



*Information Technology
Capital Investment Guide*

HOW TO USE THIS GUIDE

GENERAL INFORMATION

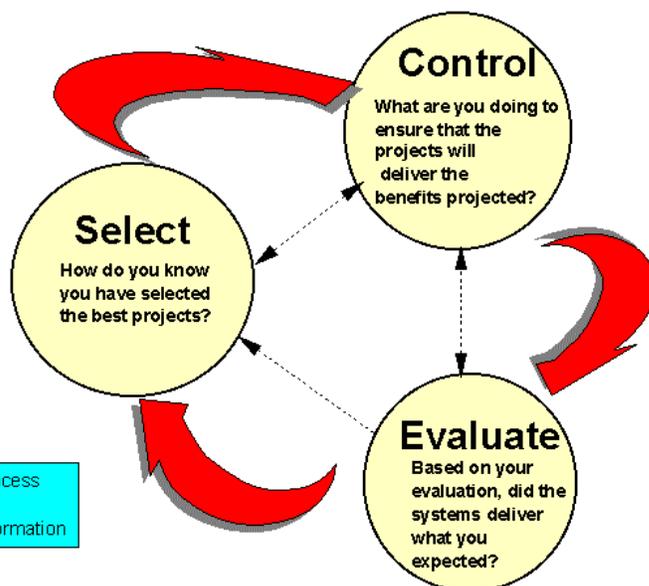
Audience: Anyone involved in the management of VA's IT capital assets

The IRM Acquisitions and Review Service (IRMPAS) developed this guide to provide a "one-stop" reference for anyone involved in the management of VA's information technology (IT) capital assets. It is a fairly large reference because:

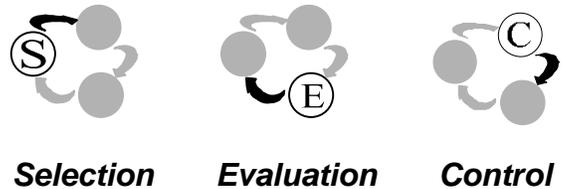
1. It pulls together information from a variety of sources, including the *VA Capital Investment Methodology Guide*, OMB and GAO guidance, and VA Directives.
2. It addresses the various roles of the people involved in managing VA's capital assets. This accounts for the bulk of the guide. This guide provides guidance for individuals developing IT capital investment proposals, preparing requests, reviewing requests, monitoring and overseeing the IT capital investment process, and performing in-process and post-implementation reviews.
3. It addresses a fairly complicated subject that straddles strategic and operational planning and the budget process.

Three major sections

The guide has three major sections, corresponding to the three fundamental phases in the IT Investment Management Process: **Selection**, **Control**, and **Evaluation**. This figure shows these phases:



This figure also serves as a locator throughout the guide. It appears in the upper right corner of the pages in each of the three sections, to show which section you are in.



It also appears on each page of the appendices, to show which section an appendix supports.

