

Office of Inspector General

IT Capital Investment Decision-Making Follow-up

March 29, 2004 Audit No. 365

MEMORANDUM

March 29, 2004

To:

Corey Booth

Peter Derby

James McConnell

From: Walter Stachnik W Slach

Re:

Audit Report

Attached is our audit report (No. 365) on the follow-up of IT capital investment decision-making. We appreciate the courtesy and cooperation of you and your staff during this audit.

We would appreciate receiving any additional comments you have concerning this audit and the report. In particular, we would like to know whether you found the audit useful. We also welcome any suggestions from you concerning how we could improve future audits.

Attachment

cc: Alan Beller

Paul Berger

Herbert Brooks

Stephen Cutler

James Daly

George Eckard

Kenneth Fogash

Gene Gohlke

Lawrence Harris

Jonathan Katz

Tom McCool

Barry Miller

Annette Nazareth

Giovanni Prezioso

Darlene Pryor

Lori Richards

Jean Rosales

Paul Roye

Jonathan Sokobin

Diane Sanger

IT CAPITAL INVESTMENT DECISION-MAKING FOLLOW-UP

EXECUTIVE SUMMARY

Effective capital investment in information technology (IT) is critical to the achievement of Commission program goals and objectives. The processes used to make IT investment decisions throughout the federal government have been the subject of critical Congressional oversight and audits by the General Accounting Office (GAO). In 2001 our Office conducted a Business Process Review of Commission IT investment decision-making. This report describes our follow-up audit findings and recommendations concerning the current state of the Commission's IT investment decision-making process.

The Commission has made progress in establishing an IT investment process that complies with applicable laws and regulations, and incorporates best practices from the public and private sectors. Notably, the Commission's Information Officers Council has devoted significant time and effort to improving the decision-making process; we commend the members for their dedication.

However, the Commission's process still does not meet the minimum criteria of GAO's Information Technology Investment Management Maturity Model and is not in full compliance with applicable laws and regulations. IT investment decision-making remains a "significant problem" for the Commission.

The governance of this critical Commission function needs to be strengthened. The Commission needs to assign specific responsibility, and delegate appropriate authority, for establishing a compliant and effective decision-making process. To ensure that the necessary changes are completed timely, the Commission should also implement a performance accountability process.

Management agreed with the audit findings and recommendations.

SCOPE AND OBJECTIVES

Our audit objective was to evaluate the Commission's progress in implementing IT capital investment control and decision-making best practices, and to follow-up on our prior review (IT Decision-Making Process, Report No. 334, dated August 28, 2001). We conducted this review to:

• Ensure that IT investments selected by the Commission effectively supported Commission programs;

- Assess and re-evaluate the effectiveness and implementation of audit recommendations made in our FY 2001 IT decision-making business process review;
- Evaluate the adequacy of the Commission's IT governance processes for managing the material growth in its IT capital budget; and,
- Validate the Commission's compliance with the IT capital planning and investment control mandates of the Clinger-Cohen Act.

To evaluate compliance with the Clinger-Cohen Act, we applied the General Accounting Office's IT Investment Management Framework for Assessing and Improving Process Maturity.¹

During the audit, we used questionnaires, applied judgmental sampling, and conducted control self-assessments to obtain a general understanding of the Commission's IT investment decision-making framework and to solicit input on how the Commission could improve its IT investment decision-making management processes and controls. We also performed a review of the applicability of the Clinger-Cohen Act and OMB implementing instructions to the Commission. Among other procedures, we:

- Reviewed the Commission's approved and draft IT capital planning and investment control policies, procedures, and implementing instructions;
- Obtained documentation and an understanding of how responsibility, accountability, and authority were assigned and communicated within the Commission's IT investment management process;
- Obtained and reviewed in-house studies on capital planning and project management;
- Obtained and reviewed minutes and charters for the Commission's Information Officers Council and IT Capital Planning Committee;
- Observed Information Officers Council proceedings and meetings;
- Obtained and reviewed the Commission's FY 2003 and FY 2004 information technology budgets and execution plans;
- Obtained and reviewed the Commission's FY 2003 IT investment portfolio;
- Reviewed quarterly IT investment status reports; and
- Reviewed IT project request and project analysis forms (business cases) used for FY 2003 IT capital investment decisions.

We performed our audit between November 2002 and December 2003, in accordance with generally accepted government auditing standards.

BACKGROUND

The Commission's annual information technology (IT) operating budget has grown significantly since 2001, when it totaled about \$45 million. For FY 2004, the IT operating budget will exceed \$120 million.

_

¹ See http://www.gao.gov/special.pubs/ai10123.pdf

In our 2001 review of the IT Decision-Making Process, we proposed a structured process for developing IT proposals and evaluating, prioritizing, and recommending IT investments for funding approval. During the review, initial minimal evaluation criteria were developed, based on a survey of laws and regulations applicable to federal IT capital investment decisions. The review also identified a group decision-making methodology to enhance IT decisions.

MAJOR PARTICIPANTS

Information Officers Council (IOC)

In July 2001, the Commission revised its IT capital investment decision-making process based on our business process review recommendations, and established an enhanced organizational control structure. The IOC was formed and tasked with:

- Developing IT investment selection decision criteria;
- Developing and documenting the Commission's IT selection process;
- Coordinating program office IT business strategies within and among the program areas;
- Developing functional requirements and justifications (business cases) for IT investments;
- Evaluating and prioritizing proposed IT investments; and
- Recommending investments to the Information Technology Capital Planning Committee (ITCPC) for funding.

The IOC, chaired by the Commission's CIO, consists of senior staff from the major program divisions and offices (Information Officers) who are familiar with both the business and IT needs of their organizations. IOC members demonstrated a strong appreciation and understanding of the importance of their role in evaluating whether proposed IT investments would improve the Commission's mission performance. For example, in 2003, the IOC dedicated a significant amount of time to review and validate the risks, benefits, and costs for about 70 IT investment proposals submitted by the Commission's divisions and program offices for funding consideration. Although the IOC did not always maintain a documented audit trail or use explicit selection criteria to support its IT investment funding recommendations to the ITCPC, IOC members indicated that they generally applied the IT investment selection principles and evaluation methods mandated by the Clinger-Cohen Act. The IOC members devoted considerable time and effort to improving the IT investment decision-making process; we commend the members for their dedication.

We believe that the Commission can significantly improve its IT capital investment decision-making processes and controls by: continuing to leverage the personal and professional dedication of the information officers, capitalizing on their understanding of the business use of IT within the Commission, and implementing the recommendations contained in this report.

Information Technology Capital Planning Committee (ITCPC)

The Commission established the ITCPC to make final IT investment funding decisions, based on IOC recommendations and policy direction from the Chairman. Membership consists primarily of division directors and program office heads; the Executive Director (ED) chairs the Committee. For FY 2003, the IOC and ITCPC selected, prioritized, and approved about \$21 million in IT initiatives.

Office of the Executive Director (OED)

Under the revised organizational structure, the OED was responsible for chairing the ITCPC and establishing controls to:

- Reject project requests that did not comply with the Commission's documented IT investment selection and evaluation criteria;
- Stop IT projects that were over budget, off schedule, lacked timely program decisions and data, or missed performance expectations; and
- · Provide administrative support to the IOC and ITCPC.

The Office is also responsible for developing the Commission's overall strategic plan and formulating the Commission's annual budgets. In addition, it oversees the administrative functions of the Commission, including financial management, human resources, contracting, and administrative services.

Office of Information Technology (OIT)

Within the revised structure, OIT provided project management support, Commission-wide IT operations, and maintenance support. OIT management selects, prioritizes, and approves operations, maintenance, and infrastructure upgrades and enhancements for the Commission.

OIT's FY 2003 operating budget totaled about \$68 million, excluding about \$21 million in program office IT initiatives. The OIT operating budget was managed separately by OIT, and was not subject to review, analysis, and approval by the Commission's IOC and ITCPC.

RELEVANT LEGISLATIVE MANDATES, EXECUTIVE ORDERS, AND FEDERAL POLICIES

The Clinger-Cohen Act (CCA) of 1996 (Division E of Public Law 104-106)², Executive Order 13011, Federal Information Technology³, OMB Circular A-130, Management of Federal Information Resources⁴, and OMB Circular A-11, Part 7- Planning, Budgeting, Acquisition, and Management of Capital Assets⁵ establish a

² See http://lcweb2.loc.gov/law/usa/us040106.pdf (pages 495 - 519)

³ See http://www.cio.gov/documents/federal_it_jul_1996.html

⁴ See http://www.whitehouse.gov/omb/circulars/a130/a130trans4.html

⁵ See http://www.whitehouse.gov/omb/circulars/a11/current_year/s53.pdf and http://www.whitehouse.gov/omb/circulars/a11/current_year/s53.pdf and http://www.whitehouse.gov/omb/circulars/a11/current_year/s53.pdf and http://www.whitehouse.gov/omb/circulars/a11/current_year/part7.pdf

comprehensive framework for the management of information resources within the Federal government. The Commission is to establish an IT governance framework that implements and enforces the Chairman's responsibilities to:

- Appoint a Chief Information Officer (CIO), as required by 44 U.S.C. 3506, who must report directly to the Chairman to carry out the responsibilities of the Paperwork Reduction Act, Clinger-Cohen Act, and Executive Order 13011;
- Empower the CIO with sufficient authority to ensure that the Commission effectively (i) complies with the legislative IT capital planning and investment control mandates of Congress; (ii) implements the IT governance policies mandated by executive order; and, (iii) establishes internal controls that enforce Commission-specific policies that implement and comply with government-wide IT capital planning and investment control policies issued by the Office of Management and Budget (OMB);
- Ensure that program directors and office heads (program officials) are responsible for and held accountable in defining program information needs and developing information technology (IT) business strategies that define how they intend to use the capabilities of information technology to directly support their strategic missions;
- Foster measurable IT investment decisions that support the Commission's mission needs through the use of integrated IT analysis, planning, budgeting and evaluation processes;
- Establish mission-based performance measures for IT investments that are aligned with Commission performance plans prepared pursuant to the Government Performance and Results Act of 1993 (Public Law 103-620); and,
- Implement management processes that assign responsibilities and assign clear lines of accountability for managing, selecting, controlling, evaluating, and terminating IT investments.

BEST PRACTICES – IT INVESTMENT DECISIONS

Section 5122, Capital Planning and Investment Control, of the Clinger-Cohen Act defines the design and content of capital planning and investment control processes that agency heads are to implement. The Chairman is responsible for the Commission's implementation of an IT capital planning and investment control process. This process should establish an enforceable framework that accounts for the improved operational and performance efficiencies that the Commission will achieve from the use of taxpayer dollars to acquire information technology. Specifically, the process is to:

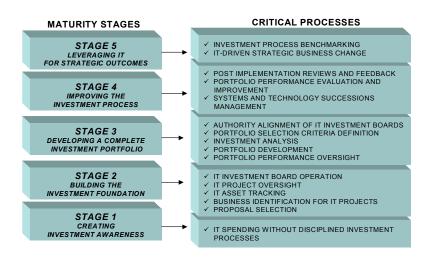
- Provide an auditable framework for the selection, management, and evaluation of IT investments;
- Integrate the Commission's processes for making IT budget, financial, and program management decisions;
- Include documented qualitative and quantitative investment selection, management, and evaluation criteria for comparing and prioritizing IT investments; and,

• Provide the means for obtaining timely information regarding the progress of an investment, including system milestones for measuring progress, on an independently verifiable basis.

In addition, the Commission is to use performance and results-based management in the governance of its investments in information technology.

IT INVESTMENT MANAGEMENT MATURITY MODEL

The figure below illustrates the five maturity stages of IT investment management.



Each stage builds upon the lower stages and enhances an organization's ability to manage its IT investments. IT investment management maturity indicative of a Stage 1 organization is characterized as:

- Being ad hoc, unstructured, unpredictable, and not having widely shared and institutionalized investment and development processes;
- Having unpredictable project outcomes, which are not focused on the investment's business benefits; and
- Having a selection process that is rudimentary, poorly documented, and at times inconsistent.

Organizations are generally assumed to initially have Stage 1 IT investment management maturity. 6

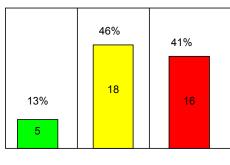
IT Capital Investment Decision-Making Follow-Up (Audit 365)

⁶ Source: http://www.gao.gov/special.pubs/ai10123.pdf GAO maturity framework for assessing information technology investment management processes and practices of Federal agencies (See pages 7-12 of hyperlink for details on the characteristics and practices associated with each maturity stage).

AUDIT RESULTS

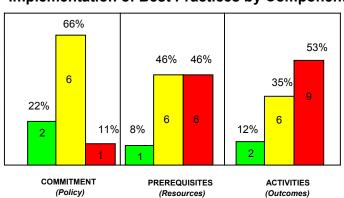
The graphs below illustrate our benchmarking of the Commission's IT capital investment decision-making process against GAO's Stage 2 best practices for selecting, controlling, and evaluating IT investments in accordance with the fundamental IT governance mandates of the Clinger-Cohen Act.

Status of 39 Best Practices



Legend

Implementation of Best Practices by Component



Stage 2 best practices in place, operating, clearly understood and followed.

Stage 2 best practices are somewhat in place. Expected outcomes are some what defined, understood and followed.

Stage 2 best practices not in place and operating. Expected outcomes are not defined nor are they clearly understood.

As illustrated above, the Commission has made progress in establishing and implementing Stage 2 IT investment selection, control, and evaluation best practices.⁷ Among other positive steps, the Commission has:

- Established an Information Officers Council and Information Technology Capital Planning Committee to review and approve IT investments;
- · Used a process to develop new IT investment proposals; and
- Made funding decisions for new IT proposals using an IT investment selection process.

However, in our opinion, the Commission does not yet qualify for stage 2.

The Commission could significantly improve the governance of its \$120 million FY 2004 IT investment portfolio, which is comprised of ongoing operations and planned

⁷ Appendix A contains a detail listing of the 39 best practices by performance component. See http://www.gao.gov/special.pubs/ai10123.pdf for details on GAO's best practices framework.

maintenance, development, modernization, and enhancement projects and initiatives by:

- Appointing a full time Chief Information Officer (CIO) reporting to the Chairman and delegating to the CIO sufficient authority to enforce the IT capital planning and investment control mandates of the Clinger-Cohen Act;
- Developing, approving, publishing, and enforcing formal Commissionwide IT capital planning and investment control policies and procedures;
- Establishing clearly defined roles, responsibilities, and boundaries of authority and accountability for the Commission's IT investment review and approval committees and program offices;
- Implementing auditable processes for selecting and approving IT investments;
- Establishing effective investment control processes that provide adequate visibility over IT investment life-cycle costs and project schedules;
- Implementing an IT investment evaluation process for evaluating whether IT investments where completed within cost, on schedule, and produced the operational outcomes expected from the investments; and
- Providing adequate resources and guidance to staff to effectively implement and enforce fundamental IT investment controls and processes.

Appendix B contains an example of a high-level IT investment process flow diagram for selecting and managing IT investments, and evaluating IT investment decision-making outcomes. The sample process flow diagram provides a possible approach the Commission could adopt to strengthen its internal management control structure and IT governance processes to comply with, and enforce the IT investment selection, control, and evaluation best practices mandated by the Clinger-Cohen Act.

