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# Department of Veterans Affairs



## One-VA Enterprise Architecture Program Management Plan

**Version 4.3**  
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## Introduction

### 1.1 Background

The Clinger-Cohen Act of 1996 (Public Law 104-106) assigns the Chief Information Officer (CIO) with the responsibility to develop, maintain and facilitate the implementation of an enterprise architecture.

### 1.2 Purpose

This document establishes the One-VA Enterprise Architecture (EA) Program Management Plan (PMP). VA is approaching Enterprise Architecture as a continuous improvement process. This document defines the processes and approach that allow for the integration of Enterprise Architecture processes, Capital Planning and Budgeting processes, and Project Management Oversight processes of the VA. The One-VA EA Program Management Plan serves as the mechanism for formalizing the execution of the One-VA EA Program as a continuous improvement process, and as such, many of the processes established by this plan will repeat on a regular update cycle. This plan will also establish the One-VA EA compliance and enforcement processes and procedures.

In particular this document will formalize the following aspects of the One-VA Enterprise Architecture program:

- The plan delineates actions to develop, use, and maintain the EA including management control and oversight;
- The plan ensures that EA is clearly addressed in the capital planning and investment process;
- The plan ensures that processes are established that produce a coordinated, clear set of objectives and guidance for executing projects;
- The plan establishes clear compliance criteria and non-compliance consequences for executing projects;
- The plan documents the development processes and management practices for building the target EA products;
- The plan documents the development processes and management practices for creating the sequencing plan, and populating the EA repository;

- The plan discusses the roles and responsibilities of the enterprise wide governance organizations such as the Enterprise Architecture Council (EAC), Planning, Architecture, Technology and Services Board (PATSB), and the Competency Review Integrated Project Team (CRIPT).
- The plan ensures that the continuous improvement process of review, validation, refinement and updates to the One-VA Enterprise Architecture is clearly documented;
- The plan documents the process that allows for the identification of gaps from the existing to the “Target” architecture.

### **1.3 Relationship of the EA-PMP to the VA Enterprise Architecture**

The EA Program Management Plan is the mechanism for transforming the agency from the “As Is” to the “To Be” architecture. The EA PMP defines the management structure, control, and the set of management processes that drive the enterprise from the baseline to the target architecture.

### **1.4 Executive Summary of PMP**

#### **1.4.1 PMP Synopsis**

The following list provides a brief description, where needed, of each of the chapters in this document.

Chapter 2: Motivation: The Need for a One-VA Enterprise Architecture. This chapter describes the need for the One-VA Enterprise Architecture and the alignment of IT investments with the business drivers, goals, and objectives.

Chapter 3: The One-VA Enterprise Architecture Program Environment. This chapter provides an overview of the structures (i.e., organization) and processes (i.e., activities) of overall VA governance, describes the structure and processes of VA’s Enterprise Architecture governance and how it fits into overall VA governance.

Chapter 4: Information Technology Execution and Monitoring. This chapter discusses the One-VA Enterprise Architecture in relationship to Information Technology execution and monitoring processes. This includes milestone reviews, a project manager’s perspective and compliance.

- Chapter 5: Quality Management/Configuration Management. This chapter describes the processes required to ensure the EA program will satisfy the needs for which it was designed. Topics include quality planning, quality assurance and quality control.
- Chapter 6: Risk Management. This chapter describes the steps/processes required to ensure that the probability and consequences of adverse events to EA project objectives are minimized. These processes include Risk Identification, Risk Assessment/Quantification, Risk Allocation and Risk Management.

## **2 Motivation: The Need for a One-VA Enterprise Architecture**

### **2.1 One-VA Information Technology Architecture Aligned with Business Goals.**

VA is committed to functioning as a unified department providing One-VA veteran customer centered delivery of service to our nation's veterans and their beneficiaries. The effective and efficient use of current and emerging technology, in conjunction with a rigorous commitment to meeting veteran service objectives and VA business requirements, in support of the VA's business operations will ensure that the Department meets the One-VA goal. The primary purpose of the One-VA EA is to *inform, guide* and *manage* the decisions of the enterprise, especially as they pertain to IT investments. The VA's EA mission is to "develop and implement an evolutionary, high-performance One-VA information technology architecture aligned with our program/business goals that enables enterprise-wide data integration."