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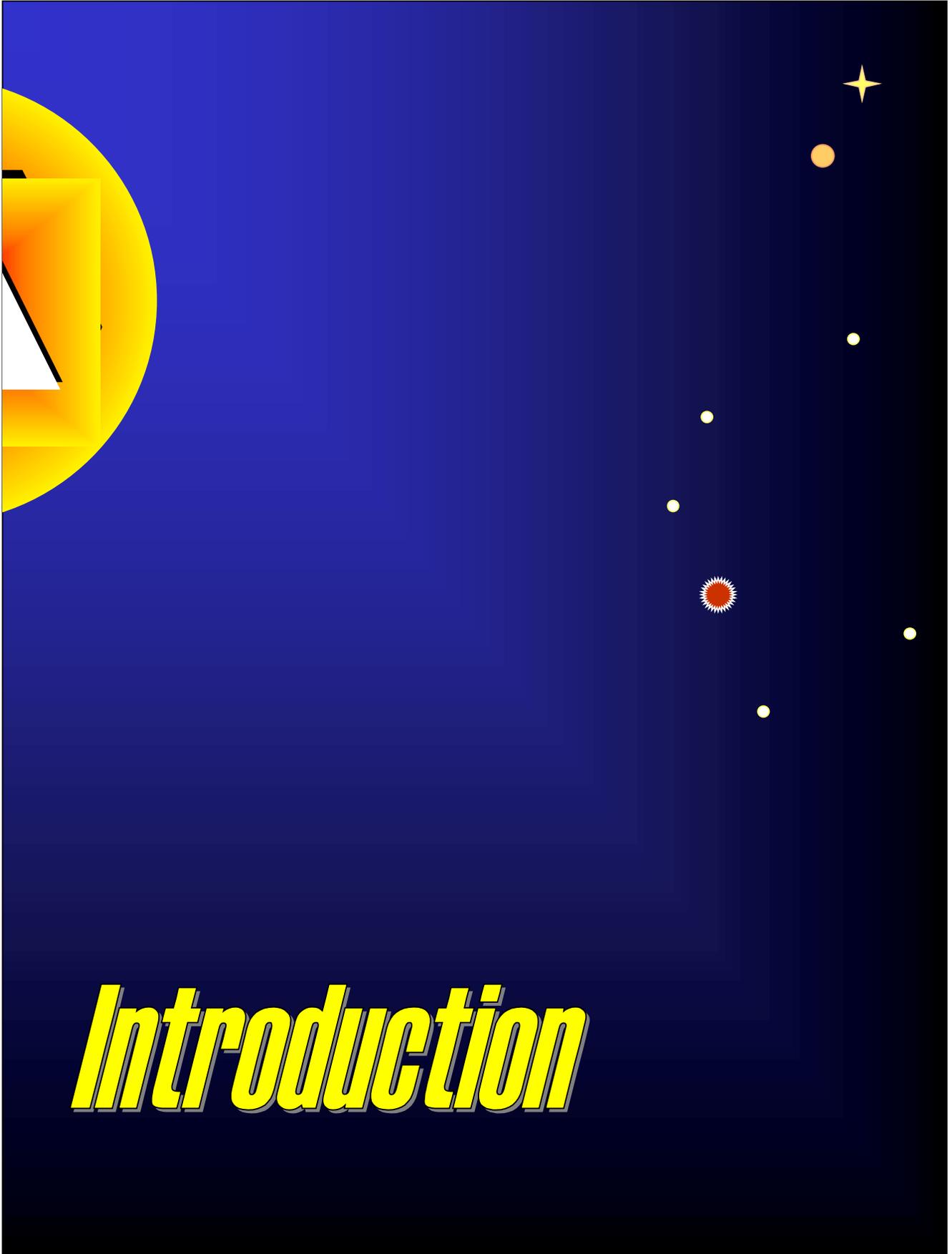
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Investments in information technology (IT) can have a dramatic impact on an organization's performance. Well-managed IT investments that are carefully selected and focused on meeting mission needs can propel an organization forward, dramatically improving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

GAO/AIMD-10.1.13, February 1997



Introduction

INTRODUCTION

The VA IT investment management process is an integrated approach to managing IT investments that provides for the continuous identification, selection, control, life-cycle management, and evaluation of IT investments. This structured process provides a systematic method that enables the Department to minimize risks while maximizing the return on IT investments.

Background—Legislative and Executive Guidance

In recent years, Congress has passed legislation that requires federal agencies to examine and change their current operation and management practices in order to improve performance and achieve greater mission outcomes. The legislation listed below introduced requirements that emphasize the need for Federal agencies to significantly improve their management processes, including how they select and manage IT resources. These legislative reforms provide guidance on how Federal agencies should plan, manage, and acquire IT.