Below, we discuss in more detail the specific IT investment control and decision-making business process improvements that the Commission needs to address to move to Stage 2 of the Information Technology Investment Management Maturity Model.

CHIEF INFORMATION OFFICER

The Commission's previous Chief Information Officer (CIO) did not have sufficient authority to effectively administer, control, implement and enforce the IT capital planning and investment control responsibilities mandated by the Clinger-Cohen Act. In addition, the Commission's CIO position remained vacant from October 2002 to January 2004.

Under the previous structure, the CIO did not report to the Chairman as required by the Clinger-Cohen Act. Instead, the CIO was under the operational control of, and reported to the Commission's Executive Director.⁸ As a result, the CIO was not organizationally positioned to objectively lead, guide, and enforce the fundamental IT governance processes required of the CIO position. In addition, the CIO's authority to enforce the principles of IT capital investment decision-making and control was not defined.

In January 2004, the Chairman appointed a Chief Information Officer. Under the current structure, the CIO reports to the Chairman and is the chair of the IOC. However, the roles, responsibilities, authorities, and span of control of the CIO, and members of the Commission's Information Officers Council (IOC) and Information Technology Capital Planning Committee (ITCPC) have not yet been documented, approved (see next finding), or communicated.

Recommendation A

The Chairman should delegate to the CIO the necessary authority to issue and enforce Commission-wide IT policy and regulations, and to implement the recommendations in this report.

The Chairman's Office has indicated that these authorities have been operationally delegated to the CIO.

Recommendation B

The CIO, in conjunction with the Offices of the General Counsel and Executive Director, should prepare an Action Memorandum to the Commission to modify 17 CFR § 200.13 to formally delegate authority to issue IT policies and regulations to the CIO. They should also consider whether the delegation for telecommunications policy authority should be modified.

Recommendation C

Within 60 days of the date of this report, the Chairman should approve a process to track the CIO's progress in implementing each of the recommendations in this report. Appendix C contains an example of an implementation schedule that could be used or incorporated into other management reporting systems (*e.g.*, the dashboard reports).

CAPITAL PLANNING AND INVESTMENT CONTROL POLICIES

While the Commission has taken steps to implement the IT capital planning and investment control best practices mandated by the Clinger-Cohen Act, essential plans, policies, guidance, and controls were either not developed, remain under

Day-to-day management of the Commission's financial management, procurement activities, human resources management, and information technology operations is under the operational control and direction of the Executive Director, who reports to the Chairman.

development, or are awaiting approval from the Office of the Executive Director (OED). For example:

- The Office of Information Technology's Strategic Information Technology Plan, which establishes the strategic direction for IT capital planning and tactical operations within the Commission, remained in draft until October 2003;
- The Commission's IT Capital Planning and Investment Control policy, which establishes Commission-wide policy on the responsibilities for planning, selecting, budgeting, allocating, managing, controlling, and evaluating information resources, remains in draft since June 2002; and
- The Commission's proposed capital planning and investment control process detail was never formally approved and adopted by the Commission's ITCPC.

In addition, the Commission's IOC and ITCPC operated without formally approved and documented charters that clearly defined the IT governance roles, responsibilities, procedures, criteria, and processes that they were to follow and apply when evaluating the merits of proposed IT investments, and when making final IT investment decisions. We also identified several IT planning-related work groups and committees that operated without charters, and that were not aligned and fully integrated into the Commission's IT capital planning and investment control management framework. These work-groups and committees include the EDGAR Steering Committee; EDGAR Requirements Sub-committee; External Database Committee; and Web Advisory Committee. We are also aware of at least one "no cost" IT contract (with estimated annual expenditures of \$5 million to \$6 million) that did not go through the Commission's IT investment process.

We conclude that the absence of clearly defined and formally approved IT governance policies, criteria, and procedures has resulted in an IT capital planning and investment control management framework that is (i) undisciplined, (ii) subject to broad interpretation and application by Commission executives, managers, and staff and (iii) lacks auditable and enforceable standards and controls. The governance over this important Commission function needs to be strengthened.

Recommendation D

The CIO should assess, revise as appropriate, and reissue a Commission-wide Information Technology Strategic Plan that addresses the IT business needs of the Commission's divisions and program offices.

Recommendation E

The CIO, in coordination with OED, the IOC, and the ITCPC, should finalize and publish a Commission-wide IT capital planning and investment control process policy.

⁹ The Commission's Electronic Data Gathering, Analysis and Retrieval (EDGAR) system receives, stores and distributes electronic filings submitted to the Commission in accordance with securities laws and rules.

Recommendation F

The OED and CIO, in coordination with the ITCPC, should jointly develop, approve, and publish a charter for the ITCPC.

Recommendation G

The CIO, in coordination with the IOC and OED, should develop, approve, and publish a charter for the IOC.

Recommendation H

The CIO should identify all IT planning-related work groups and integrate them into the Commission's IT capital planning and investment control (CPIC) process. All so-called "no-cost" IT contracts should also be considered for inclusion in the IT investment process.

PROCESS FOR SELECTING IT INVESTMENTS

We determined that some of the recommendations made in our FY 2001 IT decision-making business process review for selecting IT investments were not fully implemented. For example:

- The Commission's process and control structure for selecting IT investments was not formally documented;
- Criteria for selecting, prioritizing, and recommending IT investments for funding to the ITCPC were not formally approved, documented, and used to validate and approve the risks, benefits, and costs of proposed IT investments;¹⁰
- Commission program offices did not publish and disseminate IT business strategies on how they planned to use IT to attain their mission goals and objectives; and
- Business cases, as required by OMB Circular A-11, were not always prepared.¹¹

In addition, about \$68 million of the Commission's \$89 million FY 2003 IT operating budget was not under the purview of the Commission's IOC and ITCPC. This significant portion of the Commission's IT investment portfolio was managed

Members of the Information Officers Council told us that they (i) informally considered the Commission's strategic goals and objectives for all major and non-major IT investments; (ii) informally considered government-wide objectives in detail for all major investments; (iii) informally considered all requirements outlined in the Clinger-Cohen Act and other Acts, as warranted; (iv) informally considered security requirements for all projects; (v) vigorously questioned alternative investment solutions for all projects; and (vi) obtained assistance in evaluating the managerial and technical risks of project proposals

and (vi) obtained assistance in evaluating the managerial and technical risks of project proposals.

See http://www.whitehouse.gov/omb/circulars/a11/current_year/s53.pdf and http://www.whitehouse.gov/omb/circulars/a11/current_year/part7.pdf for Exhibit 53 and Exhibit 300 business case requirements. The Commission requires all IT investments of \$25,000 or more to go through the IT capital planning process. However, the Commission has not formally identified or approved levels of business case detail for varying IT investment cost thresholds.

separately by the Office of Information Technology (OIT). OIT selected, prioritized, and managed these IT investments using a separate process internal to OIT. 12

We could not validate the reasonableness of the Commission's basis to select, prioritize, recommend, and approve IT investments for funding because documentation was not maintained to support how proposed investments were evaluated, prioritized, and selected for funding. In addition, we could not obtain documentation to support which investment selection criteria were used, and whether the evaluation criteria were consistently applied to validate and evaluate the benefits, risks, and investment alternatives for about 70 IT investment proposals. Also, we could not verify and validate whether the selection and approval criteria applied within OIT were consistent with the criteria and ranking factors used by the IOC. As a result, we could not validate the basis used by the Commission to support its selection, prioritization, recommendations, and approval to fund IT investments included in the Commission's \$89 million FY 2003 IT operating budget.

We conclude that the Commission could strengthen its IT selection process by formally developing, approving, publishing, and enforcing a management control structure for selecting IT investments similar to the sample management control structure illustrated in Appendix D. In addition, Section 300 of OMB Circular A-11 (see Appendix G) is a useful resource to identify relevant selection criteria for adoption by the Commission.

Recommendation I

The CIO, in coordination with the ITCPC, IOC, OED, and the Office of Financial Management (OFM), should establish, approve, publish, and use a single Commission-wide IT investment control process and structure to develop the Commission's annual IT operating budget, and to select, prioritize, and fund all IT investments (*e.g.*, all \$89 million of the FY 2003 IT budget).

Recommendation J

The CIO, in coordination with the ITCPC and IOC, should establish, approve, and publish standard IT investment evaluation criteria to guide business case development and evaluation.

Recommendation K

The CIO, in coordination with the ITCPC and IOC, should establish, implement, and follow a documented process for scoring, prioritizing, and funding IT investments based on business case and project justification analyses.

The \$86 million was comprised of ongoing operations and maintenance, and application and infrastructure upgrades and enhancements to existing systems and infrastructure.

Recommendation L

The CIO, in coordination with the ITCPC and IOC, should establish, approve, and publish Commission-wide policy on the IT investment dollar thresholds that require business cases or some less comprehensive analysis.

Recommendation M

The CIO, in coordination with the ITCPC and IOC, should establish and publish business case development guidelines that comply with OMB policy and guidelines.

Recommendation N

The CIO, in coordination with the ITCPC and IOC, should annually solicit business strategy input from Commission program offices on how the program offices plan to use IT to improve their mission performance.

Recommendation O

The CIO, ITCPC, and IOC should establish a process for using the program office IT business strategies and the OIT strategic IT plan in their review, analysis, approval, and monitoring of the Commission's IT investment portfolio.

PROCESS FOR CONTROLLING IT INVESTMENTS

Our review of the Commission's controls for managing approved IT investments showed that adequate controls were not established to proactively oversee and identify whether IT project management activities were effective in:

- Controlling IT project costs;
- · Meeting project schedules and milestones; and
- Attaining established performance expectations.

As a result, we conclude that the Commission did not implement an effective IT investment control process that enforced the use of meaningful IT investment cost, schedule, and performance variance analyses to help guide its project management activities and decisional outcomes. We also conclude that the Commission did not establish an effective problem identification analysis process to help pinpoint, understand, and correct problem areas within the Commission's IT project management structure.

Appendix E provides an illustrative example of how the Commission might strengthen its management control structure and oversight processes in its management of IT investment costs, schedules, and performance outcomes.

Project Status Reviews

The Commission's IT project management oversight process did not require the IOC and ITCPC to perform periodic IT portfolio reviews and project management

assessments of the Commission's \$89 million FY 2003 IT operating budget. OIT management performed these critical Commission-wide IT governance oversight responsibilities internally, and on a periodic basis.

OIT management used project status reports and periodic program management reviews to monitor its internal project management activities. These periodic reviews served as the Commission's primary basis to flag whether project management activities were effective in attaining cost, schedule, and IT investment expectations. However, the project management status reports did not contain sufficient detail to identify cost, schedule, and performance variances between actual and approved IT budgets, time schedules, and performance expectations.

For example, for the FY 2003 project status reports that we reviewed, and for the OIT program management reviews that we attended, we found that:

- Controls for identifying variances in the use of approved IT funds consisted of reporting actual expenditures against approved funding levels (also referred to as burn rates, or cost/spend comparisons); and
- Controls for identifying whether IT projects were on schedule consisted of reporting the beginning and ending dates of a project's life-cycle stage (baseline dates were not presented to inform reviewers on how actual project management accomplishments exceeded, met, or fell short of approved project schedule expectations).

In addition, we determined that funds approved by the ITCPC for specific investments were reprogrammed to other projects without prior review and approval of the IOC or ITCPC.

Recommendation P

The CIO, in coordination with OED, should establish, publish and use controls for managing project costs and schedules and measuring IT investment performance outcomes.

Recommendation Q

The CIO, in coordination with the ITCPC, IOC, and OED, should establish procedures for disseminating and regularly reviewing IT project milestones for IT investment costs, schedules, and performance expectations approved by the ITCPC.

Prior Audit Findings

Our audit of Information Technology Project Management (Audit Report No. 337, dated January 24, 2002) reported our concerns about the effectiveness of the Commission's controls to manage the costs, schedules, and performance outcomes of funded information technology projects. Specifically, we reported that the Commission needed to:

 Establish standard project review board procedures and controls that enforced OIT's internal project management policies and procedures;

- Implement an automated project management information system to capture project costs and schedules in sufficient detail to facilitate performance-based acquisition analyses;
- Provide information to management and staff to effectively track, monitor, and report the status of IT investments; and
- Implement a project management reporting system that was integrated with the Commission's financial management system.

Many of the recommendations agreed to by Commission management in our prior audit have not been implemented.

Recommendation R

The CIO should implement the project management recommendations contained in Audit Report No. 337. Implementation should be tracked using the system described in Recommendation C.

PROCESS FOR EVALUATING IT INVESTMENT PERFORMANCE

The Commission did not implement effective management controls and processes that enforced the use of post-implementation reviews and evaluations of completed IT projects to identify best practices and potential control weaknesses. In addition, the Commission did not effectively implement and enforce the capital planning and investment control aspects of its approved Enterprise Architecture (EA) policy.

As a result, the Commission did not have a formal and disciplined method to pinpoint significant management and operational control weaknesses in its governance of information technology, or an effective basis to identify best practices that could improve its IT capital planning and investment control processes.

Post-Implementation Reviews

The Commission did not perform post-implementation reviews on completed IT projects to validate estimated benefits and costs, and to document effective management practices. For example:

- The Office of Information Technology did not conduct routine postimplementation reviews to identify best practices that could be applied to future IT acquisitions and project management activities; and
- The Information Officer's Council and IT Capital Planning Committee did not perform systematic post-implementation reviews to identify best practice trends that could improve the selection, control, and management of IT investments.

We also determined that the Office of the Executive Director (OED) did not fully implement several of the recommendations made in our FY 2001 business process review. Specifically, controls were not established for:

- Rejecting project requests that did not comply with the Commission's approved and documented IT investment selection and evaluation criteria; and
- Stopping IT projects that were over budget, off schedule, lacked timely program decisions and data, or deviated from established performance expectations.

We conclude that the Commission could strengthen this component of its IT capital planning and investment control process by implementing a post-implementation review and analysis process similar to the process illustrated in Appendix F.

For example, the CIO could establish a program management oversight office that is responsible for evaluating and enforcing IT capital planning and investment control policies and procedures. Specifically, the CIO should establish controls and procedures for:

- Checking business cases for compliance with Commission guidance and criteria before submission to the IOC. These compliance checks and evaluations should include making sure that:
 - Mandatory standard selection criteria are addressed;
 - The project is appropriately divided into segments (allowing go/no go decisions);
 - Performance expectations are clearly defined;
 - Costs are explicitly stated; and
 - Costs, performance, and deliverables are explicitly scheduled.
- Monitoring the performance, deliverables, and cost of each project and preparing and disseminating monthly reports.

In addition, the OED could ensure that the Commission's IT strategic planning efforts support the Commission's strategic plan and annual performance plans prepared pursuant to the Government Performance and Results Act (GPRA). The OED could also help evaluate IT capital planning and investment control policies and procedures. For example, upon completion of each project the OED could:

- Evaluate how well the capital investment process served the Commission;
- Identify improvements that would assist the Commission on future projects;
 and
- Issue timely evaluation reports to the Chairman, CIO, ITCPC, IOC, and OIT.

Recommendation S

The CIO should establish procedures and controls for checking IT investment proposals and business cases for compliance with Commission guidance and criteria before submission to the IOC.

