:

- Report on all IT investments, as required by the Clinger-Cohen Act;
- Understand and compare the amount spent on the development of new capabilities and in support of O&M for all agency IT investments;
- Identify and report IT security costs for all IT investments and for agency and bureau IT security programs, as required by the Federal Information Security Management Act; and
- Identify and report on agency financial management systems.

OMB uses the information provided by each agency to create an overall "Federal IT Investment Portfolio," which is published as part of the President's Budget.

To collect the data needed to prepare the Exhibit 53 and Exhibit 300 reports more efficiently, the Department developed the iMatrix application, which serves as the Department's primary IT investment database. iMatrix is structured to track data in three modules: the IT Budget Management Module, the IT Investment Management Module, and the IT Asset Management Module. Officials from the Bureau of Budget and Planning (BP) and bureau budget analysts use the IT Budget Management Module to manage and track each investment's budget, including the sources of funding for each investment. Once the IT Budget Management Module is populated, the investment manager uses the IT Investment Management Module to allocate actual and anticipated spending amounts to specific IT investments. Additionally, each bureau's investment managers, BP, and the E-Gov PMO use the IT Investment Management Module to compile the data needed to prepare OMB Exhibit 53 and Exhibit 300 reports. This module includes sections to document each investment's:

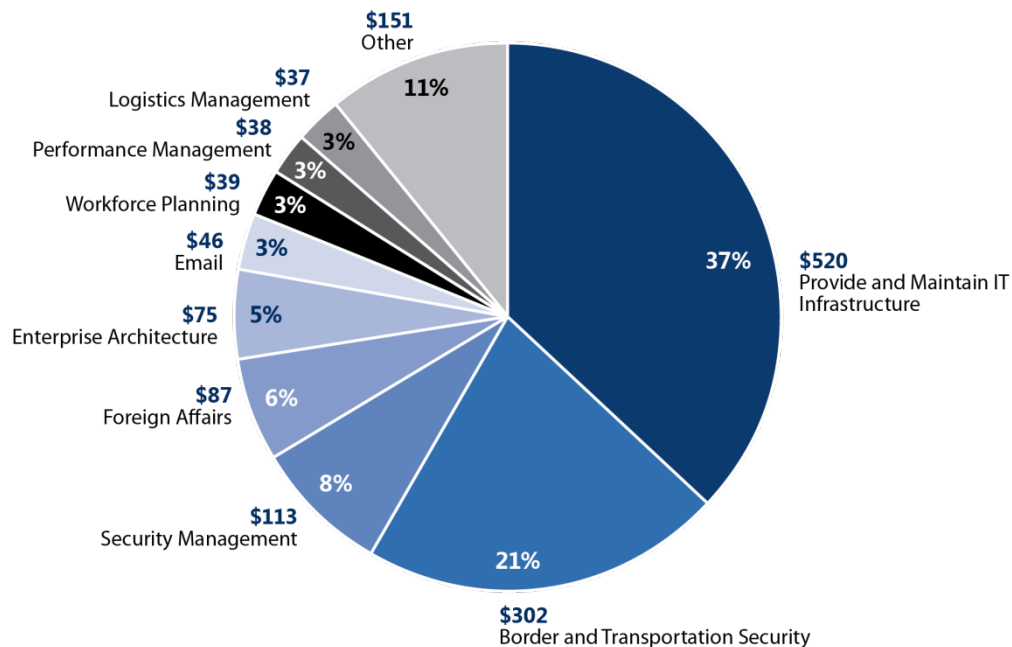
- activities for project execution,
- risk mitigation plans,
- performance goals,
- program data and funding,
- operational activity,
- funding and baseline cost schedules, and
- contracts.

The IT Asset Management Module generally contains similar information as the investment module. However, the IT Asset Management Module provides visibility of the specific IT assets supporting the Department's IT portfolio. The IT assets tracked in the IT Asset Management Module include applications, datasets, mobile applications, networks, social media, and websites.

Department IT Investments

For FY 2014, the Department reported in its Exhibit 53 report that it had spent \$1.4 billion on 83 IT investments. Of the 83 IT investments, the Department identified 17 investments, totaling \$705 million (50 percent of the Department's IT portfolio), as major IT investments. The Department invests in many types of IT systems, such as property management and financial management systems, visa application systems, crime prevention, and security threat monitoring systems. Further, the Department invests in general IT support, such as securing networks. Figure 1 depicts the Department's FY 2014 IT spending by area.

Figure 1
FY 2014 IT Spending
(\$ millions)



Source: Department of State FY 2014 OMB Exhibit 53 Report, January 2015.

The Department's IT Management Structure

IRM establishes the Department's IT strategic plan and manages IT policy. The Department's CIO, who is the Assistant Secretary for IRM, is responsible for the management of IT investments and the control of the IT inventory across all bureaus. OMB requires the CIO to "develop internal agency information policies and procedures and oversee, evaluate, and otherwise periodically review agency information resources management activities for conformity with the policies."²¹

²¹ OMB Circular A-130.

Through active monitoring of the IT portfolio across the agency, the CIO is expected to “advise the agency head on whether to continue, modify, or terminate a program or project.”²²

To assist the CIO in carrying out responsibilities related to IT portfolio oversight, the Department has established three groups—the Electronic Government Program Board (E-Gov PB), the Electronic Government Advisory Board (E-Gov AB), and the E-Gov PMO. The E-Gov PB was established to ensure the systematic selection, control, and evaluation of IT investments in the Department’s portfolio and is chaired by the Under Secretary of State for Management.²³ The E-Gov AB is a board designed to assist the E-Gov PB in identifying and resolving issues within the IT portfolio. The Deputy CIO is the chair of the E-Gov AB, and members are appointed by the E-Gov PB as necessary.²⁴ The E-Gov PMO was established to carry out the governance of the E-Gov PB throughout the agency under the direction of the CIO. The E-Gov PMO provides cross-agency support, assists in project identification, and reviews and recommends IT proposals to the E-Gov PB. The E-Gov PMO is charged with ensuring consistency and enforcement of the Department’s IT investment policies throughout the agency.

The Department has numerous bureaus, offices, and posts that carry out the missions and programs of the Department. IT is used in almost every aspect of daily operations, such as email, telecommunication, and processing and reporting data globally. In many cases, bureaus identify a business need for a new IT asset or a need to modify or replace an existing IT asset. According to the CPIC Program Guide, in these situations, it is the bureau’s responsibility to comply with the Department’s CPIC policies when evaluating an IT investment. The CPIC Program Guide allows bureaus and offices to tailor their CPIC processes to specifically meet the IT project’s development and maintenance requirements.

AUDIT RESULTS

Finding A: The Department Designed a Substantially Compliant Selection Process for IT Investments, but Improvements Are Needed

Kearney & Company, P.C. (Kearney), found that IRM designed a process, which was detailed in the CPIC Program Guide, to support the selection and approval of both major and non-major IT investments that addresses the majority of key OMB requirements. However, the CPIC Program Guide did not include a clear definition of an IT investment that complies with OMB’s definition. Further, the guide did not require bureaus or offices to assess duplication of planned IT

²² Ibid.

²³ The E-Gov PB membership also includes the Chief Information Officer, the Director of Budget and Planning, the Chief Acquisition Officer, the Comptroller, the Assistant Secretary for Diplomatic Security, and 11 other officials.

²⁴ Membership fluctuates due to business needs or positional changes. The membership normally consists of the Deputy Chief Information Officer, the Deputy Director of Budget and Planning, an official from the Office of the Procurement Executive, and an official from the Strategic Planning Office.

acquisitions at the Department, government, and private sector levels, as required by OMB. Kearney also found that IRM designed an effective tool, iMatrix, to assist in managing the Department's IT capital planning process. The CPIC Program Guide was not sufficient because IRM did not have a process to review proposed CPIC Program Guide updates to ensure that changes made to the guide were necessary and complied with Federal requirements. Additionally, IRM did not have a process to monitor and periodically review the CPIC Program Guide. As a result, the Department could not ensure that all IT investments were selected and approved in accordance with OMB requirements.

The Department's CPIC Program Guide supports the selection and approval of both major and non-major Department IT investments. When a bureau or office identifies the need for an IT investment, including significant purchases or upgrades, the bureau or office should begin the CPIC process. First, the bureau or office should research potential solutions to address the IT need and document details of the proposed IT investment in a Pre-Select Form²⁵ and an Analysis of Alternatives (AoA) Form.²⁶ The bureau or office must then submit the two forms to the E-Gov PMO within IRM. The E-Gov PMO reviews the forms to ensure that information required by the CPIC Program Guide was submitted for the proposed IT investment and determines whether the proposed investment should be categorized as a major or non-major IT investment. IRM has established a dollar threshold of \$50 million in spending over a 3-year period to constitute a major IT investment.²⁷ Additionally, qualitative factors are assessed to identify potential major IT investments. Proposed IT investments that are identified as major investments must be approved by the Department's E-Gov PB and E-Gov AB. Proposed IT investments that are identified as non-major investments are subject to approval by the requesting bureau's review boards. All bureaus and offices are required to follow the CPIC Program Guide's selection and approval process when proposing IT projects and investments, regardless of the major and non-major determination.

To determine whether the Department's policy was designed in compliance with OMB requirements, Kearney compared the policies in the CPIC Program Guide to the key requirements in OMB Circulars A-130 and A-11. As shown in Table 1, Kearney found that the CPIC Program Guide complied with the majority of key OMB requirements.

²⁵ The Pre-Select Form documents the evaluation of interoperability, cross-cutting investments, new technology, prioritization, annual costs, life-cycle costs, and cloud service potential. The Pre-Select Form also documents the evaluation of the investment for enterprise-wide or bureau-specific investments.

²⁶ An AoA is a systematic and quantifiable methodology for assessing and comparing viable options based on costs, benefits, and risks. The AoA Form is used to document the cost of alternatives, benefits, and risks; the cost benefit analysis performed to calculate the return on investment; a justification to support the business case and funding decisions; and a justification for the selected alternative.

²⁷ This quantitative threshold was approved by the Under Secretary for Management in August 2011. In an action memorandum, the Under Secretary for Management approved that the Department would identify a project to be major "if the total of the three years covered by the budget submission . . . exceeds \$50 million."

Table 1: Comparison of the Department's IT Investment Policy to OMB Requirements

Key Requirements From OMB Circulars	Did the Program Guide Comply?
Establish an Executive Review Committee	Yes
Appoint a CIO to manage IT policy	Yes
Develop agency strategic plans	Yes
Define and identify IT investments	No
Maintain an IT Portfolio for major and non-major investments	Yes
Appoint IT project teams to manage investments	Yes
Develop controls for IT selection to ensure:	
Investment links to agency mission, strategic goals, and enterprise architecture	Yes
System improvements or new development do not duplicate efforts at the agency, Federal, and private sector level	No
Implementation process is simplified and uses commercial-off-the-shelf products*	Yes
Performance gaps are identified and needs are justified	Yes
Return on investment is demonstrated and performance goals identified	Yes
Investment maximizes existing data and reduces data collection from the public	Yes
Systems are not restrictive or inaccessible to users and stakeholders	Yes
Alternatives are quantified and analyzed	Yes
Risks, assumptions, and constraints are analyzed	Yes
Costs and benefits are quantified and analyzed	Yes
Program cost baseline is established for performance	Yes
Prioritize and score IT investments	Yes

*Commercial-off-the-shelf products are ready-made software products that can be purchased and implemented with limited to no development cost.

Source: Kearney prepared based on a comparison of IRM's policy in the CPIC Program Guide to OMB Circulars A-130 and A-11.

Although the CPIC Program Guide complied with the majority of requirements, it did not define an IT investment in accordance with OMB Circular A-11. OMB²⁸ defines an IT investment as "the

²⁸ OMB Circular A-11, Sec. 55, "Information Technology Investments."

expenditure of IT resources to address mission delivery and management support.” The OMB definition states that an IT investment:

- may include a project or projects for the development, modernization, enhancement, or maintenance of a single IT asset or group of IT assets with related functionality and the subsequent operation of those assets in a production environment.
- should have a defined life cycle with start and end dates, with the end date representing the end of the currently estimated useful life of the investment, consistent with the investment’s most current alternatives analysis if applicable.

The CPIC Program Guide defines an IT investment as “the expenditure of resources to achieve goals and objectives utilizing information technology in support of the organization’s mission.” However, the CPIC Program Guide definition does not include specific information on which project or project groupings should be considered an IT investment or the requirement that IT investments have a defined life cycle.

In addition, the CPIC Program Guide did not sufficiently address the requirement to identify potential duplication of effort in accordance with OMB Circular A-130. OMB Circular A-130 states that an agency should “ensure that improvements to existing information systems and the development of planned information systems do not unnecessarily duplicate IT capabilities within the same agency, from other agencies, or from the private sector.” However, the CPIC Program Guide requires only that Department bureaus and offices assess duplication within the bureau or office that is acquiring the investment and not at the agency, government, or private sector level.

Although the CPIC Program Guide could be improved, IRM designed an effective tool, iMatrix, to assist in managing the Department’s IT capital planning process. iMatrix has the functionality to facilitate IT project management and the reporting of IT investments. Key requirements from OMB’s IT investment requirements were built into the application. For example, iMatrix includes a section where bureaus and offices can document their AoA. The iMatrix application has the functionality to retain all required documentation related to the selection, control, and evaluation of each IT investment.

IRM issued the Department’s first CPIC Program Guide in 2003. From 2004 to 2008, IRM updated the Program Guide at least once each year. Kearney found that the 2008 CPIC Program Guide included a definition of an IT investment that aligned with OMB’s definition.²⁹ In addition, Kearney found that the 2008 CPIC Program Guide required that duplication be considered at the

²⁹ The 2008 CPIC Program Guide defined an IT investment as “pertain[ing] to a discrete IT application, technology, or IT management process that is controlled, used, in place, or administered by the organization; uses IT to directly or indirectly help achieve the Department’s mission, goals, and performance targets; can claim clear, specific, and measurable value within a predefined time frame; and sponsored by a specific individual in the organization.”

agency, Federal, and private sector levels,³⁰ as required by OMB. From 2008 to 2014, IRM did not update its CPIC Program Guide, even though OMB updated Circular A-11 each of those years. In response to a recommendation to update the Guide from an OIG Office of Inspections report,³¹ in 2014 IRM significantly revised the CPIC Program Guide.³² IRM changed the definition of an IT investment and eliminated the requirement for consideration of duplication outside of the acquiring bureau during the revisions. The CPIC Program Guide states that the CIO is responsible for revising CPIC policy. The CIO works with the E-Gov PB, who is ultimately responsible for “prioritizing, reviewing, and resolving significant policy issues.”³³

Although certain responsibilities were documented in the CPIC Program Guide, the primary reason that OMB requirements and definitions were not sufficiently addressed in the Guide was that IRM did not have a formal documented process for proposing, reviewing, and approving revisions to the Guide. In addition, there was no formal review to ensure that changes to the Guide were necessary and complied with Federal standards. Further, there was no requirement for all changes to be approved by IRM management and the E-Gov PB or the E-Gov AB prior to publication. Additionally, IRM did not have a process to monitor and periodically review the CPIC Program Guide to ensure that it complied with OMB requirements. According to GAO,³⁴ management is required to design control activities over the acquisition, development, and maintenance of IT within the agency.³⁵ Management must clearly document these policies and must provide an appropriate level of detail in order for responsible personnel to know how to carry out the procedures.³⁶ Monitoring and routinely reevaluating the documented policies is a required component of this process to ensure continued compliance with laws and regulations.

Recommendation 1: OIG recommends that the Bureau of Information Resource Management update the Capital Planning and Investment Control Program Guide to comply with Office of Management and Budget requirements. Specifically, the definition of an IT investment should be modified and a requirement to perform a review for duplicative investments across the agency, Federal Government, and private sector should be included.

³⁰ The 2008 CPIC Program Guide required a bureau or Department official to confirm “the proposed initiative [is] an inherently governmental function,” “[if] there are alternative sources in the public or private sectors that could perform this function,” and “[if] there are applications or systems in the Department that do the same thing.” These questions were designed to reduce the risk of redundant processes and duplicative systems.

³¹ OIG, *Inspection of the Bureau of Information Resource Management, Strategic Planning Office* (ISP-I-15-03, October 2014).

³² IRM updated the program guide on April 29, 2014, at the beginning of the inspection period, and again on December 5, 2014, in response to the recommendation.

³³ CPIC Program Guide, Sec.3.1 E-Gov PB.

³⁴ GAO, *Standards for Internal Control in the Federal Government* (GAO-14-704g, September 2014), Principle 16, Perform Monitoring Activities.

³⁵ Ibid., Principle 11, Design Activities for the Information System.

³⁶ Ibid., Principle 12, Implement Control Activities.

IRM Response: IRM concurred with the recommendation, stating that it will revise the CPIC Program Guide to include specific language about how an investment has a defined life cycle and a requirement to complete a portfolio review for duplicative investments. IRM, however, stated that it is not required to define an IT investment in its policies.

OIG Reply: OIG considers this recommendation unresolved. OMB requires agencies to implement “appropriately all of the information policies, principles, standards, guidelines, rules, and regulations prescribed by OMB.”³⁷ The audit report does not state that IRM is required to define an IT investment in its policy. However, because IRM elected to define an IT investment in the CPIC Program Guide, the auditor compared that definition to the OMB definition and identified a discrepancy. The identified discrepancy means that the Department did not comply with the OMB requirement to implement the OMB guidelines as prescribed. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has updated the CPIC Program Guide to comply with OMB requirements.

Recommendation 2: OIG recommends that the Bureau of Information Resource Management develop and implement a formal process describing when and how Bureau management will review and approve changes to the Capital Planning and Investment Control Program Guide to ensure the guide is compliant with Office of Management and Budget requirements. At a minimum, the plan should include a description of the officials who will review and formally approve the changes to the Program Guide.

IRM Response: IRM concurred with this recommendation, stating that it will develop a “formal process guide that outlines the process on when and how Bureau management will review and approve changes” to the CPIC Program Guide.

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a formal process describing when and how Bureau management will review and approve changes to the CPIC Program Guide.

Without a clear definition of an IT investment, the Department cannot ensure that all IT investments are identified and analyzed in a consistent and effective manner. For example, a user of the current CPIC Program Guide may not realize that certain types of IT-related spending meet the OMB definition of an IT investment and may improperly forego the CPIC selection requirements, which could lead to IT assets being acquired in an inefficient or wasteful manner.³⁸ Additionally, without a consistent application of the IT investment definition across

³⁷ OMB Circular A-130, Sec. 9.

³⁸ Kearney discusses issues with the inconsistent implementation of the policy among bureaus in Finding B of this report.

the Department, information relating to IT spending may not be available in a manner that facilitates transparency, accountability, and effective oversight. Further, without requirements to analyze potential alternatives at the Department, Federal, and private sector levels, duplicative, redundant, or otherwise cost prohibitive IT investments may be made.

Finding B: The Department Did Not Select IT Investments in Accordance With its Approved Process

Kearney found that the Department generally did not follow the process it had designed to select IT investments. For example, Kearney tested five major investments, and the Department was unable to demonstrate that it complied with the CPIC Program Guide for any of these projects. Further, Kearney tested 18 non-major investments and projects in 3 selected bureaus—IRM, the Bureau of Diplomatic Security (DS), and the Bureau of Administration—and found that only 2 of the 18 non-major investments or projects complied with key OMB Circular A-130 requirements. Kearney also found that bureaus did not have consistent portfolio structures. Further, when bureaus reorganized their portfolio structures,³⁹ the reorganizations were not performed consistently.

The primary reason that the Department did not select IT investments in accordance with IT investment policies was that the Department has not put into practice sufficient CIO authority to manage IT activities, as provided for in law. The bureaus, not the CIO, controlled the funding for many Department IT investments. Because bureaus use their own funding for IT investments, Kearney noted instances where bureau-funded IT investments were not fully visible to the CIO or IRM staff. In addition, IRM has not implemented and enforced a centralized CPIC oversight process. For example, the E-Gov Boards did not approve a number of investments. In addition, the Department did not have adequate controls in place to avoid developing duplicative IT investments. Also, the Department did not use its IT portfolio management system consistently or to its full capabilities.

Because the Department has not standardized and enforced requirements for IT selection and approval, stakeholders lacked visibility into the Department's IT portfolio. Further, Kearney identified instances in which duplicative investments were made. Finally, the Department was not well positioned to implement the IT requirements contained in FITARA.

Bureaus Did Not Select and Approve Major IT Investments in Accordance With the Department's Approved Process

The CPIC Program Guide requires, among other things, that bureaus initiating IT investments:

³⁹ Reorganizations of portfolio structures can be done for many reasons. For example, if the initial IT portfolio structure established by a bureau does not provide sufficient transparency, then a bureau may reorganize the portfolio structure to improve oversight of IT acquisitions.

- Document the need for an IT project in the Pre-Select Form.
- Quantify and analyze alternatives in the AoA Form.
- Obtain E-Gov PMO and functional reviewer evaluation and assessment of the Pre-Select Form.

To determine whether bureaus followed the CPIC Program Guide, Kearney assessed five major IT investments for compliance with key requirements. Two of the five investments were funded during the scope period of the audit (FYs 2013 and 2014), and three investments were active systems that were funded prior to the scope period. For each of the five major IT investments tested, the Department was unable to demonstrate that the bureaus that selected and approved the investments complied with the process set forth in the CPIC Program Guide.⁴⁰ The five IT investments tested and the results of the tests for compliance are provided in Table 2.

Table 2: Compliance With CPIC Program Guide Key Requirements for Major Investments Tested

Investment	Completed Pre-Select Form	Analyzed Alternatives	Sufficient Assessment E-Gov PMO
Budget System Modernization	Yes	No ^a	No
Architecture Services	No	No	No
Deployment Maintenance & Refresh Services ^b	Not Applicable	No	No
Enterprise Network & Bandwidth Services ^b	Not Applicable	No	No
Integrated Logistics Management System	No	Yes	No

^a The Department had selected the Budget System Modernization investment but had not fully implemented the project as of July 2015 (the end of audit fieldwork). According to IRM officials, the investment was approved in 2014 “with the expectation that a study period would be completed by December 2015.” The IRM officials stated that an AOA would be the expected result of the study period. Even though the Budget System Modernization investment was not fully implemented, the Department should have performed an alternatives analysis during the selection phase (that is, before approval), as required by the CPIC Program Guide. Therefore, Kearney considers the lack of an AOA for the Budget System Modernization investment to be an exception.

^b These investments were the result of a reorganization of existing investments, so a pre-select form was not needed. However, the responsible bureaus should have developed an updated alternatives analysis. E-Gov PMO guidance states that an alternatives analysis should be reviewed at least every 3 years to ensure that the investment is the best choice for returning the greatest benefit to the agency. Therefore, even though these investments were the result of a reorganization, the Department should have an alternatives analysis available for each of the investments.

Source: Kearney prepared based on documentation provided by the Department.

⁴⁰ One investment, the Integrated Logistics Management System, was selected and approved in 2001. Bureau officials indicated that the bureau had complied with CPIC Program Guide requirements applicable in 2001. However, Kearney was unable to verify compliance for some attributes because not all documents had been retained.

Bureaus Did Not Select and Approve Non-Major Investments and Projects in Accordance With Office of Management and Budget Requirements

Kearney tested 18 non-major investments or projects to determine whether the bureaus complied with key requirements included in OMB Circular A-130,⁴¹ which apply to all IT investments.⁴² Specifically, Kearney tested the 18 non-major investments or projects for compliance with the following OMB Circular A-130 requirements:

- Proper identification of major or non-major investment;
- Investment links to the Agency Mission and Strategic Goals;
- New investment or investment improvement does not duplicate efforts at the agency, Federal, and private sector level;
- Investment risks, assumptions, and constraints are analyzed;
- Investment alternatives are quantified and analyzed.

Kearney found that the three bureaus did not always select and approve non-major IT investments and projects in accordance with OMB requirements. Although the bureaus performed some selection and approval procedures for all 18 investments, only 2 (11 percent) of the 18 investments and projects complied with the OMB Circular A-130 requirements tested. In some cases, Kearney found that decisions to invest in new IT projects were made before any of the required CPIC process steps were performed. For example, the Department was unable to demonstrate it had performed any of the key steps before beginning the selection process for 2 of the 18 projects. One new investment—the Regional Information Management Center, which was planned to provide real-time technical, operational, and IT maintenance support to overseas posts—was funded and implemented based on a decision by the Under Secretary for Management. The annual spending for this project is \$3 million. Similarly, IRM was unable to demonstrate the Enterprise Planning and Management Services investment, which supports the CIO in carrying out IRM services for enterprise planning,⁴³ complied with any OMB requirements. This project, which was approved by the CIO, costs more than \$74 million annually.⁴⁴

A list of the non-major IT investments and projects tested and the results of the tests for compliance with OMB requirements are presented in Table 3.

⁴¹ In October 2015, OMB issued a draft revision of OMB Circular A-130. The draft includes similar requirements for the CPIC process as were tested in this section.