- *Clinger-Cohen Act of 1996,*
- *Paperwork Reduction Act of 1995 (PRA),*
- *Government Performance and Results Act of 1993 (GPRA),*
- *Federal Acquisition Streamlining Act of 1994 (FASA), and*
- *Chief Financial Officers (CFO) Act of 1990.*

The *Clinger-Cohen Act* requires Federal agencies to:

- Create a Chief Information Officer (CIO) position in large Federal agencies;
- Make the CIO the proponent of the IT strategic view, before investments are made;
- Establish budget-linked capital planning and investment control, coupled with performance and results-based management;
- Require the CIO to monitor and evaluate IT program performance and recommend to the agency head the modification or termination of problem projects; and
- Shifts the focus of IT acquisitions from one of "grand design" solutions to modular contracting, where each element can function independently of the others yet contribute to the success of the project.

The *Clinger-Cohen Act* also directs the Office of Management and Budget (OMB) to establish clear and concise direction regarding investments in major information systems, and to enforce that direction through the budget process.

OMB, in collaboration with VA and other major agencies and departments, developed the "[Capital Programming Guide](#)", which integrated various administrative and statutory

asset management initiatives into a single, capital programming process. This was done to ensure capital assets contributed to achieving agency strategic goals and objectives. Agencies were encouraged to apply full analysis and management to capital assets that met the criteria for a “major acquisition.”

OMB Circular A-11, Part 3, Planning, Budgeting, and Acquisition of Capital Assets defines major acquisitions as capital assets that require special management attention because of their importance to the agency mission; high development, operating, or maintenance costs; high risk; high return; or their significant role in the administration of agency programs, finances, property, or other resources. OMB Circular A-11, Part 3 provides guidance on the planning, budgeting, and acquisition management of major fixed assets and requires agencies to provide information on all major fixed asset projects included in their budget submissions to OMB.

The General Accounting Office (GAO) also provides guidance to Federal agencies relating to managing IT investments. The process outlined by GAO involves three phases: Select, Control, and Evaluate. Each phase is conducted as part of a continual, interdependent management effort. Information from one phase is used to support activities in the other phases. This guide is organized according to the select, control, and evaluation phases of the IT investment process described in GAO publication *GAO/AIMD-10.1.13, Assessing Risks and Returns: A Guide for Evaluating Federal Agencies' IT Investment Decision-making*.

Background—VA Capital Decision-Making Process

In response to this legislative and executive guidance, VA established a capital decision-making process that sets thresholds for review of capital investments. The *VA Capital Investment Methodology Guide* provides a basic reference for planning, preparing, evaluating and prioritizing capital investments. (*Chapter I, Selection*, of this guide provides further guidance that applies specifically to IT capital investment planning.)

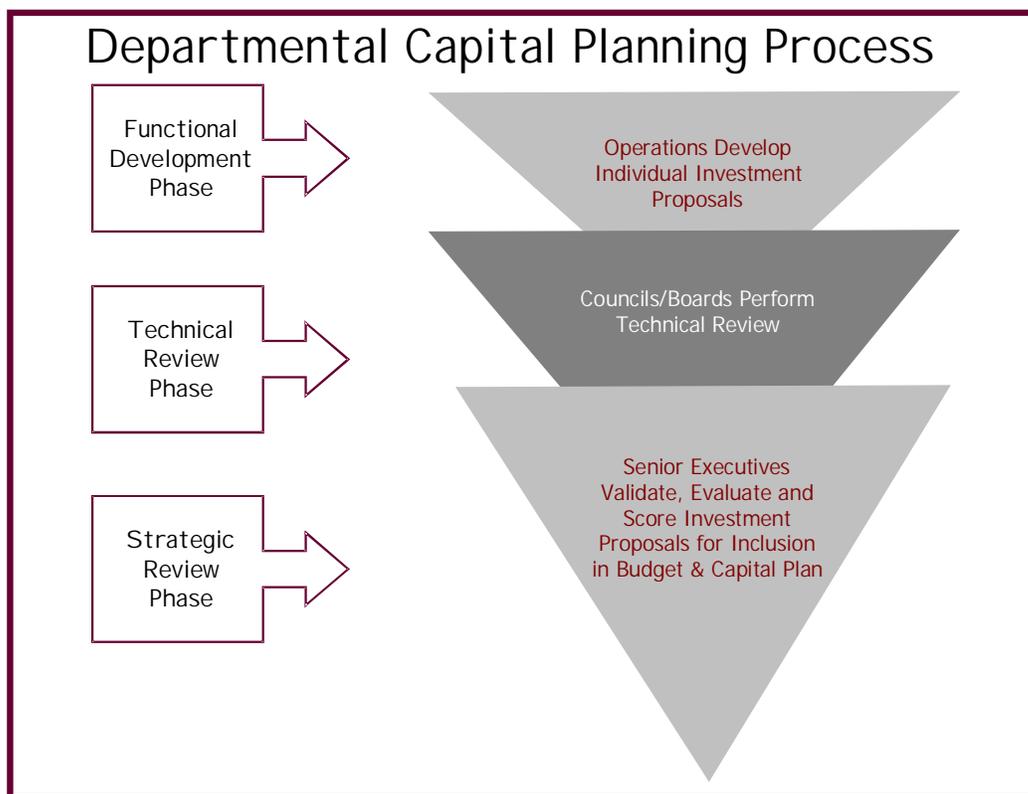
The first step in the VA capital investment planning process, which includes IT capital investment planning, consists of three phases of review.