The One-VA EA presents a planned approach to the development of information technology horizontally across the enterprise, which fosters coordination and integration, and is fundamentally driven by veteran service objectives and by the business needs of the enterprise. It fosters the evolution to a reusable component implementation and to services orientation design. This is an approach that facilitates easier, quicker responsiveness to changing business needs and advances in technology. This architecture identifies integration points and interdependencies between components that are driven by cross-functional business needs and executive management objectives. The One-VA EA is not a product or activity with a specific arbitrary end date; it is an ongoing program, subject to a continuous rework and improvement, and it is intended to keep the VA's IT aligned with the critical needs of the Department's mission, as those needs evolve.

### **2.2 VA Enterprise Architecture Mission, Goals, and Objectives**

The mission of the VA's Enterprise Architecture is to develop and implement an evolutionary, high-performance One VA information technology architecture aligned with the VA program/business goals that enables enterprise-wide data and process integration.

*The VA's Enterprise Architecture will enable the Department to provide an accessible source of consistent, reliable, accurate, useful, and secure information and knowledge to veterans and their families, our workforce, and stakeholders to support effective delivery of services and benefits, enabling effective decision-making and understanding of our capabilities and accomplishments. The Enterprise Architecture will support the VA's strategic goals.*

The goals and objectives of the VA's Enterprise Architecture are to ensure that:

1. Veterans will feel that we know who they are, we will answer their questions about their issues, we will effectively provide end-to-end services without frustrating them, they will have access to our systems for their own needs, and they will know that VA staff and systems are here to serve and honor them.
  - Self-service by Internet and phone will be available to veterans, 24 hours a day, 7 days a week.
  - Applications for benefits will be able to be submitted by veterans through the Internet.
  - Telephone service and information centers will be enhanced to enable easy access to information and services.
  - Kiosks will be installed, in public areas, to provide access to information about benefits and services.
  
2. The VA will implement a One VA information framework supporting cost-effective data integration and information sharing across program/business lines to provide a “single” source of consistent, reliable, accurate, timely, and secure information to veterans and their families, employees, and other stakeholders.
  - Veterans will never have to register with VA more than once.
  - Veteran information will be available anywhere, anytime, to any authorized user in real time.
  - Telemedicine use will be enhanced to improve timeliness and quality of care for veterans and maximize remote provider consultation.
  - Enterprise Architecture will foster the organization and presentation of all relevant patient data in a way that directly supports clinical decision-making and program analysis. Timely access to clinical information by VA staff from multiple sites of care is paramount to ensure prompt service, continuity, and quality care.
  - Common and core data will be shared by the VA’s operating elements, ensuring accessibility and avoiding redundancy.
  - Sharing and use of information with VA’s external partners will be enhanced. These partners include: the Social Security Administration; the Department of Defense; Health and Human Services; as well as other federal, state, and local governments; educational institutions; lending institutions; and other program/businesses.

- The VA information systems will be high-performance systems that meet or exceed exemplary standards in businesses and government agencies.
- Information systems characteristics will be adaptable, scalable, extensible, open standards-based, maintainable, reliable, secure, component-based, common-service oriented, using the most appropriate technology.

**VA Goal 5 (E-1):** Provide One-VA world-class service to veterans and their families through the effective management of people, technology, processes, and financial resources

The CIO's Information Technology goals that follow ensure that the Secretary's goals, especially the enabling goal, will be supported with innovative, disciplined and practical application of information technology.