⁴² Because the Department's bureaus used different processes to select and approve non-major IT investments and projects, Kearney was unable to test compliance with the CPIC Program Guide and instead tested compliance with OMB requirements.

⁴³ After the completion of the audit, an IRM official indicated that the Enterprise Planning and Management Services investment was also used to fund enterprise licenses, such as for Microsoft and Adobe products.

⁴⁴ The Enterprise Planning and Management Services investment is correctly classified as a non-major investment, even though the spending is over the \$50 million threshold because, according to OMB guidance, IT capital planning and CIO function investments should not be categorized as major IT investments.

Table 3: Non-Major IT Investments and Projects — OMB Requirement Testing Results

Investment Name	Type	Proper Identification	Link to Strategic Mission	Review for Duplication	Determine Risks	Analyze Alternatives
Facilities Management – Maximo	Investment	Yes	Yes	No	No	No
State Assistance Management System	Investment	Yes	Yes	Yes	Yes	Yes
DS Law Enforcement Investigations and Crime Prevention	Investment	Yes	No	No	No	No
Counterintelligence and Counterterrorism Vetting Unit Biometrics Program	Project	No	Yes	No	Yes	No
DS Source Retirement	Project	Yes	Yes	No	Yes	No
Security Incident Management Analysis System (SIMAS) II	Project	Yes	Yes	Yes	Yes	Yes
DS Back Office and Business Systems	Investment	Yes	No	No	No	No
DS Industry Security Management System	Project	No	Yes	No	Yes	No
DSQuS2	Project	Yes	Yes	No	Yes	No
Secure Video Teleconference Cost Model Pilot	Project	Yes	Yes	No	Yes	No
Regional Information Management Center	Project	Yes	Yes	No	No	No
Enterprise Monitoring	Project	Yes	Yes	No	Yes	No
Meter Net	Project	Yes	Yes	No	Yes	No
Perimeter Security	Project	Yes	Yes	No	Yes	No
Bureau IT Support	Investment	No	No	No	No	No
Enterprise Planning and Management Services	Investment	Yes	No	No	No	No
Enterprise Schedule Management iSchedule	Project	Yes	Yes	No	Yes	No
Data Offshoring	Project	Yes	Yes	No	Yes	No
Total That Did Not Comply With OMB Requirement		3	4	16	6	16

Source: Kearney prepared based on documentation provided by the Department.

Proper Identification of Major and Non-Major Investments

The Department did not always identify major and non-major investments properly. Specifically, 1 (6 percent) of 18 non-major investments tested met the quantitative factor established by the Department for identifying major investments. The Department defines a major IT investment as any investment with spending greater than \$50 million over a 3-year period. Kearney found that IRM spent \$221 million in FY 2014 on one non-major investment tested, Bureau IT Support. Bureau IT Support is the conglomeration of 33 individual investment lines that represent IT costs for a number of bureaus. IRM officials stated that IRM reported this investment as non-major because IRM does not consider this to be a major investment. Specifically, the investment was a grouping of small dollar projects, and the amount spent on the investment included employee costs. However, OMB requirements and the Department's definition of major investment do not support the treatment of Bureau IT Support as a non-major investment. Further, two of the projects consolidated in this investment are each more than \$50 million—one bureau reported more than \$50 million in bureau IT support costs and the investment reported full-time employee costs were also more than \$50 million.

In addition, IRM identified three non-major Bureau of Consular Affairs (CA) investments that should have been reported as major investments because expenditures exceeded the \$50 million spending threshold for each. Specifically, in FY 2014, CA spent \$62 million for the CA Enterprise Engineering and Data Management Investment,⁴⁵ \$69 million for the CA Enterprise Management Services Investment,⁴⁶ and \$94 million for the CA Enterprise Operations Investment.⁴⁷

In addition to the quantitative factors that are used to identify a major system, OMB also provides qualitative factors for consideration, including:

- importance of the investment to the mission or function to the agency or government,
- significant program or policy implications,
- high executive visibility, and
- use of an unusual funding mechanism.

Kearney identified two instances in which the Department identified applications as non-major investments or projects that potentially should have been identified as major investments based

⁴⁵ CA uses the Enterprise Engineering and Data Management Investment to provide systems engineering, integration services, and new technology for CA mission systems.

⁴⁶ CA uses the Enterprise Management Services Investment to provide strategic planning and portfolio management, security, configuration control, quality management, training, deployment, and communications for the CA portfolio as a whole.

⁴⁷ CA uses the Enterprise Operations Investments to provide O&M, data center migration services, applications and database services, and operates a service desk.

on the OMB qualitative factors.⁴⁸ Specifically, DS invested in a Counterintelligence and Counterterrorism Vetting Unit Biometrics⁴⁹ program that, according to documentation, would have a high political impact, had high risk factors, and would require extensive coordination with the Department of Justice and the Department of Defense. Although the project had significant program or policy implications and required high executive visibility, DS classified the investment as non-major.

Similarly, the DS Industrial Security Management System investment should potentially have been reported as a major investment based on OMB's qualitative factors. The Industrial Security Management System consolidated and replaced several critical systems for processing and maintaining contractor clearance information.⁵⁰ DS uses this system to validate personal background information and provide bureaus with information regarding an applicant's suitability for access to classified information, Department facilities, and Department information systems. This system supports all bureaus in the Department with hiring authority for domestic and overseas employees and provides a critical function for employee and visitor vetting processes. Despite the significant program implications of this system, DS classified the investment as non-major.

According to officials from the Bureau of Administration, DS, and IRM, the bureaus generally consider only quantitative factors when identifying major investments. However, Kearney identified five instances, for example, the Budget System Modernization investment and the Architecture Services investment, in which a bureau classified an IT investment as major based on qualitative factors. Neither the Budget System Modernization investment nor the Architecture Services investment met the quantitative threshold, but both investments are considered to be important to the agency's mission and require high executive visibility.

Linking Investments to the Department's Strategic Mission

OMB requires that an agency evaluate all investments to ensure the agency has a strategic need for that investment. OMB requires that bureaus document how their investments work toward achieving these goals. However, the Department was unable to provide documentation that 4 (22 percent) of the 18 non-major investments or projects tested linked to the Department's strategic mission. Although these investments may relate to the Department's strategic mission, the Department did not link Bureau IT Support, DS Law Enforcement Investigations and Crime Prevention, DS Back Office and Business Systems, and Enterprise Planning and Management

⁴⁸ Kearney did not conclude that the two examples were major investments. Instead, Kearney concluded that these two investments had characteristics of a major investment. The E-Gov PB has authority to determine the investment's classification. As such, Kearney did not include these two investments as misclassified investments when testing the accuracy of the Department's Exhibit 53 report discussed in Finding C of this report.

⁴⁹ Biometrics is the measuring of physical attributes of a person such as facial features, fingerprints, or iris scans. DS uses these attributes for vetting employees and other personnel for threats to the United States.

⁵⁰ DS manages the Department's policies and procedures for vetting employees and contractors received through the Office of Personnel Management's Electronic Questionnaire for Investigations Processing system.

Services to a strategic mission in iMatrix. Kearney noted that three⁵¹ of the four investments consisted of numerous individual IT projects, making it difficult to link the investments to a specific strategic goal.⁵²

Duplication and Redundancy Review

OMB requires that agencies review existing IT solution options prior to investing in new system development or system improvements to avoid duplication. Kearney found that bureaus were unable to demonstrate that a sufficient analysis of duplication was performed before funding was approved and provided for 16 (89 percent) of the 18 non-major investments and projects tested. Kearney found that the Bureau of Administration and DS performed adequate reviews for duplication for 2 (11 percent) of the 18 non-major investments or projects tested—State Assistance Management System and SIMAS II. Specifically, for these two investments, project teams appropriately researched and documented existing solutions both inside and outside the agency, as required by OMB.

Risks, Assumptions, and Constraints

OMB requires that agencies clearly document the risks associated with investing, the assumptions made by the project team, and the constraints on the project.⁵³ These risks and the assumptions form the basis for the risk management plan and the performance goals of the investment, which were essential to the decision-making process to fund the investment. Kearney found that the bureaus had not performed an assessment of risks, assumptions, and constraints for 6 (33 percent) of 18 non-major investments or projects tested. Kearney found that the bureaus had performed some type of risk, assumption, and constraint assessment that would be useful in the decision-making process for 12 (67 percent) of the 18 non-major investments or projects tested. However, these assessments could have been improved. For example, in most cases, costs were not associated with the risks to provide context, and a risk mitigation plan was not always prepared. Further, Kearney found that documentation of the assessments was inconsistent and the assessments were performed at different points in each bureau's approval process—sometimes after the initial approval of the investment. Further, DS, IRM, and the Bureau of Administration could not demonstrate that a full risk, assumption, and constraint assessment was performed for the remaining six investments and projects tested.

⁵¹ Bureau IT Support, DS Law Enforcement Investigations and Crime Prevention, and DS Back Office and Business Systems.

⁵² This deficiency is the result of the inconsistent definition of the term "investment" used by the Department, as discussed in Finding A.

⁵³ OMB Circular A-11, Part 7, § 1.5.5, "Risk Management," states that "planning for risk management for the life-cycle is a critical component of program/investment management and begins at project conception. An effective risk management plan addresses the following risk areas: schedule risk; cost risk; technical feasibility; risk of technical obsolescence; dependencies between a new project and other projects or systems; procurement and contract risk; and resources risks."

Alternatives Analysis

OMB requires that project teams evaluate alternative solutions and concepts before investing substantially in IT to demonstrate the best use of public funds. Analyzing alternatives is a systematic method to ensure that all valid concepts are considered and that the optimal solution is selected. OMB requirements state that this process should not be rushed by management and warns agencies that "selecting an alternative without adequate analysis has resulted...in... acquisitions that have significantly overrun both cost and schedule, while falling short of expected performance."⁵⁴

Kearney found that DS, IRM, and the Bureau of Administration were unable to demonstrate that alternatives were adequately analyzed prior to funding 16 (89 percent) of 18 non-major investments and projects tested. For example, although DS documented alternatives for the DS Industrial Security Management System investment, it failed to perform a cost estimate, which is a key element of an alternatives analysis, for each option, hindering DS management's ability to make a sound decision. Kearney found that bureaus performed a quantified analysis of alternatives before fully funding the projects for 2 (11 percent) of 18 non-major investments and projects tested. For example, DS reviewed three alternatives and provided details regarding the estimated life-cycle costs and associated risks and benefits of each option prior to investing in SIMAS II.

Ineffective Portfolio Structures and Portfolio Reorganizations

Portfolio structure is the fundamental organization of IT investments, programs, projects, and assets. Within the portfolio, investments should reflect related IT projects and assets that work together to achieve the system's goal. The investment structure should clearly group related and integrated IT efforts and assets so that management can control costs and maintain the investment. According to OMB, each investment should have a distinct start and end date. The IT investment portfolio must be appropriately structured for portfolio management to be effective. Portfolio management is the active monitoring of each investment's performance, costs, and risks. Management must be able to compare performance, measure results, control costs, and determine whether investments are appropriately meeting objectives.

Kearney found that bureaus did not consistently identify investments. Further, when bureaus reorganized their portfolio structures,⁵⁵ the reorganizations did not always result in improved IT investment structures and management practices.

⁵⁴ OMB, "Capital Programming Guide," June 2006.

⁵⁵ Reorganizations of portfolio structures can be done for many reasons. For example, if the initial IT portfolio structure established by a bureau does not provide sufficient transparency, then a bureau may reorganize the portfolio structure to improve oversight of IT acquisitions.

Investment Identification

An important concept for an effective portfolio structure is appropriately identifying investments. OMB⁵⁶ defines an IT investment as an

Expenditure of IT resources to address mission delivery and management support. An IT investment may include a project or projects for the development, modernization, enhancement, or maintenance of a single IT asset or group of IT assets with related functionality, and the subsequent operation of those assets... . All IT investments should have a defined life cycle with start and end dates.

As reported in Finding A, the definition of an IT investment in the CPIC Program Guide did not comply with OMB requirements. In addition, the three bureaus that Kearney audited⁵⁷ identified investments differently from each other, and none fully complied with the definition included in the CPIC Program Guide. The Bureau of Administration identified IT investments most closely in accordance with OMB requirements. Specifically, the investments reported in the Bureau of Administration's portfolio represent specific IT systems, such as the Integrated Logistics Management System (ILMS), the State Assistance Management System, or the State Archiving System. These investments also include related projects that enhance or update the systems, in accordance with OMB requirements.

Other bureaus' investments were not limited to a specific system or application. Kearney identified instances in which bureaus reported miscellaneous projects together under one investment. These projects were combined for reporting purposes, even though the projects, at times, had distinctly different management and operations. Specifically, DS identified investments according to its overall strategic objectives, such as Law Enforcement Investigation and Crime Prevention, Information and Security Management, or Protection and Disaster Preparedness. DS grouped its IT projects and assets under the umbrella of these strategic objectives. The investments grouped under each strategic objective do not have distinct useful lives relevant for monitoring an IT investment and do not have related functionalities, as required by OMB. For example, the Law Enforcement Investigation and Crime Prevention investment had 13 projects that were actively being managed by DS. Each project had a varying degree of complexity and cost, and the individual projects did not support the same asset or system. The projects listed under the Law Enforcement Investigation and Crime Prevention investment, Counterintelligence and Counterterrorism Vetting Biometrics, DS Quals Database Update, SIMAS II enhancement project, and the Technical Anomaly Reporting project are not functionally related, and they support separate lines of business. Aggregating unrelated projects under one investment for CPIC purposes did not meet the intent of the OMB requirements. Further, for some DS investments, the planning and development phases for a project were tracked and reported as separate investments from the O&M phase for the same project. For

⁵⁶ OMB Circular A-11, § 55.

⁵⁷ The Bureau of Administration, DS, and IRM.

example, DS spent more than \$8.5 million to replace SIMAS II. After the implementation phase, DS tracked SIMAS II O&M costs in a different investment.

IRM identified its investments by service lines of business, such as Application Services; Architecture Services; Enterprise Bandwidth and Network Services; and Deployment, Maintenance, and Refresh Services. IRM reported several programs and projects under the umbrella category of the service lines of business. For example, the Deployment, Maintenance, and Refresh Services investment, which had expenditures of \$121 million in FY 2014, has nine large programs, such as the Global IT Modernization program, the Post Telephones program, the Video Technology program, and the Regional Information Management Center program. These programs each have related components and subprojects. Each program could be considered an investment according to OMB requirements. This consolidated investment structure may fit the management organization of IRM. However, the categorization of investment groupings was not consistent within IRM's own portfolio, and it was not consistent with the way other bureau portfolios were structured. For example, the Bureau IT Support investment was a "catchall investment" that was not a clearly defined program managed by IRM. Instead, the program was made up of self-reported IT projects from 33 different bureaus, reimbursements to IRM for central IT support, or bureau-managed IT infrastructure projects. The miscellaneous projects reported under this investment title were not all related.

Portfolio Reorganization

Bureaus sometimes reorganize their IT portfolios, which means that existing investments are split, separated, or consolidated. For example, a reorganization could separate investments to be more transparent, logical, and distinct for management and reporting purposes. Reorganizations may be needed if the initial investment was not well defined or controlled.

Two of the three bureaus that Kearney tested—DS and IRM—had significantly reorganized their portfolio structures within the last 5 years. In addition, during the audit, IRM officials indicated that CA was in the process of reorganizing its IT portfolio structure. Kearney assessed the efforts to reorganize IT portfolios at these three bureaus (DS, IRM, and CA) and found that each bureau approached the reorganization differently and the reorganizations did not always result in improved IT investment structures and management practices.

According to IRM officials, in an attempt to be more transparent, IRM reorganized its IT investment portfolio in 2010. Before the reorganization, IRM reported all investments under the Information Technology Infrastructure investment. The Department reported this IRM investment, amounting to more than \$700 million, as a single major investment. IRM developed a cost benefit analysis of six different methodologies for reorganizing the Information Technology Infrastructure investment. For example, one methodology called for organizing investments based on IRM's service lines. Another methodology called for separating the investments at a granular level to be more consistent with the budgeting process for investment transparency. This method would have resulted in 90 separate investments, with 8 being

considered major investments. IRM officials concluded that this type of portfolio structure would be difficult to monitor.

IRM chose to reorganize its portfolio based on service lines because that methodology fit the bureau's organizational structure and would result in additional transparency over its investments. The reorganization separated the single conglomerate investment into 24 separate investments, with 7 being considered major, having discrete programs and projects associated with the investments. Although splitting the 1 investment into 24 separate investments provided better clarity for oversight bodies, investments continue to be made up of multiple projects or programs that are overseen by different individuals. For example, the Security/Cyber Security Services investment is made up of nine IRM projects, one Office of the Executive Secretariat project, and two DS projects, with the overall investment having multiple managers and analysts to track and monitor each project.⁵⁸

Within DS, the Office of the Chief Technology Officer reorganized the DS IT investment portfolio in 2010. Specifically, the Office of the Chief Technology Officer combined nine investments into seven investments. According to DS officials, the DS portfolio included several investments in 2010 that were disorganized, ambiguous, and did not logically group systems and IT architecture. The Office of the Chief Technology Officer performed most of its analysis to support reorganization based on discussions and emails and did not prepare a formal cost benefit analysis of the proposed reorganized structure. Following the reorganization of investments in iMatrix, it was still difficult to monitor activity, performance, and progress of DS investments and projects. In its response to the draft report, DS stated that it did not believe that the "tracking of performance and progress of DS investments" was an issue following the reorganization. DS also stated that it began using a Microsoft tool, "which vastly improved the Bureau's ability to track and monitor progress." Kearney agrees that the implementation of reorganization and the implementation of the Microsoft tool were steps in the right direction. However, Kearney continued to have difficulties linking the data in the Microsoft tool to the information in iMatrix.

Following public IT failures relating to CA systems that occurred in the summer of 2014,⁵⁹ the E-Gov PB directed CA to reorganize its IT investment portfolio to improve visibility and management performance. During several CA portfolio reviews, the E-Gov AB and E-Gov PMO identified issues related to transparency, cost overruns, failed performance metrics, and increased funding to legacy systems, which were intended to be replaced. The E-Gov PMO and the CIO recommended a CA portfolio structure with, at a minimum, seven investments, that aligned CA's systems and costs into functional mission areas with clear delineation between each investment's program and project development. CA rejected that proposal and instead

⁵⁸ For purposes of this report, the term "project" is used for both IT projects and IT programs.

⁵⁹ In July 2014, the system of databases that processes U.S. visa and passport requests went offline, creating a backlog in visa processing that disrupted travel for people around the world. Federal Computer Weekly, October 20, 2014, <<https://fcw.com/articles/2014/10/20/state-department-database-crash-1.aspx>>).

developed a reorganization plan that, rather than increase transparency, combined CA's five existing investments into three conglomerate investments. The E-Gov PMO and the CIO rejected this plan because it did not achieve a manageable investment structure. As of August 2015, CA had not reorganized its IT investment portfolio.⁶⁰

Lack of Full Chief Information Officer Authority in Practice and Insufficient Centralized Oversight

The primary reason that the Department did not select IT investments in accordance with Department and OMB IT investment policies was that the Department has not put into practice sufficient CIO authority to manage IT activities, as provided for in law. In addition, IRM has not implemented a sufficient centralized oversight process for IT acquisitions, which is essential under the current circumstances. OMB requirements⁶¹ state that agency CIOs must be positioned with the responsibilities and authorities to improve the operating efficiency of their agencies. OMB further states that CIOs must drive the IT investment review process and have responsibility over the entire IT portfolio for an agency. FITARA strengthens this responsibility by stating that the CIO must have a significant role in the decision process for all annual and multi-year planning, programming, budgeting, and execution decisions.⁶² However, OIG has reported that the CIO is not positioned satisfactorily to achieve his roles and responsibilities. Specifically, OIG reported that IRM has the responsibility to manage and control the Department's IT portfolio and CPIC processes but lacks the necessary authority to compel compliance.⁶³ OIG also reported that the CIO was not properly positioned within the organization to ensure that the Department's information security program was effective.⁶⁴

This audit continued to identify concerns with the lack of CIO authority in practice. The bureaus, not the CIO, control funding for many Department IT investments. The Department maintains an IT Central Fund controlled by the CIO. The Central Fund is to be used to assist the CIO in carrying out IT modernization projects in accordance with the Department's IT strategic goals. Bureaus compete to obtain IT project funds from the IT Central Fund. However, the IT Central Fund is only a small part of the Department's annual IT spending. Of the \$1.4 billion spent for IT investments in FY 2014, \$80 million (6 percent) was from the IT Central Fund.⁶⁵ Another \$708 million was spent on IT investments from the IRM bureau allotment. The remaining

⁶⁰ According to an IRM official, CA responded to IRM's concerns and provided supporting documentation showing that the three investments aligned to CA's mission structure. The IRM official also stated that in December 2015, the E-Gov PB approved the CA realignment to three major investments.

⁶¹ OMB Memorandum for Heads of Executive Departments and Agencies, M-11-29, "Chief Information Officer Authorities," August 8, 2011.

⁶² FITARA, § 831(b)(1)(a).

⁶³ OIG, *Inspection of the Bureau of Information Resource Management, Strategic Planning Office* (ISP-I-15-03, October 2014).

⁶⁴ OIG, *Audit of the Department of State Information Security Program* (AUD-IT-16-16, November 2015).

⁶⁵ Only 21 of 83 investments reported to OMB in 2014 received funding from the IT Central Fund.

\$620 million (44 percent) was spent from funds appropriated directly to bureaus and offices other than IRM.⁶⁶ Because bureaus use their own funding for IT investments, bureau-funded IT investments may not always be fully visible to the CIO or IRM staff. For example, DS, IRM, and the Bureau of Administration each has a committee that is responsible for reviewing and approving bureau-funded, non-major IT investments.⁶⁷

In practice, the lack of full CIO authority, the insufficient visibility over bureau IT spending, and the Department's reliance on bureaus managing their own IT investment portfolios increase the need for strong centralized oversight functions to ensure consistent implementation of OMB requirements. However, the Department has not established and implemented strong oversight controls. For example, the CIO has not enforced the policy set forth in the CPIC Program Guide that requires bureaus to submit all IT investments to the E-Gov PMO for review or to report IT spending to IRM in any other manner.

The E-Gov PMO was not aware of many new IT investments made by bureaus and offices. The E-Gov PMO reported to Kearney that there was limited new IT investment activity in FY 2013 and FY 2014. According to Department reports, only \$13 million (less than 1 percent) of \$1.4 billion in FY 2014 IT spending was for new investments, with the remaining funds used for O&M for mature investments. However, Kearney discovered that bureaus were funding numerous new projects and including them under existing investments. Specifically, both DS and IRM used funds for system replacements and system upgrades that were reported as spending for an existing investment. For example, DS funded the Counterintelligence and Counterterrorism Vetting Biometrics Program, a newly funded project with \$4 million in life-cycle costs, but it reported the funds under an existing investment.

BP, which has a critical role in the IT investment process, has access to more information than IRM on Department-wide budgeting and spending for IT activities. However, the Department did not have a formal process for BP to communicate bureau budget requests related to IT investments to IRM officials. Through reviews of the spending data detail, BP could assist in making the E-Gov PMO aware of new IT investment plans. According to an IRM official, IRM and BP are working to develop this control.

Further, to maintain centralized oversight, the CPIC Program Guide requires all IT investments, both major and non-major, to be coordinated with the E-Gov PMO. The Department could not

⁶⁶ Congress provides funding annually for general operations to each agency based on budget requests. Within the Department, each bureau requests funding to manage its programs, which can include requests for IT spending.

⁶⁷ OIG is not making a recommendation related to CIO authority in this report. In November 2015, OIG made a recommendation to the Deputy Secretary of State for Management and Resources to review the organizational placement of the CIO with respect to the Clinger-Cohen Act and other requirements (*Audit of the Department of State Information Security Program*, AUD-IT-16-16). This recommendation was open as of December 2015. If the Department appropriately implements this recommendation, the changes should address the deficiencies related to CIO authority identified in this report. The recommendations in this report will focus on mitigating controls that should be implemented to improve IT selection and approval until CIO authorities are strengthened in practice.

demonstrate that 4 (80 percent) of 5 major investments tested and 17 (94 percent) of 18 non-major investments or projects tested had been coordinated with, approved by, or reported to the E-Gov PMO. None of the major investments tested could provide documentation that the E-Gov PMO approved the investment. Further, the Department could not demonstrate that four (80 percent) of the five major investments tested were approved by the E-Gov PB.⁶⁸

In addition to the lack of centralized IRM oversight of new investments, the Department also lacks centralized oversight of reorganizations. The Department did not have a requirement for bureaus to consult with the E-Gov PMO prior to initiating a reorganization of IT investments or to notify the E-Gov PMO when reorganizations are completed. The CPIC Program Guide did not prescribe how or when a reorganization of a bureau's investments is necessary and allowable and did not include an approval protocol for IT portfolio reorganization. Further, the E-Gov PMO did not review reorganizations to ensure the new investments created complied with requirements. Bureaus did not report information on potential reorganizations to the E-Gov PMO, and the E-Gov PMO did not actively inquire about bureau reorganizations.