Recommendation T

The CIO should establish procedures and controls for monitoring the performance, deliverables, and cost of each project and preparing and disseminating monthly reports to the Chairman, CIO, ITCPC, and IOC.

Recommendation U

The OED should establish procedures and controls for linking the Commission's IT strategic planning efforts to the Commission's strategic plan prepared pursuant to the Government Performance and Results Act (GPRA).

Recommendation V

The OED should establish procedures and controls for evaluating how well the Commission's IT capital planning and investment control (CPIC) process serves the Commission and identifying improvements that would assist the Commission on future projects.

Enterprise Architecture

The Commission needs to fully integrate its EA framework into the Commission's IT capital planning and investment control processes. The Commission also needs to use the EA framework to inform, guide, and manage IT investment decisions.

SECR 24-1.6, Information Technology Enterprise Architecture, dated November 25, 2002 sets forth Commission policy and responsibilities for implementing, maintaining, and using an enterprise architecture framework for IT capital planning and investment decision-making within the Commission. Responsibilities of Division Directors and Office Heads, the Information Officers Council, and Information Technology Capital Planning Committee include:

- Taking ownership of the EA, and establishing its priority for the Commission;
- Conducting regular project reviews to monitor on-going IT project compliance with the EA;
- Releasing an official version of the current and target architectures prior to annual review of the Commission's IT portfolio;
- Providing strategic direction for the development of the Commission's EA, and reviewing and approving changes to the EA;
- Using the EA to evaluate major technology investments and to make final funding decisions on the Commission's IT investment portfolio;
- Monitoring progress toward stated EA project goals; and
- Evaluating IT investment results using the Commission's EA framework.

Our audit showed that many of the EA responsibilities listed above were not given sufficient priority, nor were Commission executives, managers, and staff held accountable for implementing their respective EA responsibilities within the Commission's IT capital planning and investment control management framework.

As a result, the Commission has made little progress in implementing the EA mandates of the Clinger-Cohen Act, and complying with Federal policy contained in

OMB Circular A-130. The Clinger-Cohen Act and OMB Circular A-130, require executive branch agencies to develop, maintain, and facilitate the implementation of a sound and integrated information technology architecture within their respective agency. 13

Recommendation W

The CIO should enforce Commission policy to integrate the Commission's Enterprise Architecture into the Commission's IT capital planning, IT decision-making, and IT investment control and evaluation processes.

STAFFING AND RESOURCES

A common theme brought to our attention by the IOC, ITCPC, and OIT was the need for the Commission to identify performance and resource gaps, and to allocate sufficient resources, (e.g., funds, support staff, and contractor support) to help them effectively implement and comply with the IT investment management control and decision-making best practices discussed throughout this report. During our audit, we identified several resource gaps that we believe impaired the Commission's capability to implement an effective and enforceable IT governance framework. For example:

- The Commission's Chief Information Officer position had been vacant for 15months;14
- The Office of Information Technology (OIT) had 32 vacant positions out of a total of 128 authorized positions, as of January 2004;15
- Information Officers performed their IT governance responsibilities as an additional duty to their primary program area responsibilities; 16
- OIT staff responsible for facilitating the operation and management of the Commission's IT capital investment decision-making processes were also performing duties associated with the positions vacant within OIT;
- The Commission's enterprise architecture function was staffed with a single individual; and
- The Commission's IT capital planning and investment control Management Information System (MIS) consisted of spreadsheets, word files, and other documents that were manually maintained and posted to a shared drive on the Commission's network.

In addition, Information Officers told us that the Commission's existing IT governance framework and process demanded an inordinate amount of their time to perform their perceived IT governance responsibilities. Information Officers also

IT Capital Investment Decision-Making Follow-Up (Audit 365)

¹³ On October 8, 2003, we initiated an audit of the Commission's enterprise architecture (EA). The audit will, in part, evaluate the Commission's EA management processes, components, and migration strategy.

14 On January 14, 2004, the SEC announced that the CIO position had been filled.

¹⁵ We were told that hiring for the vacant positions within OIT was put on hold until the Commission filled the vacant CIO position.

16 We think it critical that business experts serve as information officers and realize that their primary

responsibilities should be related to Commission programs.

expressed concern about whether they could effectively perform their primary program area management responsibilities should the Commission require them to perform additional IT capital planning and investment control duties and functions.

We conclude that the Commission should address whether the resources that it has identified and applied to support and implement its IT capital planning and investment control decision-making framework and process are adequate for implementing the mandates of the Clinger-Cohen Act. Doing so would help the Commission ensure that it effectively implements a compliant IT capital planning and investment control process that establishes and enforces accountability in how the Commission uses taxpayer dollars to improve operational performance and attains efficiencies in its acquisition and use of information technology.

Recommendation X

The CIO should solicit input from OIT and the IOC, ITCPC, OED, and Commission divisions and program offices to identify IT capital planning and investment control performance and resource gaps.

Recommendation Y

Based on the analysis and validation of the data and information received from implementing Recommendation X, the CIO and responsible officials should request sufficient resources to fill the documented performance and resource gaps.

In implementing Recommendations X and Y, the CIO and the ED should make sure that the IOC and the ITCPC are provided adequate support staff and resources to help them perform their CPIC responsibilities.

APPENDIX A

STAGE 2 PERFORMANCE BY BEST PRACTICE COMPONENT

COMMITMENT (Policies)	RATING	PREREQUISITES (Resources)	RATING	ACTIVITIES (Outcomes)	RATING
SEC executives and line managers support and carry out IT investment committee decisions.		An Information Technology investment committee is operating.		The SEC uses a structured process to develop new IT proposals.	
SEC executives and managers follow an established selection process.		Committee members understand the investment committee's policies and procedures and exhibit core competencies in using the investment approach via training, education, or experience.		SEC executives make funding decisions for new IT proposals according to an established process.	
A SEC-specific IT investment process guide has been created to direct each IT committee's operations.		Adequate resources are provided for operating your IT investment committee.		The SEC's IT asset inventory is developed and maintained according to a written procedure.	
The SEC has written policies and procedures for project management.		Adequate resources are provided for performing the IT asset tracking activities.		IT asset inventory changes are maintained according to a written procedure.	
The SEC has written policies and procedures for managing and overseeing IT projects.		The SEC has defined its business needs or stated its mission goals.		Investment information is available on demand to decision-makers and other affected parties.	
The SEC has written policies and procedures for developing and maintaining an IT asset inventory.		Adequate resources are provided for identifying business needs and associated users.		Specific SEC users are identified for each IT project.	
An official is assigned responsibility for managing the IT asset tracking process.		Adequate resources are provided for proposal selection activities.		Identified users participate in project management throughout a project's life cycle.	
The SEC has written policies and procedures for identifying the business needs and the associated users of each IT project.		Adequate resources are provided to assist the committee (s) in overseeing IT projects.		SEC executives analyze and prioritize new IT proposals according to established selection criteria.	
An official is designated to manage the IT selection process.		Each IT project has and maintains an approved project management plan that includes cost and schedule controls.		Each SEC IT investment committee is created and defined so that committee membership integrates both IT and business knowledge.	
		The IT investment committee uses information from the IT asset inventory as applicable.		SEC IT investment committees operate according to written policies and procedures contained in the SEC's IT investment process guide.	
		An IT investment committee exists and oversees the development and maintenance of IT asset tracking activities.		Each project's up-to-date cost and schedule data are provided to the appropriate IT investment committee.	
		IT staff are trained in SEC's business needs identification.		Using established criteria, the IT investment committee oversees each IT project's performance regularly by comparing actual cost and schedule data to expectations.	
		All IT projects are identified in the IT asset inventory.		The IT investment committee performs special reviews of projects that have not met predetermined performance standards.	
GREEN: Stage 2 Be operating, clearly un				Appropriate corrective actions for each under performing project are defined, documented, and agreed to by the IT investment committee and project manager.	
YELLOW: Stage 2 B what in place and op comes are some-wh	erating. E	xpected out-		Corrective actions are implemented and tracked until the desired outcome is achieved.	
RED: Stage 2 Best F				Historical IT asset inventory records are maintained and used for future selections and assessments.	
nor are they clearly				The business needs for each IT project are clearly identified and defined.	

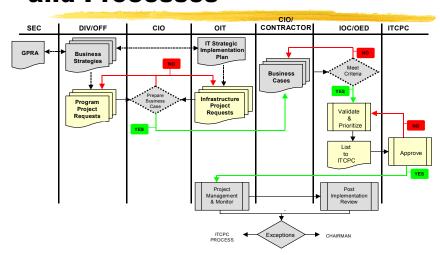
APPENDIX B

HIGH-LEVEL IT INVESTMENT PROCESS FLOW DIAGRAM

The IT capital planning and investment management process flow diagram below illustrates an example of the high-level documents, decisions, and processes that the Commission could implement to improve its IT investment management controls and processes. It assumes that the Commission's IOC and ITCPC exercise total visibility over the Commission's entire information technology portfolio. It is based on the premise that the Commission's IT Strategic Implementation Plan aligns with the strategic goals and objectives contained in the Commission's Strategic Plan, as supported by division and program office specific IT business strategies.

The processes below also provide an example of who within the Commission should be held accountable for implementing and enforcing specific components of IT capital planning and investment decision-making. The Commission could use a comparable process flow diagram to help develop and validate existing and needed IT capital planning and investment management policies and control procedures.

Example of High-level Controls and Processes



APPENDIX C

SAMPLE TIMELINE FOR IMPLEMENTING AUDIT RECOMMENDATIONS

Sample timelines for implementing the audit recommendations in this report are illustrated on the following pages of this Appendix. The tables provide an example of how the Chairman could monitor and track the Commission's progress in implementing audit recommendations that will move the Commission into Stage 2 investment management maturity.

Several software products are available (*e.g.*, Microsoft Project) that could be used to automate and analyze the Commission's progress in implementing these audit recommendations. Also, the sample timelines illustrated on the following pages could be integrated into the Chairman's Dash Board performance reporting system.

We present several sample timeline views that could be useful in accounting for the timely performance:

- A comprehensive view of all audit recommendations by responsible position, applicable audit report number and pages, and categorization of the recommendations by major IT investment areas;
- Chairman specific audit recommendations;
- CIO specific audit recommendations; and
- OED specific audit recommendations.

COMPREHENSIVE VIEW OF ALL AUDIT RECOMMENDATIONS BY RESPONSIBLE POSITION

RESPONSIBLE POSITION	APPLICABLE REPORT No. AND PAGE(S)	REPORT No.	RECOMMEND- ATION LETTER	RECOMMENDATION TITLE BY MAJOR AREA	SAM	MPLE TII		FOR IMI	PLEMENT	TING AL	TIDLT
					FY 2004			FY 2	005		
				Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	
			CIO Responsibilities								
.			Delegate authority to CIO to issue IT policy								
Chairman	#365, pp. 8-9	Α	and regulations and to implement recommendations contained in this report								
		_	Approve a process to track CIO progress in			1					
Chairman	#365, pp. 8-9	С	implementing audit recommendations								
			IT Governance Policies								
CIO	#365, pp. 8-9	В	Prepare Action Memorandum to modify CFR to formally delegate authority to issue policies/regulations to CIO								
CIO	#365, pp 9-10	D	Assess, revise, and reissue IT Strategic Plan								
CIO	#365, pp 9-10	E	Finalize and publish Commission-wide IT capital planning and investment control policy	_							
CIO	#365, pp 9-11	F	Jointly develop, approve, and publish ITCPC charter with OED and ITCPC								
CIO	#365, pp 9-11	G	Jointly develop, approve, and publish IOC charter with the IOC and OED								
CIO	#365, pp 9-11	Н	Identify all IT planning-related work groups, develop charters, and integrate into IT capital planning framework								
			IT Investment Selection Process								
CIO	#365, pp. 11-12	1	Use a single IT investment control process for approving the Commission's annual IT operating budget	_		1					
CIO	#365, pp. 11-12	J	Approve and publish standard IT investment selection criteria								
CIO	#365, pp. 11-12	К	Implement and use a documented process to score, prioritize, and fund IT investments					•			
CIO	#365, pp. 11-13	L	Establish and publish IT investment dollar thresholds requiring business cases, IOC review, and ITCPC approval								
CIO	#365, pp. 11-13	М	Establish and publish business case development guidelines	_							
CIO	#365, pp. 11-13	N	Develop, publish, and annually update program office IT business strategies								
CIO	#365, pp. 11-13	0	Use program office IT business strategies and OIT IT strategic plan when reviewing, analyzing, and monitoring IT investment portfolio								
			IT Investment Control Process								
CIO	#365, pp. 13-14	Р	Establish and use controls for managing project costs, schedules, and performance outcomes								
CIO	#365, pp. 13-14	Q	Regularly review IT project costs and milestones								
CIO	#365, pp. 13-15	R	Implement the project management recommendations contained in Audit Report No. 337 (see below)		S	See B, E	, F, G, I	H, I below	v		
CIO	#337, p. 6	В	Establish and publish project SDLC migration checklists and use the checklists as a control during project management reviews								
CIO	#337, p. 8	Е	Establish a project management SECR and enforce the project management procedures								
CIO	#337, p. 9	F	Establish standardized project naming conventions, data descriptions, and data collection methods to facilitate effective project management tracking								

COMPREHENSIVE VIEW OF ALL AUDIT RECOMMENDATIONS BY RESPONSIBLE POSITION

RESPONSIBLE	APPLICABLE	RECOMMEND-	RECOMMENDATION TITLE BY MAJOR	SAN	/IPLE TII		FOR IMI		TING AL	JDIT
POSITION	REPORT No. AND PAGE(S)	ATION LETTER	AREA		FY 2004		FY 2005			
	AND I AGE(G)	LETTER		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep
			IT Investment Control Process							
CIO	#337, p. 9	G	Develop controls that require COTR's to develop statements of work that map to OIT's project management methodology							
CIO	#337, pp. 9-10	Н	Establish an integrated project management tracking and control process to track, monitor, and report the status of contract major cost elements							_
CIO	#337, pp. 10-11	I	Implement a performance-based acquistion analysis process							
			IT Investment Evaluation Process							
CIO	#365, pp. 15-16	S	Check investment proposals and business cases for compliance with guidelines and procedures	_						
CIO	#365, pp. 15-17	Т	Monitor and report monthly on project costs, schedules, and performance	_						
OED	#365, pp. 15-17	U	Tie IT strategic planning to GPRA							
OED	#365, pp. 15-17	V	Routinely evaluate IT capital planning process and identify IT capital planning process improvements							
CIO	#365, pp. 17-18	W	Require ITCPC, IOC, and program offices to comply with SECR 24-1.6							
			Staffing and Resources							
CIO/OED	#365, pp. 18-19	Х	Identify performance and resource gaps							
CIO/OED	#365, pp. 18-19	Υ	Fund identified performance and resource gaps							

AUDIT RECOMMENDATIONS ADDRESSED TO THE CHAIRMAN

RESPONSIBLE POSITION	APPLICABLE REPORT No. AND PAGE(S)	RECOMMEND- ATION LETTER	RECOMMENDATION TITLE BY MAJOR AREA	SAMPLE TIMELINE FOR IMPLEMENTING AUDIT RECOMMENDATIONS							
				FY 2004				FY 2005			
				Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	
			CIO Responsibilities								
Chairman	#365, pp. 8-9		Delegate authority to CIO to issue IT policy and regulations and to implement recommendations contained in this report								
Chairman	#365, pp. 8-9	()	Approve a process to track CIO progress in implementing audit recommendations								