Functional Development Phase—At the operational level in Central Office and at the field level strategic needs are analyzed, and capital and other assets are planned to help fulfill those needs. As capital proposals are developed, data are also developed to provide technical and strategic reviewers with the necessary information to evaluate and prioritize proposed spending projects.

Technical Review Phase—Proposed projects undergo technical scrutiny. Assets are evaluated and prioritized by a board or council of subject matter experts where program and technical oversight exists. Evaluation criteria vary by asset type and may be updated annually, if there are changes in process or strategic direction.

Strategic Review Phase—At the VA Department level, proposed projects are evaluated, prioritized, and measured against VA's Strategic Plan and OMB's requirements to

determine the best combination of assets to meet VA’s mission, obligations, goals, and objectives. A data validation form is used as a quality control measure to ensure that each proposal application consists of relevant, complete, and accurate information with supporting documentation, as well as additional primary documents.



The VA Capital Investment Board (VACIB) oversees the approval of all capital investment proposals that exceed certain threshold requirements, represent a high risk or high visibility or are crosscutting. Threshold requirements vary in amount relative to organizational IT spending.

Thresholds for Capital Investments Requiring VACIB Approval

Category	VHA	VBA	NCA	Staff Offices
IT Total Acquisition Cost	\$10M	\$2M	\$1M	\$1M
IT Life Cycle Costs	\$30M	\$6M	\$3M	\$3M

Approved proposals constitute the *VA Capital Plan* and support annual budget requests. Those proposals that meet or exceed the established thresholds are required to undergo VACIB approval. Additionally, high visibility projects and cross cutting initiatives undergo VACIB approval, even if they do not exceed the established thresholds.

High visibility projects are those projects that receive special review and scrutiny by oversight organizations such as the General Accounting Office (GAO), Office of

Management and Budget (OMB), the House Veterans Affairs Committee (HVAC), and the Senate Committee on Veterans Affairs (SCVA). Additionally, the VA Chief Information Officer (CIO) has the option to declare a project to be high visibility based on its potential for drawing attention from external review bodies such as GAO and OMB or Veterans Services Organizations such as the American Legion (AL) and Veterans of Foreign Wars (VFW).