In general, Kearney found that, although the E-Gov Boards exist to centralize oversight control and create collaboration, long-standing bureau practices and portfolio management preferences remain in place, leading to inconsistencies in how bureaus select and approve IT investments. Documentation obtained throughout the audit was inconsistent, even within the same bureau, and largely different across bureaus. Depending on the business need, management prioritized certain investments and bypassed control steps, causing further ad hoc approval processes. Both DS and IRM policies require bureau-level approvals at several points during the selection phase. However, investment managers did not obtain approval from the bureau's governance structure in accordance with bureau-specific guidance before selection of 6 (33 percent) of the 18 investments tested. For example, DS was unable to provide documentation showing that two of the six DS investments—DS Law Enforcement Investigations and Crime Prevention and DS Back Office and Business Systems—had been approved. These investments are "grouped" investments that have multiple related projects. In response to the draft report, DS stated that "these investments were approved during the Department's initial selection into the...CPIC process. The fact that the investments exist in the Department's investment tracking system is documentation of their approval." However, an investment's inclusion in iMatrix does not in and of itself mean that the investment was approved. As reported in Finding B of this report, Kearney identified instances where investments included in iMatrix were not selected and approved in accordance with CPIC policies.

The Department did not have a requirement that the E-Gov PMO review bureau IT investment policies and procedures to ensure compliance with OMB requirements. Kearney found that bureaus' policies do not prescribe that all OMB requirements must be considered prior to approving IT investments. The bureau-specific policies allowed bureau officials to approve the

⁶⁸ Although IRM officials stated that the E-Gov PB had approved the four major investments, IRM could not provide documentation supporting that statement.

initiation of a project before sufficiently analyzing costs and benefits, which are required components of a selection phase. For example, IRM's bureau policy allows the CIO to approve concept documents prior to the completion of several required steps, such as determining whether other systems could provide similar services, analyzing alternatives, and quantifying benefits and costs. For DS, the templates used for preparing IT proposals do not include steps for documenting duplication, analyzing alternatives, and quantifying benefits and costs. In its response to the report, DS stated that its templates do include steps for analyzing alternatives and quantifying benefits and costs. It is possible that DS has modified its templates since audit work was performed. However, the forms that DS provided for selected IT investments did not include steps for this data.

The 2008 CPIC Program Guide explicitly discussed IRM's responsibility for the CPIC process by stating that the E-Gov PMO was responsible for reviewing and approving bureau-specific IT investment processes. However, the 2014 CPIC Program Guide does not include this requirement. This change, made by IRM, has increased the ambiguity of IRM's authority over IT investments funded by the bureaus, including the relationship between the E-Gov PMO and bureau leadership. Because of this unclear relationship, bureaus do not always coordinate their processes with the E-Gov PMO, and the E-Gov PMO does not have an opportunity to review the bureau's IT investment policies for compliance with OMB requirements. Without input from the E-Gov PMO, bureaus and offices interpreted the Department's CPIC Program Guide differently and adjusted their processes to reflect their interpretation and needs.

The E-Gov PMO oversight mechanism is part of the Department's CPIC process to ensure that the E-Gov PB and CIO are made aware of the IT spending activity across the Department and that bureaus and offices document the selection of IT investments appropriately. An IRM official stated that the focus of the E-Gov PMO was on major investments and meeting OMB reporting requirements, because that is where IRM believes that highest risks exist. This focus allows bureaus with non-major investment classifications to act on their own with little oversight.

Recommendation 3: OIG recommends that the Bureau of Information Resource Management develop and implement a process to increase the transparency of IT spending related to existing investments, including operations and maintenance costs.

IRM Response: IRM did not concur with this recommendation, stating that OMB creates requirements for reporting and "defines metrics for IT transparency for IT spending." IRM also stated that the Department submits information to OMB "twice a year in compliance with OMB requirements."

OIG Reply: OIG considers this recommendation unresolved. Considering the serious nature of the deficiencies identified in Finding B of this report and the general lack of oversight that IRM had of the Department's \$1.4 billion in IT acquisitions, it is essential for IRM to take action to increase its visibility over IT spending within the Department. This recommendation

is not focused on information being reported to OMB. Instead, the recommendation is intended to provide IRM with the data it needs to be aware of IT investments being made by bureaus and offices within the Department, including expenditures being reported as O&M, some of which the auditors found were actually for new investments.⁶⁹ This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a process to increase the transparency of IT spending related to existing investments, including operations and maintenance costs.

Recommendation 4: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process for the Bureau of Budget and Planning to provide detailed information to the Bureau of Information Resource Management on bureaus' IT budgeting and spending.

IRM Response: IRM concurred with this recommendation, stating that it "has already made progress in incorporating IT information" into the BP IT budget process. IRM also stated that "collaborating with BP, IRM has provided updates to the FY 2018 Bureau Resource Request guidance, to include IT-related requirements and the CPIC process."

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM, in coordination with BP, has developed and implemented a process to obtain detailed information on bureaus' IT budgeting and spending.

Recommendation 5: OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to enforce the requirement that bureaus and offices must consult with and receive guidance from the Bureau of Information Resource Management prior to initiating an IT investment.

IRM Response: IRM did not concur with this recommendation, stating that the E-Gov PB has approved a policy and has developed a form that bureaus are required to complete for IT projects. IRM stated that an IT investment must go through the pre-select process to obtain a unique investment identifier, which is required to be included in the Department's IT portfolio and be submitted to OMB.

OIG Reply: OIG considers this recommendation unresolved. Although IRM has designed a process for bureaus and offices to use to select and approve IT investments that generally complies with OMB requirements, this audit identified numerous instances where bureaus

⁶⁹ During the O&M phase, IT systems are used to execute the work for which the systems were designed and funds are spent to operate and maintain the systems. New investments should not be developed with O&M funds.

and offices were not following the process established by IRM (see Table 3 for details). Therefore, it is essential for IRM to develop a method to enforce its requirements. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM developed and implemented a strategy to enforce the requirement that bureaus and offices must consult with and receive guidance from IRM prior to initiating an IT investment.

Recommendation 6: OIG recommends that the Bureau of Information Resource Management issue formal guidance stating that bureaus and offices must consult with and receive the approval of the Bureau of Information Resource Management prior to initiating a reorganization of IT investments.

IRM Response: IRM concurred with this recommendation, stating that it “already reviews and assists bureaus and offices with the reorganization of IT investments.” IRM further stated that it plans to “add an appendix to the CPIC Program Guide” that will include a requirement for IT investment reorganizations to be coordinated with the E-Gov PMO.

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has issued formal guidance requiring bureaus and offices to consult with and receive the approval of IRM prior to initiating a reorganization of IT investments.

Recommendation 7: OIG recommends that the Bureau of Information Resource Management develop guidelines on how and when a reorganization of IT investments is necessary and allowable and include those guidelines in the Capital Planning and Investment Control Program Guide.

IRM Response: IRM concurred with this recommendation, stating that it plans to “add an appendix to the CPIC Program Guide that outlines the process Bureaus should use to initiate an investment reorganization and provide general guidelines.”

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed guidelines on how and when a reorganization of IT investments is necessary and allowable and includes those guidelines in the CPIC Program Guide.

Recommendation 8: OIG recommends that the Bureau of Information Resource Management establish and implement a plan to review IT investment reorganizations that occurred since FY 2010 to ensure that the investments resulting from the reorganizations comply with Office of Management and Budget requirements for information technology investments.

IRM Response: IRM did not concur with this recommendation, stating “OMB does not specifically outline requirement for investment reorganizations.... Until a formal process for reorganizations is developed by OMB, bureaus and offices cannot be measured by these standards.” IRM further stated that because OMB has not developed guidance on IT portfolio reorganizations, “previous bureau investment reorganization assessments cannot be completed.”

OIG Reply: OIG considers this recommendation unresolved. Based on IRM’s comments, OIG revised the recommendation to emphasize that IRM should assess prior IT investment reorganizations to ensure the investments comply with OMB requirements. The auditors identified reorganizations that had taken place that IRM had not been consulted on. IRM should assess the investments that resulted from these reorganizations to ensure that the investments comply with OMB requirements for investments. This recommendation will be resolved, when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM established and implemented a plan to review IT investment reorganizations that have taken place since FY 2010 to ensure that the investments resulting from the reorganizations comply with OMB requirements for IT investments.

Recommendation 9: OIG recommends that the Bureau of Information Resource Management modify the Capital Planning and Investment Control Program Guide to state that the Bureau of Information Resource Management shall review and approve bureau-specific IT investment methodologies used to develop and invest in IT projects (also known as control gates).

IRM Response: IRM did not concur with this recommendation but did suggest an alternative solution. IRM stated that it will “outline that the CPIC life cycle [that IRM designed by leveraging OMB’s guidance] will be the single authoritative IT investment methodology for the Department and require bureaus and offices to use this methodology for all IT investments.” IRM further stated that the CPIC Program Guide and the Foreign Affairs Manual will be “updated to identify this authority.”

OIG Reply: OIG considers the alternative solution suggested by IRM to be acceptable and is resolving this recommendation based on the plan of action described. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has removed the authority from the CPIC Program Guide for bureau-specific IT investment methodologies and updated the CPIC Program Guide and the Foreign Affairs Manual to state that all bureaus and offices must comply with the CPIC policies, procedures, and processes established by IRM for all IT investments (both major and non-major).

Recommendation 10: OIG recommends that the Bureau of Information Resource Management develop and implement a process to (a) identify and review all bureau-specific

IT investment methodologies (ones currently in place as well as ones that will be developed in the future); (b) determine whether the bureau-specific IT investment methodologies comply with Office of Management and Budget Circular A-130; and, if they do not comply, (c) provide bureaus with guidance regarding the modifications needed to fully comply and verify that the methodologies were modified as necessary. This effort should include reviewing the standard forms used by each bureau during the IT selection process to ensure consistency and compliance with Office of Management and Budget Circular A-130.

IRM Response: IRM did not concur with this recommendation, stating that it already “provides a single authoritative investment methodology...for guidance to program and investment managers.” IRM also stated that “all bureaus and offices must comply with the Department’s Pre-Select policy. The Pre-Select process has been strengthened to ensure all bureaus and offices are reporting pre-funding IT concepts to the E-Gov PMO.”

OIG Reply: OIG considers this recommendation unresolved. At the time of the audit, the CPIC Program Guide allowed bureaus and offices to develop bureau-specific processes for non-major investments. The Guide required bureaus and offices to coordinate IT investments and projects with the E-Gov PMO to ensure the bureau-specific processes were sufficient. As stated in Finding B of this report, the audit identified numerous instances where bureaus were not complying with OMB requirements or IRM’s CPIC Program Guide when selecting and approving IT investments (see Table 3 for details), nor were they always coordinating with the E-Gov PMO. Further, the bureau-specific policies were not always in line with OMB or IRM requirements. Although it would be reasonable for bureaus or offices to personalize IT investment processes or add requirements to IRM guidelines, it is essential for IRM to ensure that bureaus are not removing requirements from the process.

This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a process to (a) identify and review all bureau-specific IT investment methodologies (ones currently in place as well as ones that will be developed in the future); (b) determine whether the bureau-specific IT investment methodologies comply with OMB Circular A-130 and, if they do not comply, (c) provide bureaus with guidance regarding the modifications needed to fully comply and verify that the methodologies were modified as necessary.

Lack of Focus on Duplicative Investments

The Department has not developed and implemented adequate policies and procedures to avoid duplicative IT investments. There is a general lack of oversight and enforcement from IRM to require bureaus to collaborate on IT investments and avoid duplication. Further, there was a lack of focus by the E-Gov Boards on centrally reviewing investments for duplication. Instead of reviewing the entire agency portfolio regularly, the E-Gov Boards reviewed major investments only. A Department official stated the E-Gov Boards had difficulty finding time to adequately

review the 17 major investments, which make up only 20 percent of the Department's portfolio. Further, a Department official stated that in the past, portfolio reviews were performed by the E-Gov PMO to establish accountability over all IT investments across the Department; however, due to time and resource constraints, this practice is no longer in place.

The bureaus that Kearney audited were focused on their own program- and mission-specific needs rather than focused on the overall needs of the agency, which is a goal of the CPIC process. Bureaus generally reported that their IT needs were "unique" (that is, mission specific), and officials stated that investments made using bureau funds inherently could not duplicate investments made by other bureaus or offices because the investments were mission specific. Other bureau officials did not believe that they needed to assess potential duplication in the selection phase because alternatives were reviewed during the acquisition phase, which occurs after the pre-selection of the IT investment and executive approvals. Some bureau officials stated that they found it easier to document their specific needs for developing a new system rather than work with other bureaus. For example, DS and CA each have a biometric system that performs similar functions. Some DS officials stated that the CA system would not meet the needs of DS programs, even though the officials were unable to provide the documentation that showed they had gained an understanding of the functionality of the CA system or documented why the CA system would not meet DS needs. According to DS officials, DS preferred to be in control of the system and the programmatic data to be stored in the system and so it did not consider the CA system.

Another impediment to assessing duplication relates to the long-standing bureau-funded contracts for providing IT support services that were already in place. Bureaus use these contracts to obtain IT services in an expedited manner. For example, DS's Office of the Chief Technology Officer reported having three contracts in place, costing about \$27 million annually, to provide IT infrastructure support and IT project development. Each contract supports multiple IT projects. Because separate contracts were not needed to implement IT additions or improvements, bureaus did not need to evaluate alternatives, which might have led to reduced costs or avoided duplication. A similar example was the centrally managed IRM contracts that provide IT services, which cost approximately \$200 million annually. Some IRM officials stated that they were required to use the contractors in place to provide needed services, and so limited or no alternatives analyses were performed.

Recommendation 11: OIG recommends that the Bureau of Information Resource Management develop and implement policies and procedures to oversee and enforce requirements for bureaus and offices to avoid duplicative IT investments.

IRM Response: IRM did not concur with this recommendation, stating that it already has a pre-select process that "reviews the enterprise architecture aspect of any candidate investment," specifically looking for potential duplication of effort.

OIG Reply: OIG considers this recommendation unresolved. Although IRM designed a process for bureaus and offices to use to select and approve IT investments that generally comply with OMB requirements, this audit identified numerous instances where bureaus and offices were not following the process established by IRM, which is why it is essential for IRM to develop a method to enforce requirements for bureaus and offices to avoid duplicative IT investments. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented policies and procedures to oversee and enforce requirements for bureaus and offices to avoid duplicative IT investments.

Recommendation 12: OIG recommends that the Bureau of Information Resource Management develop and implement a process to perform periodic, but no less than annual, reviews of the entire agency IT portfolio to enforce bureau accountability and identify potential duplicative systems.

IRM Response: IRM did not concur with this recommendation, stating that it “does consistent reviews of the IT portfolio throughout the year. IRM periodically reviews major IT investments...and annually reviews all investments prior to submission to OMB. For major investments, a review is done monthly on projects, risks, and performance metrics.” IRM stated that these “results are presented monthly to the E-Gov Advisory Board”

OIG Reply: OIG considers this recommendation unresolved. During the audit, IRM was unable to provide documentation showing that a detailed, holistic, review of the Department’s IT portfolio was performed. In addition, during the audit IRM officials stated that they had implemented an effort to review one major investment per month. However, because there are more than 12 major investments, reviewing all major investments would have taken more than 1 year, even without the delays that occurred in the process. Further, this effort did not include non-major investments. Although IRM may have implemented a detailed process to review the entire IT portfolio since the completion of this audit, OIG is unable to resolve this recommendation without documentation that demonstrates IRM has done so. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a process to perform periodic, but not less than annual, reviews of the entire agency IT portfolio to enforce bureau accountability and identify potential duplicative systems.

Recommendation 13: For duplicative systems that are identified by the new process implemented to perform periodic reviews of the entire agency IT portfolio (Recommendation 12), OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to combine, eliminate, or replace duplicative systems, as practicable.

IRM Response: IRM stated that it leverages “OMB’s TechStat process to ensure duplicative investments are either combined, eliminated, or replaced. A TechStat is a face-to-face, evidence-based accountability review of an IT program or investment with Department leadership.” IRM provided a guide to OIG on the process.

OIG Reply: OIG considers this recommendation unresolved. The guidance that IRM provided does not demonstrate that the TechStat reviews will address the intent of this recommendation. For example, not all investments will be reviewed—only ones that are “targeted” based on the need for an “intervention.” In addition, there is no mention in the document provided that a review of non-major investments will be undertaken. Further, the investment-based review described lacks the holistic analysis possible when performing the IT portfolio review suggested in Recommendation 12. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM developed and implemented a strategy to combine, eliminate, or replace duplicative systems, as practicable, for duplicative systems that are identified by the new process implemented to perform periodic reviews of the entire agency IT portfolio.

Recommendation 14: OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to perform semiannual or more frequent reviews of bureau-funded IT contracts to identify new IT investments developed as part of the contracts.

IRM Response: IRM did not concur with this recommendation, stating that contracting is not a responsibility of IRM but is instead a responsibility of the Bureau of Administration.

OIG Reply: OIG considers this recommendation unresolved. OIG agrees that the Bureau of Administration is responsible for acquisition services within the Department. The intent of the recommendation was not for IRM to take over the responsibility for the acquisition process but was instead to provide IRM more visibility over IT investments acquired through long-standing IT contracts in place in bureaus. If IRM developed and implemented a strategy to periodically review these contracts, it would better understand the IT investments being made by other bureaus and offices. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a strategy to review bureau-funded IT contracts to identify new IT investments.

Another impediment to assessing duplication relates to the long-standing bureau-funded contracts for providing IT support services that were already in place. Bureaus use these contracts to obtain IT services in an expedited manner. For example, DS’s Office of the Chief Technology Officer reported having three contracts in place, costing about \$27 million annually, to provide IT infrastructure support and IT project development. Each contract supports multiple

IT projects. Because separate contracts were not needed to implement IT additions or improvements, bureaus did not need to evaluate alternatives, which might have led to reduced costs or avoided duplication. A similar example was the centrally managed IRM contracts that provide IT services, which cost approximately \$200 million annually. Some IRM officials stated that they were required to use the contractors in place to provide needed services and so limited or no alternatives analysis were performed.

Insufficient Use of iMatrix

To make effective and informed decisions, management needs readily available and accurate data for all components of the IT portfolio. OMB Circular A-130 requires that agencies “prepare and maintain a portfolio of major information systems that monitors investments and prevents redundancy of existing or shared IT capabilities. The portfolio should provide information demonstrating the impact of alternative IT investment strategies and funding levels, identify opportunities for sharing resources, and consider the agency's inventory of information systems.”

iMatrix was designed to be the information repository for all IT investments;⁷⁰ however, the Department's bureaus are not consistently using the full capabilities of iMatrix. Specifically, not all bureaus use iMatrix as their source of record for managing their IT projects. Instead, some bureaus maintain the data used to track and monitor investments outside of iMatrix. In addition, IRM generally does not provide bureaus access to information related to other bureaus in iMatrix. This hinders a bureau's ability to identify potentially shared resources or duplicative IT investments within the Department. Further, Kearney found that bureaus were not providing sufficient general information and technical descriptions for the IT investments and projects in iMatrix.

Some Bureaus Use Systems Other Than iMatrix To Manage IT Investment Portfolios

Kearney found that not all bureaus use iMatrix as their source of record for managing their IT projects. Data relating to all investments was not controlled or maintained in a uniform manner across each bureau. Often, the information to review an investment either was not available or had to be compiled from multiple sources. In some cases, a single investment could have several budget analysts and managers tracking components.

Kearney found that two bureaus—DS and IRM—had developed their own IT investment management tool. Both bureaus designed separate SharePoint-based sites⁷¹ to store IT investment project life-cycle documents. Even within DS and IRM, not all offices used the same bureau-managed databases to track IT projects. There were multiple systems and databases

⁷⁰ Finding A includes additional information on the design of iMatrix.

⁷¹ SharePoint sites are web-based sites where multiple users can access and store information, collaborate, and view shared documents. Access to the site can be controlled, information can be logged in a library, and document histories can be maintained.

being used by offices within the two bureaus to manage IT portfolios. IRM officials stated that they were aware that some bureaus used their own databases to track their IT investment portfolios.

Some DS and IRM officials stated that iMatrix was only a repository for OMB reporting and was not a complete, value-adding IT investment management tool. Several bureau officials stated that iMatrix was not sufficiently user friendly and that other systems offered better IT management features. However, Kearney found that the project databases used by these bureaus were not complete management systems that, for example, allowed bureaus to store the supporting documents for the CPIC process. Additionally, the information in the bureaus' IT management systems was not reconciled to iMatrix to ensure complete reporting of data.

Bureau Access to iMatrix Data Is Limited

Although iMatrix is capable of providing a Department-wide view of the agency's IT investments, Kearney found that Department bureaus have access only to information related to their own bureau. iMatrix is centrally controlled by the E-Gov PMO, and access is granted based on user requests. When requests are received, the E-Gov PMO assigns roles and permissions. Permissions are limited, and most users were unable to generate portfolio reports. As a result, a bureau's ability to perform reviews for duplicate investments across the Department was limited. A Department-wide view would allow users to review the Department's IT portfolio before selecting and approving a new IT investment. Similar to what Kearney found with the CPIC Program Guide, the Department has reduced the effectiveness of the IT acquisitions process by removing access to data that once was provided. Specifically, several bureau officials stated that the Department's prior IT management system, the Information Technology Asset Baseline, allowed bureaus to access more information.

Insufficient General Information and Technical Descriptions in iMatrix

To determine if the information in iMatrix would be useful for identifying duplication and potential shared resources, Kearney tested whether the investments had sufficient general information and technical descriptions.⁷² Kearney found in many cases that iMatrix data would not provide sufficient assistance in identifying potential duplicative investments. For example, Kearney found that 43 (52 percent) of 83 investments in iMatrix did not have adequate general descriptions for users to understand the nature, scope, and purpose of the existing investment. Of the 43 exceptions that lacked basic information, 6 (14 percent) were major investments. For example, as shown in Table 4, the descriptions for some investments were too vague to provide useful information to a user on the services or capabilities provided by the investment to avoid duplication.

⁷² Technical descriptions might include information on the product used, the name of the commercial vendor, the technical architecture, or the system version.

Table 4: Examples of the General Description of IT Investments in iMatrix

Investment Name	FY 2014 Spending (in millions)	General Description
Bureau IT Support	\$221	This investment encompasses centrally provided shared IT support services such as desktop services; telecomm, wireless, and data services; peripherals; software; and any other IT infrastructure costs incurred by the bureaus.
Application Services	\$21	Provides application services to the Department, including application integration.
Data Center Services and Hosting	\$70	Supports secure and reliable data centers.
DS Law Enforcement Investigations and Crime Prevention	\$10	Supports all efforts designed to create safer communities through the control and reduction of crime, as well as collecting evidence required to determine responsibility for a crime and monitoring and questioning affected parties.

Source: Department of State iMatrix database, August 2015.

For some investments, iMatrix contained more detailed information, but that information was not presented as part of the investment's general information. A user would have to read more detailed information about the investment within several other iMatrix sections, such as the information contained within the performance goals or risk plans.

Many of the investments in iMatrix consisted of numerous disparate projects. Kearney found that 33 (40 percent) of 83 investments did not have sufficient technical descriptions of the IT investment or the projects that make up the investment. For example, as shown in Table 5, 17 (20 percent) of 83 investments had technical descriptions for 50 percent or less of the projects that made up the overall investment.

Table 5: IT Investments That Did Not Have Technical Descriptions for at Least Half of the Investment's Related Projects

Investment Name	Total Projects for the Investment	Projects With a Technical Description	Percent of Projects Described
Central Resource Management System	1	0	0
Facilities Management - Maximo	1	0	0
Ops Center Telephone Bridge	1	0	0
Secretary's Worldwide Remote Email Network	2	0	0
Bureau of Administration/ Operations Electronic Allowances	2	0	0

Investment Name	Total Projects for the Investment	Projects With a Technical Description	Percent of Projects Described
Consular Systems Modernization	3	1	33
ILMS	12	4	33
Deployment Maintenance & Refresh Services	8	3	38
Bureau of Administration Logistics Management IT Support	8	3	38
Joint Financial Management System	10	4	40
CA Enterprise Management Services	12	5	42
Bureau of Administration IT Management Services	40	19	47
CA Enterprise Operations	8	4	50
Principal Officers' Executive Management System	2	1	50
Bureau of Administration Language Services Management System	2	1	50
Global Electronic Travel Program	2	1	50

Source: Department of State iMatrix Database, August 2015.

Recommendation 15: OIG recommends that the Bureau of Information Resource Management require all bureaus to use iMatrix as the only system to manage IT portfolios.

IRM Response: IRM concurred with this recommendation, stating that it will update the Foreign Affairs Manual to state that iMatrix is the "mandated system of record for all IT investment and asset information. Bureaus will be required to manage their assets...and IT portfolios within the iMatrix system."