**IT Goal 1:** Implement One-VA Enterprise Architecture.

**IT Goal 2:** Implement a One-VA data network.

**IT Goal 3:** Secure the One-VA enterprise against Cyber Attack.

**IT Goal 4:** Establish a disciplined, non-bureaucratic project management structure.

**IT Goal 5:** Establish effective metrics to measure performance.

**IT Goal 6:** Implement an effective Command and Control, COOP and COG infrastructure.

**IT Goal 7:** Shape the VA IT workforce to support the target One-VA EA.

### 2.3 Target Architecture Logical Model

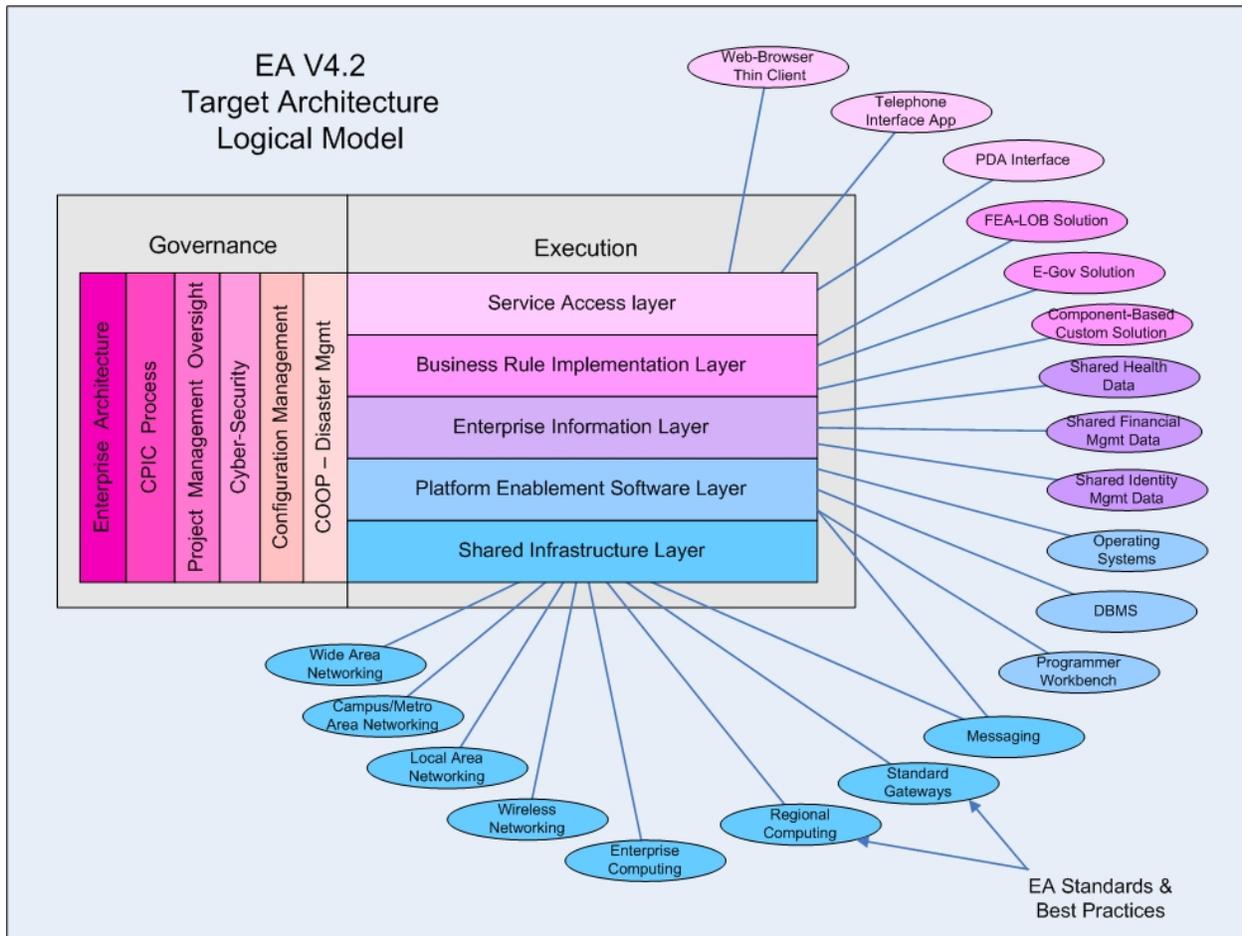


Figure 2-1: Target Architecture Logical Model of the One-VA Enterprise Architecture V4.2

### Target Architecture Structure

The Target architecture consists of portfolio projects that are just completing, or currently underway, as well as projects in planning and projects contemplated for the near future. These projects are organized into the five layers identified in the Target Architecture Logical Model (shown above). These five layers are described directly below. Additionally the four governance disciplines (i.e. Enterprise Architecture, Cyber security, Configuration Management, and COOP Disaster Management), identified within the Target Architecture Logical Model, are applied throughout the design and development of all projects within each layer.