AUDIT RECOMMENDATIONS ADDRESSED TO THE CHIEF INFORMATION OFFICER

RESPONSIBLE POSITION	APPLICABLE REPORT No. AND PAGE(S)	RECOMMEND- ATION LETTER	RECOMMENDATION TITLE BY MAJOR AREA	SAMPLE TIMELINE FOR IMPLEMENTING AUDIT RECOMMENDATIONS							
					FY 2004		FY 2005				
			IT Commence Bellishe	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	
			IT Governance Policies								
CIO	#365, pp. 8-9	В	Prepare Action Memorandum to modify CFR to formally delegate authority to issue policies/regulations to CIO								
CIO	#365, pp 9-10	D	Assess, revise, and reissue IT Strategic Plan	_				1			
CIO	#365, pp 9-10	E	Finalize and publish Commission-wide IT capital planning and investment control policy								
CIO	#365, pp 9-11	F	Jointly develop, approve, and publish ITCPC charter with OED and ITCPC								
CIO	#365, pp 9-11	G	Jointly develop, approve, and publish IOC charter with the IOC and OED								
CIO	#365, pp 9-11	Н	Identify all IT planning-related work groups, develop charters, and integrate into IT capital planning framework								
			IT Investment Selection Process								
CIO	#365, pp. 11-12	1	Use a single IT investment control process for approving the Commission's annual IT operating budget	_							
CIO	#365, pp. 11-12	J	Approve and publish standard IT investment selection criteria								
CIO	#365, pp. 11-12	К	Implement and use a documented process to score, prioritize, and fund IT investments								
CIO	#365, pp. 11-13	L	Establish and publish IT investment dollar thresholds requiring business cases, IOC review, and ITCPC approval								
CIO	#365, pp. 11-13	М	Establish and publish business case development guidelines								

AUDIT RECOMMENDATIONS ADDRESSED TO THE CHIEF INFORMATION OFFICER

RESPONSIBLE	APPLICABLE REPORT No.	RECOMMEND-	RECOMMENDATION TITLE BY MAJOR	SAN	/IPLE TIN		FOR IMI		TING A	UDIT	
POSITION	AND PAGE(S)	ATION LETTER	AREA		FY 2004		FY 2005				
	()			Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	
			IT Investment Selection Process								
CIO	#365, pp. 11-13	N	Develop, publish, and annually update program office IT business strategies								
CIO	#365, pp. 11-13	0	Use program office IT business strategies and OIT IT strategic plan when reviewing, analyzing, and monitoring IT investment portfolio								
			IT Investment Control Process								
CIO	#365, pp. 13-14	Р	Establish and use controls for managing project costs, schedules, and performance outcomes								
CIO	#365, pp. 13-14	Q	Regularly review IT project costs and milestones			ı					
CIO	#365, pp. 13-15	R	Implement the project management recommendations contained in Audit Report No. 337 (see below)		S	See B, E	, F, G, I	H, I belo	w		
CIO	#337, p. 6	В	Establish and publish project SDLC migration checklists and use the checklists as a control during project management reviews								
CIO	#337, p. 8	E	Establish a project management SECR and enforce the project management procedures								
cio	#337, p. 9	F	Establish standardized project naming conventions, data descriptions, and data collection methods to facilitate effective project management tracking								
CIO	#337, p. 9	G	Develop controls that require COTR's to develop statements of work that map to OIT's project management methodology								
CIO	#337, pp. 9-10	Н	Establish an integrated project management tracking and control process to track, monitor, and report the status of contract major cost elements							_	
CIO	#337, pp. 10-11	I	Implement a performance-based acquistion analysis process								
			IT Investment Evaluation Process								
CIO	#365, pp. 15-16	S	Check investment proposals and business cases for compliance with guidelines and procedures								
CIO	#365, pp. 15-17	Т	Monitor and report monthly on project costs, schedules, and performance								
CIO	#365, pp. 17-18	W	Require ITCPC, IOC, and program offices to comply with SECR 24-1.6								
			Staffing and Resources								
CIO/OED	#365, pp. 18-19	X	Identify performance and resource gaps								
CIO/OED	#365, pp. 18-19	Υ	Fund identified performance and resource gaps								

AUDIT RECOMMENDATIONS ADDRESSED TO THE EXECUTIVE DIRECTOR

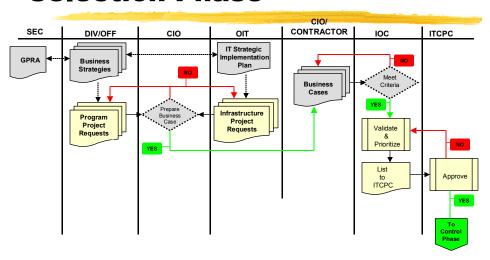
RESPONSIBLE POSITION	APPLICABLE REPORT No. AND PAGE(S)	RECOMMEND- ATION LETTER	RECOMMENDATION TITLE BY MAJOR AREA	SAMPLE TIMELINE FOR IMPLEMENTING AUDIT RECOMMENDATIONS								
					FY 2004	ļ	FY 2005					
				Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep		
			IT Investment Evaluation Process									
OED	#365, pp. 15-17	U	Tie IT strategic planning to GPRA									
			Routinely evaluate IT capital planning process									
OED	#365, pp. 15-17	V	and identify IT capital planning process					1				
			improvements									
			Staffing and Resources									
CIO/OED	#365, pp. 18-19	X										
	, -		Identify performance and resource gaps									
	#365, pp. 18-19		Fund identified performance and resource									
CIO/OED	#300, pp. 10-19	Υ	gaps									

APPENDIX D

EXAMPLE OF AN IT INVESTMENT SELECTION PROCESS

The sample IT investment selection process flow diagram below illustrates the documents, processes, and decision points that the Commission could adopt and implement to improve its IT investment selection process. The Commission could use a comparable process flow diagram to help develop and validate existing and needed IT investment selection policies and control procedures.

Selection Phase

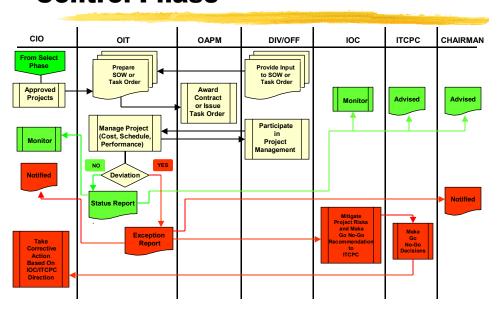


APPENDIX E

EXAMPLE OF AN IT INVESTMENT CONTROL PROCESS

The sample IT investment control process flow diagram below illustrates the documents, processes, and decision points that the Commission could adopt and implement to improve its IT investment control process. The Commission could use a comparable process flow diagram to help develop and validate existing and needed IT investment control policies and procedures.

Control Phase

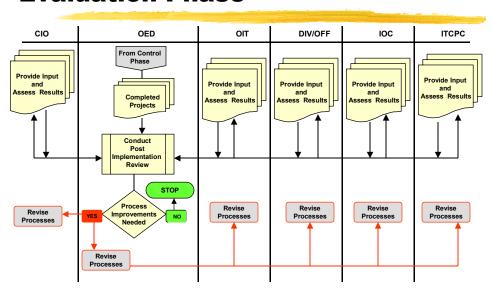


APPENDIX F

EXAMPLE OF AN IT INVESTMENT EVALUATION PROCESS

The sample IT investment evaluation process flow diagram below illustrates the documents, processes, and decision points that the Commission could adopt and implement to improve its IT investment evaluation process. The Commission could use a comparable process flow diagram to help develop and validate existing and needed IT investment evaluation policies and control procedures.

Evaluation Phase



APPENDIX G

OMB CIRCULAR A-11, SECTION 300--PLANNING, BUDGETING, ACQUISITION, AND MANAGEMENMT OF CAPITAL ASSETS

Section 300 of OMB Circular A-11 (2003) is contained on the following pages of this Appendix. Section 300 of the Circular contains useful information that could be used by the Commission in its efforts to strengthen its processes for selecting, controlling, and evaluating IT investments and managing the Commission's portfolio of IT investments. We suggest that the Commission use Section 300 of OMB Circular A-11 as a guide for establishing IT investment selection criteria and questions to evaluate the merits of IT investments.

300.2 Does this section apply to me?

The policy and budget justification and reporting requirements in this section apply to all agencies of the Executive Branch of the government that are subject to Executive Branch review (see section 25). All major investments must submit an exhibit 300 in accordance with this section. Major Information Technology investments must be reported on your agency's exhibit 53 (see section 53).

300.3 What background information must I know?

The Federal Government must effectively manage its portfolio of capital assets to ensure that scarce public resources are wisely invested. Capital programming integrates the planning, acquisition and management of capital assets into the budget-decision-making process, and is intended to assist agencies in improving asset management and in complying with the results-oriented requirements of:

- The Government Performance and Results Act of 1993, which establishes the foundation for budget decision-making to achieve strategic goals in order to meet agency mission objectives. Instructions for preparing strategic plans, annual performance plans, and annual program performance reports are provided in part 6 of this Circular (see section 220).
- The Federal Managers Financial Integrity Act of 1982, Chief Financial Officers Act of 1990 and Federal Financial Management Improvement Act of 1996, which require accountability of financial and program managers for financial results of actions taken, control over the Federal government's financial resources, and protection of Federal assets. OMB policies and standards for developing, operating, evaluating, and reporting on financial management systems are contained in Circular A–127, Financial Management Systems and section 52 of this Circular.
- The Paperwork Reduction Act of 1995, which requires that agencies perform their information resource management activities in an efficient, effective and economical manner.
- The Clinger-Cohen Act of 1996, which requires agencies to use a disciplined capital planning and
 investment control process to acquire, use, maintain and dispose of information technology. OMB
 policy for management of Federal information resources is contained in Circular A–130,
 Management of Federal Information Resources, and section 53 of this Circular.
- The Federal Acquisition Streamlining Act of 1994, Title V (FASA V), which requires agencies to
 establish cost, schedule and measurable performance goals for all major acquisition programs, and
 achieve on average 90 percent of those goals. OMB policy for performance-based management is
 also provided in this section.
- The Federal Information Security Management Act (FISMA), which requires agencies to integrate
 IT security into their capital planning and enterprise architecture processes at the agency, conduct
 annual IT security reviews of all programs and systems, and report the results of those reviews to
 OMB.
- Agencies, which may want to consider an enterprise-wide centralized approach to electronic
 records management (ERM). Often records of continuing value must be kept well beyond the life
 of the system that created the record. Doing so requires having the technology to read these
 records. Having a central ERM system with the capability to read these records into the future
 alleviates the need to maintain generally outdated software on many agency systems.

Section 300-2

OMB Circular No. A-11 (2003)

SECTION 300—PLANNING, BUDGETING, ACQUISITION, AND MANAGEMENT OF CAPITAL ASSETS

- The National Archives and Records Administration (NARA), which issues guidance for evaluating individual ERM CPIC proposals. This guidance can be found under the Records Management section of the NARA website (www.archives.gov) at: www.archives.gov/records_management/policy_and_guidance/cpic_guidance.html.
- The E-government Act of 2002 (P.L. 107-347), which requires agencies to develop performance
 measures for implementing e-government. The Act also requires agencies to support governmentwide e-government initiatives and to leverage cross-agency opportunities to further e-government.
 In addition, the Act requires agencies to conduct, and submit to OMB, privacy impact assessments
 for all new IT investments administering information in identifiable form collected from or about
 members of the public.

300.4 What special terms must I know?

Capital assets are land, structures, equipment, intellectual property (e.g., software), and information technology (including IT service contracts) that are used by the Federal government and have an estimated useful life of two years or more. See Appendix One of the Capital Programming Guide for a more complete definition of capital assets. Capital assets do not include items acquired for resale in the ordinary course of operations or items that are acquired for physical consumption, such as operating materials and supplies. Capital assets may be acquired in different ways: through purchase, construction, or manufacturing; through a lease-purchase or other capital lease (regardless of whether title has passed to the Federal Government); through an operating lease for an asset with an estimated useful life of two years or more; or through exchange. Policy on leases is contained in part I, section 33.1. Capital assets may or may not be capitalized (i.e., recorded in an entity's balance sheet) under Federal accounting standards. Capital assets do not include grants to State and local governments or other entities for acquiring capital assets (such as National Science Foundation grants to universities or Department of Transportation grants to AMTRAK) or intangible assets, such as the knowledge resulting from research and development or the human capital resulting from education and training. For more discussion on capital assets, you should consult the Capital Programming Guide (June 1997), a Supplement to this Circular.

Capital planning and investment control (CPIC) is the same as capital programming and is a decisionmaking process for ensuring that information technology (IT) investments integrate strategic planning, budgeting, procurement, and the management of IT in support of agency missions and business needs. The term comes from the Clinger-Cohen Act of 1996 and generally is used in relationship to IT management issues.

Capital programming means an integrated process within an agency for planning, budgeting, procurement and management of the agency's portfolio of capital assets to achieve agency strategic goals and objectives with the lowest life-cycle cost and least risk.

Capital project (investment) means the acquisition of a capital asset and the management of that asset through its life-cycle after the initial acquisition. Capital projects (investments) may consist of several useful segments.

Earned value management (EVM) is a project (investment) management tool that effectively integrates the investment scope of work with schedule and cost elements for optimum investment planning and control. The qualities and operating characteristics of earned value management systems are described in American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard –748–1998, Earned Value Management Systems, approved May 19, 1998. It was reaffirmed on August 28, 2002. A

OMB Circular No. A-11 (2003)

Section 300-3

copy of Standard 748 is available from Global Engineering Documents (1–800–854–7179). Information on earned value management systems is available at http://www.acq.osd.mil/pm.

E-business (Electronic Business) means doing business online. E-business is often used as an umbrella term for having an interactive presence on the Web. A government e-business initiative or investment includes web-services type technologies, component based architectures, and open systems architectures designed around the needs of the customer (citizens, business, governments, and internal Federal operations).

E-government is the use by the government of web-based Internet applications and other information technologies, combined with processes that implement these technologies.

Full acquisition means the procurement and implementation of a capital project (investment) or useful segment/module of a capital project (investment). Full acquisition occurs after all planning activities are complete and the agency's Executive Review Committee or Investment Review Board selects and approves the proposed technical approach and project (investment) plan, and establishes the baseline cost, schedule and performance goals for this phase of the investment.

Full funding means that appropriations—regular annual appropriations or advance appropriations—are enacted that are sufficient in total to complete a useful segment of a capital project (investment) before any obligations may be incurred for that segment. When capital projects (investments) or useful segments are incrementally funded, without certainty if or when future funding will be available, it can result in poor planning, acquisition of assets not fully justified, higher acquisition costs, project (investment) delays, cancellation of major projects (investments), the loss of sunk costs, or inadequate funding to maintain and operate the assets. Budget requests for full acquisition of capital assets must propose full funding (see section 31.4).

Information technology, as defined by the Clinger-Cohen Act of 1996, sections 5002, 5141, and 5142, means any equipment or interconnected system or subsystem of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For purposes of this definition, equipment is "used" by an agency whether the agency uses the equipment directly or it is used by a contractor under a contract with the agency that (1) requires the use of such equipment or (2) requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. Information technology includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources. It does not include any equipment that is acquired by a Federal contractor incidental to a Federal contract.