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has issued formal guidance requiring all bureaus to use iMatrix as the only system to manage IT portfolios.

Recommendation 16: OIG recommends that the Bureau of Information Resource Management develop and implement a plan to provide access to information on all IT investments in iMatrix to bureaus and offices.

IRM Response: IRM did not concur with this recommendation. IRM suggested that the recommendation be closed because all of the data in iMatrix is “publicly available to all employees within the Federal IT Dashboard.”

OIG Reply: OIG considers this recommendation unresolved. The Federal IT Dashboard does not include the same information that is available on iMatrix. For example, the information available on the Federal IT Dashboard is at the investment level. If an investment has one or more underlying programs, projects, or assets (which many investments within the Department do), that information is available within iMatrix but is not available on the Federal IT Dashboard. Further, iMatrix includes other key information that would be useful to bureaus when assessing potentially duplicative investments that is not available on the Federal IT Dashboard, such as bureau name, point of contact, and investment owner. The actual description of investments is very brief on the Federal IT Dashboard, whereas, iMatrix contains more details about an investment. For example, the 12 E-Gov investments are described as an “initiative” on the Dashboard, while more information is included in iMatrix. In many cases, iMatrix includes supporting documentation for investments that would assist users, such as AoAs and budget information, that is not available on the Dashboard. This recommendation will be resolved when IRM provides a plan of action for implementing this recommendation. This recommendation will be closed when IRM develops and implements a plan to provide access to information on all IT investments in iMatrix to bureaus and offices.

Recommendation 17: OIG recommends that the Bureau of Information Resource Management (a) develop and implement a policy requiring bureaus and offices to provide details of IT investments, programs, and projects in iMatrix and (b) develop and disseminate guidance specifying the level of detail necessary for each investment, including general descriptions and technical capabilities.

IRM Response: IRM partially concurred with this recommendation, stating that IRM “already has a policy for IT investments, programs, and projects to utilize iMatrix.” IRM also stated that IRM has already completed the second part of the recommendation in that during the business case training, IRM “discusses the information that is required for each investment, program, and project. IRM has published OMB’s updated Capital Planning guidance document to outline all required data fields for each given investment prior to the budget submission.”

OIG Reply: OIG considers this recommendation unresolved. As described in Finding B of this report, the audit found numerous instances in which the details describing an investment or project in iMatrix would not be sufficient to assist a bureau or office in identifying a potential duplicative investment (see Table 4 for details). It is clear that any guidance that IRM has developed needs to be revised to ensure that descriptions in iMatrix are sufficient. This recommendation will be resolved when IRM provides a plan of action for implementing this recommendation. This recommendation will be closed when OIG receives and accepts

documentation demonstrating that IRM has developed (or revised) and implemented a policy requiring bureaus and offices to provide details of IT investments, programs, and projects in iMatrix and developed and disseminated guidance specifying the level of detail necessary for each investment, including general descriptions and technical capabilities.

Inadequate Visibility and Duplicative IT Systems

The goals of CPIC are to integrate strategic planning, budgeting, procurement, and management of IT in a uniform manner to make investments that efficiently and effectively support an agency's mission. Because the Department did not have a strong CPIC process, it was unable to fully attain the expected outcomes, such as increasing capability to achieve its mission, streamlining enterprise architecture, and improving risk management. Further, because centralized oversight controls were not always effective or timely, there was increased risk for inefficiency in the Department's IT portfolio.

Because of inconsistent tracking of IT investments in many different databases, there was a lack of visibility in the Department's portfolio to the agency's leadership. Without consistent implementation of policies and a strong centralized control structure, efforts may be duplicated or redundant systems will remain in operation. In addition, without centralized control, the Department will face difficulty in implementing key requirements of FITARA, which include approvals by the CIO over all IT spending in the agency.

Inadequate Visibility Over the IT Acquisition Process

The CIO, the Director of BP, the E-Gov PB, and OMB all need transparency to assess the effectiveness and efficiency of the Department's IT spending. Because of inconsistent tracking of IT investments in many different databases, there was a lack of visibility in the Department's portfolio to the agency's leadership and OMB. The lack of visibility limits the Department's ability to effectively monitor spending and budget requests. For example, the need for bureaus to perform numerous portfolio reorganizations in recent years suggests that investments were not established and maintained at an appropriate level. Because of the investment definitions used by DS and IRM in tracking and reporting their portfolios, the bureaus are not likely to report new IT investments to OMB.

Further, in May 2015, the CIO documented a failure in IT management practices due to transparency issues related to the CA portfolio of investments, which in total was valued at more than \$300 million. The CIO noted that ConsularOne, CA's modernization program for its visa application systems, cost more than \$87 million but had failed to meet performance goals since 2012. Due to the performance failures and delayed delivery to the public, CA had to operate legacy systems for longer than expected, leading to requests for almost \$150 million in additional funding for FYs 2015 and 2016 to maintain the legacy systems. The CIO reported that CA's spending on legacy systems exceeded the amount spent before the modernization efforts began, which highlights the failed IT management practices and visibility issues in the portfolio.

In addition, without a sound selection phase, the control⁷³ and evaluation⁷⁴ phases of the CPIC process have increased risk of failed investments or unnecessary spending. If the investment was not fully defined in the selection phase and appropriately identified as an investment in the portfolio, the success of the control and evaluation phases was less likely to occur effectively and transparently.

Duplicative IT Systems

Because of an inadequate implementation of CPIC requirements, Kearney identified duplicative investments. Specifically, the Department developed and maintains several IT portfolio management databases. For example, IRM and DS both have project database tools that duplicate the functionality of the iMatrix application. Because of this duplication, personnel entered similar data and stored IT investment control documents in multiple systems or sites.

Additionally, the Department maintains duplicative property management systems. ILMS, the Department's system of record for personal property inventory and supply chain management, has been in operation since 2001. The Department spends approximately \$38 million annually to operate and maintain ILMS. In 2013, the Bureau of Administration identified four other inventory systems in the Department's IT portfolio that were duplicative with ILMS—DS's Computerized Maintenance Management System, the Global Information Technology Modernization Warehouse System, the Auto Discovery tool, and the Electronic State Configuration Resource system for overseas desktop shipments. In an effort to maintain the integrity of the Department's investment in ILMS as a single source of record, ILMS has proposed solutions and integrations to the E-Gov Boards. However, as of 2015, the duplicative investments were still operating. If these systems were retired, Department operating costs could be decreased. In addition, integrating the property management systems would eliminate the need for manual reconciliations between bureau-managed systems to ILMS.

Kearney identified other potential duplicative systems. For instance, the investment in the Global Foreign Affairs Compensation System, \$26 million a year on average, replaced eight legacy payroll systems in the Department. However, despite this effort, the Department's IT portfolio contains other systems that potentially duplicate Global Foreign Affairs Compensation System capabilities. For example, the Global Employment Management System performs human resource management functions that could be processed in the Global Foreign Affairs Compensation System. While the Department used each system for unique needs and business processes, the systems have capabilities that could be considered for consolidation. However, because two different bureaus developed and operated these systems, it is more difficult to

⁷³ In the control phase, investment managers are expected to manage their project's risks and control costs within the proposed cost estimate and baseline.

⁷⁴ In the evaluation phase, the investment is examined to determine whether it has met its intended objectives and yielded expected benefits as predicted in the business case.

combine the functionalities of the systems. In addition to these two systems, the DS Back Office and Business Systems investment also performs some human resources functions for DS, which could result in inefficiency and unnecessary costs.

Department Is Not Well-Positioned To Implement FITARA

FITARA requires agencies and CIOs to take a firmer stance on IT acquisition in the Federal Government. Specifically, the CIO must be involved in all approvals of IT acquisitions, both major and non-major investments, including approvals of the IT contracts used to carry out the agency's IT investments. FITARA also requires the CIO to conduct major portfolio reviews annually and evaluate risk together with the investment manager and the head of the agency. If an investment is categorized as high risk, OMB can withhold development funding requested until the CIO can prove that the risks are mitigated to an appropriate level.

Because of the issues identified during this audit related to IT portfolio structures, lack of full CIO authority (in practice) over the IT acquisitions process, and insufficient centralized oversight of IT selections and approvals, the Department is not well positioned to implement FITARA requirements. In fact, in November 2015, the House Oversight and Government Reform Committee⁷⁵ gave the Department a "D" grade⁷⁶ on its FITARA implementation efforts.

In accordance with instructions from OMB,⁷⁷ the Department prepared an implementation plan for FITARA.⁷⁸ The plan indicates that the Department will adopt FITARA requirements in an incremental manner. The plan includes a number of positive areas for improvement; for example, improvements in the Department's governance approach and transparency of financial information. However, the FITARA plan does not take into account the serious CPIC process deficiencies, as reported throughout this finding, within the bureaus tested that need to be addressed before the Department can fully implement FITARA requirements. The plan also suggests that the CIO will use the Department's existing process for approving major investments. However, as previously presented, Kearney found major projects were not always identified and approved using the Department CPIC Program Guide. Further, the plan did not sufficiently increase the CIO's authority.

Finding C: The Department's Exhibit 53 and Exhibit 300 Reports Were Not Complete or Accurate

Kearney found that the FY 2014 Exhibit 53 and Exhibit 300 reports submitted by the Department to OMB were not accurate or complete. Specifically, the Department was unable to demonstrate

⁷⁵ House Oversight and Government Reform FITARA Implementation Scorecard, (November 2015), at <https://oversight.house.gov/wp-content/uploads/2015/11/Screen-Shot-2015-11-03-at-6.36.42-PM.png> >.

⁷⁶ This grade was based on four areas—Data Center Consolidation, IT Portfolio Review Savings, Incremental Development, and Risk Assessment Transparency.

⁷⁷ OMB Memorandum M-15-14, "Management and Oversight of Federal Information Technology," June 10, 2015.

⁷⁸ The Department provided an initial plan to OMB in August 2015 and a revised plan in November 2015.

why IT-related expenditures were either included or excluded from the Exhibit 53 report for 51 of 101 (50 percent) of the items tested. Additionally, Kearney identified 25 bureaus that made IT expenditures that did not have a bureau-level IT investment in the Exhibit 53 report. Kearney also found that some investment information was omitted from iMatrix during a portfolio reorganization. Further, Kearney found that the Department excluded IT investments made by a component entity. Kearney also identified instances in which the Department did not report reimbursable activity in the Exhibit 53 report, as required by OMB. Finally, Kearney found that the Exhibit 300 report was incomplete because it did not include four investments that met the criteria to be reported as major IT investments.

In addition to completeness issues, Kearney found instances where the Exhibit 53 report was not accurate. Although the Department had generally reported IT investment titles and descriptions accurately in the reports, Kearney identified exceptions in other required information. Specifically, Kearney found that 4 of 14 (29 percent) IT investments tested for purposes of assessing the accuracy of the Exhibit 53 report were not classified correctly as major investments; spending and budget information were incorrect for all investments tested; and information on cloud computing was not accurately reported for 8 of 14 (57 percent) investments. Kearney additionally identified variances between the data in the iMatrix IT Budget Management Module and the data in the iMatrix IT Investment Management Module. Since the information included in the Exhibit 300 report is based on data reported in the Exhibit 53 report, the inaccuracies identified in the Exhibit 53 report were repeated in the Exhibit 300 report.

The Exhibit 53 and Exhibit 300 reports were not complete or accurate primarily because the process to prepare these reports was manual and involved numerous users across the Department. Although the Department provided training on OMB requirements and the functionality of iMatrix, bureau investment managers and budget analysts were not required to attend the training, and the training did not address how bureaus should report reimbursable activity. Insufficient oversight of the reporting process also contributed to incomplete and inaccurate reports. Because the reports were inaccurate and incomplete, OMB and the Department were unable to ensure that Department IT investments aligned with the agency mission and supported business needs. Further, OMB could not ensure the proper execution of investments against established performance plans. Moreover, the lack of transparency in the Department's IT reporting limited the ability of Department stakeholders to analyze and assess the more than \$1.4 billion the Department spends annually on IT investments.

Office of Management and Budget Requirements for Preparing Exhibit 53 and 300 Reports

OMB publishes guidance⁷⁹ annually for agencies to report their Agency IT Portfolio Summary, also known as the Exhibit 53 and Exhibit 300 reports. The Exhibit 53 report includes information on an agency's entire portfolio, while the Exhibit 300 report only includes information related to

⁷⁹ For example, FY 2016 IT Budget – Capital Planning Guidance, May 23, 2014.

an agency's major investments. The OMB guidance outlines the information that agencies must submit for each major and non-major investment in the Exhibit 53 report, including:

- investment title,
- investment description,
- type of investment (major or non-major),
- development spending data,
- O&M spending data,
- investment bureau code,
- cloud computing⁸⁰ alternatives evaluation, and
- cloud computing spending data.

For spending data (development and O&M), OMB requires agencies to report 3 years of data for each IT investment on the Exhibit 53 report:

- Spending Year Data – the amount actually spent for the investment during the current year.
- Enacted Year Data – the amount projected and available for the next year's spending. and
- Budget Year Data – the amount requested for investment spending as part of the annual budget request process.

For example, the FY 2014 Exhibit 53 report should include FY 2014 spending data, FY 2015 enacted data, and FY 2016 budget data.

Agencies are required to report details for the planning, budgeting, acquisition, and management of major IT investments on the Exhibit 300 report. In addition to the 3 years of spending data included in the Exhibit 53 report, agencies are required to include projections of spending for 4 additional years for major investments in the Exhibit 300 report. Agencies should report data for each major investment for two components—the Major IT Business Case and the Major IT Business Case Detail. The purpose of these components is to “describe the justification, planning, and implementation of individual capital assets included in the Exhibit 53 report and serve as key artifacts of the agency's enterprise architecture and IT capital planning process.” The Major IT Business Case component should demonstrate support for the mission statements, long-term goals, objectives, and annual performance plans. The Major IT Business Case Detail component is provided to OMB to ensure the proper execution of those investments against the established performance plans. The Major IT Business Case Detail component is required to

⁸⁰ NIST 800-146 (May 2012), *Cloud Computing Synopsis and Recommendations*, states, “Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”

include information on major IT investments such as project cost, life cycle progress, project risk, operational targets and results, and significant risks to achieving goals.

Exhibit 53 and 300 Reports Were Not Complete

To assess the completeness of the Department's Exhibit 53 report, Kearney obtained a list of all IT expenditures recorded in the Department's financial management system, the Global Financial Management System (GFMS), for FY 2014 and FY 2013. Kearney identified 51,314 transactions, totaling approximately \$942 million, related to IT expenditures for FY 2014 and 49,757 transactions, totaling approximately \$920 million, related to IT expenditures for FY 2013. Of those transactions, Kearney selected a sample of 101⁸¹ items (51 items from FY 2014, totaling \$409 million, and 50 items from FY 2013, totaling \$446 million) to determine whether the investments were included in the Exhibit 53 report.

For 51 (50 percent) of the 101 items selected for testing, the bureau or office that made the expenditure was either unable to confirm that the spending was reported in iMatrix, which was used to prepare the Exhibit 53 report, or did not respond to Kearney's inquiry for information. These 51 transactions amounted to more than \$155 million per year in both FYs 2014 and 2013. Specifically,

- For 17 transactions, the Department did not report the expenditures to OMB in the Exhibit 53 report but could not provide a reasonable justification for excluding the transactions. The 17 transactions amounted to approximately \$24 million in FY 2014 and approximately \$33 million in FY 2013.
- For 10 transactions, the Department was unable to demonstrate clearly that the expenditures were included in the amounts reported for investments in the Exhibit 53 report. The 10 transactions amounted to approximately \$43 million in FY 2014 and approximately \$42 million in FY 2013.
- The Department did not respond to Kearney's inquiries relating to 24 transactions. The 24 transactions amounted to approximately \$90 million in FY 2014 and approximately \$83 million in FY 2013.

Bureau Spending Testing

To analyze further the completeness of the Department's Exhibit 53 report, Kearney compared each bureau's IT spending in GFMS to the spending reported for that bureau in the Exhibit 53 report. Kearney identified 25 bureaus that had IT expenditures in both FY 2014 and FY 2013 but did not report bureau-specific investment line expenditures in the Exhibit 53 report. The total spending reported for these bureaus was \$169 million in FY 2014 and \$160 million in FY 2013. According to Department officials, the expenditures might have been included in the Exhibit 53 report, but because of the Department's process of consolidating some bureaus' IT expenditures

⁸¹ See Appendix A, "Purpose, Scope, and Methodology," for details on the sample.

under other bureaus' investments, it would be difficult to determine whether the amounts were or were not reported. The CIO recognized the issue with the transparency of the information and stated that going forward, the Department will work to create a greater level of transparency.

Portfolio Reorganization

During the DS IT portfolio reorganization discussed in Finding B, three DS projects were omitted from the DS portfolio in iMatrix. Spending in FY 2014 for the three investments totaled approximately \$15 million. Two investments were for technical security monitoring and control systems and the other investment was for the Computerized Maintenance Management System, which stores data relating to secure DS personal property assets and logistics.

Component Agency Information

According to OMB, in addition to its own data, agencies must report data from component entities⁸² in the Exhibit 53 reports. The International Boundary and Water Commission, United States and Mexico, U.S. Section,⁸³ is a component entity of the Department.⁸⁴ Based on a review of IT expenditures from FY 2014 and FY 2013, the International Boundary and Water Commission, United States and Mexico, U.S. Section, reported approximately \$700,000 and \$1 million of IT spending, respectively. The Department did not report these investments in the Exhibit 53 report.

Reimbursable Activity

OMB requirements state that for major and non-major IT services provided on a reimbursable basis within an agency, "The funding source...should be the account that ultimately pays contracts and other costs for the investment directly."⁸⁵ For example, if one bureau purchased desktop computers on behalf of another bureau that reimbursed the purchasing bureau for the cost, the purchasing bureau would be responsible for reporting the amount spent on the IT investment in the Exhibit 53 report.

⁸² A component entity is a major organizational subdivision of an agency.

⁸³ The International Boundary and Water Commission, United States and Mexico, U.S. Section, is responsible for the overall management and administration of programs and facilities to exercise U.S. rights and obligations assumed under U.S.-Mexico boundary and water treaties and related agreements in an economically and sound manner and to develop bi-national solutions to water and boundary problems arising along the border between the United States and Mexico.

⁸⁴ The International Boundary and Water Commission, United States and Mexico, U.S. Section, is considered a component of the Department because it is included in the Department's budget as shown in the Federal Budget by Agency and Account, <https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/29_1.pdf>, accessed on January 8, 2016.

⁸⁵ FY 2016 IT Budget – Capital Planning Guidance - OMB E-Gov Integrated Data Collection Common Definitions: Funding Sources.

Kearney identified reimbursable activity that the Department did not report in the Exhibit 53 report. Specifically, Kearney identified 10 instances, totaling \$101 million, in which bureaus provided funding to another bureau for services that were not included in the Exhibit 53 report. For example, the Bureau of South and Central Asian Affairs reimbursed IRM approximately \$20 million in FY 2014 and \$28 million in FY 2013 for bandwidth services. Neither IRM nor the Bureau of South and Central Asian Affairs reported this spending in iMatrix. Kearney discussed the discrepancy with Bureau of South and Central Asian Affairs and IRM officials, who each indicated that the other bureau should be responsible for reporting the data in iMatrix.

Exhibit 300 Report

As reported in Finding B, Kearney identified four⁸⁶ investments that the Department identified incorrectly as non-major investments and therefore were not reported in the Exhibit 300 report. Therefore, the Exhibit 300 report was incomplete.

Exhibit 53 and 300 Reports Were Not Accurate

Kearney found that the FY 2014 Exhibit 53 and Exhibit 300 reports were not accurate. To review the accuracy of key data in the Exhibit 53 reports, Kearney selected a sample⁸⁷ of 14 (17 percent) IT investments, totaling \$911 million, from the 83 IT investments, totaling \$1.4 billion, which the Department reported to OMB in its FY 2014 Exhibit 53 report. Kearney tested the selected items to determine whether the Department reported information accurately in accordance with OMB requirements. Kearney found that the Department generally reported the investment titles and descriptions accurately. However, Kearney identified issues with the accuracy of the information provided relating to the type of investment, spending data, and cloud computing. Kearney additionally identified variances between the data in the iMatrix IT Budget Management Module and the data in the iMatrix IT Investment Management Module for the 3 years reported. Further, since the information the Department included in the Exhibit 300 report was based on data reported in the Exhibit 53 report, the inaccuracies identified in the Exhibit 53 report were repeated in the Exhibit 300 report.

Investment Title and Description

Kearney found that all 14 of the tested investments had accurate titles and descriptions in the Exhibit 53 report, as required by OMB. Each investment's description accurately reflected the services the IT investment provided.⁸⁸

⁸⁶ Kearney also identified two DS investments that had qualitative characteristics of a major investment. For purposes of this section, Kearney only considered the investments that met the quantitative threshold.

⁸⁷ See Appendix A for details on the sample.

⁸⁸ Although the Department is technically in compliance with OMB's requirement for describing an IT investment, as noted in Finding B, Kearney found that the Department's description of each investment was not sufficient for a user to identify potential duplication.

Type of Investment (Major or Non-major)

As reported in Finding B, Kearney found that four⁸⁹ investments the Department reported as non-major IT investments should have been reported as major IT investments. The four investments consisted of IRM's Bureau IT Support investment and three CA investments. IRM's Bureau IT Support investment relates to centrally provided, shared IT support services. This investment, totaling \$221 million in FY 2014 spending, represents the aggregation of 33 individual investment lines within iMatrix relating to various types of IT spending across all bureaus within the Department.

Prior to the final submission of the FY 2013 Exhibit 53 report in January 2014, the E-Gov PMO identified three CA investments that the Department should have reported as major investments. Because of the timing of the identification, IRM officials stated that CA was unable to populate the required data for major investment reporting prior to the submission deadlines for the FY 2013 reports to OMB. E-Gov PMO officials indicated that the three CA investments would be reclassified as major IT investments starting with the FY 2014 reports to OMB. However, Kearney found that the FY 2014 Exhibit 53 reports continued to report the CA systems as non-major investments. IRM officials stated that CA had developed a plan for reporting the investments as major with the E-Gov PMO but that CA failed to execute its plan. Due to the lack of progress in making the necessary changes, IRM officials stated that they had initiated a complete review of CA's IT portfolio.

Development and Operations and Maintenance Spending Data

To determine if the Department reported development and O&M spending data accurately in the FY 2014 Exhibit 53 report, Kearney requested documentation to support the information reported for the 14 IT investments selected for testing.⁹⁰ The Department was unable to provide sufficient documentation to support at least 1 component for all 14 investments tested. Specifically, the Department could not provide sufficient documentation to support the FY 2014 development and O&M spending data reported in iMatrix for 11 of 14 (79 percent) investments tested. For these 11 items, the Department either provided supporting documentation that did not align with the amounts reported to OMB or was unable to provide relevant supporting documentation at all. For example, IRM reported \$107 million in spending for the Enterprise Network and Bandwidth Services investment but provided supporting documentation showing total spending of \$124 million. Additionally, CA reported \$225 million in spending for three selected investments (Enterprise Engineering and Data Management, Enterprise Management, and Enterprise Operations) but was unable to provide any documentation to support this amount.

⁸⁹ Kearney also identified two DS investments that had qualitative characteristics of a major investment. These two investments were not included as exceptions for this finding. The E-Gov PB has the authority to determine investment classification based on quantitative or qualitative characteristics.

⁹⁰ Kearney tested data associated with each of the 3 years in the FY 2014 Exhibit 53 report—FY 2014 spending data, FY 2015 enacted data, and FY 2016 budget data.

The Department also could not provide sufficient documentation to support the FY 2015 development and O&M enacted data reported in iMatrix for 11 of 14 (79 percent) investments tested. For example, IRM reported \$108 million in FY 2015 enacted spending for the Deployment, Maintenance and Refresh Services investment, but IRM provided supporting documentation showing total enacted spending for FY 2015 of \$136 million. Additionally, IRM reported \$204 million in FY 2015 enacted spending for Bureau IT Support but was unable to provide any documentation to support this amount.

Further, the Department could not provide sufficient documentation to support the FY 2016 development and O&M budget data reported in iMatrix for all 14 (100 percent) investments tested. For 6 of the 14 (43 percent) investments, bureau officials indicated that no supporting schedules were available. For example, IRM reported \$112 million in FY 2016 budgeted data for the Enterprise Planning and Management Services investment but was unable to provide any documentation to support this amount. For 8 of the 14 (57 percent) investments tested, the Department provided supporting documentation that did not align with the amounts reported to OMB. For example, IRM provided support for a total FY 2016 budget request amount of \$18.8 million for its Architecture Services investment, which did not agree with the \$13 million reported to OMB in the Exhibit 53 report.