Crosscutting initiatives are those initiatives that address:

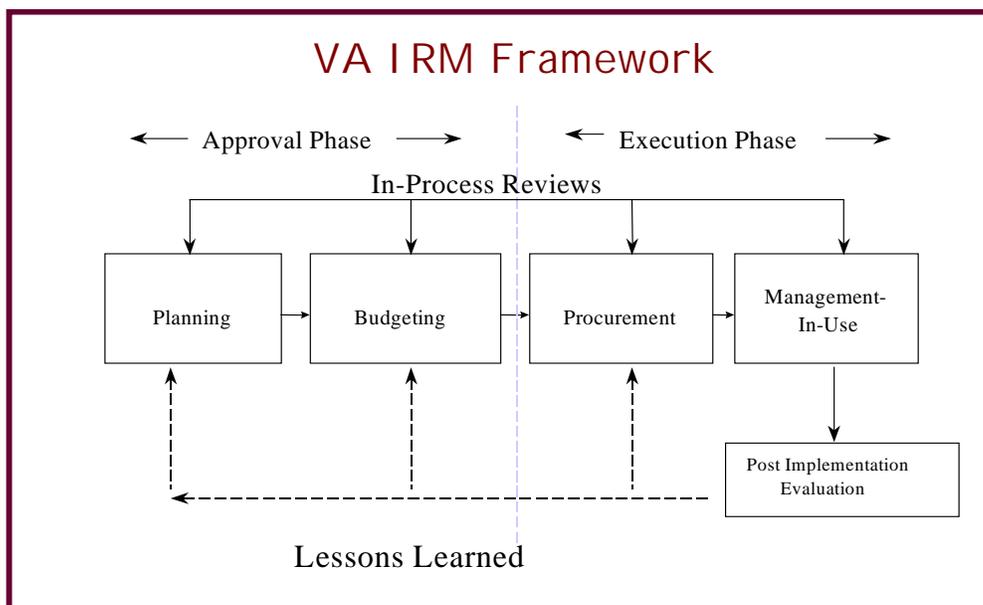
Issues that every VA office or program must address in the course of managing IT; or

Those issues that are interdependent, involve relationships among organizations, and require a cooperative solution; or

Specific problems or opportunities that must be addressed at the Department level.

Background—VA IRM Framework

The Office of Information Technology's *VA Directive 6000, VA Information Resources Management (IRM) Framework* defines an integrated process that consists of planning, budgeting, procurement, and management-in use of VA's information technology investments. VA's IT investments must be measured in relationship to their support of VA's mission, program goals and objectives.



The Directive requires VA officials to:

- a. Comprehensively plan for all IT activities. This includes identifying objectives and expressing them in quantifiable and measurable form.
- b. Establish and maintain a process for executive decision-making on IT investments recommended by the Chief Information Officer (CIO) Council.
- c. Determine, before making an investment in a new information system:

- (1) Whether the function to be supported by the system should be performed by the private sector, and, if so, whether any component of the Department performing that function should be converted from a governmental organization to a private sector organization; or
 - (2) Whether the Department should perform the function and, if so, whether the function should be performed by a private sector source under contract or by Department personnel.
- d. Comply with all applicable statutes, Federal regulations, policies and guidelines, and VA regulations and policies pertaining to IT resources when planning, developing, acquiring, implementing, maintaining, disposing, managing and assessing VA's IT activities.
 - e. Comply with the National Institute of Standards and Technology (NIST) Applications Portability Profile for Open Systems when economically and technically feasible, by ensuring that all IT acquisition and development are interoperable, portable and scaleable.
 - f. Share IT resources, processes and services when it is an economically and technically sound business practice.
 - g. Ensure the integrity and security of automated information and public dissemination of all information maintained in IT investments.
 - h. Maintain complete and accurate data on all personnel and non-personnel costs associated with IT activities.
 - i. Ensure that IT investments are acquired, developed and implemented in a timely fashion, meet user requirements, and deliver intended benefits to the Department through coordinated decision-making about the information, human, financial and other supporting resources.
 - j. Maintain a CIO Council to guide and oversee the use of IT resources, identify IT to improve the quality and efficiency of services to veterans, recommend IT investments and improvements in VA's business processes, and establish permanent or ad hoc working groups, under charter, as appropriate.
 - k. Ensure that all staff members receive IT training necessary to perform the responsibilities of their positions prior to IT investment implementation and sustainment training after implementation to maintain security over sensitive systems.
 - l. Assess, on a continuing basis, the experiences of other private and public sector organizations in streamlining and revising work processes relating to development, deployment and use of IT.
 - m. Apply performance measures to IT. Performance measures will be outcome-oriented, significant, linked to responsibility and based on credible information.
 - n. Review IT investments based on customer/user satisfaction, strategic impact and effectiveness, internal business performance, and innovation.