Integrated Project Team (IPT) means a multi-disciplinary team lead by a program manager responsible and accountable for planning, budgeting, procurement and life-cycle management of the investment to achieve its cost, schedule and performance goals. Team skills include: budgetary, financial, capital planning, procurement, user, program, value management, earned value management, and other staff as appropriate.

Life-cycle costs means the overall estimated cost, both government and contractor, for a particular program alternative over the time period corresponding to the life of the program, including direct and indirect initial costs plus any periodic or continuing costs of operation and maintenance.

Major acquisition means a capital project (investment) that requires special management attention because of its: (1) importance to an agency's mission; (2) high development, operating, or maintenance costs; (3) high risk; (4) high return; or (5) significant role in the administration of an agency's programs,

Section 300-4

finances, property, or other resources. The agency's documented capital programming process should include the criteria for determining when a investment is classified as major.

Major IT Investment means a system or investment that requires special management attention because of its importance to an agency's mission; investment was a major investment in the FY 2004 submission and is continuing; investment is for financial management and spends more than \$500,000; investment is directly tied to the top two layers of the Federal Enterprise Architecture (Services to Citizens and Mode of Delivery); investment is an integral part of the agency's modernization blueprint (EA); investment has significant program or policy implications; investment has high executive visibility; investment is defined as major by the agency's capital planning and investment control process. OMB may work with the agency to declare other investments as major investments. All major investments must be reported on exhibit 53. All major investments must submit a "Capital Asset Plan and Business Case," exhibit 300. Investments that are e-government in nature or use e-business technologies must be identified as major investments regardless of the costs. If you are unsure about what investments to consider as "major," consult your agency budget officer or OMB representative. Systems not considered "major" are "non-major."

Mixed life-cycle investment means an investment that has both development/modernization/enhancement (DME) and steady state aspects. For example, a mixed life-cycle investment could include a prototype or module of a system that is operational with the remainder of the system in DME stages; or, a service contract for steady state on the current system with a DME requirement for system upgrade or replacement.

Non-major IT Investment means any initiative or investment not meeting the definition of major defined above but that is part of the agency's IT investments. All non-major investments must be reported individually on the exhibit 53.

On-Going IT Investment means an investment that has been through a complete budget cycle with OMB and represents budget decisions consistent with the President's budget for the current year (BY-1).

Operational (steady state) means an asset or part of an asset that has been delivered and is performing the mission

Performance-based acquisition management means a documented, systematic process for program management, which includes integration of program scope, schedule and cost objectives, establishment of a baseline plan for accomplishment of program objectives, and use of earned value techniques for performance measurement during execution of the program. EVMS is required for those parts of the investment where developmental effort is required. This includes prototypes and tests to select the most cost effective alternative during the Planning Phase, the work during the Acquisition Phase, and any developmental, modification or upgrade work done during the Operational/Steady State Phase. EVMS is to be applied to both government and contractor efforts. For operational/steady state systems, an operational analysis system as discussed in Phase IV of the Capital Programming Guide is required. A performance-based service contract/agreement with a defined quality assurance plan should be the basis for monitoring contractor or in-house performance of this phase.

Planning means preparing, developing or acquiring the information you will use to: design the investment; assess the benefits, risks, and risk-adjusted life-cycle costs of alternative solutions; and establish realistic cost, schedule, and performance goals, for the selected alternative, before either proceeding to full acquisition of the capital project (investment) or useful segment or terminating the investment. Planning must progress to the point where you are ready to commit to achieving specific goals for the completion of the acquisition before preceding to the acquisition phase. Information gathering activities may include market research of available solutions, architectural drawings, geological

OMB Circular No. A-11 (2003)

studies, engineering and design studies, and prototypes. Planning is a useful segment of a capital project (investment). Depending on the nature of the investment, one or more planning segments may be necessary.

Privacy Impact Assessment means a process for examining the risks and ramifications of collecting, maintaining and disseminating information in identifiable form in an electronic information system, and for identifying and evaluating protections and alternative processes to mitigate the impact to privacy of collecting information in identifiable form. Consistent with forthcoming OMB guidance implementing the privacy provisions of the E-government Act, agencies must conduct privacy impact assessments for all new or significantly altered information technology investments administering information in identifiable form collected from or about members of the public. Agencies may choose whether to conduct privacy impact assessments for information technology investments administering information in identifiable form collected from or about agency employees.

Risk adjusted life-cycle costs means the overall estimated cost for a particular investment alternative over the time period corresponding to the life of the investment, including direct and indirect initial costs plus any periodic or continuing costs of operation and maintenance that has been adjusted to accommodate any risk identified in the risk management plans.

Section 508 refers to Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d), which requires Federal agencies to develop, procure, maintain, or use electronic and information technology (EIT) that is accessible to Federal employees and members of the public with disabilities.

The Federal Information Security Management Act (FISMA) requires agencies to integrate IT security into their capital planning and enterprise architecture processes, to conduct annual IT security reviews of all programs and systems, and to report the results of those reviews to OMB.

Useful segment/module means an economically and programmatically separate component of a capital investment that provides a measurable performance outcome for which the benefits exceed the costs, even if no further funding is appropriated.

Federal Enterprise Architecture (FEA) is a framework that describes the relationship between business functions and the technologies and information that support them. Major IT investments will be aligned against each reference model within the FEA framework. The reference models required to be used during the FY 2005 budget formulation process are briefly described below. (The FEA will also ultimately include a Data Reference Model.)

Business Reference Model (BRM) is a function-driven framework that describes the Lines of Business and Internal Functions performed by the Federal government independent of the agencies that perform them. Major IT investments are mapped to the BRM to identify collaboration opportunities.

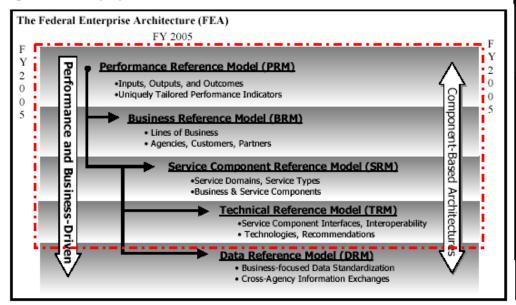
Performance Reference Model (PRM) is a standardized performance measurement framework designed to characterize performance in a common manner where necessary. The PRM will help agencies produce enhanced performance information; improve the alignment and better articulate the contribution of inputs, such as technology, to outputs and outcomes; and identify improvement opportunities that span traditional organizational boundaries.

Service Component Reference Model (SRM) provides a common framework and vocabulary for characterizing the IT and business components that collectively comprise an IT investment. The SRM will help agencies rapidly assemble IT solutions through the sharing and re-use of business and IT

Section 300-6

components. A component is a self-contained process, service, or IT capability with pre-determined functionality that may be exposed through a business or technology interface.

Technical Reference Model (TRM) provides a framework to describe the standards, specifications, and technologies supporting the delivery, exchange, and construction of business (or Service) components and e-Gov solutions. The TRM unifies existing agency TRMs and electronic Government (e-Gov) guidance by providing a foundation to advance the re-use of technology and component services from a government-wide perspective.



Additional budget terms and definitions are included in the Glossary in Appendix J. "Principles of Budgeting for Capital Asset Acquisitions."

300.5 How will agencies manage capital assets?

Agencies must establish and maintain a capital programming process that links mission needs and capital assets in an effective and efficient manner. Effective capital programming requires long-range planning and a disciplined budget decision-making process as the basis for managing a portfolio of assets to achieve performance goals and objectives with minimal risk, lowest life-cycle costs, and greatest benefits to the agency's business. The process will integrate the agency's capital investments; strategic and performance plans prepared pursuant to the Government Performance and Results Act of 1993; financial management plans prepared pursuant to the Chief Financial Officer Act of 1990 (31 U.S.C. 902a5); information resource management plans prepared pursuant to the Clinger-Cohen Act (Pub. L. 104–106, Division E); method for performance-based acquisition management under the Federal Acquisition Streamlining Act of 1994, Title V; and budget formulation and execution processes.

The documented capital programming process defines how an agency will select capital investment included in the agency's capital asset portfolio for funding each year; how capital investments, once initiated, will be controlled to achieve intended cost, schedule, and performance outcomes; and how once the asset is operational the agency will continue to evaluate asset performance to maintain a positive

OMB Circular No. A-11 (2003)

return on investment. A cross-functional executive review committee acting for or with the Agency Head must be responsible for managing the agency's entire capital asset portfolio, making decisions on the best allocation of assets to achieve strategic goals and objectives within budget limits. This process must also leverage opportunities for collaboration across agencies on capital assets that support common lines of business to serve the citizens, businesses, governments, and internal Federal operations.

The Capital Programming Guide, which supplements this part, provides guidance on the principles and techniques for effective capital programming. Appendix J of this part explains the principles of financing capital asset acquisitions. Section 8b of OMB Circular A-130 establishes additional requirements for enterprise architectures, planning and control of information systems and technology investments and performance management. Agencies must develop, implement and use a capital programming process to develop their capital asset portfolio, and must:

- Evaluate and select capital asset investments that will support core mission functions that must be
 performed by the Federal government and demonstrate projected returns on investment that are
 clearly equal to or better than alternative uses of available public resources;
- Initiate improvements to existing assets or acquisitions of new assets only when no alternative private sector or governmental source can more efficiently meet the need;
- Simplify or otherwise redesign work processes to reduce costs, improve effectiveness, and make maximum use of commercial services and off-the-shelf technology;
- Reduce project risk by avoiding or isolating custom designed components, using components that
 can be fully tested or prototyped prior to full implementation or production, ensuring involvement
 and support of users in the design and testing of the asset;
- Structure major acquisitions into useful segments with a narrow scope and brief duration, make
 adequate use of competition and appropriately allocate risk between government and contractor.
 The Agency Head must approve or define the cost, schedule and performance goals for major
 acquisitions, and the agency's Chief Financial Officer must evaluate the proposed cost goals;
- Institute performance measures and management processes that monitor and compare actual performance to planned results. Agencies must use a performance-based acquisition management system, based on the ANSI/EIA Standard 748, to obtain timely information regarding the progress of capital investments. The system must also measure progress towards milestones in an independently verifiable basis, in terms of cost, capability of the investment to meet specified requirements, timeliness, and quality. Agencies are expected to achieve, on average, 90 percent of the cost, schedule and performance goals for major acquisitions. Agency heads must review major acquisitions that are not achieving 90 percent of the goals to determine whether there is a continuing need and what corrective action, including termination, should be taken;
- Ensure that information technology systems conform to the requirements of OMB Circular No. A– 130, "Management of Federal Information Resources";
- Ensure that financial management systems conform to the requirements of OMB Circular No. A– 127, "Financial Management Systems";
- Conduct post-implementation reviews of capital programming and acquisition processes, and projects to validate estimated benefits and costs, and document effective management practices, i.e., lessons learned, for broader use; and

Section 300-8

Establish oversight mechanisms that require periodic review of operational capital assets to
determine how mission requirements might have changed, and whether the asset continues to
fulfill ongoing and anticipated mission requirements, deliver intended benefits to the agency and
customers, and meet user requirements.

300.6 How are capital asset acquisitions funded?

(a) Background.

Good budgeting requires that appropriations for the full costs of asset acquisition be enacted in advance to help ensure that all costs and benefits are fully taken into account when decisions are made about providing resources. For most spending on acquisitions, this rule is followed throughout the Government. When capital assets are funded in increments, without certainty if or when future funding will be available, it can and occasionally does result in poor planning, acquisition of assets not fully justified, higher acquisition costs, project (investment) delays, cancellation of major investments, the loss of sunk costs, or inadequate funding to maintain and operate the assets.

(b) Full funding policy.

The full funding policy (see section 31.4) requires that each useful segment (or module) of a capital investment be fully funded with either regular annual appropriations or advance appropriations. For definitions of these terms, see section 300.4 or the Glossary of Appendix J. Appendix J elaborates on the full funding concept (see Appendix J section C, Principles of Financing).

For the initial budget submissions, you are required to request full budget resources for all ongoing and new proposals for capital assets or at least for each useful segment of a capital project (investment).

Identify in the initial budget submission any additional budget authority required to implement full funding for existing investments. Adjustments to your planning guidance levels will be considered based on your budget submissions.

300.7 What is exhibit 300 and how is it organized?

The exhibit 300 is a format for the IPT to demonstrate to agency management and OMB that it has employed the disciplines of good project management, represented a strong business case for the investment, and met other Administration priorities to define the proposed cost, schedule, and performance goals for the investment if funding approval is obtained. The information you report on exhibit 300 helps management:

- Determine adherence to the agency's capital programming and investment decision-making process;
- Ensure that spending on capital assets directly supports your agency's mission and will provide a
 return on investment equal to or better than alternate uses of funding;
- Identify poorly performing investments, i.e. investments that are behind schedule, over budget, or lacking in capability;
- Identify capital assets that no longer fulfill ongoing or anticipated mission requirements or do not deliver intended benefits to the agency or its customers; and

OMB Circular No. A-11 (2003)

 For IT, ensure that strong business cases are provided for IT investments. These business cases should include security, privacy, enterprise architecture, and provide the effectiveness and efficiency gains planned by the business lines and functional operations.

Exhibit 300 consists of two parts, each of which is designed to collect information that will assist agency management and OMB during budget review. Agencies must review their portfolio of capital assets each year to determine whether it continues to meet agency's mission needs, reconciled with existing capabilities, priorities and resources. Capital asset investments should be compared against one another, rated and ranked using decision criteria (such as investment size, complexity, technical risk, expected performance benefits or improvement) to create a prioritized portfolio. You should request funding only for priority capital asset investments that demonstrate compliance with the requirements for managing capital assets described in this section and the agency's capital programming process. As a general presumption, OMB will only consider recommending for funding in the President's budget, priority capital asset investments that comply with the policies for good capital programming described in section 300.5, and the Capital Programming Guide.

New investments must be justified based on the need to fill a gap in the agency's ability to meet strategic goals and objectives (including those identified in section 53) with the least life-cycle costs of all the various possible solutions and provide risk-adjusted cost and schedule goals and measurable performance benefits. Investments that are still in the planning or full acquisition stages must demonstrate satisfactory progress toward achieving baseline cost, schedule and performance goals. Assets that are in operation (steady state) must demonstrate how close actual annual operating and maintenance costs are to the original life-cycle cost estimates, and whether the level or quality of performance/capability meets the original performance goals and continues to meet agency and user needs.

OMB will present investments for the President's E-Government initiatives, as well as new E-Government investments identified through the Federal Enterprise Architecture, using an integrated budget process that complements each agency's investment portfolio. OMB will work with agencies to build from the IT and E-Government strategy outlined in section 53 of OMB Circular A-11 in identifying these cross-agency investments. Accordingly, where one agency's activities should be aligned with those of another agency in order to serve citizens, businesses, governments, and internal Federal operations, OMB will give priority to agencies that have worked collectively to present and support activities in an integrated fashion. The FY 2005 Budget will appropriately reflect such interagency collaboration, and agencies will be expected to use the exhibit 300 to demonstrate these efforts.