## Shared Infrastructure Layer

This Target Architecture layer describes the facilities, hardware and network infrastructure that support IT operations and services. It includes: the VA Intranet, with its external gateways, firewalls, DMZs, server complexes, data centers and client workstation networks. Several key transformations to VA's Shared infrastructure layer are being completed within this year, and others are underway.

At this time the following projects are being implemented:

- The telecommunications modernization plan (TMP) has completed Milestone-4. This system is fully deployed and currently provides centrally managed and monitored Wide Area Network telecommunications services across VA's Intranet.
- VA's Integrated Security Program has eliminated 120 independent external network gateways across the intranet with a system of six standardized, fire-walled and centrally-monitored external network gateways, under configuration management, for general VA use. Standardized, centrally-monitored DMZ configurations are also in place to protect critical data and processes from network intrusion;
- Centralized network intrusion detection and remediation services are provided by a Security Operations Center that is integrated with the Network Operations Center and with a cadre of local, certified Information security officers (ISOs) to provide uniformly managed rapid response to external threats;
- Activities are progressing to integrate and standardize COOP and disaster recovery capabilities between VA's three corporate data centers;
- VA's Exchange Consolidation Program is in the process of consolidating hundreds of de-centralized Microsoft Exchange messaging servers into 26 regional locations, in phase-1 of a two-phase program. Eventually this program will result in all messaging being managed from six locations. The Exchange Consolidation has also standardized email addressing conventions across the enterprise;
- VA's Wide-Band radio frequency transition program is actively integrating VA's emergency response radio network from wide-band analog to narrow-band digital transmission by the federally mandated dates.

Additional, new initiatives are beginning which will increase VA's ability to provide centrally managed, standardized core services across the enterprise:

- The Enterprise Telephony Initiative is analyzing the feasibility and benefits of providing Voice over IP services across the VA Intranet;
- The VA IPV6 Transformation Project plans to provide complete IPV6-compatibility across the VA Intranet before September 2008. IPV6 will

provide expanded application functionality, user authentication and user location capabilities;

- The Regional Computing Initiative is planning to consolidate the more sophisticated local computing services into regional data centers. This will reduce cost by consolidation critical skill sets in a reduced number of locations.

### **Platform Enablement Software layer**

This Target Architecture layer consists of the operating system software, DBMS software, network operating system software, and related COTS products, required to exploit and control the capabilities of VA's infrastructure. Projects underway within this layer include:

- During 2004, VA eliminated the last of its Windows legacy desktop operating environments; Today approximately 44 percent of VA's 220,000 windows workstations have been upgraded to the Windows-XP version, with the remainder scheduled for conversion between now and September 2006;
- VA's Windows server population is currently being upgraded from the Win-2000-Server to the Win-2003 operating system. This activity is part of normal operation and maintenance and is not represented by a separate capital investment;
- VA is also in the process of assuring that its NOS network component operating system install-base is capable of supporting the IPV6 (as well as the IPV4) service stack;
- VA's use of the PCHS-III commodity purchase contract and the GSA SmartBuy program will standardize COTS software license acquisition and maintenance renewal, eliminate software license duplication, and minimize software acquisition cost, while reducing the administrative overhead in software license procurement.

### **Enterprise Information layer**

Several projects are underway to standardize information across VA, and to create sharable common data stores for general use by all business lines:

- The Registration & Eligibility program is developing the requirements for a single authoritative source of identity management, demographic and service history data for use by all VA business lines, through a common sharable data store;
- The Health Data Record (HDR) project is creating a standardized, sharable electronic health data record which will be shared across VISNs

to make veteran health information available at any VA facility where the veteran may appear to receive services;

Other VA projects are standardizing information shared by VA and other government Departments:

- Working with the DoD/JR&IO (Joint Requirements & Integration Office), VA is substantially reducing the number of independent data feeds passed between DoD and VA and will reduce this traffic to one feed in each direction;
- The DoD/VA Benefits Executive Council has developed plans for modifying or replacing VA legacy systems to receive veteran identification information from a single authoritative source; these projects will appear in the BY-2008 portfolio.
- The Bidirectional Health data record (BHIE) and Federal Health Data record (FHIE) projects are standardizing health information definition across VA and DoD;
- Under the CDR/HDR interoperability initiative, the DoD and VA are developing sharable software components that will permit the DoD Composite Health Care System (CHCS II) and the VA/HealtheVet to exchange clinical data so that both DoD and VA beneficiaries receive seamless care.
- The VA Health Language Version-7 (HL7) Initiative keeps VA's approach to health information definition and recording in line with the industry HL7 standard, and assures that VA remains at the vanguard of clinical information systems;

VA's data Architecture service, under the office of Enterprise Architecture Management, is developing a data registry and data definition governance process which will regulate the creation of data definitions, properties and attributes, and through communities of interest, will enforce data sharing and reuse across the Department:

- This program is currently developing a pilot, involving identity management and veteran demographics data.