Background—Organizational roles and responsibilities

Several individuals and groups have roles in VA's IT strategic planning and capital investment processes. These include VA's CIO, CIO Council, Administration CIOs, CIO Investment Panel as well as the VACIB. Following is a discussion of the roles and responsibilities of those individuals and groups as they relate to these processes:

Department Chief Information Officer (CIO)—The Department CIO chairs the VA CIO Council. The incumbent serves as the principal advisor to the Secretary on all IT matters, coordinates and manages the Department-wide implementation of the *Clinger-Cohen Act of 1996*, and provides oversight for IT.

Administration CIOs—VBA and VHA each have a CIO. These individuals provide direction, leadership, and management over information management activities at the Administration level. The Office of Planning and Analysis (OP&A), NCA and the Board of Veterans Appeals (BVA) also have representatives on the Council. The Administrations' CIOs serve as a bridge between the Department's business components and IT components.

VA CIO Council—The CIO Council provides a corporate forum for Departmental IT management. It supports the various CIOs' efforts, and provides advice and corporate perspective for IT plans and investments. The CIO Council consists of the VHA and VBA CIOs, and representatives from NCA, the Office of Planning and Analysis (OP&A), the Office of Financial Management (OFM), and the Board of Veterans Appeals (BVA). The VA CIO chairs the CIO Council.

VA CIO Investment Panel—The CIO Investment Panel is chartered by the CIO Council to act on its behalf to develop the VA IT Strategic Plan and to provide advice and counsel to the CIO Council regarding IT investment proposals submitted as part of the Capital Investment Process. The panel is a work group that consists of representatives from VHA, VBA, NCA, BVA, OP&A, OFM, Office of Budget, Office of Acquisition and Materiel Management (OA&MM) and the Office of Information and Technology (OI&T). The CIO and members of the CIO Council designate the members of this panel. The Director of the IRM Planning and Acquisitions Service (IRMPAS) chairs this panel.

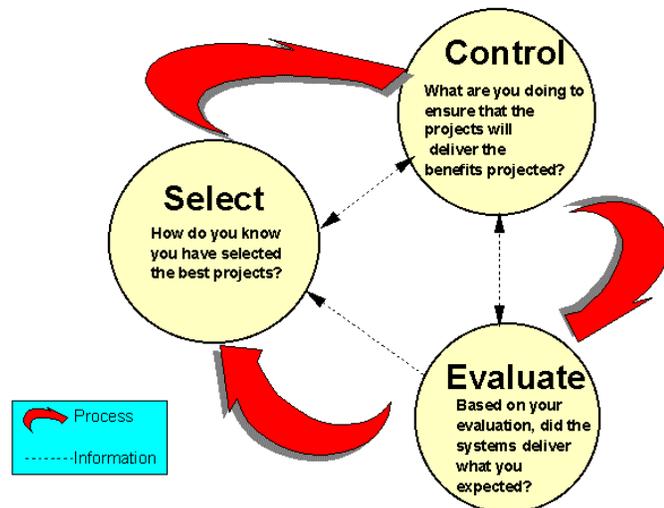
VA Capital Investment Board (CIB)—The VACIB was established to ensure that all VA capital investment decisions support the Department's and administrations strategic plans, goals, and objectives.