300,8 What other requirements does exhibit 300 fulfill?

Exhibit 300 is designed to coordinate OMB's collection of agency information for its reports to Congress required by the Federal Acquisition Streamlining Act of 1994 (FASA) (Title V) and the Clinger-Cohen Act of 1996; to ensure that the business case for investments are made and tied to the mission statements, long-term goals and objectives, and annual performance plans that you developed pursuant to the Government Performance and Results Act of 1993 (GPRA); and for IT, exhibit 300s are used as one-stop documents for a myriad of IT management issues such as business cases for investments, IT security reporting, Clinger Cohen Act implementation, E-Gov Act implementation, Government Paperwork Elimination Act implementation, agency's modernization efforts, and overall project (investment) management.

300.9 What must I report on exhibit 300 and when?

Capital asset plans and business cases (exhibit 300s) are products of your capital programming and/or capital planning and investment control process and should be developed for all capital assets. Capital

Section 300-10

asset plans for major acquisitions, investments, or systems are reported to OMB. You must submit a capital asset plan for each major new and on-going major investment, system, or acquisition, and operational (steady state) asset included in your agency's capital asset portfolio. A major investment requires special management attention because of its: (1) importance to an agency's mission; (2) high development, operating, or maintenance costs; (3) high risk; (4) high return; or (5) significant role in the administration of an agency's programs, finances, property, or other resources.

Major IT investments are also defined as projects, systems, or initiatives that employ e-business or E-Government technologies thereby supporting the expanding E-Gov initiative of the President's Management Agenda. Major IT investments must have the concurrence of the Chief Information Officer (see section 53.3 for more information about major information technology investments). Your documented capital planning and investment control process must also define a major IT investment.

Exhibit 300 requires information that demonstrates compliance with the capital programming and capital planning and investment control policies of this section and, for IT, compliance with OMB Circular A–130. Agency must justify new or continued funding for major acquisitions by demonstrating: a direct connection to the agency's strategic plan; a positive return on investment for the selected alternative; sound acquisition (program and procurement) planning; comprehensive risk mitigation and management planning; realistic cost and schedule goals, and measurable performance benefits. Detailed information to substantiate the portfolio of major investments included in your justification will be documented in accordance with your agency's capital programming process. An electronic version of exhibit 300 is available at www.cio.gov.

For information technology, the funding stages for "Planning" plus "Full acquisition" are the same as the "Development/modernization/enhancement" entry described in section 53, and "Maintenance" is the same as "Steady state" in section 53. For further details on IT and IT reporting please see section 53. Detail on information technology reported in exhibit 300 should be aggregated and used to prepare section 53.

The information you must report will depend on whether you are reporting a new investment or an ongoing investment (see the heading in part I).

New Investments

If you are reporting a new investment, i.e., proposed for BY or later, you must complete part I, except for sections I.H.3 and I.H.4. For IT, you must also complete part II. Investments in initial concept or planning phase will have less detail and defined specificity than investments moving into the acquisition or operational phase. However, these investments should identify in life-cycle documentation the dates these issues will be addressed as the investment matures. Where prototypes are acquired as part of the planning process, the prototypes must be reported as full acquisitions. All of the areas on the exhibit 300 must be part of an agency's planning and the business case (exhibit 300) updated as soon as the information is known. While exhibit 300s are officially submitted to OMB twice yearly, they should be management tools used within an agency and updated as the information is available.

Office Automation, Infrastructure, and Telecommunications Investments

Agencies are required to create and manage department-wide IT programs for office automation, infrastructure, and telecommunications. IT investments (major and non-major) in these areas should be coordinated through an agency-wide process and reported in September as a single business case for the department. If you are unsure what investments should be included in this area, contact your OMB representative for clarification.

OMB Circular No. A-11 (2003)

Ongoing Investments

If you are reporting an ongoing investment that is other than IT, you only need to update all sections as appropriate in part I for the phase of the investment. IT investments, both ongoing and pre-existing investments that have never been reported through the budget process, must complete parts I and II. If any of the cost, schedule or performance variances are a negative 10 percent or more, you must provide a complete analysis of the reasons for the variances, the corrective actions that will be taken, and the most likely estimate at completion (EAC). Use the EVMS system to identify the specific work packages where problems are occurring. Discuss why the problems occurred and corrective actions necessary to return the program as close as feasible to the current baseline goals. Based on the above analysis, provide and discuss the rationale for the IPT's latest EAC as the most likely EAC. In addition, provide the contractor's EAC and EAC's derived from at least two common prediction formulas (see paragraph I.H.4 in exhibit 300) from the EVMS system and discuss the differences among the values. EAC's are subjective in nature and the contractor and government EAC's are often quite optimistic in an attempt to favor investment continuation. Using the prediction formulas will give the IPT some proven parameters to structure the discussion. The objective is to provide a realistic EAC for management decisions to continue, restructure or terminate the investment.

Ongoing IT Investment and the Agency's Modernization Blueprint

If you are reporting an Ongoing IT Investment that is in operational mode (Steady State), you must demonstrate that the investment has undergone an E-Government Strategy Review as part of the agency's modernization blueprint. An E-Government review is a comprehensive review and analysis performed on legacy systems and IT investments with a strategy for identifying smarter and more cost effective methods for delivering the performance. The exhibit 300 must demonstrate that either the existing investment is meeting the needs of the agency and delivering the expected performance or that the investment is being modernized and replaced consistent with the modernization blueprint. All of the sections of the business case should be used for completing an E-Gov review including:

- The business case for these type investments are not designed to recreate answers and analysis for
 investments that should have been performed at the inception of the investment, but rather to
 answer the questions and criteria with a focus toward using web services, XML, J2EE, .NET
 technologies and other e-business type tools;
- When addressing the justification questions, you must indicate whether the current way of doing business and performing the function is the most advantageous and cost-effective to the government;
- The section on performance goals must identify the performance goals for the investment as it stands today; project management must address the four questions identified in exhibit 300;
- Alternatives analysis must be performed with a future-focus included in your E-Gov strategy
 rather than an alternatives analysis that was performed several years ago and no longer valid;
- The section on actual performance and variances from the OMB-approved baseline provide information from the operational analysis system to show whether the asset is meeting program objectives and the needs of the owners and users. As well, the section shows if the asset is performing within baseline cost, schedule and performance goals; and
- The sections in part II, must be answered in their entirety with a focus on the E-Gov strategy review. All of your answers must demonstrate that you have reviewed alternative ways to perform

Section 300-12 OMB Circular No. A-11 (2003)

the business with a specific focus on E-Government or e-business technologies and supporting the President's Management Agenda.

Exhibit 300 must be submitted with your initial budget submission, which is due by September 8, 2003. The exhibit 300 should be fully integrated with your agency's overall budget submission. In alignment with the President's Management Agenda Item, "Expanding E-Gov", during the FY 2004 Budget process, OMB began migrating all IT reporting (section 53 and exhibit 300s) to Extensible Markup Language (XML). For the FY 2005 Budget, all reporting on IT must be submitted via XML. For capital projects (investments) other than IT, agencies are encouraged to submit the exhibit 300 electronically, following the same instructions provided above.

Multi-Agency Business Cases and Capital Asset Plans

The managing partner (lead agency) will take the lead for the business case and capital asset plan to include managing it through the agency capital planning and budget process and submitting the exhibit 300 to OMB. The partnering agencies information on funding and milestones is reflected in investment and funding plan section of the exhibit 300. The investment and funding plan will identify all participating agencies, the milestones they are responsible for, and the appropriation/funding source information for the partner agencies.

Partnering agencies will reflect a line item on their exhibit 53 (see section 53) indicating that the funds are part of a multi-agency business case. The description provided on their exhibit 53 will describe where to find the business case in the managing partner's budget submission. Partnering agencies should ensure that their collaboration is indicated in the appropriate sections of the business case before it is submitted to OMB. The requirement for Investment Review Board for these investments is met by the managing partner agency's IRB review of the entire investment and participating agencies report their participation via their exhibit 53 through individual agencies' capital planning process.

In those cases where individual agency investments should be part of a multi-agency business case but have not yet begun the migration process, the project (investment) and funding plan of the business case should reflect the migration strategy to solution identified in the multi-agency business case. If an agency has agreed to partner on a business case and solution, only one business case is required for the initiative or investment. However, partnering agency must ensure their participation is demonstrated in the multi-agency business case.

300.10 How will OMB evaluate the business cases in the exhibit 300s?

There are two distinct elements to evaluating business cases and capital asset plans; 1) program and budget review, and 2) assessment of business cases. Budget decisions are made based upon both of these criteria. All business cases are scored against a core set of criteria and the results are provided to the agency via the budget pass-back process. While one size scoring does not fit all categories, this scoring is meant to ensure that agency planning and management of assets is consistent with OMB policy and guidance. For projects (investments) other than IT, the IT specific categories are awarded full points as they are not applicable. The scoring of a business case is two-fold. The business case is scored based upon the criteria listed below and then a programmatic review is done for the investment. A business case may score very high based on the criteria listed below but if the program it supports is deemed ineffective there may be no business case that can be made for the investment. Business case scoring is as follows:

OMB Circular No. A-11 (2003)

Business Case (BC) (composite of all categories) Total Score for Business Case

Investments scoring 5 and meeting program requirements are automatically recommended for funding. Investments scoring an overall 4, meeting performance goals, and scoring a 4 on the performance based management criteria and security, will be recommended for funding, but will be instructed to continue improvements in the areas identified as needing work. Investments scoring 3 or below have the opportunity to improve to a 4 or degrade to a 2 rather easily. Investments scoring a 2 or below are not recommended for funding.

Score		Definition
5	41-50	Strong documented business cases (including all sections as appropriate).
4	31-40	Very few weak points within the BC but still needs strengthening.
3	21-30	Much work remains to solidify and quantify BC. BC has the opportunity to either improve or degrade very quickly.
2	11-20	Significant gaps in the required categories of the BC.
1	1-10	Inadequate in every category of the required BC.

Acquisition Strategy (AS) (Part I, Section I.G)

- 5 Strong Acquisition Strategy that mitigates risk to the Federal government, accommodates Section 508 as needed, and uses contracts and statements of work (SOWs) that are performance based. Implementation of the Acquisition Strategy is clearly defined.
- 4 Strong Acquisition Strategy that mitigates risk to the Federal government, accommodates Section 508 as needed, uses contracts and SOWs that are performance based. Acquisition strategy has very few weak points which agency is working to strengthen, and the implementation of AS is clearly defined.
- 3 Acquisition strategy does not appear to successfully mitigate risk to the Federal government, accommodates Section 508 as needed, much work remains to solidify and quantify the AS, and contracts and SOWs do not appear to be performance based.
- 2 Acquisition strategy does not appear to successfully mitigate risk to the Federal government, does not accommodate Section 508, does not appear to use performance based contracts and SOWs, and there is no clear implementation of the acquisition strategy.
- There is no evidence of an AS.

Project (Investment) Management (PM) (Part I, Sections I.D and I.H, and overall business case)

- 5 Project is very strong and has resources in place to manage it.
- 4 Project has few weak points in the area of PM and agency is working to strengthen PM.
- 3 Much work remains in order for PM to manage the risks of this project.
- 2 There is some understanding of PM for this project but understanding is rudimentary.

Section 300-14

There is no evidence of PM.

Enterprise Architecture (EA) (Part II, Section II.A) for IT Only

- 5 This project (investment) is included in the Agency EA and CPIC process. Project is mapped to and supports the Federal Enterprise Architecture and is clearly linked to the FEA Reference Models (BRM, PRM, SRM, and TRM). BC demonstrates the relationship of the investment to the business, data, application, and technology layers of the EA.
- 4 This investment is included in the agency's EA and CPIC process. Investment is mapped to and supports the Federal Enterprise Architecture. Investment is clearly linked to the BRM but work is continuing to map the investment to the PRM, SRM, and TRM. BC is weak in demonstrating the relationship of the investment to the business, data, and application, and technology layers of the EA.
- 3 This investment is not included in the agency's EA and CPIC process, was not approved by the agency EA committee, or does not link to the FEA. BC demonstrates a lack of understanding on the layers of the EA (business, data, application, and technology).
- 2 While the agency has an EA framework, it is not implemented in the agency and does not include this investment.
- 1 There is no evidence of a comprehensive EA in the agency.

Alternatives Analysis (AA) (Part I, Section I.E)

- 5 AA includes three viable alternatives, alternatives were compared consistently, and reasons and benefits were provided for the alternative chosen.
- 4 AA includes three viable alternatives, however work needs to continue to show alternatives comparison, and support must be provided for the chosen alternative.
- 3 AA includes fewer than three alternatives and overall analysis needs strengthening.
- 2 AA includes weak AA information and significant weaknesses exist.
- There is no evidence that an AA was performed.

Risk Management (RM) (Part I, Section I.F)

- 5 Risk assessment was performed for all mandatory elements and risk is managed throughout the investment
- 4 Risk assessment addresses some of the risk, but not all that should be addressed for this investment.
- 3 Risk management is very weak and does not seem to address or manage most of the risk associated with the investment.
- 2 Risk assessment was performed at the outset of the investment but does not seem to be part of the program management.

OMB Circular No. A-11 (2003)

There is no evidence of a risk assessment plan or strategy.

Performance Goals (PG) (Part I, Section I.C)

- 5 Performance goals are provided for the agency and are linked to the annual performance plan. The investment discusses the agency's mission and strategic goals, and performance measures are provided.
- 4 Performance goals are provided for the agency and are linked to the annual performance plan. The investment discusses the agency's mission and strategic goals, and performance measures are provided. Some work remains to strengthen the PG.
- 3 Performance goals exist but the linkage to the agency's mission and strategic goals is weak.
- 2 Performance goals are in their initial stages and are not appropriate for the type of investment. Much work remains to strengthen the PG.
- There is no evidence of PG for this investment.

Security and Privacy (SE) (Part II, Section II.B)

- 5 Security and privacy issues for the investment are addressed, all questions are answered, and a privacy impact assessment is provided in appropriate circumstances. Security/privacy detail is provided about the individual investment throughout the life-cycle to include budgeting for SE.
- 4 Security and privacy information for the investment is provided but there are weaknesses in the information that need to be addressed.
- 3 Security and privacy information for the investment is provided but fails to address the minimum requirements.
- 2 Security and privacy information points to an overall Agency Security Process with little or no detail at this investment level.
- 1 There is no security or privacy information provided for the investment.

Performance Based Management System (PB) (Part I, Section I.H)

- 5 Agency will use, or uses an Earned Value Management System (EVMS) that meets ANSI/EIA Standard 748 and investment is earning the value as planned for costs, schedule, and performance goals.
- 4 Agency uses the required EVMS and is within the variance levels for two of the three criteria. Work is needed on the third issue.
- 3 Agency uses the required EVMS but the process within the agency is either very new, not fully implemented, or there are weaknesses in this investment's EVMS information.
- 2 Agency seems to re-baseline rather than report variances.
- There is no evidence of PB.

Section 300-16

Life-Cycle Costs Formulation (LC) (Multiple Sections)

- 5 Life-cycle costs seem to reflect formulation that includes all of the required resources and is riskadjusted to accommodate items addressed in the RM. It appears that the investment is planned well enough to come in on budget.
- 4 Life-cycle costs seem to reflect formulation of some of the resources and some of the issues as included in the risk adjustment strategy. Work remains to ensure that LC costs are accurately portrayed.
- 3 Life-cycle costs seem to reflect formulation of the resources but are not risk adjusted based on the risk management plan.
- 2 Life-cycle costs seem to include some of the resource criteria and are not risk adjusted.
- Life-cycle costs do not reflect a planned formulation process.