### **Business Rule Implementation layer**

When contemplating the replacement of an existing system, or the creation of a new system, VA first assures that the supported business process has been re-engineered for efficiency and effectiveness. Then VA attempts to find an existing capability, such as an FEA e-gov or FEA-LOB solution that can fulfill the requirement. If a solution is not readily available, VA will develop a new

system from sharable, reusable components. The following elements of the business rule implementation layer are currently in development:

- VA's new government employee travel support system, launched in this budget year, is an implementation of the PMA e-travel solution;
- VA will deploy an enterprise-level employee training management system by January 2007. This system is an implementation of the PMA e-Training solution, it replaces a variety of stove-piped legacy training systems;
- VA's replacement payroll system, scheduled to deploy in January 2008 is an implementation of the PMA e-payroll solution, it will support VA's Title-5 and Title-38 employees;
- VA's Registration Eligibility initiative is collecting requirements to develop a common registration information collection system which will support all VA business lines;
- EA V4.1 recommends that VA launch an enterprise-wide Electronic Records Management initiative, utilizing the PMA e-Records-Management solution.

### **Service Access Layer**

VA's current information delivery standard calls for a three tiered Java-based thin-client development strategy which requires only a generic web-browser on the client-system to complete the user interface;

- VA is currently standardizing the look and feel and configuration management methodology for all VA web activity;
- VA has a strict policy in place, supported by a testing lab, to assure that all VA web products are Section-508 compliant for accessibility.
- Another VA-wide initiative will standardize Web content management across the enterprise.

During the next cycle of the EA, VA will extend its development of a component-based architecture by identifying common web services with corresponding standard interfaces that can be acquired or developed as sharable, reusable components. These components will be documented in VA's shareable component registry and will be used in the future development of sharable component-oriented web applications, across all VA business lines. Some typical areas for sharable component exploitation include:

- Web-site Search Functions;
- Application Access Services;

Web Content Management Services

### **3 The One-VA Enterprise Architecture Program Environment**

#### **3.1 Introduction**

This chapter presents an overview of the structures (i.e., organization) and processes (i.e., activities) of overall VA governance, describes the structure and processes of VA's Enterprise Architecture governance and how it fits into overall VA governance. The roles and responsibilities of VA's:

- Chief Enterprise Architect;
- Enterprise Architecture Council; as well as the
- Integration of the Enterprise Architecture with the Capital Planning and Investment Control (CPIC) process; and the
- Integration of Enterprise Architecture with the Information technology Investment and Project Approval Processes.

#### **3.2 Applicability**

All VA systems will be included within the Department's Enterprise Architecture. VA will develop, follow, and enforce policies and procedures that define and maintain its Enterprise Architecture. VA's Enterprise Architecture governance organization and processes will mature over time and various levels of detail will be developed for different categories of systems. Systems will be engineered to a degree and timetable as deemed appropriate by the project sponsors and project managers in concert with the CIO, acting through the Enterprise Information Board. Typical categories of projects to be included in this process include, but are not limited to:

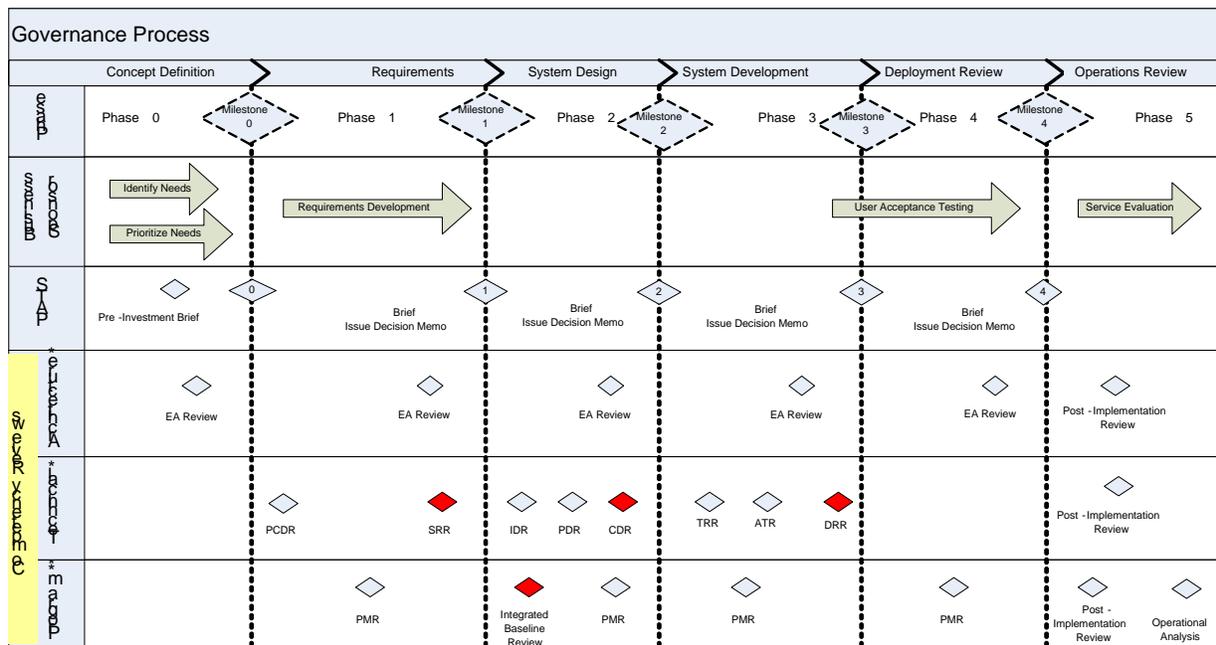
- Computing infrastructure and networks,
- Legacy applications,
- New and continuing Information Technology applications,
- New business process engineering or business process re-engineering initiatives,
- Ad hoc/demand systems required for special/specific short-term needs, and
- Stand-alone applications

All systems will be reported. The project's scope, impact and demands on infrastructure, cost, data sharing, interoperability, and the projects interface requirements within and outside VA will also determine the required level of detail to be reported.

### 3.3 Overview of the VA Governance and Enterprise Architecture Governance

EA Governance is defined, in detail, within the VA IT Governance Guide, which was approved in March of 2007 in order to address changes in roles and responsibilities that resulted from the then-recent Department-wide IT reorganization. These topics are also addressed within this EA Program Management Plan, the IT Project Management Guide and the CPIC Guide.

The following diagram provides an integrated view of the gated IT project reviews that occur across the VA system development life cycle. This information is extracted from the recently published IT governance documents, identified above. Definitions of the various review boards and of the various review events are provided in tables following this diagram. The Project Milestone review process is also described in detail within Appendix-B of this EA Program Management Plan.