Reconciliation of the Budget Module and Investment Module in iMatrix

In addition to testing 14 specific IT investments, Kearney also performed a reconciliation of financial data between the iMatrix IT Budget Management Module and IT Investment Management Module. Budget analysts input approved budgeted amounts into the IT Budget Management Module for all IT investments. The investment managers at each bureau then allocated the total budgeted amounts from the IT Budget Management Module to present a detailed breakdown of how the budgeted funds were actually spent in the IT Investment Management Module. For example, the IT Investment Management Module identified how much of the budget for the investment the Department spent on developing the investment compared to operating and maintaining the investment. Financial data within these two modules should agree, or at the very least, amounts actually spent on investments should not exceed approved budgeted amounts. As shown in Table 6, the spending data allocated in the IT Investment Management Module was higher than the amount input in the IT Budget Management Module for FY 2014. These differences call into question the accuracy of the Exhibit 53 report.

Table 6: Comparison of Data in the IT Budget Management Module to the IT Investment Management Module

iMatrix Modules	Total Spending FY 2014 (in Millions)	Total Enacted FY 2015 (in Millions)	Total Budget FY 2016 (in Millions)
IT Budget Management Module*	\$1,198.670	\$1,209.173	\$1,446.080
IT Investment Management Module*	1,201.234	1,219.543	1,433.649
Variance	(\$2.564)	(\$10.370)	\$12.431

* The data sets do not include full-time employee costs, which are added after the modules are reconciled.

Source: Kearney prepared based on documentation provided by the Department.

IRM officials indicated that they believed the difference was due to “erroneous data entry” or from a “reconciliation of IT budget data to ensure consistent and accurate reporting” but that IRM could not specifically identify the reason for the variance. However, IRM officials noted that the variance only represented 1 percent of total spending. While the variance was insignificant in relation to total spending, iMatrix allowed investment managers to input more spending to their investments than was certified by budget analysts in the IT Budget Management Module. Validation and edit checks within iMatrix are important so that investment managers cannot exceed approved budgetary levels.

Cloud Computing Data

Kearney found that the Department did not accurately report required cloud computing data in Exhibit 53 reports for 8 of 14 (57 percent) investments tested. Specifically, for 5 of 14 (36 percent) investments, the Department provided supporting documentation that conflicted with the cloud analysis reported to OMB. For example, the Department reported in the Exhibit 53 cloud analysis section that a bureau had not evaluated cloud alternatives for two investments. However, the supporting documentation indicated that the bureau was using a cloud alternative for these two investments. The Department was unable to provide documentation supporting the analysis of cloud services for 3 of 14 (21 percent) investments tested.

Exhibit 300 Reporting Inaccuracies

Since the Department based the information for major investments included in the Exhibit 300 report on data reported in the Exhibit 53 report, the Exhibit 300 report inherited the Exhibit 53 reporting inaccuracies. Five of the 14 (36 percent) investments tested were major investments that were included in the Exhibit 300 report. Since the Department included inaccurate data in its Exhibit 53 reports for the major investments, the related Exhibit 300 reports for major investments were also inaccurate.

The Process Was Not Sufficient To Prepare the Exhibit 53 and 300 Reports

The Exhibit 53 and 300 reports were not complete or accurate primarily because the process to prepare these reports is manual and involves numerous users across the Department. Kearney found that users did not consistently enter, update, and certify financial data in iMatrix. Effective training programs are essential to ensure that users consistently understand roles and responsibilities and compile data in an accurate manner. This was especially true for a manual and disaggregated process. The Department provided training on OMB requirements and the functionality and use of iMatrix; however, bureau investment managers and budget analysts were not required to attend the training. In addition, the training did not cover how bureaus should report reimbursable activity.

Exhibit 53 and 300 Preparation

OMB requires agencies to submit the Exhibit 53 report twice each year—an initial submission in August and a final submission in January. The submission of Exhibit 300 reports is to occur 1 month following each Exhibit 53 submission. Since the Department's financial system, GFMS, does not integrate with iMatrix, the process for updating the data in the reports is cumbersome, manual, and requires constant communication between investment managers and budget analysts to ensure correct data is included in the reports. The process for preparing and submitting these reports also relies upon coordination between the E-Gov PMO and bureau officials to ensure that complete and accurate data was reported. For example, 52 investment managers⁹¹ and 31 budget analysts across 20 bureaus were responsible for entering or certifying data to support the Department's 83 IT investments reported in the FY 2014 Exhibit 53 and Exhibit 300 reports.

The E-Gov PMO initiates the reporting process with a data call to bureau-level investment managers and budget analysts in August. Budget analysts were responsible for tracking and updating the data in the IT Budget Management Module of iMatrix. Budget analysts manually enter the financial data into each of the fields and identify the source of the funding. Although the intent is for bureau budget analysts to update the data, Kearney found that either a system administrator or IRM administrator updated 53 of 171 (31 percent) IT Budget Management Module items rather than a bureau budget analyst during the FY 2014 final submission process. Once the IT Budget Management module is updated, E-Gov PMO officials manually transfer the data from the IT Budget Management Module to the IT Investment Management Module and notify investment managers that funding is available for spending allocation.

Spending allocation is the process used by investment managers to distribute the budgeted funds in the IT Budget Management Module to each system, program, and project in the

⁹¹ An investment manager is the Department official who is responsible for making decisions and developing strategies for a particular investment. The manager is responsible for justifying resource requirements of the investment, ensuring activities within the investment align with Department goals and objectives, and managing the overall performance of the investment.

system. Investment managers should update the budgeted amounts to reflect actual spending. The investment managers allocate funds by the total spent, enacted, and budgeted for both development and O&M costs. Investment managers calculate the amount to allocate by using supporting cost schedules that are manually developed and maintained by each investment manager. Once the budget analyst approves funding for an investment, the investment manager creates a schedule to allocate estimated spending over the life cycle of the investment. In general, cost schedules are internal bureau spreadsheets maintained by each investment manager that track costs for each investment.

Kearney found that investment managers and budget analysts were not always updating information on their investments as required. In fact, data for some investments went unchanged from year to year. Some bureau officials indicated that they rolled budget data forward from prior years and data were not always updated. Other bureaus misunderstood the requirement to enter updated data. For example, one bureau did not believe that cost data was required for non-major investments.

In addition to the issues with supporting and updating the data, investment managers have the ability to edit and adjust all financial data reported for their investments in iMatrix, including increasing or decreasing totals previously entered and certified in the IT Budget Management Module, without revalidation by the budget analyst. Further, BP officials can change budget data while investment managers are updating financial data for inclusion in the Exhibit 53 and Exhibit 300 reports without coordinating with bureau budget analysts. The iMatrix application does not have automated controls to prevent differences between the amounts in the IT Budget Management Module and the IT Investment Management Module or to notify budget analysts when changes are made to their bureau's budget data in the system.

The Department follows a similar process for preparing the final Exhibit 53 and Exhibit 300 reports in January and February. Although the Department requires investment managers and budget analysts to track spending data throughout the year, the investment managers and budget analysts are not required to update the data associated with their investments in iMatrix other than when the interim and final Exhibit 53 and Exhibit 300 reports are due.

Bureau Certification of Data

Bureau budget analysts and investment managers are required to certify that the data in iMatrix is complete and accurate for their IT investments. Bureaus certify their data twice a year for the submissions to OMB. Both the IT Budget Management Module and IT Investment Management Module have a built-in capability for data certification. However, Kearney found that bureaus did not certify 84 (49 percent) of the 171 budget items prior to submission of the FY 2014 report to OMB.

IRM did not have a process to ensure that the data was properly certified. iMatrix can automatically produce a report that lists the bureaus that have not certified their data. However,

IRM and BP did not use this report to identify and follow up with bureaus that did not certify. In addition, iMatrix had no automated controls to prevent bureaus from allocating funds in the IT Investment Management Module if the IT Budget Management Module was not certified or to prevent the submission of the reports to OMB if either module was not certified.

Training

Effective training programs are critical to ensure the success of a manual process that relies on the participation of many individuals. For the CPIC process to function as designed, the Department must have a robust training program. Without a robust training program, the process is at risk for misunderstandings and inconsistencies.

The E-Gov PMO and BP provide annual training to investment managers, budget analysts, and other bureau officials on how to report IT investment data in iMatrix for the annual submission to OMB. The E-Gov PMO training includes an overview of updates to OMB requirements and further clarification on the Department's CPIC Program Guide. The training also covers the use and functionality of iMatrix. Also, the training covers requirements for entering spending, enacted, and budgeted data in iMatrix, including the timing of entering the data for the initial and final Exhibit 53 and Exhibit 300 submissions and the process for finalizing and certifying the data. Additionally, the training details investment manager and budget analyst responsibilities for maintaining and updating financial data in iMatrix.

Although the E-Gov PMO provides training, the Department did not require that bureau investment managers and budget analysts attend the training. Kearney identified 8 (40 percent) of 20 bureaus that reported investments in iMatrix but that did not have any bureau staff attend the E-Gov PMO annual training. These eight bureaus reported \$56 million in aggregate spending in FY 2014.

In addition to the E-Gov PMO annual training, BP provides additional training specifically to budget analysts on the use of the IT Budget Management Module in iMatrix. This training focuses primarily on the functionality of the IT Budget Management Module. However, similar to the E-Gov PMO training, attendance is not mandatory and attendance is often not recorded.⁹²

Neither the E-Gov PMO nor the BP training covered how bureaus should report reimbursable costs. In addition, the Department did not have any other guidance or procedures for reporting reimbursable costs.

Recommendation 18: OIG recommends that the Bureau of Information Resource Management develop and implement controls in iMatrix to require that the investment

⁹² BP does not maintain attendance data for this training.

manager and budget analyst revalidate data when financial information for an investment in iMatrix is modified.

IRM Response: IRM stated that it plans to update the iMatrix system “so that major IT investment managers will be required to ‘certify’ investment data on a monthly basis, and for non-major investments, investment managers will be required to ‘certify’ updated data during the budget request and passback submissions.” IRM further stated, “iMatrix already requires budget analysts to certify the data within the iMatrix system.”

OIG Reply: OIG considers this recommendation unresolved. Although the revisions that IRM plans for iMatrix related to the monthly certification by investment managers is a positive step, more needs to be done. For example, while iMatrix requires that budget analysts initially certify data when entered, there is no mechanism to require a budget analyst to recertify data when modified (either by the budget analyst or by someone else). Recertification is an essential control that is lacking from the process suggested by IRM. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating develop and implement controls in iMatrix to require that the investment manager and budget analyst revalidate data when financial information for an investment in iMatrix is modified.

Recommendation 19: OIG recommends that the Bureau of Information Resource Management modify the controls in iMatrix to notify an investment’s budget analyst when changes are made to budget data or when there are differences between the amounts included for an investment in different iMatrix modules.

IRM Response: IRM requested that this recommendation be closed, stating, “The iMatrix system already identifies if there are discrepancies between the budget and investment funding tables and will not allow the E-Gov PMO to submit data to OMB if these figures are not reconciled.” IRM also stated, “E-Gov PMO sends out communication to all investment managers once updates have been made to the budget data.”

OIG Reply: OIG considers this recommendation unresolved. As reported in Finding C, this audit identified discrepancies between the budget tables and the investment tables. These discrepancies were not always addressed before information was submitted to OMB. Further, the audit found instances where changes were made to data by people other than the budget analyst, for example, to “force” amounts to balance, and budget analysts were not informed of the changes. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has modified controls in iMatrix to notify an investment’s budget analyst when changes are made to budget data or when there are differences between the amounts included for an investment in different iMatrix modules.

Recommendation 20: OIG recommends that the Bureau of Information Resource Management develop and issue a policy stating that bureaus must update the information on non-major investments in iMatrix quarterly, rather than only when the reports are due to be submitted to the Office of Management and Budget.

IRM Response: IRM did not concur with this recommendation, stating that “information for major investments [is] updated monthly, and data for non-major investments are submitted no more than twice a year. The budget cycle and OMB’s requirements dictate when investment information is updated.”

OIG Reply: OIG considers this recommendation unresolved. As stated in IRM’s response, the Department is required to update information on major investments monthly, and therefore OIG has modified this recommendation to indicate that the recommendation is only required for non-major investments. OMB does not prohibit agencies from gathering information on non-major investment more frequently than twice each year. As reported in Finding C of this report, this audit found the Department does not currently have access to the information on IT investments that it needs to successfully manage its IT portfolio. The current schedule of updating data in iMatrix for non-major investments two times annually does not provide sufficient information for managers, nor does it allow sufficient time for quality control reviews. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and issued a policy that bureaus must update the information on non-major investments in iMatrix quarterly rather than only when the reports are due to be submitted to OMB.

Recommendation 21: OIG recommends that the Bureau of Information Resource Management develop and implement a process to identify bureaus or offices that have not certified investment information in iMatrix and take action to ensure that the information is certified before the report is submitted to the Office of Management and Budget.

IRM Response: IRM concurred with this recommendation, stating that it plans to develop a “scorecard” that will be used to ensure all investment data has been certified by investment managers.

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a process to identify bureaus or offices that have not certified investment information in iMatrix and taken action to ensure that the information is certified before the report is submitted to OMB.

Recommendation 22: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and

implement a process to verify that all bureau and office IT investment managers and budget analysts complete the respective training courses related to IT capital planning and reporting that are provided annually.

IRM Response: IRM stated that it plans to “collaborate with BP to create an on-line tutorial course that all IT investment managers and budget analysts must complete prior to being granted access to the iMatrix system.” Further, for other training sessions, such as the annual, 2-day training for investment managers and the bi-annual training for budget analysts, IRM stated that it “will ensure that attendance sheets are collected and documented in the future to ensure proof of record for attendees.”

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM, in coordination with BP, has developed and implemented a process to verify that all bureau and office IT investment managers and budget analysts have completed the respective training courses related to IT capital planning and reporting that are provided annually.

Recommendation 23: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, include information on reporting reimbursable costs in the annual training provided to investment managers and budget analysts on how to report IT investment data in iMatrix.

IRM Response: IRM concurred with this recommendation, stating, “The functionality to capture reimbursable costs is already built into the iMatrix budget module.” IRM also stated that it will “update the annual business case training to specifically include guidance on how budget analysts and investment managers should handle reimbursable costs.”

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM, in coordination with BP, has updated its annual training to include information on reporting reimbursable costs data in iMatrix.

Recommendation 24: OIG recommends that the Bureau of Information Resource Management develop guidance on reporting reimbursable costs in iMatrix and distribute that guidance to bureau investment managers and budget analysts.

IRM Response: IRM did not provide a specific response to this recommendation but instead referenced its response to Recommendation 23.

OIG Reply: OIG considers this recommendation unresolved. Recommendation 23 relates to providing training to users on reimbursable costs. Recommendation 24 relates to developing written guidance for users on reimbursable costs. Although training is essential, having

written guidance is also necessary to reinforce information obtained during training, as well as to provide information to officials who do not attend the training. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed guidance on reporting reimbursable costs in iMatrix and distributed that guidance to bureau investment managers and budget analysts.

Insufficient Oversight of the Process To Develop Exhibits 53 and 300

Insufficient oversight of the reporting process also contributed to incomplete and inaccurate Exhibit 53 and Exhibit 300 reports. Specifically, the E-Gov PMO and BP did not have a process to validate the financial data that the bureaus entered into iMatrix. Further, even if a review process were established, the E-Gov PMO and BP would find challenges in the validation process because bureaus were not required to track and submit source documents. In addition, the CIO did not review and approve the Exhibit 53 and Exhibit 300 reports as required before submission to OMB.

Data Validation

Kearney found that E-Gov PMO and BP officials did not have a sufficient process to validate the data that bureau budget analysts and investment managers entered in iMatrix prior to the submission of the Exhibit 53 and Exhibit 300 reports to OMB. Further, the E-Gov PMO did not assess the completeness of the data in the reports, such as by reviewing IT expenditure data to ensure that all IT investments were reported in iMatrix. E-Gov PMO and BP officials indicated that they do not validate the information in iMatrix beyond a general scan of the data. Once the investment managers update the IT Investment Management Module, E-Gov PMO and BP officials perform a high-level review and limited validation of the data due to the limited time they allow themselves for review. Specifically, E-Gov PMO and BP officials allot only 3 business days for reviews between the deadline for bureau updates and certifications and the deadline to report to OMB. This significantly limits the E-Gov PMO's ability to effectively validate data for the Department's 83 investments. The E-Gov PMO must submit the Exhibit 53 and Exhibit 300 reports on time, whether or not the data has been reviewed. IRM officials stated that the Department's major investments are the priority when performing high-level reviews of iMatrix data.

IRM also did not have an effective process to analyze bureau-entered iMatrix data. Analytical procedures⁹³ could identify errors or potential omissions of relevant spending data in iMatrix. E-Gov PMO officials reconciled the IT Budget Management and IT Investment Management Modules in iMatrix to identify large variances in spending between the two modules, which provided some oversight of the information reported to OMB. However, the E-Gov PMO did not perform other effective analyses, such as:

⁹³ Analytical procedures consist of evaluations of financial information made by a study of plausible relationships among data. Analytical procedures range from simple comparisons to the use of complex models involving many relationships and elements of data.

- Comparing iMatrix spending data from year to year, which could identify bureaus with significant increases or decreases in spending that could be the result of data entry errors in current or prior year reporting.
- Performing a search for bureaus that reported IT investment activity in one year and not in the next, which could identify bureaus that did not submit needed data.
- Performing a routine search for anomalies such as unreasonable spending amounts.
- Comparing actual spending data in GFMS with spending data in iMatrix, which could identify amounts spent by the Department that were not recorded in iMatrix.

Further, even if the E-Gov PMO and BP were to establish a robust review process, validating the data would be difficult because bureaus were not required to include source documents in iMatrix. Helpful source documents could include annual projected cost schedules and expenditure summaries that support the amounts entered in iMatrix. Without readily available documentation to support the data entered by investment managers and budget analysts, E-Gov PMO officials would be unable to validate the data prior to submitting the reports to OMB. In addition, although OMB only requires minimal data for non-major investments in the Exhibit 53 report, having more information readily available on non-major investments may facilitate improved oversight controls for the Department's IT portfolio. For non-major investments, agencies were only required to report 3 years of spending data, investment title, investment description, and strategic and architecture alignment. Most Department investment managers provided limited data for their non-major investments in only these required fields in iMatrix. The non-major investment managers did not complete the additional fields available in iMatrix, such as the substantial business case details, performance goals and metrics, sub-projects and programs, and future cost projections. Because non-major investments represent 50 percent of the Department's portfolio, with \$700 million in FY 2014 spending, expanded reporting and tracking of non-major investments would benefit Department managers and oversight bodies. Increasing the extent of reliable data available on these investments may help identify underperforming investments and opportunities for oversight bodies to provide additional support to struggling investment managers.

Chief Information Officer Review

OMB requirements for preparing the Exhibit 53 and Exhibit 300 reports also state that prior to the submission of the Exhibits to OMB, "The agency's Chief Information Officer must approve, the agency's CFO/Budget Officer must support, and the agency's IT capital planning office should coordinate and review all versions/revisions."⁹⁴ However, Kearney found that the CIO performed a limited review of major investments only. The Department attributed the lack of emphasis on reviewing the reports to competing priorities and resource limitations. Specifically, the CIO indicated that resource limitations impact IRM's ability to fully review and confirm all bureau-reported data prior to submission to OMB. In addition, the CIO indicated that IRM's resources were currently prioritized for other needs, such as IT security. Further, the CIO stated

⁹⁴ FY 2016 IT Budget – Capital Planning Guidance – 3. "How do I determine whether I must report?"

that while the Department understands the intent of the Exhibit 53 and Exhibit 300 reporting requirements, the process was not the primary means that the Department uses to manage and allocate its resources to IT-related needs. Rather, the Department uses the annual budget process as the primary mechanism to plan and manage its resources. Accordingly, the CIO views the Exhibit 53 and Exhibit 300 reports as a compliance exercise, which does not always supplement how the Department manages its resources.

Recommendation 25: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to validate the completeness of the data in iMatrix. At a minimum, this process should include an analysis of IT expenditures in the financial management system to ensure expenditures are reported in iMatrix, as needed.

IRM Response: IRM concurred with the recommendation, stating that it had been working with the Bureau of the Comptroller and Global Financial Services to develop a “baseline report of IT expenditures within the Department.”

OIG Reply: OIG considers this recommendation resolved, pending further action. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM, in coordination with BP, has developed and implemented a process to validate the completeness of the data in iMatrix, which would include, at a minimum, an analysis of IT expenditures in the financial management system to ensure expenditures are reported in iMatrix.

Recommendation 26: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to validate the accuracy of data in iMatrix. This could include developing and implementing analytical procedures to identify anomalies in iMatrix data.

IRM Response: IRM did not concur with this recommendation and requested that it be closed, stating that it “has data quality and data validation processes in place for investment data. All data that is transferred to OMB is validated and checked for data quality.” IRM also stated that it “monitors and completes an analysis of the data throughout the year to ensure data reported...is as accurate as possible.” IRM stated that a validation process already exists within the iMatrix system “to ensure investment and program funding is in alignment and the system will not allow transmission of data to OMB without this alignment.”

OIG Reply: OIG considers this recommendation unresolved. During the audit, IRM officials were unable to demonstrate a sufficient process to validate the accuracy of data in iMatrix. As presented in Finding C of this report, during the audit, E-Gov PMO and BP officials indicated that they did not validate the information in iMatrix beyond a general scan of the data. Further, audit testing performed revealed IRM’s process to oversee data in iMatrix is insufficient and identified significant exceptions for virtually every test performed relating to

the accuracy of the data in iMatrix. If IRM has a data validation process in place, as it states in its response, that process is insufficient and should be reconsidered. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM, in coordination with BP, developed and implemented a process to validate the accuracy of data in iMatrix.

Recommendation 27: OIG recommends that the Bureau of Information Resource Management develop and implement a policy requiring bureaus and offices to submit source documents to support the information entered into iMatrix.

IRM Response: IRM did not concur with this recommendation, stating that the Department requires major investments to include “investment artifacts” in iMatrix. IRM communicates the requirement by an annual data call to all investment managers.

OIG Reply: OIG considers this recommendation unresolved. The Exhibit 53 report, which is compiled from data in iMatrix, includes information on both major and non-major investments. IRM should be able to efficiently and effectively validate the data included for both types of investments, not just major investments. That means that supporting documentation for both major and non-major investment should be readily available. As presented in Finding B of this report, not all bureaus use iMatrix to store key documentation related to IT investments. Data related to some investments was not controlled or maintained in a uniform manner across each bureau. Often, the information to review an investment either was not available or had to be compiled from multiple sources. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a policy requiring bureaus and offices to submit source documents to support the information entered into iMatrix.

Recommendation 28: OIG recommends that the Bureau of Information Resource Management develop and implement a process to verify that bureaus and offices are submitting source documents to support the information entered into iMatrix in accordance with the policy developed that requires bureaus and offices to submit source documents that support the information entered into iMatrix.

IRM Response: IRM concurred with this recommendation, stating that it has a “manual process” in place to verify that source documents are available and that “IRM releases multiple communication emails...to remind investment managers of this requirement.” IRM requested that this recommendation be closed.

OIG Reply: OIG considers this recommendation unresolved. As presented in Finding B of this report, not all bureaus use iMatrix to store key documentation related to IT investments.

Data related to some investments was not controlled or maintained in a uniform manner across each bureau. Often, the information to review an investment either was not available or had to be compiled from multiple sources. If IRM has a process in place to verify that source data is available in iMatrix, as it states in its response, that process is insufficient and should be reconsidered. This recommendation will be resolved when IRM develops a plan of action to implement this recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has developed and implemented a process to verify that bureaus and offices are submitting source documents to support the information entered into iMatrix in accordance with the policy developed that requires bureaus and offices to submit source documents that support the information entered into iMatrix.

Recommendation 29: OIG recommends that the Bureau of Information Resource Management determine the information for non-major investments that should be included in iMatrix and develop a policy to implement that determination.

IRM Response: IRM did not concur with this recommendation, stating that the “information collected for non-major investments is driven by OMB requirements. Currently, the Department requires all information for non-major investments to be collected in accordance with OMB annual CPIC guidance. The Department goes above and beyond OMB requirements and captures pertinent data for non-major investments, such as impact, strategic alignment, operational activities, and operational metrics.”

OIG Reply: OIG considers this recommendation unresolved. OIG acknowledged in Finding C of this report that OMB requires that only limited information be reported for non-major IT investments. However, routinely collecting and reviewing information pertaining to non-major IT investment would benefit IRM and improve oversight of the Department’s IT portfolio. As the process owner, IRM should be seeking opportunities to obtain additional information to assist it in fulfilling this important role. Non-major investments are a significant component of the Department’s IT portfolio. Increasing the extent of available data on these investments may help identify underperforming investments and opportunities to provide additional support to struggling investment managers. This recommendation will be resolved when IRM provides a plan of action for implementing the recommendation. This recommendation will be closed when OIG receives and accepts documentation demonstrating that IRM has determined the information for non-major investments that should be included in iMatrix and developed a policy to implement that determination.

Recommendation 30: OIG recommends that the Bureau of Information Resource Management develop and implement a process for the Chief Information Officer to approve the portfolio data for all IT investments prior to submission of the Exhibit 53 and Exhibit 300 reports as required by the Office of Management and Budget.