Supports the President's Management Agenda Items (AI) (Multiple Sections)

- 5 This is a collaborative investment that includes industry, multiple agencies, State, local, or tribal governments, uses e-business technologies, and is governed by citizen needs. If the investment is a steady state investment, then an E-Gov strategy review is underway and includes all of the necessary elements. If appropriate, this investment is fully aligned with one or more of the President's E-Gov initiatives.
- 4 This is a collaborative investment that includes industry, multiple agencies, State, local, or tribal governments, uses e-business technologies though work remains to solidify these relationships. If investment is in steady state, then an E-Gov strategy review is underway but needs work in order to strengthen the analysis. If appropriate, investment supports one or more of the President's E-Gov initiatives but is not yet fully aligned.
- This is not a collaborative investment though it could be and much work remains to strengthen the ties to the President's Management Agenda. If this is a steady state investment and no E-Gov strategy is evident, this investment will have a difficult time securing continued or new funding from OMB. If appropriate, this investment supports one or more of the President's E-Gov initiatives but alignment is not demonstrated.
- 2 This is not a collaborative investment and it is difficult to ascertain support for the AI. If this is a steady state investment, then no E-Gov strategy was performed or is planned.
- There seems to be no link to the AI and e-Gov strategy.

Scoring Element	Score	Scoring Element	Score
Business Case (BC) Total		Performance Goals (PG)	
Acquisition Strategy (AS)		Security (SE)	
Program Management (PM)		Performance Based Management System (PB)	
Enterprise Architecture (EA)		Life Cycle Costs Formulation (LC)	

OMB Circular No. A-11 (2003)

Scoring Element	Score	Scoring Element	Score
Alternatives Analysis (AA)		Supports the President's Management Agenda Items (AI)	
Risk Management (RM)			

300.11 What additional information should I know?

You are encouraged, but not required, to provide additional information on the following or other topics related to improving planning, budgeting, and acquisition of capital assets. These topics may be included in the OMB budget review process on capital assets, which may affect policy decisions on asset acquisition. You are encouraged to raise any issues you consider relevant.

(a) Lumpiness or spikes.

Lumpiness or spikes (i.e., large, one-time increases in year-to-year appropriations) may create bias against acquiring assets. Give special attention to these spikes for justified, cost-beneficial acquisitions, keeping in mind that the budget authority and outlay limits under the government-wide discretionary caps will continue to constrain resources. This issue is addressed in Appendix J - section C "Principles of Financing."

(b) Account structure.

Certain types of accounts may be preferred to ensure there is no bias against the acquisition of capital assets. You are encouraged to review the account structure to ensure that the most appropriate accounts are being used for the acquisition of capital assets. This issue also is addressed in Appendix J - section C "Principles of Financing".

- (1) Mixed accounts. Mixed accounts have spending for both operating and capital asset acquisition in the same account, allowing for competition between the two. Demands for one may "crowd out" the other.
 (2) Asset acquisition accounts. These accounts are devoted exclusively to the acquisition of capital assets. This type of account may be one way of avoiding lumpiness, if there is a roughly similar level of fully-funded budget authority for asset acquisition each year.
- (3) Revolving funds. These accounts can also avoid lumpiness, depending on how they are structured. They purchase assets that are "rented" to other accounts, so that the accounts and programs using the assets have a roughly steady year-to-year payment.

(c) Multi-year availability of appropriations.

You should ensure that the availability of the requested appropriation allows enough time to complete the acquisition process. If the acquisition process requires more than one year, the appropriations should be made available for the number of years necessary (see part I, section 31.7).

(d) Other observations.

You are invited to suggest other methods to improve planning, budgeting, and acquisition of capital assets.

Section 300-18

Exhibit 300: Part I: Capital Asset Plan and Business Case (All Assets) Date of this Submission: Agency: Bureau: Location in the Budget: Account Title: Account Identification Code: Program Activity: Name of Investment: Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.) UPI should be created the same for all investments. Investment Initiation Date: Investment Planned Completion Date: This Investment is: Full Acquisition____ Steady State Mixed Life Cycle Initial Concept_ Planning Investment/useful segment is funded: Incrementally Fully Was this investment approved by OMB for previous Year Budget Cycle? No___ Did the Executive/Investment Review Committee approve funding for this investment this year? Yes Did the CFO review the cost goal? No Did the Procurement Executive review the acquisition strategy? No Did the Project (Investment) Manager identified in section 1.D review this? Yes_ No___ Is this investment included in your agency's annual performance plan or multiple-agency annual performance plans? No Yes Does this investment support homeland security?

OMB Circular No. A-11 (2003)

Section 300-19

Yes

No

Section 300-20

If this investment supports homeland security, indicate by corresponding number which homeland security mission area(s) this investment supports? 1 – Intelligence and Warning; 2 – Border and Transportation Security; 3 – Defending Against Catastrophic Threats; 4 – Protecting Critical Infrastructure and Key Assets; 5 – Emergency Preparedness and Response; or 6 – Other.	_	
Is this investment information technology? (see section <u>53</u> for definition)	Yes	No
For information technology investments only:		
a. Is this project (investment) a financial management system? (see section <u>53.2</u> for definition)	Yes	No
If so, does this project (investment) address a FFMIA compliance area?	Yes	No
If yes, which compliance area?		
b. Does this investment implement electronic transaction or record keeping that is covered by the Government Paperwork Elimination Act (GPEA)?	Yes	No
If so, is it included in your GPEA plan (and does not yet provide an electronic option)?	Yes	No
Does the investment already provide an electronic option?	Yes	No
c. If the investment administers information in identifiable form about members of the public, was a privacy impact assessment submitted via PIA@omb.eop.gov with a unique project (investment) identifier?	Yes	No
d. Was this investment reviewed as part of the FY 2003 Federal Information Security Management Act review process?	Yes	No
d.1 If yes, were any weaknesses found?	Yes	No
d.2 Have the weaknesses been incorporated into the agency's corrective action plans?	Yes	No
e. Has this investment been identified as a national critical operation or asset by a Project Matrix review or other agency determination?	Yes	No
e.1 If no, is this an agency mission critical or essential service, system, operation, or asset (such as those documented in the agency's COOP Plan), other than those identified as above as national critical infrastructures?	Yes	No
f. Was this investment included in a Performance Assessment Rating Tool (PART) Review?	Yes	No

EXHIBIT 300

f.1	Does this	investment	address a	weakness	found	during	the	PART
	view?					_		

Yes___ No___

SUMMARY OF SPENDING FOR PROJECT (INVESTMENT) STAGES (In Millions)

(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

PY-1	PY	CY	BY	BY+1	BY+2	BY+3	BY+4	Total
and							and	
Earlier	2003	2004	2005	2006	2007	2008	Beyond	

Planning:

Budgetary Resources

Outlays

Acquisition:

Budgetary Resources

Outlays

Total, sum of stages:

Budgetary Resources

Outlays

Maintenance:

Budgetary Resources

Outlays

Total, All Stages:

Budgetary Resources

Outlays

Government FTE Costs:

Note: Government FTE costs shall include government personnel considered direct and indirect labor in support of this investment. This includes the investment management IPT and any other government effort (e.g., programming effort for part of the overall investment, development effort) that contributes to the success of the investment. The costs include the salaries plus the fringe benefit rate of 32.8%. Agencies should reflect estimates of the costs of internal FTE supporting an IT investment, and should at a minimum include in FTE estimates of anyone spending more than 50% of their time supporting this investment. Persons working on more than one investment, whose contributions over all investments would exceed 50% of their overall time, should have their specific time allocated to each investment.

I. A. Investment Description

- Provide a brief description of this investment and its status through your capital planning and investment control (CPIC) or capital programming "control" review for the current cycle.
- What assumptions are made about this investment and why?

OMB Circular No. A-11 (2003)

Provide any other supporting information derived from research, interviews, and other documentation.

I.B. Justification (All Assets)

In order for IT investments to successfully address support of the President's Management Agenda and justification of the investment, the investment should be collaborative and include industry, multiple agencies, State, local, or tribal governments, use e-business technologies and be governed by citizen needs. If the investment is a steady state investment, then an E-Gov strategy review is underway and includes all the necessary elements. If appropriate, this investment is fully aligned with one or more of the President's E-Gov initiatives.

- How does this investment support your agency's mission and strategic goals and objectives?
- How does it support the strategic goals from the President's Management Agenda?
- 3. Are there any alternative sources in the public or private sectors that could perform this function?
- If so, explain why your agency did not select one of these alternatives.
- 5. Who are the customers for this investment?
- 6. Who are the stakeholders of this investment?
- If this is a multi-agency initiative, identify the agencies and organizations affected by this
 initiative.
- If this is a multi-agency initiative, discuss the partnering strategies you are implementing with the participating agencies and organizations.
- 8. How will this investment reduce costs or improve efficiencies?
- List all other assets that interface with this asset. Have these assets been reengineered as part of this investment? Yes/No

I.C. Performance Goals and Measures (All Assets)

In order to successfully address this area of the business case, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures must be provided. These goals need to map to the gap in the agency's strategic goals and objectives that this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60%, increase citizen participation by 300% a year to achieve an overall citizen participation rate of 75% by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use Table 1 below for reporting performance goals and measures for existing investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2004.

Section 300-22

	Table 1										
Fiscal Year	Strategic Goal(s) Supported	Existing Baseline	Planned Performance Improvement Goal	Actual Performance Improvement Results	Planned Performance Metric	Actual Performance Metric Results					
2003											
2003											
2004											
2004											

All new IT investments that are development, modernization, or enhancement (DME) for 2005 and beyond must use Table 2 and are required to use the FEA Performance Reference Model. The PRM Version 1.0, available at www.feapmo.gov, includes detailed guidance about how to incorporate PRM Indicators into the performance goals and measures table below. Please use the Table 2 and the PRM to identify the performance information that pertains to the major IT Investment. Ensure there is a complete tie-in to the strategic goals and objectives described in section LB.1.

	Table 2										
Fiscal Year	Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results					
2005											
2005											
2006											
2006											

I.D. Project Management (Investment Management) [All Assets]

The OMB Circular A-11, Part 7, Capital Programming Guide, and the OPM Project Management Guidance "Interpretive Guidance for Project Manager Positions, discuss project management structures, responsibilities, and qualifications that contribute to successful achievement of cost, schedule, and performance goals.

No
No
No
No

OMB Circular No. A-11 (2003)

I.E. Alternatives Analysis [All Assets]

In order to successfully address this area of the business case, you must include three viable alternatives that were compared consistently, identify the alternative chosen, and provide benefits and reasons for your choice. Agency must identify all viable alternatives and then select and report details on the top three viable alternatives. Use OMB Circular A-94 for all investments and the Clinger Cohen Act for IT investments for the criteria to be used for Benefit/Cost Analysis. Agency must include the minimum criteria to be applied in considering whether to undertake a particular investment, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment, and specific quantitative and qualitative criteria for comparing and prioritizing alternative investments. For IT investments, agencies should use the Federal Enterprise Architecture (FEA) to identify potential alternatives for partnering or joint solutions that may be used to close the identified performance gap.

- Describe the alternative solutions you considered for accomplishing the agency strategic goals or for closing
 the performance gap that this investment was expected to address. Describe the results of the
 feasibility/performance/benefits analysis. Provide comparisons of the returns (financial and other) for each
 alternative.
- 1.A. Discuss the market research that was conducted to identify innovative solutions for this investment (e.g., used an RFI to obtain four different solutions to evaluate, held open meetings with contractors to discuss investment scope, etc.). Also describe what data was used to make estimates such as, past or current contract prices for similar work, contractor provided estimates from RFIs or meetings, general market publications, etc.

Alternative	Description
Alternative 1	
Alternative 2	
Alternative 3	

 Summarize the results of your life-cycle cost analysis performed for each investment and the underlying assumptions.

Cost Elements	Alternative 1	Alternative 2	Alternative 3
Element 1			
Element 2			
Element 3			
Element 4			
Element 5			
Total			

- 3. Which alternative was chosen and why?
- A. Are there any quantitative benefits that will be achieved through this investment (e.g., systems savings, cost avoidance, stakeholder benefits, etc)? Define the Return on Investment (ROI).
- 3. B. For the alternative selected, provide a financial summary, including Net Present Value by Year and Payback Period Calculations:

Section 300-24

YEAR =	FY								

4. What is the date of your cost benefit analysis?

I. F. Risk Inventory and Assessment (All Assets)

In order to successfully address this issue on the business case and capital asset plan, you must have performed a risk assessment at the initial concept, included mandatory risk elements defined below and demonstrate active management of the risk throughout the life-cycle of the investment.

For all investments, both IT and non-IT, you must discuss each of the following risks and present your plans to eliminate, mitigate, or manage risk, with milestones and completion dates. If there is no risk to the investment achieving its goals from a risk category, indicate so. If there are other risks identified, include them. Risk assessments should include risk information from all stakeholders and should be performed at the initial concept stage and then monitored and controlled throughout the life-cycle of the investment. Risk assessments for all investments must include: 1) schedule; 2) initial costs; 3) life-cycle costs); 4) technical obsolescence; 5) feasibility; 6) reliability of systems; 7) dependencies and interoperability between this investment and others; 8) surety (asset protection) considerations; 9) risk of creating a monopoly for future procurements; 10) capability of agency to manage the investment; and 11) overall risk of investment failure.

In addition, for IT investments, risk must be discussed in the following categories 12) organizational and change management; 13) business; 14) data/info; 15) technology; 16) strategic; 17) security; 18) privacy; and 19) project resources. For security risks, identify under the Description column the level of risk as high, medium, or basic. What aspect of security determines the level of risk, i.e., the need for confidentiality of information, availability of information or the system, reliability of the information or system? Under the Current Status column, list the milestones remaining to mitigate the risk.

Date Identified	Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status
	·				

What is the date of your risk management plan?

I.G. Acquisition Strategy

In order to adequately address this area of the business case and capital asset plan you must employ a strong acquisition strategy that mitigates risk to the Federal government, accommodate Section 508 as needed, and use performance based contracts and (SOWs). If you are not using performance based fixed price contracts, your acquisition strategy should clearly define the risks that prompted the use of other than performance based contracts and SOWs. Finally, your implementation of the Acquisition Strategy must be clearly defined.

- Will you use a single contract or several contracts to accomplish this investment?
- 1.A. What is the type of contract/task order if a single contract is used?