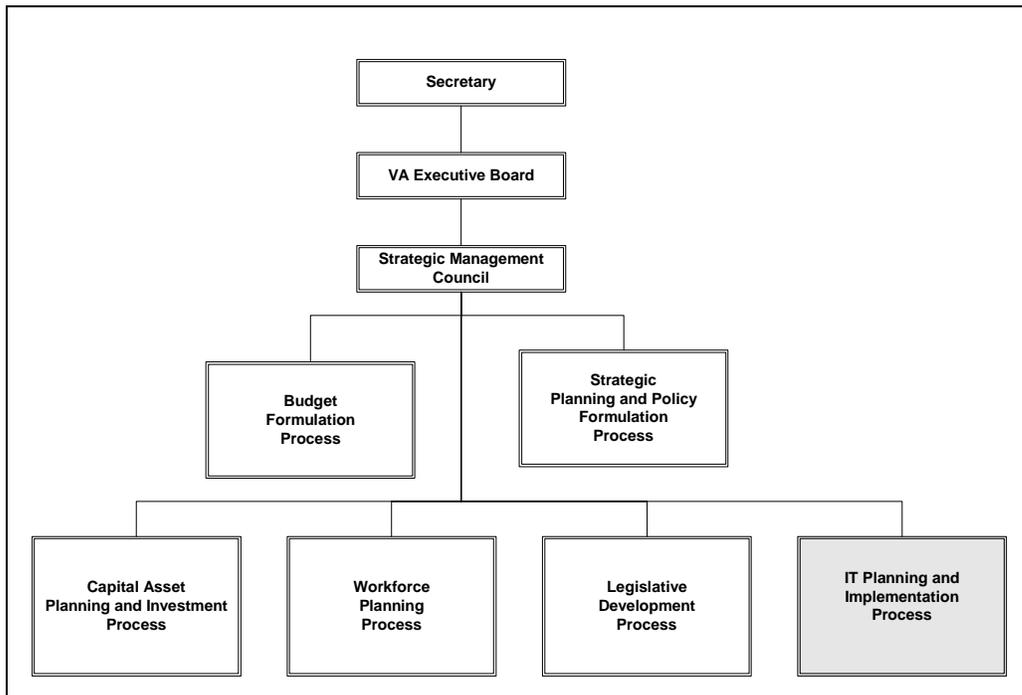


<b>Governance Body Description</b>		
<b>Acronym</b>	<b>Name</b>	<b>Function</b>
	Business Sponsor	A senior manager within the business line or organization which will be the customer of the project being developed. This individual has approval authority for process and technology change within his/her business area and is responsible for developing the business case that initiates a project, for approving captured requirements and design specifications and for accepting final product delivery. The business sponsor also approves Service Level Agreements for his/her business area...
PATSB	Planning, Architecture, Technology and Services Board	Made up of Senior Executives (DAS and ADAS level), this governance body determines that a project has successfully completed its current phase and is authorized to begin the next project phase
CR IPT	Competency Review Integrated Project Team	Made up of senior subject matter specialists for enterprise architecture, technology, project management, security, infrastructure and operations, this IPT performs a preliminary competency review upon each project, prior to a milestone. This competency review is used to advise the leadership at the subsequent milestone review.
EAS	Enterprise Architecture Service	
AQS	Architecture Quality Service	

<b>Governance Event Description</b>			
<b>Event Acronym</b>	<b>Event Name</b>	<b>Event Function</b>	<b>Event Sponsor</b>
CR-0	Phase-0 Competency Review	Advises the PATSB on the projects readiness for a Milestone-0 review	CRIPT
	Pre-Investment Briefing		PATSB
MS-0	Milestone Review 0	Determines Completion of project phase-0 and commencement of phase-1. Approves Business Case and Project Charter	PATSB
PCDR	Preliminary Design Concept Review		EQS
PMR	Program Management Review	Validates projects conformance to VA Project management standards	(005P)
SRR	System Requirements Review		EQS
CR-1	Phase-1 Competency Review	Advises the PATSB on the projects readiness for a Milestone-1 review	CRIPT
MS-1	Milestone Review 1	Determines Completion of project phase-1 and commencement of phase-2. Approves Project's submission of a budget request, Con-Ops and general project requirements.	PATSB
IDR	Initial Design Review		EQS
IBR	Integrated Baseline Review		(005P)
PDR	Preliminary Design Review		EQS
PMR	Program Management Review	Validates projects conformance to VA Project management standards	(005P)
CDR	Critical Design Review		EQS
CR-2	Phase-2 Competency Review	Advises the PATSB on the projects readiness for a Milestone-2 review	CRIPT

MS-2	Milestone Review 2	Determines Completion of project phase-2 and commencement of phase-3 Approves Project Design	PATSB
TRR	Test Readiness Review		EQS
PMR	Program Management Review	Validates projects conformance to VA Project management standards	(005P)
ATR	Acceptance Test Review		EQS
DRR	Deployment Test Review		EQS
CR-3	Phase-3 Competency Review	Advises the PATSB on the projects readiness for a Milestone-3 review	CR IPT
MS-3	Milestone Review 3	Determines Completion of project phase-3 and commencement of phase-4 Approves project test results, project deployment plan and deployment schedule	PATSB
PMR	Program Management Review	Validates projects conformance to VA Project management standards	(005P)
CR-4	Phase-4 Competency Review	Advises the PATSB on the projects readiness for a Milestone-4 review	CR IPT
MS-4	Milestone Review 4	For development projects, this milestone review determines completion of project phase-4, project completion activities and customer acceptance.  For Steady-State projects (in Operation and Maintenance) this milestone review is recursively executed every third year to assure that the project is still required and that it is meeting its satisfying its business objective.	PATSB

Full participation of VA's program/business and information technology communities is essential for VA's Enterprise Architecture to be successful. The governance process ensures that the Enterprise Architecture is kept current and becomes part of VA's overall decision-making processes. To contribute effectively to VA's mission and strategic goals, and improve the delivery of benefits, services, and information to the veteran, the governance of VA's Enterprise Architecture must flow from VA's corporate governance and be aligned with it.