IRM Planning and Acquisitions Service (IRMPAS)—The members of this service, in coordination and collaboration with VA program managers and IT coordinators throughout the Department, establish policies, goals and procedures in order to select, control and evaluate the most efficient and effective IT solutions. IRMPAS oversees and coordinates Department-wide implementation of IT legislation and guidance including *OMB Circular A-130* and the *Clinger-Cohen Act*. This service reviews and coordinates approval of IT acquisition requests and develops and manages the VA Capital Investment Process.

Background—IT Investment Management Process

The IT investment management process has three essential phases--*select*, *control* and *evaluate*. However, each phase is not a separate and independent step. Instead, each phase is part of a continuously ongoing, interdependent management effort. The Information from each directly supports activities in the other two phases.

This figure shows the three phases of an IT investment management process, and the relationships between the various phases.



Disposition Analysis

The overall process starts with an analysis of the disposition of the existing portfolio of IT investments. This helps ensure that VA senior managers are informed of current costs, benefits, and risks associated with the IT portfolio. It also helps maintain an accurate inventory of systems and applications, and it forms the basis for a systems retirement and replacement strategy.

A systems retirement and replacement strategy provides a solid foundation for keeping, stopping, transforming, or replacing information systems and technology. In addition, the disposition analysis can assist in technical infrastructure planning and helps to ensure the integrity of the organization's information technology architecture.

Selection Phase



VA's IT investment management process begins with the *Selection phase*. In this phase, VA management determines priorities and makes decisions about which projects will be funded. The starting point for the Selection phase is the screening process. Projects being submitted for funding are compared against a uniform set of screening criteria and thresholds in order to determine whether the projects meet minimal requirements and to identify at what organizational level the projects should be reviewed. VA accomplishes this through the IT capital decision making process in a series of functional, technical and strategic reviews described in *Section I.B.2* of this guide.

The CIO Investment Panel assesses the costs, benefits, and risks of all IT projects—proposed, under development, operational, etc.—comparing the projects against each other and ranking and prioritizing them in preparation for the CIO Council's review. The

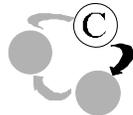
CIO Council reviews the IT projects and makes decisions about which ones to select for funding based on mission needs and organizational priorities. Those systems and projects that the CIO Council selects for funding constitute the Department's portfolio of IT investments.

The Selection phase helps ensure that VA:

- a. Selects those IT projects that will best support mission needs, and
- b. Identifies and analyzes a project's risks and returns before a significant amount of project funds are spent. Success in this phase depends on management understanding and participation in investment decision-making. This decision-making is driven by accurate, up-to-date data and an emphasis on using IT to enhance mission performance.

Once selected, all of the projects in the portfolio are consistently controlled and managed. Progress reviews, in which the progress of projects are compared against projected cost, schedule, and expected mission benefits, are conducted at key milestones in each project's life cycle. The type and frequency of these reviews are usually determined based on the analyses of risk, complexity, and cost that went into selecting the project. If a project is late, over cost, or not meeting performance expectations, senior VA executives decide whether it should be continued, modified, or canceled, and actions are quickly taken to mitigate the effects of changes in risks and costs.

Control Phase



The Control phase helps ensure that as projects are developed and investment costs rise, that the project continues to meet mission needs, and if it is not or if problems have arisen, mitigating steps are quickly taken to address the deficiencies. Decisions made at the Control phase may include canceling the project, modifying it to better meet mission requirements, accelerating development of the project, or continuing its development as planned.