IRM Response: IRM did not concur with this recommendation, stating, "With the FY 2017 budget request, a formal memo was created and signed by the Deputy CIO for Business Management and Planning, through delegated authority by the CIO, to include all data for the Agency IT Portfolio Summary."

OIG Reply: Although IRM did not concur with this recommendation, OIG considers this recommendation resolved, pending further action, based on IRM's actions. IRM provided a copy of a formal memorandum from one of the Deputy CIOs approving the Department's submission of its FY 2017 Agency IT Portfolio Summary. This recommendation will be closed when OIG receives and accepts documentation showing that the CIO has the authority to delegate the responsibility to approve the portfolio data for all IT investments prior to the submission of the Exhibit 53 and Exhibit 300 reports, as required by OMB, to one of the Deputy CIOs.

Lack of Useful Data and Transparency

The Department has a responsibility to meet its critical missions while being prudent stewards of scarce resources. Exhibit 53 and Exhibit 300 reports are important tools that the Department should use to make better IT investment decisions. Because the reports were inaccurate and incomplete, the Department was unable to ensure that its IT investments align with the agency mission and support business needs during the investment life cycle. Further, it was more difficult to identify poorly performing investments; that is, investments that are behind schedule, over budget, or lacking in capability. Additionally, without useful information on the IT investments that should be included in the Exhibits, it was more difficult for the Department to identify IT assets that no longer fulfilled ongoing or anticipated mission requirements or that did not deliver intended benefits to the agency or its customers.

Exhibit 53 and Exhibit 300 reports are a budgetary tool for the Department and OMB to ensure funding is well planned and officials are properly managing and monitoring IT spending. Inaccurate and incomplete data in the reports may have led to poor investment decisions, and the Department may not have considered the entire cost of a project in evaluating competing projects in other categories of investment. Without cumulative project cost information, OMB has not received complete and accurate information on investment expenditures to make quantitative decisions about budgetary resources consistent with program priorities and qualitative assessments about whether the Department's programming processes are consistent with OMB requirements. Also, the CIO could not meaningfully monitor IT spending habits and actual activity within the Department as required. Because the Department did not submit accurate and complete data in its Exhibit 53 and Exhibit 300 reports, OMB could not ensure the proper execution of investments against established performance plans.

In addition, accurate and complete information on the Department's IT spending was not available to Department stakeholders, including Congress and the public. OMB created the IT Dashboard to highlight agencies' performance and spending on IT investments across the

Federal Government to make it harder for underperforming projects to go unnoticed and easier for the Government to focus attention on and take corrective action for the projects where the attention and action are needed the most. The lack of transparency in the Department's IT reporting limits the ability of Department stakeholders to analyze and assess the more than \$1.4 billion the Department reports that it spends annually on IT investments.

RECOMMENDATIONS

Recommendation 1: OIG recommends that the Bureau of Information Resource Management update the Capital Planning and Investment Control Program Guide to comply with Office of Management and Budget requirements. Specifically, the definition of an IT investment should be modified and a requirement to perform a review for duplicative investments across the agency, Federal Government, and private sector should be included.

Recommendation 2: OIG recommends that the Bureau of Information Resource Management develop and implement a formal process describing when and how Bureau management will review and approve changes to the Capital Planning and Investment Control Program Guide to ensure the guide is compliant with Office of Management and Budget requirements. At a minimum, the plan should include a description of the officials who will review and formally approve the changes to the Program Guide.

Recommendation 3: OIG recommends that the Bureau of Information Resource Management develop and implement a process to increase the transparency of IT spending related to existing investments, including operations and maintenance costs.

Recommendation 4: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process for the Bureau of Budget and Planning to provide detailed information to the Bureau of Information Resource Management on bureaus' IT budgeting and spending.

Recommendation 5: OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to enforce the requirement that bureaus and offices must consult with and receive guidance from the Bureau of Information Resource Management prior to initiating an IT investment.

Recommendation 6: OIG recommends that the Bureau of Information Resource Management issue formal guidance stating that bureaus and offices must consult with and receive the approval of the Bureau of Information Resource Management prior to initiating a reorganization of IT investments.

Recommendation 7: OIG recommends that the Bureau of Information Resource Management develop guidelines on how and when a reorganization of IT investments is necessary and allowable and include those guidelines in the Capital Planning and Investment Control Program Guide.

Recommendation 8: OIG recommends that the Bureau of Information Resource Management establish and implement a plan to review IT investment reorganizations that occurred since FY 2010 to ensure that the investments resulting from the reorganizations comply with Office of Management and Budget requirements for information technology investments.

Recommendation 9: OIG recommends that the Bureau of Information Resource Management modify the Capital Planning and Investment Control Program Guide to state that the Bureau of Information Resource Management shall review and approve bureau-specific IT investment methodologies used to develop and invest in IT projects (also known as control gates).

Recommendation 10: OIG recommends that the Bureau of Information Resource Management develop and implement a process to (a) identify and review all bureau-specific IT investment methodologies (ones currently in place as well as ones that will be developed in the future); (b) determine whether the bureau-specific IT investment methodologies comply with Office of Management and Budget Circular A-130; and, if they do not comply, (c) provide bureaus with guidance regarding the modifications needed to fully comply and verify that the methodologies were modified as necessary. This effort should include reviewing the standard forms used by each bureau during the IT selection process to ensure consistency and compliance with Office of Management and Budget Circular A-130.

Recommendation 11: OIG recommends that the Bureau of Information Resource Management develop and implement policies and procedures to oversee and enforce requirements for bureaus and offices to avoid duplicative IT investments.

Recommendation 12: OIG recommends that the Bureau of Information Resource Management develop and implement a process to perform periodic, but no less than annual, reviews of the entire agency IT portfolio to enforce bureau accountability and identify potential duplicative systems.

Recommendation 13: For duplicative systems that are identified by the new process implemented to perform periodic reviews of the entire agency IT portfolio (Recommendation 12), OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to combine, eliminate, or replace duplicative systems, as practicable.

Recommendation 14: OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to perform semiannual or more frequent reviews of bureau-funded IT contracts to identify new IT investments developed as part of the contracts.

Recommendation 15: OIG recommends that the Bureau of Information Resource Management require all bureaus to use iMatrix as the only system to manage IT portfolios.

Recommendation 16: OIG recommends that the Bureau of Information Resource Management develop and implement a plan to provide access to information on all IT investments in iMatrix to bureaus and offices.

Recommendation 17: OIG recommends that the Bureau of Information Resource Management (a) develop and implement a policy requiring bureaus and offices to provide details of IT investments, programs, and projects in iMatrix and (b) develop and disseminate guidance

specifying the level of detail necessary for each investment, including general descriptions and technical capabilities.

Recommendation 18: OIG recommends that the Bureau of Information Resource Management develop and implement controls in iMatrix to require that the investment manager and budget analyst revalidate data when financial information for an investment in iMatrix is modified.

Recommendation 19: OIG recommends that the Bureau of Information Resource Management modify the controls in iMatrix to notify an investment's budget analyst when changes are made to budget data or when there are differences between the amounts included for an investment in different iMatrix modules.

Recommendation 20: OIG recommends that the Bureau of Information Resource Management develop and issue a policy stating that bureaus must update the information on non-major investments in iMatrix quarterly, rather than only when the reports are due to be submitted to the Office of Management and Budget.

Recommendation 21: OIG recommends that the Bureau of Information Resource Management develop and implement a process to identify bureaus or offices that have not certified investment information in iMatrix and take action to ensure that the information is certified before the report is submitted to the Office of Management and Budget.

Recommendation 22: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to verify that all bureau and office IT investment managers and budget analysts complete the respective training courses related to IT capital planning and reporting that are provided annually.

Recommendation 23: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, include information on reporting reimbursable costs in the annual training provided to investment managers and budget analysts on how to report IT investment data in iMatrix.

Recommendation 24: OIG recommends that the Bureau of Information Resource Management develop guidance on reporting reimbursable costs in iMatrix and distribute that guidance to bureau investment managers and budget analysts.

Recommendation 25: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to validate the completeness of the data in iMatrix. At a minimum, this process should include an analysis of IT expenditures in the financial management system to ensure expenditures are reported in iMatrix, as needed.

Recommendation 26: OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to validate the accuracy of data in iMatrix. This could include developing and implementing analytical procedures to identify anomalies in iMatrix data.

Recommendation 27: OIG recommends that the Bureau of Information Resource Management develop and implement a policy requiring bureaus and offices to submit source documents to support the information entered into iMatrix.

Recommendation 28: OIG recommends that the Bureau of Information Resource Management develop and implement a process to verify that bureaus and offices are submitting source documents to support the information entered into iMatrix in accordance with the policy developed that requires bureaus and offices to submit source documents that support the information entered into iMatrix.

Recommendation 29: OIG recommends that the Bureau of Information Resource Management determine the information for non-major investments that should be included in iMatrix and develop a policy to implement that determination.

Recommendation 30: OIG recommends that the Bureau of Information Resource Management develop and implement a process for the Chief Information Officer to approve the portfolio data for all IT investments prior to submission of the Exhibit 53 and Exhibit 300 reports as required by the Office of Management and Budget.

APPENDIX A: PURPOSE, SCOPE, AND METHODOLOGY

The purpose of this audit was to determine whether the Department of State (Department) has effectively implemented processes and internal controls to select, approve, and report IT investments that comply with Federal requirements. Specifically, the audit objectives were to determine whether the Department:

- designed a process to select and approve IT investments in accordance with Office of Management and Budget (OMB) requirements,
- followed the process that it had designed to select and approve IT investments, and
- provided accurate and complete Exhibit 53 and Exhibit 300 reports to OMB.

An external audit firm, Kearney & Company, P.C. (Kearney), acting on behalf of OIG, performed this audit.

Kearney conducted this performance audit from December 2014 to June 2015 at the Bureaus of Information Resource Management (IRM), Diplomatic Security (DS), Administration, and Budget and Planning (BP). Kearney planned and performed the audit in accordance with performance audit requirements in the Government Accountability Office's *Government Auditing Standards*, 2011 revision. These standards required Kearney to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions. The sufficiency and appropriateness of evidence needed and tests of evidence related directly to the objectives and scope of the audit. Kearney believes that the evidence provides a reasonable basis for its findings and conclusions based on the audit objectives.

To obtain background information for this audit, Kearney reviewed pertinent legislation including the Information Technology Management Reform Act¹ (also known as the Clinger-Cohen Act) and the Federal Information Technology Acquisition Reform Act.² Kearney also reviewed OMB Circulars A-11³ and A-130.⁴ Further, Kearney reviewed the Department's *Foreign Affairs Manual* and the *Capital Planning and Investment Control Program Guide* to obtain an understanding of the Department's internal policies and procedures for selecting and approving IT investments.

¹ Pub. L. 104-106, Division E. Clinger-Cohen Act: "IT Management Reform Act" – Section 5112 (c): Use of Budget Process.

² The Federal Information Technology Acquisition Reform Act is included in The National Defense Authorization Act, Public Law 113-291, Subtitle D - Federal Information Technology Acquisition Reform.

³ "Preparation, Submission, and Execution of the Budget."

⁴ "Management of Federal Information Resources."

Kearney performed this audit in three phases:

- assess the design of the Department's policies relating to Federal capital planning requirements,
- test the implementation of the Department's policies and internal controls for selected major and non-major investments, and
- assess the accuracy and completeness of the Department's IT portfolio⁵ (known as the Exhibit 53 report) and related Exhibit 300 reports.

Kearney interviewed IRM officials to gain an understanding of the Department's current capital planning and investment control (CPIC) policies, the Department's portfolio of IT investments, roles and responsibilities relating to IT acquisitions, and the Department's CPIC oversight programs. Kearney also interviewed IRM and BP officials to obtain an understanding of the Department's policies and procedures, and IRM and BP oversight functions. Because the Department's CPIC policies allow bureaus to develop bureau-specific CPIC processes, Kearney interviewed IRM, DS, and Bureau of Administration officials to gain an understanding of bureau-specific processes and controls. To assess the design of the Department-wide and bureau-specific CPIC processes, Kearney compared the processes to OMB Circular A-11, Supplement 7: "Capital Programming Guide" requirements and OMB Circular A-130 requirements. Kearney also assessed bureau-specific capital planning processes for compliance with the Department's CPIC Program Guide.

To assess the operating effectiveness of the Department's processes, Kearney tested the selection and approval of major and non-major IT investments for compliance with the Department's CPIC Program Guide and OMB requirements.⁶ Kearney interviewed bureau officials to obtain an understanding of each investment selected for testing; obtained source documents that demonstrated the processes, reviews, and approvals used to establish each selected investment; and compared the source documents to the Department's CPIC Program Guide requirements and OMB requirements. Kearney also assessed the reasonableness of how the bureaus selected for testing implemented the CPIC requirements, such as how the bureaus defined investments and organized their IT portfolios.

Kearney also assessed the completeness and accuracy of the Department's Exhibit 53 and Exhibit 300 reports. Specifically, to test the accuracy of the information in the reports, Kearney obtained supporting documents and schedules from bureau officials relating to major and non-major investments selected for testing. Kearney tested whether the documentation agreed with the information provided to OMB. To test the completeness of the reports, Kearney identified expenditures related to IT spending from the Global Financial Management System (GFMS), the Department's financial management system. Kearney obtained supporting documentation for a selection of IT-related disbursements to determine whether the disbursements would qualify for OMB reporting.

⁵ Appendix C provides the complete FY 2014 Agency IT Portfolio Summary.

⁶ See the Detailed Sampling Methodology section of this Appendix for details on Kearney's sample selections.

Prior OIG Reports

In 2014, OIG issued an inspection report⁷ that identified concerns related to IT investments. For example, the IRM's Strategic Planning Office had responsibilities related to IT investments without the necessary authority to compel compliance of other bureaus. Additionally, the report identified concerns with the completeness of the Department's portfolio of IT investments because of inconsistent and unverified reporting of non-major IT projects and the lack of a clear definition of a reportable IT project. OIG also found that the Strategic Planning Office's processes were not regularly enforced.

Additionally in 2014, the Department's Federal Information Security Management Act audit report⁸ documented a significant deficiency in the Department's information security programs. The audit noted CPIC control weaknesses that contributed to the significant deficiency.

Work Related to Internal Controls

Kearney performed steps to assess the adequacy of internal controls related to the audit objectives. First, Kearney gained an understanding of controls relating to the selection and approval of IT investments. This included centralized controls performed by IRM and controls implemented by individual bureaus. Kearney tested the implementation of key controls. Additionally, Kearney tested internal controls intended to ensure the accuracy and completeness of the Department's OMB Exhibit 53 and Exhibit 300 reports. Results of the work performed on internal controls during the audit are detailed in the "Audit Results" section of the report.

Use of Computer-Processed Data

Kearney used computer-processed data from the Department during this audit. Kearney obtained listings of the Department's IT investments from the iMatrix system.⁹ Kearney used these reports to select samples for testing. To assess the reliability of the data, Kearney reconciled the final FY 2014 Exhibit 53 report to the IT Investment Management Module Report from iMatrix. Kearney performed additional procedures to assess the accuracy and completeness of the reports. Issues identified are detailed in Findings B and C of the report.

As described in the "Selection of IT Investments Being Tracked Outside of iMatrix" section of this Appendix, Kearney learned that certain bureaus managed some IT investments in bureau applications rather than iMatrix. Because these investments should be subject to CPIC controls, Kearney obtained IT project reports that were maintained outside of iMatrix from DS and IRM to select additional investments for testing. Both DS and IRM use a Microsoft Project application and a Microsoft SharePoint site to track and control IT projects. Kearney requested a list of IT projects associated with the DS and IRM investments selected from iMatrix during the audit.

⁷ OIG, *Inspection of the Bureau of Information Resource Management, Strategic Planning Office* (ISP-I-15-03, October 2014.)

⁸ OIG, *Audit of the Department of State Information Security Program*, (AUD-IT-15-17, October 2014.)

⁹ iMatrix serves as the Department's primary IT investment database.

Since the lists are self-reported and maintained by the bureaus, Kearney was not able to perform reconciliations of the project reports to iMatrix or another independent source to ensure completeness and accuracy of the data. However, for sampling purposes, the lists were determined to be sufficient based on interviews with IRM and DS officials. Issues identified during testing are reported in Finding B of this report.

Kearney obtained reports from GFMS detailing Department expenditures for FY 2013 and FY 2014 to identify and select a sample of IT-related expenditures for testing. The Department has controls in place to ensure that the expenses recorded in GFMS are accurate and complete. Kearney performed procedures to evaluate the accuracy and completeness of the expenditures reports during the audits of the Department's FY 2013 and FY 2014 financial statements and concluded that the listings were sufficiently reliable for sample selection purposes. Issues identified during testing are detailed in Finding C of this report.

Detailed Sampling Methodology

Kearney's sampling objectives were to determine to what extent:

- Major IT investments initiated during FY 2013 or FY 2014 were selected and approved in accordance with the CPIC Program Guide and OMB requirements;
- Existing major IT investments that were initiated prior to FY 2013 and non-major IT investments in iMatrix were selected and approved in accordance with the CPIC Program Guide and OMB requirements;
- Major and non-major IT investments that were not tracked in iMatrix were selected and approved in accordance with the CPIC Program Guide and OMB requirements;
- The Department's FY 2014 Exhibit 53 and Exhibit 300 reports submitted to OMB were complete; and
- The Department's FY 2014 Exhibit 53 and Exhibit 300 reports submitted to OMB were accurate.

Selection of Bureaus for Testing

Kearney selected three Department bureaus—IRM, DS, and the Bureau of Administration—in which to perform its audit work. Kearney selected these bureaus using a non-statistical sampling methodology known as judgment sampling. Because this method uses discretionary criteria to effect sample selection, Kearney was able to use information garnered during its preliminary work to aid in making informed selections. Kearney used total IT spending for each bureau as its initial selection criteria. Kearney used information from the iMatrix IT Investment Management Module Report to identify the 10 bureaus with the highest dollar amount of IT spending, as shown in Table A.1.

Table A.1: Bureaus With the Highest Dollar Amount of IT Spending in FY 2014

Bureau or Office	FY 2014 IT Spending (in millions)	Percentage of Agency IT Spending*
Information Resource Management	\$771	55
Consular Affairs	302	21
Comptroller and Global Financial Services	80	5
Administration	64	5
Human Resources	41	3
Diplomatic Security	21	1
Overseas Buildings Operations	19	1
Foreign Service Institute	18	1
International Information Programs	16	1
Office of the Secretary of State	\$15	1

*The Department's IT spending for FY 2014 was \$1,408,000,000.

Source: Prepared by Kearney based on information obtained from the iMatrix IT Investment Management Module Report for the FY 2014 OMB Exhibit 53 Submission, January 2015.

After narrowing potential bureau selections to the 10 bureaus with the highest dollar amount of reported IT spending, Kearney then considered the number of non-major investments reported as a selection criteria. Table A.2 shows the number of active non-major investments for the 10 bureaus.

Table A.2: Number of Active Non-Major Investments for the 10 Bureaus With the Highest Dollar Amount of IT Spending in FY 2014

Bureau or Office	Number of Active Non-Major Investments
Information Resource Management	16
Administration	13
Diplomatic Security	5
Office of the Secretary of State	4
Consular Affairs	3
International Information Programs	3
Comptroller and Global Financial Services	3
Overseas Buildings Operations	2

Bureau or Office	Number of Active Non-Major Investments
Foreign Service Institute	2
Human Resources	1

Source: Prepared by Kearney based on information obtained from the iMatrix IT Investment Management Module Report for the FY 2014 OMB Exhibit 53 Submission, January 2015.

Kearney selected the three bureaus with the greatest number of active non-major investments—IRM, DS, and the Bureau of Administration—to gain a sufficient level of audit coverage and understanding over IT investment processes being performed within the Department. The three bureaus selected accounted for 61 percent of the Department’s total reported FY 2014 IT spending of \$1.4 billion.

Selection of New Major IT Investments

To assess whether newly funded major IT investments were selected and approved in accordance with requirements, Kearney obtained a list of all major IT investments initiated in FY 2013 and FY 2014 from IRM’s Portfolio Management Office. The Department identified only two new major investments during this period:

- Budget System Modernization Investment (\$3.94 million in FY 2014 spending).
- Architecture Services Investment (\$8.89 million in FY 2014 spending).

Kearney selected both investments for testing. Kearney evaluated the two investments to determine if the Department complied with its CPIC Program Guide during the selection and approval phase of the investments. Results of testing are documented in Finding B of this report.

Selection of Existing Major and Non-Major Investments

For each of the three bureaus selected for testing (IRM, the Bureau of Administration, and DS), Kearney obtained a listing from iMatrix of all IT investments, both major and non-major. From this list, Kearney judgmentally selected a sample of active major and non-major IT investments, which existed in the FY 2013 and FY 2014 portfolio, to test whether the Department complied with selection and approval controls. The listing indicated that the 3 bureaus had a total of 43 IT investments with \$856 million of FY 2014 spending.

Based on the American Institute of Certified Public Accountants guidelines for small populations,¹⁰ Kearney selected 9 investments (20 percent) from the 43 bureau investments,

¹⁰ The American Institute of Certified Public Accountants provides guidelines for auditors to determine the appropriate sample size for infrequent controls performed by management. A small population is typically considered between 1 to 52 occurrences, but includes populations that are less than 250 occurrences. The American Institute of Certified Public Accountants provides suggested sample size selections for small populations, but also stipulates that sample size is a matter of professional judgment and should consider engagement risk.

which was sufficient coverage for control testing. Kearney considered quantitative factors for selecting investments such as the significance of the spending reported for each investment. Additionally, Kearney considered qualitative factors such as the general description of the investment, the type of investment (major or non-major), potential risks within the investment, and the potential that the investment could meet OMB's qualitative characteristics of a major investment.¹¹ Kearney's selections were designed to obtain audit coverage over both major and non-major investments reported by the three bureaus selected for testing (IRM, the Bureau of Administration, and DS). Since both quantitative and qualitative factors were considered in selecting the samples, some lower dollar value investments were selected, rather than only selecting the investments with the highest spending.

Based on the iMatrix listing, IRM reported the greatest number of investments of the three selected bureaus. Specifically, IRM had 24 IT investments with FY 2014 spending amounting to \$771 million. Kearney selected four IRM investments totaling \$524 million in spending, or 68 percent of total FY 2014 IRM IT spending. The IRM IT investments selected for testing are highlighted in Table A.3.

Table A.3: IRM Investments Selected for Testing

Investment Title	Investment Type	FY 2014 IT Spending (in millions)
1 Deployment, Maintenance, and Refresh Services*	Major	\$121.37
2 Enterprise Network and Bandwidth Services*	Major	107.59
3 Messaging Services, Email and Remote Connectivity	Major	46.09
4 Application Services	Major	21.20
5 Data Center Services and Hosting	Major	69.86
6 Security/Cyber Security Services	Major	91.89
7 Architecture Services	Major	8.89
8 Bureau IT Support*	Non-Major	221.20
9 Enterprise Planning, and Management Services*	Non-Major	74.62
10 Customer Support Services	Non-Major	4.55
11 ClassNet Regionalization	Non-Major	1.26
12 E-Gov- Disaster Assistance Improvement Plan	Non-Major	0.99
13 E-Gov- IT Infrastructure (IOI) LoB	Non-Major	0.31
14 E-Gov- Budget Formulation and Execution	Non-Major	0.10
15 Data Off-Shoring	Non-Major	0.14
16 E-Gov- GovBenefits.gov	Non-Major	0.15
17 E-Gov- Human Resources Management LoB	Non-Major	0.10
18 E-Gov- E-Business Gateway	Non-Major	0.07

¹¹ In addition to quantitative factors that are used to identify a major system, OMB also provides qualitative factors for consideration, including: importance of the investment to the mission or function to the agency or government, significant program or policy implications, high executive visibility, high development or operating and maintenance costs, and use of an unusual funding mechanism.

Investment Title	Investment Type	FY 2014 IT Spending (in millions)
19 E-Gov Recruitment One-Stop	Non-Major	0.06
20 E-Gov- Disaster Assistance Improvement Plan – Capacity Surge	Non-Major	0.03
21 E-Gov- Grants Management LoB	Non-Major	0.03
22 E-Gov- E-Rulemaking	Non-Major	0.02
23 E-Gov- Financial Management LoB	Non-Major	0.00
24 E-Gov- Geospatial LoB	Non-Major	0.00
Total		\$770.51

* Investment was selected for sample testing based on quantitative and qualitative factors.

Source: Prepared by Kearney based on IRM's IT Portfolio.

Based on the iMatrix listing, the Bureau of Administration reported the second largest number of IT investments of the three bureaus. Specifically, the Bureau of Administration had 14 IT investments with FY 2014 spending amounting to \$64 million. Kearney selected three Bureau of Administration IT investments totaling \$48 million in spending, or 75 percent of total FY 2014 Bureau of Administration IT spending. The Bureau of Administration IT investments selected for testing are highlighted in Table A.4.