OMB Circular No. A-11 (2003)

- 1B. If multiple contract/task orders will be used, discuss the type, how they relate to each other to reach the investment outcomes, and how much each contributes to the achievement of the investment cost, schedule and performance goals. Also discuss the contract/task order solicitation or contract provisions that allow the contractor to provide innovative and transformational solutions.
- For other than firm-fixed price, performance-based contracts, define the risk not sufficiently mitigated in
 the risk mitigation plan, for that contract/task order, that requires the Government to assume the risk of contract
 achievement of cost, schedule and performance goals. Explain the amount of risk the government will assume.
- Will you use financial incentives to motivate contractor performance (e.g. incentive fee, award fee)?
- 4. Discuss the competition process used for each contract/task order, including the use of RFP's, schedules or other multiple agency contracts, etc?
- Will you use commercially available or COTS products for this investment?
- 5.A To what extent will these items be modified to meet the unique requirements of this investment?
- 5.B What prevented the use of COTS without modification?
- 6. What is the date of your acquisition plan?
- 7. How will you ensure Section 508 compliance?
- Acquisition Costs:
- 8.A. For budget year, what percentage of the total investment is for hardware acquisition?
- 8.B. For budget year, what percentage of the total investment is for software acquisition?
- 8.C. For budget year, what percentage of the total investment is for services acquisition?

I.H. Project (Investment) and Funding Plan

In order to successfully address this section of the business case, you must demonstrate use of an Earned Value Management System (EVMS) that meets ANSI/EIA Standard 748, for both government and contractor costs, for those parts of the total investment that require development efforts (e.g., prototypes and testing in the planning phase and development efforts in the acquisition phase) and show how close the investment is to meeting the approved cost, schedule and performance goals. Information on EVMS is available at http://www.acq.osd.mil/pm. For those investments in the operations/steady state phase, you must perform an operational analysis as defined in the Capital Programming Guide to demonstrate how close the investment is to achieving the expected cost, schedule and performance goals for this phase. Program status information in this section must include both the contractor's part of the investments overall costs and milestone requirements as well as the government's costs and milestone requirements to successfully complete the investment phase, segment or module being reported.

I.H.1. Description of performance-based management system (PBMS)

Explain the methodology used by the agency to analyze and use the earned value performance data to manage performance. Describe the process you will use or used to verify that the contractor's project management system follows the ANSI/EIA Standard 748-A. If the investment is operational (steady state), define the operational analysis system that will be used. If this is a mixed life-cycle investment with both operational and

Section 300-26

development/modernization/enhancement (DME) system improvement aspects, EVMS must be used on the system improvement aspects of the investment and operational analysis on the operations aspects. Using information consistent with the work breakdown structure (WBS), provide the information requested in all parts of this section.

I.H.2. Original baseline (OMB-approved at investment outset)

What are the cost and schedule goals for this phase or segment/module of the investment (e.g., what are the major investment milestones or events; when will each occur; and what is the estimated cost to accomplish each one)? Also identify the funding agency for each milestone or event if this is a multi-agency investment. For operational or steady state projects, complete one line on the chart for each year of this phase. If the project is mixed lifecycle there will be two parts to the chart; one for the O&M portion and one for the developmental portion using EVMS. If this is a multi-agency investment or one of the President's E-Gov initiatives, use the detailed investment plan with milestones on the critical path, to identify agency funding for each module or milestone. (This baseline must be included in all subsequent reports, even when there are OMB-approved baseline changes shown in I.H.3).

Cost and Schedule Goals:	Origina	l Baselin	e for a Pha	se/Segment/Module of Proje	ct (Investment)	
Description of Milestone	Schedule			Planned Cost	Funding Agency	
	Start Date	End Date	Duration (in days)			
1,						
2.						
3,						
Completion date:				Total cost estimate at completic	on:	

I.H.3. Proposed baseline/current baseline (applicable only if OMB-approved the changes)

Identify in this section a proposed change to the original or current baseline or an OMB-approved baseline change. What are the new cost and schedule goals for the phase or segment/module (e.g., what are the major investment milestones or events; when will each occur; and what is the estimated cost to accomplish each one)? Also identify the funding agency for each milestone or event if this is a multi-agency investment. If this is a new investment in the FY 2005 budget year, this section will be blank for your initial submission.

Cost and Schedule Goals: Proposed or Current (OMB-Approved) Baseline for a Phase/Segment/Module of Project (Investment)						
Description of Milestone	Schedule Planned Cost Funding					
	Start Date	End Date	Duration (in days)			
1.						
2.						
3,						
Completion date:				Total cost estimate at completi	on;	

OMB Circular No. A-11 (2003)

- I.H.4 Actual performance and variance from OMB-approved baseline (original or current)
- A. This section is always filled in to reflect current status of the investment. It compares the OMB approved baseline and actual results for this phase, segment, or module of the investment. Show for each major investment milestones or events you planned (scheduled) to accomplish and the cost and what work was actually done and the cost. If the project is in the operational or steady state phase complete one line on the chart for each year. For these projects complete paragraphs C, D, F and G as appropriate. If this is a new investment in the FY 2005 budget year, this will be blank for your initial submission. OMB may ask for latest information during the budget review process.

Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)											
	OMB-Approved Baseline						Actual Outcome				
Donatation of	Schedule				Schedule						
Description of Milestone	Start Date	End Date	Duration (in days)	Planned Cost	Funding Agency	Start Date	End Date	Percent Complete	Actual Cost		
1,											
2,											
3,											
Completion date: OMB-approved baseline:						Estimated completion date:					
Total cost: OMB-appro	Fotal cost: OMB-approved baseline:							ion:			

В.	Provide the following investment summary information from your EVM	S data (as of date):
B.1.	Show the budgeted (planned) cost of work scheduled (BCWS):	\$
B.2.	Show budgeted (planned) cost of work actually performed (BCWP):	\$
B.3.	Show the actual cost of work performed (ACWP):	\$

B.4. Provide a performance curve graph plotting BCWS, BCWP and ACWP on a monthly basis from inception of this phase or segment/module through the latest report. In addition, plot the ACWP curve to the estimated cost at completion (EAC) value, and provide the following EVMS variance analysis.

Project (Investment) Summary (Cumulative)	Value				
Cost Variance = (BCWP-ACWP) =					
Cost Variance % = (CV/BCWP) x 100% =					
Cost Performance Index (CPI) = (BCWP/ACWP) =					
Schedule Variance = (BCWP-BCWS) =					
Schedule Variance % = (SV/BCWS) x 100% =					
Schedule Performance Index (SPI) = (BCWP/BCWS) =					
Two independent Estimates at Completion (EAC) = ACWPcum + (Performance Factor (PF) X					

Section 300-28

Project (Investment) Summary (Cumulative)	Value
(BAC minus BCWPcum)), where $PF_1 = 1/CPI$, and $PF_2 = 1/(CPI \times SPI)$.	
Variance at Completion (VAC) = (BAC minus EAC) for both EACs above =	
Variance at Completion % = (VAC/BAC) x 100% for both EACs above =	
Estimated Cost to Complete (ETC)=	
Expected Completion Date =	

Definitions for Earned Value Management System:

ACWP - Actual Cost of Work Performed - What you paid.

BAC - Budget At Completion - The baseline (planned) budget for the investment.

BCWP - Budgeted Cost for Work Performed - The earned value.

BCWS - Budgeted Cost for Work Scheduled - The planned costs.

CPI - Cost Performance Index - The ratio of the budgeted to actual cost of work performed.

CV - Cost Variance - The difference between planned and actual cost of work performed.

EAC - Estimate At Completion - The latest estimated cost at completion.

ETC - Estimate to Completion - Funds needed to complete the investment.

PF - Performance Factor - The cost to earn a dollar of value, or ACWP/BCWP, or 1/CPI.

SPI - Schedule Performance Index - The percent of the investment that has been completed.

SV - Schedule Variance - The variance between the actual and planned schedules.

VAC - Variance at Completion - The variance between the baseline and actual budget at completion.

- C. If cost and/or schedule variance are a negative 10 percent or more at the time of this report or EAC is projected to be 10 percent or more, explain the reason(s) for the variance(s).
- D. Provide performance variance. Explain based on work accomplished to date, whether or not you still expect to achieve your performance goals. If not, explain the reasons for the variance. For steady state projects, in addition to a discussion on whether or not the system is meeting the program objectives, discuss whether the needs of the owners and users are still being met.
- E. For investments using EVMS, discuss the contractor, government, and at least the two EAC index formulas in I.H.4.B, current estimates at completion. Explain the differences and the IPT's selected EAC for budgeting purposes. This paragraph is not applicable to operations/steady state investments.
- F. Discuss the corrective actions that will be taken to correct the variances, the risk associated with the actions, and how close the planned actions will bring the investment to the original baseline. Define proposed baseline changes, if necessary.

G.	If the inve	stment cost,	, schedule or	performance	variances	are	10% or	greater,	has the	Agency	Head
	concurred	in the need	to continue	the program a	t the new	base	line?				
	Yes	No									

OMB Circular No. A-11 (2003)

Exhibit 300: Part II: Additional Business Case Criteria for Information Technology

II. A. Enterprise Architecture

In order to successfully address this area of the business case and capital asset plan you must ensure that the investment is included in the agency's EA and CPIC process, and is mapped to and supports the Federal Enterprise Architecture. You must also ensure that the business case demonstrates the relationship between the investment and the business, data, application, and technology layers of the EA.

II.A.1 Business

- A. Is this investment identified in your agency's enterprise architecture? If not, why?
- A.1 Will this investment be consistent with your agency's "to be" modernization blueprint?
- B. Was this investment approved through the EA Review committee at your agency?
- C. What are the major process simplification/reengineering/design projects that are required as part of this IT investment?
- D. What are the major organization restructuring, training, and change management projects that are required?
- E. Please list all the Lines of Business and Sub-Functions from the FEA Business Reference Model that this IT investment supports. The *primary* BRM mapping for this initiative should have been identified with the last six digits of the unique project (investment) identifier in section 53.8. For a list of the BRM Lines of Business and Sub-Functions, as well as guidance on mapping to the BRM, please see www.omb.gov. (Note: The Services for Citizens area and the Mode of Delivery area should be thought of collectively. If you identified your *primary* line of business/sub-function in section 53.8 as a Service for Citizen or a Mode of Delivery, at a minimum you should identify the corresponding Mode of Delivery/Service for Citizen that applies in this section).

Line of Business	Sub-function

II.A.2 Data

- A. What types of data will be used in this investment? Examples of data types are health data, geospatial data, natural resource data, etc.
- B. Does the data needed for this investment already exist at the Federal, State, or Local level? If so, what are your plans to gain access to that data?
- C. Are there legal reasons why this data cannot be transferred? If so, what are they and did you address them in the barriers and risk sections above?
- D. If this initiative processes spatial data, identify planned investments for spatial data and demonstrate how the agency ensures compliance with the Federal Geographic Data Committee standards required by OMB Circular A-16.

Section 300-30

- E. If this activity involves the acquisition, handling or storage of information that will be disseminated to the public or used to support information that will be disseminated to the public, explain how it will comply with your agency's Information Quality guidelines (section 51.5 requirements)?
- F. Managing business information means maintaining its authenticity, reliability, integrity, and usability and providing for its appropriate disposition. Address how the system will manage the business information (records) that it will contain throughout the information life cycle.
- II.A.3 Applications, Components, and Technology
- A. Discuss this major investment in relationship to the Service Component Reference Model Section of the FEA. Include a discussion of the components included in this major IT investment (e.g., knowledge management, content management, customer relationship management, etc). For detailed guidance regarding components, please refer to http://www.feapmo.gov and the SRM Release Document.
- B. Are all of the hardware, applications, components, and web technology requirements for this investment included in the Agency EA Technical Reference Model? If not, please explain.
- C. Discuss this major IT investment in relationship to the Technical Reference Model section of the FEA. Identify each Service Area, Service Category, Service Standard, and Service Specification that collectively describes the technology supporting the major IT investment. For detailed guidance regarding the FEA TRM, please refer to http://www.feapmo.gov.
- Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc). If so, please describe.
- E. Financial Management Systems and Projects, as indicated in Part One, must be mapped to the agency's financial management system inventory provided annually to OMB. Please identify the system name(s) and system acronym(s) as reported in the most recent systems inventory update required by Circular A-11 section 52.4.

II. B. Security and Privacy

In order to successfully address this area of the business case, each question below must be answered at the investment (system/application) level, not at a program or agency level. Simply referring to security plans or other documents is not an acceptable response. For IT investments under development, security planning must proceed in parallel with the development of the system to ensure that IT security requirements and costs for the lifecycle of the investment are identified and validated. All IT investments must have up-to-date security plans and be fully certified and accredited prior to becoming operational. Anything short of a full certification and accreditation indicates that identified IT security weaknesses remain and need to be remedied and is therefore not adequate to ensure funding for the investment. Additionally, to ensure that requests for increased IT security funding are appropriately addressed and prioritized, the agency must identify: 1) current costs; 2) current IT security performance gaps; and 3) how the funding request will close the performance gaps. This information must be provided to OMB through the agencies' plan of action and milestone developed for the system and tied to the IT business case through the unique project (investment) identifier.

In addition, agencies must demonstrate that they have fully considered privacy in the context of this investment. Agencies must comply with Section 208 of the E-government Act and forthcoming OMB implementing guidance and, in appropriate circumstances, conduct a privacy impact assessment that evaluates the privacy risks, alternatives and protective measures implemented at each stage of the information life cycle. Agencies should utilize the guidance provided in OMB Memoranda in conducting the PIA and submit a copy, using the unique project (investment) identifier, to OMB at PIA@omb.eop.gov.

OMB Circular No. A-11 (2003)

- II.B.1. How is security provided and funded for this investment (e.g., by program office or by the CIO through the general support system/network)?
- A. What is the total dollar amount allocated to IT security for this investment in FY 2005? Please indicate whether an increase in IT security funding is requested to remediate IT security weaknesses, specifying the amount and a general description of the weakness.
- II.B.2 Please describe how the investment (system/application) meets the following security requirements of the Federal Information Security Management Act, OMB policy, and NIST guidelines:
- A. Does the investment (system/application) have an up-to-date security plan that meets the requirements of OMB policy and NIST guidelines? What is the date of the plan?
- B. Has the investment been certified and accredited (C&A)?
 Note: Certification and accreditation refers to a full C&A and does not mean interim authority to operate.
 Additionally, specify the C&A methodology used (e.g., NIST guidelines) and the date of the last review.
- C. Have the management, operational, and technical security controls been tested for effectiveness? When were most recent tests performed?
- D. Have all system users been appropriately trained in the past year, including rules of behavior and consequences for violating the rules?
- E. How has incident handling capability been incorporated into the system or investment, including intrusion detection monitoring and audit log reviews? Are incidents reported to DHS' FedCIRC?
- F. Is the system operated by contractors either on-site or at a contractor facility? If yes, does any such contract include specific security requirements required by law and policy? How are contractor security procedures monitored, verified, and validated by the agency?
- II.B.3 How does the agency ensure the effective use of security controls and authentication tools to protect privacy for those systems that promote or permit public access?
- II.B.4 How does the agency ensure that the handling of personal information is consistent with relevant government-wide and agency policies?
- II.B.5 If this is a new or significantly altered investment involving information in identifiable form collected from or about members of the public, has a Privacy Impact Assessment (PIA) for this investment been provided to OMB at PIA@omb eop.gov with the investment's unique project (investment) identifier?
- II. C. Government Paperwork Elimination Act (GPEA)
- II.C.1 If this investment supports electronic transactions or record-keeping that is covered by GPEA, briefly describe the transaction or record-keeping functions and how this investment relates to your agency's GPEA plan.
- II.C.2 What is the date of electronic conversion from your GPEA plan?
- II.C.3 Identify any OMB Paperwork Reduction Act (PRA) control numbers from information collections that are tied to this investment.

Section 300-32