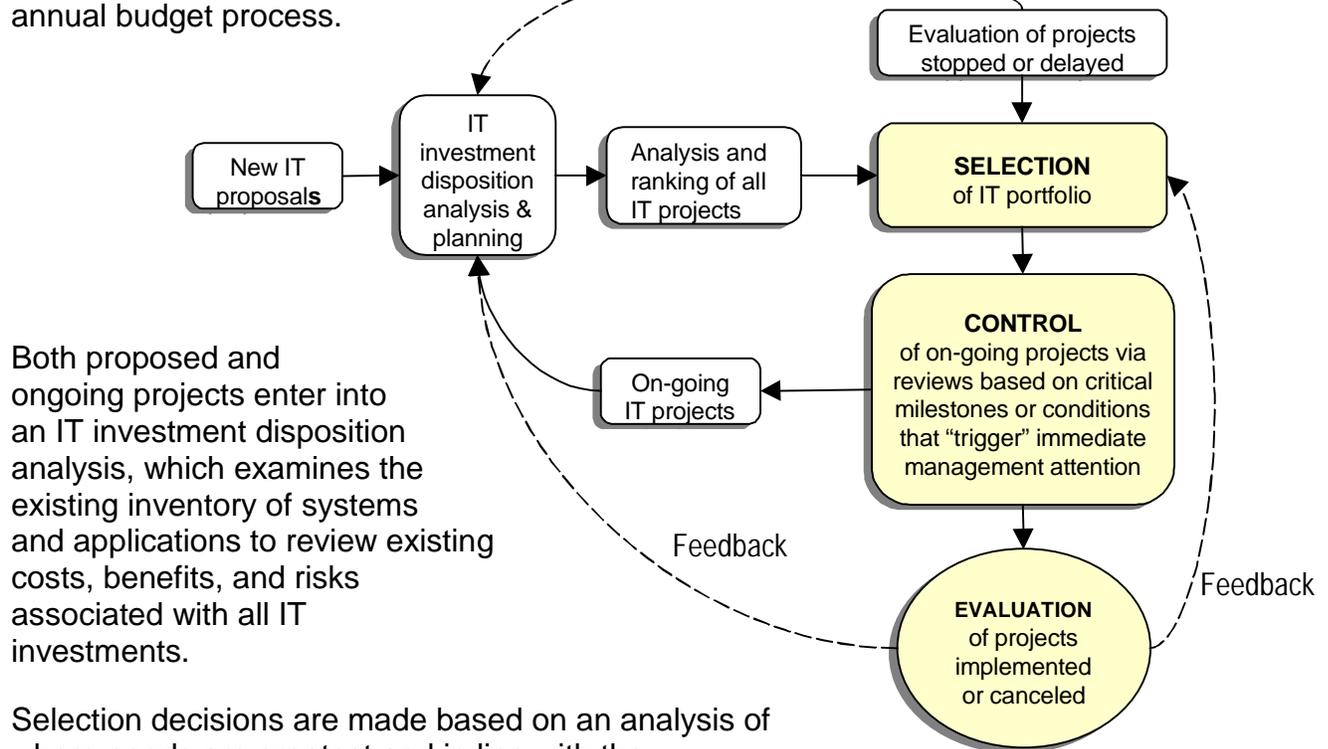
Evaluation Phase



Finally, once projects have been fully implemented, actual versus expected results are evaluated, to (1) assess the project's impact on mission performance, (2) identify any changes or modifications to the project that may be needed, and (3) revise the investment management processes based on lessons learned.

Fluid and Dynamic Process

This IT investment decision-making approach is a fluid and dynamic process. This figure illustrates how this process can work when IT spending for all projects, including new proposals and ongoing projects, is decided each year as part of an annual budget process.



Both proposed and ongoing projects enter into an IT investment disposition analysis, which examines the existing inventory of systems and applications to review existing costs, benefits, and risks associated with all IT investments.

Selection decisions are made based on an analysis of where needs are greatest and in line with the organization's systems retirement and replacement plans and implementation strategy.

Projects that are terminated or delayed as part of selection decisions are evaluated immediately to allow the organization to assess the impact on future proposals and to quickly benefit from lessons learned.

This figure also illustrates how projects selected as part of an IT portfolio of investments enter into an investment control process that includes acquisition request reviews, quarterly execution reviews, in-process reviews (IPRs) and post-implementation reviews (PIRs). The results of these various Control phase reviews as well as the post-implementation reviews conducted during the Evaluation phase provide input into the following year's Selection process.

*“Never become irritable waiting for things to get better.
If you’ll be patient, you’ll find that you can wait much faster.”*

Unknown