Table A.4: Bureau of Administration iMatrix Investments Initially Selected for Testing

Investment Title	Investment Type	FY 2014 IT Spending (in millions)
1 A/LM Integrated Logistics Management System *	Major	\$35.92
2 State Assistance Management System *	Non-Major	9.57
3 Bureau of Administration IT Management Services	Non-Major	6.14
4 Facilities Management - Maximo *	Non-Major	2.79
5 A/GI S/IPS FREEDOMS/FREEDOMS2	Non-Major	2.06
6 A/GI S/IPS State Archiving System	Non-Major	2.06
7 A/LM Logistics Management IT Support	Non-Major	1.42
8 Purchase Card Management and Reporting System	Non-Major	0.92
9 A/OPR E- Allowance	Non-Major	0.80
10 A/OPE Procurement Executive IT Support	Non-Major	0.79
11 Bureau of Administration Language Service Management System	Non-Major	0.44
12 Electronic Forms	Non-Major	0.42
13 Centralized Emergency Notification System	Non-Major	0.34
14 BNet Online and Video on Demand	Non-Major	0.32
Total		\$63.98

* Investment was selected for sample testing based on quantitative and qualitative factors.

Source: Prepared by Kearney based on the Bureau of Administration's IT Portfolio.

Based on the iMatrix listing, DS had the fewest number of IT investments of the three selected bureaus. Specifically, DS had five IT investments with FY 2014 spending amounting to \$21 million. Kearney selected two investments totaling \$13 million in spending, or 60 percent of the total FY 2014 DS IT spending. DS did not report any major investments; therefore, Kearney selected the two investments based on the other quantitative and qualitative factors, such as total spending, general description of the investment, potential duplication risk within the investment, and potential of meeting OMB's qualitative criteria to be a major investment. The DS IT investments selected for testing are highlighted in Table A.5.

Table A.5: DS iMatrix Investments Selected for Testing

		FY 2014 IT Spending (in millions)	
Investment Title	Investment Type		
1 DS Law Enforcement Investigations and Crime Prevention*	Non-Major		\$9.56
2 DS Information and Security Management	Non-Major		4.22
3 DS Protection and Disaster Preparedness	Non-Major		4.07
4 DS Back Office and Business Systems*	Non-Major		3.10
5 DS Overseas Advisory Council	Non-Major		0.11
Total			\$21.06

* Investment was selected for sample testing based on quantitative and qualitative factors.

Source: Prepared by Kearney based on DS's IT Portfolio.

Kearney evaluated the nine major and non-major investments selected for testing to determine if the Department complied with the CPIC Program Guide and OMB requirements during the selection and approval phase of the investments.

Selection of IT Investments Being Tracked Outside of iMatrix

During audit work, Kearney determined that several selected IRM and DS IT investments consisted of an aggregation of multiple IT initiatives. Specifically, IRM and DS aggregated multiple IT systems, projects, or assets that support the same program or line of service and reported the aggregated systems, projects, or assets as a single IT investment in iMatrix. IRM and DS tracked the individual projects comprising the iMatrix investments outside of iMatrix. Kearney obtained separate databases from IRM and DS to identify individual projects that related to the selected iMatrix investments. Specifically, Kearney identified 9 individual related investments being tracked by IRM amounting to \$11.7 million and 22 individual related investments being tracked by DS amounting to \$856,000.

Since all IT investments were subject to CPIC controls, Kearney selected additional investments for testing from the separate databases maintained by IRM and DS. From the project listing provided from the IRM external database, Kearney determined there were nine IT projects that related to the IRM investments initially selected (see Table A.4). From the project listing provided from the DS external database, Kearney determined there were 22 IT projects that related to the DS investments initially selected (see Table A.5). Based on the American Institute of Certified

Public Accountants guidelines for small populations, Kearney used professional judgment to select a sample of 7 of the 9 IRM projects and 5 of the 22 DS projects from the external database listings. Kearney considered these sample sizes sufficient and representational for control testing across the IRM and DS investments initially selected from iMatrix. Kearney selected the 12 additional projects based on the same quantitative and qualitative factors Kearney used to make the initial sample selections from iMatrix, such as spending totals, general description of the project, potential for duplication risk within the project, and potential to meet the OMB qualitative characteristics of a major investment. The 12 additional IT investments selected represented 39 percent of the total population of 31 IT investments tracked outside of iMatrix by IRM and DS. The additional IRM and DS IT projects selected for testing are listed in Table A.6.

Table A.6: Additional IRM and DS Projects Selected for Testing

Project Title	Bureau Portfolio
1 Secure Video Teleconference Cost Model Pilot	IRM
2 Regional Information Management Center	IRM
3 Enterprise Monitoring	IRM
4 Meter Net	IRM
5 Perimeter Security	IRM
6 Enterprise Schedule Management iSchedule	IRM
7 Data Offshoring	IRM
8 Counterintelligence and Counterterrorism Vetting Unit Biometrics Program	DS
9 DS Source Retirement	DS
10 Security Incident Management Analysis System II	DS
11 DS Industry Security Management System	DS
12 DSQuS2	DS

Source: Prepared by Kearney based on reports provided from DS and IRM's external databases, May 2015.

Overall Sample of IT Investments Selected for Testing

In total, Kearney tested 23 investments (5 major and 18 non-major) from iMatrix and the separate IT databases (IRM and DS) to determine whether the investments were selected and approved in accordance with Department and OMB requirements. Specifically, Kearney selected:

- 2 new major investments started in either FY 2013 or FY 2014 (described in the "Selection of New Major Investments" section).
- 9 major and non-major investments included in iMatrix for IRM, the Bureau of Administration, and DS (described in the "Selection of Existing Major and Non-major Investments" section).
- 12 non-major investments tracked outside of iMatrix by IRM and DS (described in "Selection of IT Investments Being Tracked Outside of iMatrix" section).

For each of the 23 investments selected, Kearney requested control-gate selection forms and supporting cost schedules to test controls. Results of testing are documented in Finding B of this report.

Selections of Expenditures for Completeness Testing

Kearney selected IT-related expenditures from GFMS to assess whether the expenditures were appropriately included in the Exhibit 53 report. Kearney obtained a universe of Department FY 2013 and FY 2014 expenditures from GFMS. To identify expenditures that related to IT investments, Kearney extracted expenditures recorded to 26 Budget Object Classification codes¹² that were IT related. For example, Kearney extracted expenditures for Budget Object Classification codes for IT Systems Development/Migration, IT Software Maintenance, IT Hardware Maintenance, IT Supplies, Capitalized IT Software, and IT Telecomm/Networking Equipment. The expenditures related to these Budget Object Classification codes amounted to a total of \$1.9 billion, consisting of \$942 million in FY 2014 and \$920 million in FY 2013.

Kearney judgmentally selected 101 IT expenditures, 51 FY 2014 expenditures and 50 FY 2013 expenditures. The 101 expenditures totaled \$855 million, which represented 46 percent of the \$1.9 billion in expenditures. To select expenditures for testing, Kearney sorted the expenditures by bureau and then grouped each bureau's expenditures by contract or agreement number for each of the 2 years. The selections were made judgmentally based on the amount of the expenditure and the bureau that made the disbursement. Kearney selected, at a minimum, the largest IT-related expenditure made by each bureau.

Kearney assessed the 101 selected expenditures to determine whether the spending activity was reported to OMB. Specifically, for each selected expenditure, Kearney retrieved from GFMS and reviewed the contracts and related agreements, invoices, and bills to determine whether the expenditure could be reasonably matched to iMatrix data. For expenditures for which supporting documents were not maintained in GFMS, Kearney requested the support from the bureaus. If the spending did not appear to be reported, Kearney assessed the appropriateness of the exclusion. Results of the completeness testing are included in Finding C of this report.

Selection of Investments for Accuracy Testing

To test whether the Exhibit 53 report provided to OMB was accurate, Kearney selected a sample of the IT investments reported from the FY 2014 Exhibit 53 report to determine whether the amounts reported were supported by source documents. Using American Institute of Certified Public Accountants guidelines for small populations, Kearney judgmentally selected 14 investments (16 percent) of the 83 total investments reported by the Department. These 14 investments represented 64 percent of the Department's FY 2014 spending. The sample covered multiple bureaus and a combination of major and non-major investments. For testing efficiency,

¹² Budget Object Classification codes are a set of codes established by the U.S. Department of the Treasury that correspond to types of purchases made.

Kearney determined that 10 investments selected for other tests during this audit were also suitable for this testing purpose, as listed below:

- One of the two new major investments initiated in FY 2013 and FY 2014, described in the "Selection of New Major Investments" section.¹³
- The nine investments in IRM, DS, and the Bureau of Administration portfolios described in the "Selection of Existing Major and Non-major Investments" section.

The remaining four investments selected for testing included three non-major investments from the Bureau of Consular Affairs and one additional major investment from IRM. Kearney selected these four investments judgmentally primarily based on the high dollar value of the investments. Additional consideration was given to feedback from Department officials about potential issues with these investments. Table A.7 provides a list of the 14 investments selected for accuracy testing.

Table A.7: Investments Selected for Accuracy Testing

Investment Title	Investment Type	FY 2014 Spending (in millions)
1 Architecture Services	Major	\$8.89
2 Deployment, Maintenance, and Refresh Services	Major	121.37
3 Enterprise Network and Bandwidth Services	Major	107.59
4 Security/Cyber Security Services	Major	91.89
5 A/LM Integrated Logistics Management System	Major	35.92
6 Bureau IT Support	Non-Major	221.20
7 Enterprise Planning, and Management Services	Non-Major	74.62
8 Facilities Management - Maximo	Non-Major	2.79
9 State Assistance Management System	Non-Major	9.57
10 DS Back Office and Business Systems	Non-Major	3.10
11 DS Law Enforcement Investigations and Crime Prevention	Non-Major	9.56
12 CA Enterprise Engineering and Data Management	Non Major	62.04
13 CA Enterprise Management Services	Non Major	69.06
14 CA Enterprise Operations	Non Major	93.48
Total		\$911.08

Source: Prepared by Kearney based on information obtained from the iMatrix IT Investment Management Module Report for the FY 2014 OMB Exhibit 53 Submission, January 2015.

Of the 14 investments selected for testing, 5 were identified as major investments. Therefore, Kearney tested those five investments to ensure the investments were accurately reported as major investments in the Exhibit 300 report. The results of Kearney's testing of the accuracy of the OMB Exhibit 53 and Exhibit 300 reports are provided in Finding C of this report.

¹³ The Budget System Modernization investment was excluded because the Department had spent only \$4 million through FY 2014.

APPENDIX B: LAWS AND REGULATIONS

Kearney & Company reviewed the following Federal laws and regulations to gain understanding of the regulatory environment in place. The following table outlines each law or regulation reviewed and the general purpose of the law or regulation.

Table B.1: Description of Laws and Regulations Reviewed During Audit

Requirements	Purpose
Information Technology Management Reform Act (Clinger-Cohen Act)	Congress enacted the Clinger-Cohen Act for the design of, acquisition, use, and disposal of IT to improve the productivity, efficiency, and effectiveness of Federal programs. The Act requires that the IT selection process use the budget process to analyze, track, and evaluate the risks and results of all major capital investments made by an executive agency for information systems.
Office of Management and Budget (OMB) Circular A-11 Supplement 7: "Capital Programming Guide"	OMB Circular A-11 stresses the importance of all phases in the capital asset life cycle. By linking planning and budgeting to procurement to the management of capital assets, the resulting all-encompassing roadmap encourages agencies to develop an Agency Capital Plan that provides for the long-range planning of the capital asset portfolio in order to meet the goals and objectives in the strategic and annual plan. The Capital Programming Guide is used for the selection, control, and evaluation of the IT Capital Planning Process. Agencies are required to include supporting elements to substantiate the cost benefit analysis and alternatives analysis.
OMB Circular A-130, "Management of Federal Information Resources" *	OMB Circular A-130 is designed to support the control and management of IT assets selected in accordance with Circular OMB A-11. This Circular establishes policies for the management of Federal information resources. Circular OMB A-130 includes procedural and analytic guidelines for implementing specific aspects of these policies as appendices. The policy establishes a comprehensive approach for executive agencies and their Chief Information Officers to improve the acquisition and management of their information resources by ensuring limited duplication and purchasing the best value.
National Defense Authorization Act of 2015, Sec. 831-833 — Federal Information Technology Acquisition Reform Act (FITARA)	FITARA is a section of the National Defense Authorization Act enacted by Congress to reform the Capital Planning and Investment Control process to ensure agencies continue to scrutinize capital selection. This includes enhancing the responsibility of the CIO for their annual review. An annual CIO review supplemented by their involvement in the selection process will look to improve the efficiency of the agency.
OMB Exhibits 53 and 300 Guidance	The OMB Exhibit 53 and Exhibit 300 guidance provides details on preparing the Exhibits. Specifically, for each investment, the agency must identify the funding source and budgetary resources needed for a 3-year period: prior year, current year, and budget year. The OMB Guidance calls for 48 required data elements to be included. Exhibit 300 is for major investments and is in addition to Exhibit 53. Agencies must report business case details for major IT investments, including the justification and the progress on spending and all related projects.

* In October 2015, OMB issued a draft revision of OMB Circular A-130.

Source: Kearney prepared.

APPENDIX C: AGENCY IT PORTFOLIO SUMMARY

Kearney & Company obtained the Department of State Agency IT Portfolio Summary from the FY 2014 Office of Management and Budget (OMB) Exhibit 53 Report. Table C.1 shows three data fields from the full report, which was the basis for audit test work.

Table C.1: Department of State OMB Exhibit 53 Report

Investment Title	Investment Type	FY 2014 Spending (in millions)
1 Integrated Logistics Management System	Major	\$35.92
2 Application Services	Major	21.20
3 Architecture Services	Major	8.89
4 Budget System Modernization	Major	3.94
5 Consular Systems Modernization	Major	20.72
6 Data Center Services and Hosting	Major	69.86
7 Deployment, Maintenance, and Refresh Services	Major	121.37
8 Electronic Medical Record	Major	7.42
9 Enterprise Network and Bandwidth Services	Major	107.59
10 Foreign Assistance Coordination and Tracking System	Major	8.51
11 Global e-Travel Program	Major	7.36
12 Global Foreign Affairs Compensation System	Major	20.33
13 Integrated Personnel Management System	Major	39.49
14 Joint Financial Management System	Major	37.60
15 Legacy Consular Systems	Major	56.42
16 Messaging services, Email and Remote Connectivity	Major	46.09
17 Security/Cyber Security Services	Major	91.89
18 Bureau of Administration IT Management Services	Non Major	6.14
19 Bureau of Administration Language Services Management System	Non Major	0.44
20 A/GIS/IPS FREEDOMS/FREEDOMS2	Non Major	2.06
21 A/GIS/IPS State Archiving System	Non Major	2.06
22 A/LM Logistics Management IT Support	Non Major	1.42
23 A/OPE Procurement Executive IT Support	Non Major	0.79
24 A/OPR E-Allowances	Non Major	0.80
25 ABACUS	Non Major	0.32
26 BNet Online and Video on Demand	Non Major	0.32
27 Buildings Management Integrated Systems	Non Major	10.39
28 Bureau IT Support	Non Major	221.20
29 CA Enterprise Engineering and Data Management	Non Major	62.04
30 CA Enterprise Management Services	Non Major	69.06
31 CA Enterprise Operations	Non Major	93.48
32 Central Resource Management System	Non Major	4.24
33 Centralized Emergency Notification System	Non Major	0.34
34 ClassNet Regionalization	Non Major	1.26

Investment Title		Investment Type	FY 2014 Spending (in millions)
35	Content Management System	Non Major	11.10
36	Customer Support Services	Non Major	4.55
37	Data Off-Shoring	Non Major	0.14
38	Defense Trade Application System	Non Major	4.80
39	DS Back Office and Business Systems	Non Major	3.10
40	DS Information and Security Management	Non Major	4.22
41	DS Law Enforcement Investigations and Crime Prevention	Non Major	9.56
42	DS Overseas Advisory Council	Non Major	0.11
43	DS Protection and Disaster Preparedness	Non Major	4.07
44	ECA Program Management and Outreach System	Non Major	11.97
45	E-Gov – Budget Formulation and Execution	Non Major	0.10
46	E-Gov – Disaster Assistance Improvement Plan	Non Major	0.99
47	E-Gov – Disaster Assistance Improvement Plan – Capacity Surge	Non Major	0.03
48	E-Gov – E-Business Gateway	Non Major	0.07
49	E-Gov – E-Rulemaking	Non Major	0.02
50	E-Gov – Financial Management LoB	Non Major	0.00
51	E-Gov – Geospatial LoB	Non Major	0.00
52	E-Gov – GovBenefits.gov	Non Major	0.15
53	E-Gov – Grants Management LoB	Non Major	0.03
54	E-Gov – Human Resources Management LoB	Non Major	0.10
55	E-Gov – IT Infrastructure LoB	Non Major	0.31
56	E-Gov – Recruitment One-Stop	Non Major	0.06
57	Electronic Forms	Non Major	0.42
58	Enterprise Planning, and Management Services	Non Major	74.62
59	Executive Secretariat Tracking and Retrieval System	Non Major	0.65
60	Facilities Management - Maximo	Non Major	2.79
61	Foreign Assistance Dashboard	Non Major	1.70
62	FSI Corporate Systems	Non Major	7.63
63	FSI Instructional Support	Non Major	10.46
64	Global Workforce Analysis and Planning System	Non Major	1.40
65	Humanitarian Information Unit	Non Major	1.37
66	IIP Program Management and Outreach System	Non Major	2.92
67	INRISS	Non Major	13.13
68	Integrated Document Management and Analysis System	Non Major	3.18
69	IRMS Operations and Maintenance	Non Major	8.87
70	Joint Planning and Performance System	Non Major	1.17
71	L Records Management	Non Major	0.43
72	Ops Center Telephone Bridge	Non Major	1.14
73	Principal Officers' Executive Management System	Non Major	3.56
74	Public Diplomacy Performance Management System	Non Major	1.52
75	Purchase Card Management and Reporting System	Non Major	0.92
76	Resource Allocation Budget Integration Tool	Non Major	2.07
77	S/ES Continuity of Operations Planning	Non Major	4.42

Investment Title		Investment Type	FY 2014 Spending (in millions)
78	Secretary's Worldwide Remote Email Network	Non Major	5.82
79	State Assistance Management System	Non Major	9.57
80	State Department Web Site	Non Major	5.16
81	TOMIS	Non Major	2.41
82	Treaty Information Management System	Non Major	0.00
83	Web.ICASS	Non Major	4.33
Total			\$1,408.08

Source: Department of State, FY 2014 OMB Exhibit 53 Report, January 2015. All information is available from the Federal IT Dashboard, <www.itdashboard.gov>.

APPENDIX D: BUREAU OF INFORMATION RESOURCE MANAGEMENT RESPONSE



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United States Department of State

Washington, D.C. 20520

February 23, 2016

INFORMATION MEMO FOR ASSISTANT INSPECTOR GENERAL VOSHELL (OIG/AUD)

FROM: IRM – Steven C. Taylor *ST*

SUBJECT: Draft Audit of the Department of State Process to Select and Approve
Information Technology Investments

Please find attached the Department's response to the subject report. If you have any questions concerning these responses, please coordinate with Jameela Akbari at: [Redacted] (b) (6)@state.gov or 202-634-[Redacted] (b) (6)

Attachments:

- Tab 1 – IRM Response to the Draft Report
- Tab 2 – OMB Approval of DOS FITARA Implementation Plan
- Tab 3 – TechStat Strategy and Guide (recommendation 13)
- Tab 4 – iMATRIX screenshot (recommendation 19)
- Tab 5a – Draft FY 2018 Bureau Resource Request (recommendation 26)
- Tab 5b – Draft Supplemental BRR Fiscal Guidance and Resource Table for IT
- Tab 6 – 2015 E-mail re iMATRIX source documents (recommendation 27 and 28)
- Tab 7 – Recommendation 30, AM re: Submission of the Department's FY 2017 Agency IT Portfolio Summary to OMB

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Tab 1

IRM Response to the Draft
Audit of the Department of State Process To Select and Approve Information
Technology Investments

Context: The Office of Inspector General (OIG) conducted an “Audit of the Department of State Process To Select and Approve Information Technology Investments” to determine whether the Department designed a process to select and approve IT investments in accordance with Office of Management and Budget (OMB) requirements, facilitated the aforementioned process within the Department, and submitted accurate and complete IT Portfolio Summary (Exhibit 53) and Major IT Business Case (Exhibit 300) reports to OMB. OIG’s audit examined the Department of State’s reported FY2014 \$1.4 billion portfolio of 83 IT investments to measure the Department’s compliance against OMB’s standards.

Acting on OIG’s behalf, Kearney & Company found that the IRM designed a process to select and approve IT investments in accordance with OMB requirements. Despite this positive evaluation, the report concluded that the Department cannot ensure IT investments are made in accordance with OMB requirements because of various deficiencies present in the Department’s selection and approval processes. IRM would like to thank the OIG for its feedback and acknowledge the highlighted areas for improvement. The Department recognizes the need to strengthen the application of its selection and approval process and is currently addressing many of the issues the audit references. IRM’s investment management methodology, specifically the Pre-Select process, is an ideal framework for setting up investment decisions.

While the OIG audit provides valuable insights, IRM notes several areas where changes are requested. These areas include where the report misapplied OMB guidance to the wrong time period (the report’s references were not consistent with the timeline outlined in the appendices) and expanded interpretations of guidance or legislation (recommendations 3, 5, 8, 14, and 20). For the former, the appendices noted a timeframe of FY 2013 – 2014 but the report references guidance from FY 2016. This mismatch applies future guidance to prior performance which is an unattainable standard.

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Specifically, in developing criteria for investment management, the Department defers to OMB's guidance for reporting investment structures. Throughout the report and recommendations, OIG identified areas where IRM should go beyond OMB guidance. The Department's Capital Planning Investment Control (CPIC) process was built from government standards outlined from the Clinger-Cohen Act of 1996. This methodology is not a project management methodology, contrary to what the OIG implies. Moreover this CPIC methodology aligns with the budget formulation process and basis of reporting is based around providing business case budget justifications.

The Department has made great progress implementing the Federal Information Technology Acquisition Reform Act (FITARA) since OIG's issued the draft report. IRM is pleased to report that on February 2, 2016, OMB approved the Department's FITARA Implementation Plan (Tab 2). OMB's approval recognizes IRM's efforts to ensure appropriate CIO authority and oversight in the management of IT resources and coordination with the Department's key partners in the disciplines of budget planning, budget execution, acquisitions, and human resources.

IRM looks forward to working with the OIG on strengthening the Department's Capital Planning and Investment Control process.

Recommendation 1: *OIG recommends that the Bureau of Information Resource Management update the Capital Planning and Investment Control Program Guide to comply with Office of Management and Budget requirements. Specifically, the definition of an IT investment should be modified and a requirement to perform a review for duplicative investments across the agency, Federal Government, and private sector should be included. (p. 11)*

IRM Response: IRM concurs with this recommendation. IRM will revise the Capital Planning and Investment Control (CPIC) Program Guide to include specific language about how an investment has a defined life cycle. IRM will update the CPIC Program Guide to include the requirement to complete a portfolio review for duplicative investments. As a point of clarification, the OMB circular

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A-11, section 55, contrary to what is noted in the report, does not require agencies to define an IT investment.

Recommendation 2: *OIG recommends that the Bureau of Information Resource Management develop and implement a formal process describing when and how Bureau management will review and approve changes to the Capital Planning and Investment Control Program Guide to ensure the guide is compliant with Office of Management and Budget requirements. At a minimum, the plan should include a description of the officials that will review and formally approve the changes to the Program Guide.* (p. 12)

IRM Response: IRM concurs with this recommendation. A formal process guide that outlines the process on when and how Bureau management will review and approve changes to the CPIC Guide will be developed.

It should be noted that the intention of the current CPIC Program Guide was to provide investment management teams across the Department an easily digestible high-level summary of the CPIC process. The E-Gov PMO regularly reaches out to IT investments to provide guidance throughout the year to answer all OMB data calls. Additionally, IRM hosts a two day annual business case training for investment managers and teams to fully outline the requirements for OMB annual budget submission.

Recommendation 3: *OIG recommends that the Bureau of Information Resource Management develop and implement a process to increase the transparency of IT spending related to existing investments, including operations and maintenance costs.* (p. 26)

IRM Response: IRM non-concurs with this recommendation. Through the annual update cycle to the A-11, Capital Planning Guidance, the Office of Management and Budget (OMB) creates the requirements for Major and Non-Major investment reporting and defines the metrics for IT transparency for IT spending. OMB measures IT transparency by the percentage of major investment IT spend compared to the entire IT Portfolio as stated in OMB's M-15-14. Currently, the Department is in line with the government average of approximately 63% transparency (see [Federal IT Dashboard](#)). The Department submits updated Agency IT Portfolio Summary (formerly known as Exhibit 53) twice a year in

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compliance with OMB requirements. The Department also submits updated data to OMB's IT Dashboard monthly. The data collected in the Department's IT Portfolio Management tool for major and non-major investments far exceeds the data requirements set forth by OMB.

Recommendation 4: *OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process for the Bureau of Budget and Planning to provide detailed information to the Bureau of Information Resource Management on bureaus' IT budgeting and spending. (p. 26)*

IRM Response: IRM concurs with this recommendation and is in the process of resolving this issue. As part of the FITARA requirement implementation, IRM has already made progress in incorporating IT information into the Bureau of Budget and Planning (BP) IT budget process. Collaborating with BP, IRM has provided updates to the FY 2018 Bureau Resource Request guidance, to include IT-related requirements and the CPIC process, specifically highlighting the Pre-Select pre-funding concept review, to ensure that the CIO has oversight and authority in reviewing all IT-related resource requests.

Recommendation 5: *OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to enforce the requirement that bureaus and offices consult with and receive guidance from the Bureau of Information Resource Management prior to initiating an IT investment. (p. 27)*

IRM Response: IRM non-concurs with this recommendation. The E-Gov Program Board approved a Pre-Select Policy in December 2014. IRM has also developed a Pre-Select form that requires all pre-funding IT concept projects to complete and to initiate the Pre-Select process. An IT investment must go through the Pre-Select process to obtain a unique investment identifier (UII), which is required to be included in the Department's IT Portfolio and be submitted to OMB.

Recommendation 6: *OIG recommends that the Bureau of Information Resource Management issue formal guidance stating that bureaus and offices must consult with and receive the approval of the Bureau of Information Resource Management prior to initiating a reorganization of IT investments. (p. 27)*

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IRM Response: IRM concurs with this recommendation. IRM already reviews and assist bureaus and offices with the reorganization of IT investments. IRM will add an appendix to the CPIC Program Guide to include a statement that all bureaus and offices initiating any change in scope or reorganization of investments must go through the E-Gov PMO.

Recommendation 7: *OIG recommends that the Bureau of Information Resource Management develop guidelines on how and when a reorganization of IT investments is necessary and allowable and include those guidelines in the Capital Planning and Investment Control Program Guide. (p. 27)*

IRM Response: IRM concurs with this recommendation. IT Portfolio Management is not an exact science. Each Bureau's IT Portfolio consists of investments, programs, and projects with specific business or mission functions. Investment reorganizations may be a completely different process depending on the Bureau because mission and business functions vary. As discussed in the response to recommendation 6, IRM will add an appendix to the CPIC Program Guide that outlines the process Bureaus should use to initiate an investment reorganization and provide general guidance. However each reorganization is unique and will need to be handled on a case-by-case basis.

Recommendation 8: *OIG recommends that the Bureau of Information Resource Management establish and implement a plan to review IT investment reorganizations that occurred since FY 2010 to assess compliance with Office of Management and Budget requirements. (p. 27)*

IRM Response: IRM non-concurs with this recommendation. OMB does not specifically outline requirements for investment reorganizations as OIG notes. Until a formal process for reorganizations is developed by OMB, bureaus and offices cannot be measured by these standards. Once the guidance referenced in the response to recommendation 7 is published, IRM will assess reorganizations moving forward. Because OMB has not developed guidance on IT portfolio reorganizations, previous bureau investment reorganization assessments cannot be completed.

Recommendation 9: *OIG recommends that the Bureau of Information Resource Management modify the Capital Planning and Investment Control Program Guide*

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to state that the Bureau of Information Resource Management shall review and approve bureau-specific IT investment methodologies used to develop and invest in IT projects (also known as control gates). (p. 27)

IRM Response: IRM non-concurs with this recommendation. IRM established the investment management framework by leveraging OMB's defined CPIC life cycle. IRM will outline that the CPIC life cycle will be the single authoritative IT investment methodology for the Department and require bureaus and offices to use this methodology for all IT investments. To complete this action, the CPIC Guide and the Foreign Affairs Manual (FAM) will be updated to identify this authority. To ensure this methodology is being used by bureaus and offices, the Department will continue to leverage the centralized governance process; to include the E-Gov PMO, E-Gov Advisory Board and E-Gov Program Board.

Recommendation 10: *OIG recommends that the Bureau of Information Resource Management develop and implement a process to (a) identify and review all bureau-specific IT investment methodologies (ones currently in place as well as ones that will be developed in the future); (b) determine whether the bureau-specific IT investment methodologies comply with Office of Management and Budget Circular A-130; and, if they do not comply, (c) provide bureaus with guidance regarding the modifications needed to fully comply and verify that the methodologies were modified as necessary. This effort should include reviewing the standard forms used by each bureau during the IT selection process to ensure consistency and compliance with Office of Management and Budget Circular A-130. (p. 27)*

IRM Response: IRM non-concurs with this recommendation. As discussed in response to recommendation #9, IRM provides a single authoritative investment methodology, the CPIC process for guidance to program and investment managers. Additionally, all bureaus and offices must comply with the Department's Pre-Select policy. The Pre-Select process has been strengthened to ensure all bureaus and offices are reporting pre-funding IT concepts to the E-Gov PMO. By having a fully integrated Pre-Select process, key IT investments are brought to the centralized governance process to allow for a structured and documented selection process.

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Recommendation 11: *OIG recommends that the Bureau of Information Resource Management develop and implement policies and procedures to oversee and enforce requirements for bureaus and offices to avoid duplicative IT investments.* (p. 28)

IRM Response: IRM non-concurs with this recommendation as it is closely associated with recommendation #1. Please reference the response to recommendation #1. As discussed in response to recommendation #1, the Pre-Select process already reviews the enterprise architecture aspect of any candidate investment, specifically looking for duplicity.

Recommendation 12: *OIG recommends that the Bureau of Information Resource Management develop and implement a process to perform periodic, but no less than annual, reviews of the entire agency IT portfolio to enforce bureau accountability and identify potential duplicative systems.* (p. 28)

IRM Response: IRM non-concurs with this recommendation and requests it be closed. IRM does consistent reviews of the IT portfolio throughout the year. IRM periodically reviews major IT investments (approximately 70% of the IT spending within the Department's IT Portfolio) and annually reviews all investments prior to submission to OMB. For major investments, a review is done monthly on projects, risks, and performance metrics. The Department focuses on Development, Modernization, and Enhancement (DME) portions of the major investment by completing monthly Earned Value Management (EVM) reviews. These results are presented monthly to the E-Gov Advisory Board, which can be found on the E-Gov Advisory Board SharePoint site at <http://irm.m.state.sbu/sites/bmp/SPO/PM/eGov/AG/default.aspx>.

Recommendation 13: *For duplicative systems that are identified by the new process implemented to perform periodic reviews of the entire agency IT portfolio, OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to combine, eliminate, or replace duplicative systems, as practicable.* (p. 29)

IRM Response: IRM requests the recommendation be rewritten to read as follows:

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“OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to combine, eliminate, or replace duplicative investments as they are identified by the periodic reviews of the agency IT Portfolio.”

IRM concurs with this recommendation as re-written. The Department leverages OMB’s TechStat process to ensure duplicative investments are either combined, eliminate, or replaced. A TechStat is a face-to-face, evidence-based accountability review of an IT program or investment with Department leadership. TechStat sessions are a tool for getting ahead of critical problems in an investment, turning around underperforming investments, or terminating duplicative investments if appropriate. IRM has developed a strategy and guide for the Department’s TechStat process. Please find this document attached to the report, see Tab 3.

Recommendation 14: *OIG recommends that the Bureau of Information Resource Management develop and implement a strategy to perform semiannual or more frequent reviews of bureau-funded IT contracts to identify new IT investments developed as part of the contracts.* (p. 29)

IRM Response: IRM non-concurs with this recommendation as this is not a function of the CPIC process. The Bureau of Administration is responsible for contracts and specifically IT contracts. 5 FAM 914, section C, clearly outlines this responsibility as follows:

“The Bureau of Administration, Logistics Management’s Office of Acquisition Management (A/LM/AQM) is a centralized acquisition service for the Department to ensure the Department’s compliance with all applicable regulations, budgetary priorities and established standards within the Department.”

Recommendation 15: *OIG recommends that the Bureau of Information Resource Management require all bureaus to use iMatrix as the only system to manage IT portfolios.* (p. 32)

IRM Response: IRM concurs with this recommendation. IRM will update the 5 FAM 600 series to specifically note that iMATRIX is the mandated system of record for all IT investment and asset information. Bureaus will be required to manage their assets (already required) and IT portfolios within the iMATRIX system.

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Recommendation 16: *OIG recommends that the Bureau of Information Resource Management develop and implement a plan to provide access to information on all IT investments in iMatrix to bureaus and offices.* (p. 32)

IRM Response: IRM requests this recommendation be closed. All Agency IT Portfolio Summary data is publicly available to all employees within the Department via the Federal IT Dashboard at www.itdashboard.gov. All employees can review this data on the Federal IT Dashboard, including in-depth details about each Major IT Business Case. The Federal IT Dashboard is updated monthly by the Department.

Recommendation 17: *OIG recommends that the Bureau of Information Resource Management (a) develop and implement a policy requiring bureaus and offices to provide details of IT investments, programs, and projects in iMatrix; and (b) develop and disseminate guidance specifying the level of detail necessary for each investment, including general descriptions and technical capabilities.* (p. 32)

IRM Response: IRM concurs with this recommendation in part, specifically part b. For part a, and as noted in the response to recommendation 15, IRM already has a policy for IT investments, programs, and projects to utilize iMATRIX (5 FAM 600 series). For part b, IRM has already completed this sub-recommendation. During the annual business case training, IRM discusses the information that is required for each investment, program, and project. IRM has published OMB's updated Capital Planning guidance document to outline all required data fields for each given investment prior to the budget submission. The guidance can be found on the IRM Capital Planning and Investment Control SharePoint [site](#). IRM requests this recommendation be closed.

Recommendation 18: *OIG recommends that the Bureau of Information Resource Management develop and implement controls in iMatrix to require that the investment manager and budget analyst revalidate data when financial information for an investment in iMatrix is modified.* (p. 46)

IRM Response: iMATRIX already requires budget analysts to certify the data within the iMATRIX system. IRM requests the recommendation be revised to:

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“OIG recommends that the Bureau of Information Resource Management develop and implement controls in iMatrix to require that the investment manager certify data when information for an investment in iMatrix is modified.”

IRM concurs with this recommendation as re-written. The iMATRIX system will be updated so that major IT investment managers will be required to “certify” investment data on a monthly basis, and for non-major investments, investment managers will be required to “certify” updated data during the budget request and passback submissions.

Recommendation 19: *OIG recommends that the Bureau of Information Resource Management modify the controls in iMatrix to notify an investment’s budget analyst when changes are made to budget data or when there are differences between the amounts included for an investment in different iMatrix modules. (pp. 46-47)*

IRM Response: IRM requests that this recommendation be closed. The iMATRIX system already identifies if there are discrepancies between the budget and investment funding tables and will not allow the E-Gov PMO to submit data to OMB if these figures are reconciled as noted in Tab 4. The E-Gov PMO sends out communication to all investment managers once updates have been made to the budget data.

Recommendation 20: *OIG recommends that the Bureau of Information Resource Management develop and issue a policy that bureaus must update the information in iMatrix quarterly, rather than only when the reports are due to be submitted to the Office of Management and Budget. (p. 47)*

IRM Response: IRM non-concurs with this recommendation. Information for major investments are updated monthly, and data for non-major investments are submitted no more than twice a year. The budget cycle and OMB’s requirements dictate when investment information is updated. Per OMB’s FY 2017 Capital Planning Guidance, required updates to investments include:

“Agencies provide required information through a regular (sometimes referred to as monthly), quarterly, or annually update, depending on the data field and the type of underlying investment (non-major or Major).). This information should be

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consistent with what is required in Section 55 of OMB Circular No. A-11. Covered agencies shall continue to provide updates of risks, performance metrics, project, and activity data for major IT investments to OMB's IT Dashboard as soon as the data becomes available, or at least once each calendar month."

https://www.whitehouse.gov/sites/default/files/omb/assets/egov_docs/fy17_it_budget_guidance_6_3_2015.pdf

Recommendation 21: *OIG recommends that the Bureau of Information Resource Management develop and implement a process to identify bureaus or offices that have not certified investment information in iMatrix and take action to ensure that the information is certified before the report is submitted to the Office of Management and Budget. (p. 47)*

IRM Response: IRM concurs with this recommendation. Please reference the response to recommendation #18, as part of the requirements, a data quality log (scorecard) will be pulled prior to each submission to ensure all investment data has been certified by investment managers.

Recommendation 22: *OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to verify that all bureau and office IT investment managers and budget analysts complete the respective training courses related to IT capital planning and reporting that are provided annually. (p. 47)*

IRM Response: IRM requests the recommendation to be revised as follows:

"OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement an online training course for all bureau and office IT investment managers and budget analysts complete prior to gaining access to the iMATRLX system."

IRM concurs with this recommendation as re-written. IRM will collaborate with BP to create an on-line tutorial course that all IT investment managers and budget analysts must complete prior to being granted access to the iMATRIX system. IRM conducts training for investment managers for two days annually, and holds training sessions throughout the year on a variety of topics. IRM also hosts a bi-annual training session that all budget analysts can attend to review the

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functionality of the iMATRIX system. IRM will ensure that attendance sheets are collected and documented in the future to ensure proof of record for attendees.

Recommendation 23: *OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, include information on reporting reimbursable costs in the Bureau's annual training provided to investment managers and budget analysts on how to report IT investment data in iMatrix. (p. 47)*

IRM Response: IRM concurs with this recommendation. The functionality to capture reimbursable costs is already built into the iMATRIX budget module and these funds should be identified as "contributions". IRM and BP will update the annual business case training to specifically include guidance on how budget analysts and investment managers should handle reimbursable costs in iMatrix.

Recommendation 24: *OIG recommends that the Bureau of Information Resource Management develop guidance on reporting reimbursable costs in iMatrix and distribute that guidance to bureau investment managers and budget analysts. (p. 47)*

IRM Response: IRM requests this recommendation be combined with recommendation #23 as re-written.

OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, include information and guidance on reporting reimbursable costs in the Bureau's annual training provided to investment managers and budget analysts on how to report IT budget and investment data in iMatrix.

Please reference the response to recommendation #23, as these are essentially the same recommendation and should be combined.

Recommendation 25: *OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to validate the completeness of the data in iMatrix. At a minimum, this should include an analysis of IT expenditures in the financial management system to ensure expenditures are reported in iMatrix, as needed. (p. 49)*

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IRM Response: IRM concurs with this recommendation, but suggest this be expanded to also include the Bureau of the Comptroller and Global Financial Services (CGFS). As part of the FITARA implementation, IRM has already been working with CGFS to establish a baseline report of IT expenditures within the Department. This baseline report will be reviewed and requirements will be updated to ensure there is a linkage between IT expenditures and capturing those expenditures within the investment in iMATRIX.

Recommendation 26: *OIG recommends that the Bureau of Information Resource Management, in coordination with the Bureau of Budget and Planning, develop and implement a process to validate the accuracy of data in iMatrix. This could include developing and implementing analytical procedures to identify anomalies in iMatrix data. (p. 49)*

IRM Response: IRM requests this recommendation be closed. IRM has data quality and data validation processes in place for investment data. All data that is transferred to OMB is validated and checked for data quality. As part of the PortfolioStat initiative, IRM monitors and completes an analysis of the data throughout the year to ensure data reported to the Federal IT Dashboard is as accurate as possible. IRM has revised the Draft FY 2018 Bureau Resource Request guidance to enhance controls on IT budget data, see Tabs 5a and 5b. A validation process, within the iMATRIX system, already exists to ensure investment and program funding is in alignment and the system will not allow transmission of data to OMB without this alignment.

Recommendation 27: *OIG recommends that the Bureau of Information Resource Management develop and implement a policy requiring bureaus and offices to submit source documents to support the information entered into iMatrix. (p. 49)*

IRM Response: IRM requests this recommendation be closed. OMB and the Department require major investments to submit investment artifacts within the iMATRIX system. This requirement is communicated by an annual data call to all investment managers after the President's budget is released (see Tab 6).

Referencing OMB's *FY 2017 IT Budget – Capital Planning Guidance*:

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“Develop, maintain, and submit the following investment documents, artifacts, and associated metadata as part of the Integrated Data Collection (IDC) for all major IT investments, as applicable. Provide updated versions [including date of last update] as a) significant changes are made, b) within 30 days of its presentation to an Agency’s governance board review (e.g. IRB/CIO review), or c) as available throughout the investment’s lifecycle.”

Recommendation 28: *OIG recommends that the Bureau of Information Resource Management develop and implement a process to verify that bureaus and offices are submitting source documents to support the information entered into iMatrix in accordance with the policy developed that requires bureaus and offices to submit source documents that support the information entered into iMatrix. (p. 50)*

IRM Response: IRM concurs with this recommendation. This is currently a manual process that the E-Gov PMO completes. IRM releases multiple communication emails on a yearly basis to remind investment managers of this requirement. Attached is the communication email from 2015, see Tab 6. IRM requests that this recommendation be closed.

Recommendation 29: *OIG recommends that the Bureau of Information Resource Management determine the information for non-major investments that should be included in iMatrix and develop a policy to implement that determination. (p. 50)*

IRM Response: IRM non-concurs with this recommendation and request this recommendation be closed. The information collected for non-major investments is driven by OMB requirements. Currently, the Department requires all information for non-major investments to be collected in accordance with OMB annual CPIC guidance. The Department goes above and beyond OMB requirements and captures pertinent data for non-major investments, such as impact, strategic alignment, operational activities, and operational metrics.

Recommendation 30: *OIG recommends that the Bureau of Information Resource Management develop and implement a process for the Chief Information Officer to approve the portfolio data for all IT investments prior to submission of the Exhibit 53 and Exhibit 300 reports as required by the Office of Management and Budget. (p. 50)*

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IRM Response: IRM non-concurs with this recommendation and request this recommendation be closed. With the FY 2017 budget request, a formal memo was created and signed by the Deputy CIO for Business Management and Planning, through delegated authority by the CIO, to include all data for the Agency IT Portfolio Summary (formerly Exhibit 53). This memo has been attached to this response, see Tab 7. Furthermore, the Major IT investment portfolio is reviewed and approved as part of the E-Gov Program Board responsibilities outlined in the E-Gov Program Board Charter.

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APPENDIX E: BUREAU OF ADMINISTRATION RESPONSE



United States Department of State

Washington, D.C. 20520

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February 25, 2016

MEMORANDUM

TO: OIG/AUD – Norman P. Brown

FROM: A/LM – Jennifer A. McIntyre

A handwritten signature in blue ink, appearing to read "J. A. McIntyre", with a stylized flourish at the end.

SUBJECT: Draft Report on the *Audit of the Department of State process to Select and Approve Information Technology Investments*

Thank you for the opportunity to provide comments on the subject draft audit report. The points of contact for this response are Mr. Matthew Colantonio who may be reached at 703-875- [REDACTED] and Mr. James Moore who may be reached at 703-875- [REDACTED].

Attachement:
PMP Comments.

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TAB 1

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OIG Finding or Recommendation	Page Number	A/LM input
ILMS did not complete a Pre-Select Form	14	As noted in its information to Kearney, the inception of the ILMS program occurred prior to the Department's CPIC process of Pre-Select, Select, Control and Evaluate. In 2001, the program did justify the investment to the eGOV Board, presenting results of a rigorous Process Re-engineering study and benefit-cost analysis. Indeed, ILMS currently maintains a healthy 3.7X return on its investment to date. With respect to the fact that the ILMS investment selection process superseded existing forms, A/LM requests a footnote in the OIG report noting that ILMS was selected in 2001, prior to the existence of the DOS pre-select form. However, the ILMS program will gladly complete a form retroactively if it strengthens the Department's management of the investment or compliance with OMB requirements in any way. We would require access to the form.
Recommendation 15: OIG recommends that IRM requires all bureaus to use iMatrix as the only system to manage IT portfolios	32	A/LM strongly feels iMatrix should be used strictly as a reporting tool for IT investments, not as a management tool. ILMS has been tracking performance metrics, risks, and earned value since program inception in 2001, well ahead of iMatrix. The iMatrix interface has improved over the years, but it does not contain the features of robust spreadsheet applications like EXCEL, or database applications like Oracle or SQL Server which are desirable for an integrated earned value system. Given ANSI requirements for an earned value management system, it is unrealistic to expect vendors to use iMatrix to generate EVM data, given the linkages to internal vendor timesheet, accounting and invoicing systems. The burden on Government staff to manage accuracy would particularly increase across multiple vendors. Too, OMB rules in the area of project management can lead to inaccurate earned value metric calculations, particularly when a project crosses fiscal years. We believe the current use

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OIG Finding or Recommendation	Page Number	A/LM input
		of iMatrix, as a standardized reporting tool for IT investments should continue and is the best way to ensure the accuracy OIG seeks.

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APPENDIX F: BUREAU OF DIPLOMATIC SECURITY RESPONSE



United States Department of State

*Assistant Secretary of State
for Diplomatic Security*

Washington, D.C. 20520

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March 1, 2016

INFORMATION MEMO TO INSPECTOR GENERAL LINICK – OIG

FROM: DS – Gregory B. Starr

A handwritten signature in black ink, appearing to read "Gregory B. Starr", with a horizontal line extending to the right.

MAR 01 2016

SUBJECT: DS Response to the Audit of Department of State Process to Select and Approve Information Technology Investments

Attached is the Bureau of Diplomatic Security's response to the draft report of the Audit of Department of State Process to Select and Approve Information Technology Investments.

Attachment:

Tab 1 – DS Draft Report Comments

Tab 2 – DRAFT DS IT Strategic Plan

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**Audit of Department of State Process to Select and Approve
Information Technology Investments
Draft Report**

Middle of page 17:

It should be noted that the “Counterintelligence and Counterterrorism Vetting Unit Biometrics” was properly categorized as “non-major” based on Department guidance.

Bottom of page 17 and top of page 18:

It should be noted that technology investment made in the “DS Industrial Security Management System investment” is less than \$750,000 total and was properly categorized as “non-major” based on Department guidance as it was well below the “\$50M over three years” threshold. DS does not internally consider the system critical. The OIG comments are subjective in their assertion of system criticality.

Middle of page 18:

The assertion that these investments are not linked to DOS strategic mission is incorrect:

“DS Law Enforcement Investigations and Crime Prevention, DS Back Office and Business Systems, to a strategic mission in iMatrix”

Each DS investment aligns to the Bureau’s strategic goals as well as the goals of the IRM strategic plan. Those strategic plans individually provide further linkage to the DOS plan. Tab 2 demonstrates where DS goals are traced to Departmental goals.

Top of page 23:

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The assertion that the reorganization of investments in iMatrix did not alleviate the tracking of performance and progress of DS investments and projects is incorrect:

“Following the reorganization of investments in iMatrix, it was still difficult to monitor activity, performance, and progress of DS investments and projects.” The tracking of performance and progress of DS investments was not an issue following the reorganization of investments. DS began using the Microsoft Office Project Server (MOPS) tool at that time which vastly improved the Bureau’s ability to track and monitor progress.

Top of page 26:

The lack of documented investment approval cited may be a misunderstanding and can be verified by the longevity of the investments and their inclusion in the Department’s tracking system.

The investment names may have changed, but these investments were approved during the Department’s initial selection into the Capital Planning and Investment Control Program (CPIC) process. The fact that the investments exist in the Department’s investment tracking system is “documentation of their approval.” The citation of “lack of documented approval” should either be rewritten or removed.

Middle of page 26:

This is an incorrect statement: “For DS, the templates used for preparing IT proposals do not include steps for documenting duplication, analyzing alternatives, and quantifying benefits and costs.” First, the template used by DS/CTO includes requirements for “analyzing alternatives, and quantifying benefits and costs,” which is required under the Department’s Capital Planning and Investment Control program guide. Second, Since DS/CTO requires each project produce an analysis of alternatives, and a central tenant of alternatives analysis is by definition looking for existing systems that perform the same or similar functions, CTO does seek out duplicative systems.

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Top of page 39:

This statement is incorrect: “During the DS IT portfolio reorganization discussed in Finding B, three DS projects were mistakenly omitted from the DS portfolio in iMatrix.” IRM and DS will work collaboratively to update the DS portfolio.

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ABBREVIATIONS

AoA	Analysis of Alternatives
BP	Bureau of Budget and Planning
CA	Bureau of Consular Affairs
CIO	Chief Information Officer
CPIC	capital planning and investment control
DS	Bureau of Diplomatic Security
E-Gov AB	Electronic Government Advisory Board
E-Gov PB	Electronic Government Program Board
E-Gov PMO	Electronic Government Program Management Office
FITARA	Federal Information Technology Acquisition Reform Act
GAO	Government Accountability Office
GFMS	Global Financial Management System
ILMS	Integrated Logistics Management System
IRM	Bureau of Information Resource Management
O&M	operations and maintenance
OMB	Office of Management and Budget
SIMAS	Security Incident Management Analysis System

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