**Figure 3-1: VA's Governance Framework (i.e., Structures and Processes)**

Figure 3-1 summarizes the organizational structure of overall VA governance and the processes that support it. The Enterprise Architecture governance processes are part of VA's governance processes for information technology and, as such, are incorporated within the existing VA governance framework as indicated by the highlighted box in Figure 3-1 with one exception. The Chairman of the Strategic Management Council will take Enterprise Architecture matters directly to the Secretary for approval unless the Secretary, the Deputy Secretary, or an Under Secretary determines that the matter requires a review by the VA Executive Board.

The processes and structures of VA Enterprise Architecture governance are designed to leverage overall VA governance processes and structures. VA's Enterprise Architecture governance consists of a collaborative structure that includes full participation by VA's program/business and information technology communities. This degree of participation from both VA program/business and VA information technology communities is critical to the successful implementation, maintenance, and long-term relevance of information technologies and Enterprise Architecture in VA.

### 3.3.1 VA's Information Technology Planning Process

The core of VA Enterprise Architecture governance is the information technology planning process established by the Secretary. The information technology planning

process is responsible for aligning information technology with the program/business needs and strategic goals of VA. The information technology planning process strives for a total collaboration of program/business with information technology, and consists of the following three functions or processes:

- Enterprise Architecture
- Capital Planning
- Project Management Oversight

The information technology planning process supports the review of information technology investment proposals for compliance with VA's Enterprise Architecture. The Planning, Architecture, Technology and Services Board (PATSB) oversee this process. The Assistant Secretary for Information and Technology (who is also VA's Chief Information Officer), as the process owner of the information technology planning process, is the steward responsible and accountable for creating, leveraging, coordinating, and implementing VA's Enterprise Architecture. The PATS Board is chaired by the Deputy Assistant Secretary for Strategic Policies, Plans and Programs. The objectives and responsibilities of the PATS Board are as follows:

Objectives:

- Ensure the VA Enterprise Architecture's alignment with and integration with program/business goals and processes.
- Ensure alignment of IT initiatives with the Enterprise Architecture.
- Ensure adequate funding and commitment to initiatives and the enterprise information technology infrastructures.
- Ensure adherence to VA's Project Management Oversight Process (i.e., Milestone Review Process)

Responsibilities include:

- Developing and recommending to the CIO and the Strategic Management Council the direction for VA's Enterprise Architecture.
- Establishing and communicating the executive direction for the use of information technology.
- Ensuring the interests of program/business and information technology representatives from all major VA entities are considered in VA's Enterprise Architecture.

- Ensuring a viable integrated VA Enterprise Architecture is in place covering a rolling multi-year period.
- Ensuring that the Enterprise Architecture is current and provides complete and accurate descriptions of the baseline environment, the target vision, and the sequencing plan to take VA from the baseline (sometimes called “as-is”) to the target (sometimes called “to-be”) environments.
- Ensuring the suitability and consistency of technology investments with VA’s Enterprise Architecture and strategic objectives.
- Ensuring that the information technology planning process addresses sociological change management, security, project management, and capital investment as well as VA Enterprise Architecture concerns.
- Conducting milestone reviews within VA’s Project Management Oversight Process.

### **3.3.2 Overall VA Enterprise Architecture Governance**

The purpose of Enterprise Architecture governance is to manage, control, and monitor Enterprise Architecture activities and progress.

The role of the Enterprise Architecture Council is to oversee and guide Enterprise Architecture issues for the Department, and continuously develop and refine VA’s Enterprise Architecture to meet changing veteran needs, strategic goals, and the incorporation of new technologies. This Council is chaired by VA’s Chief Architect and is composed of business representatives from each administration and staff office, and the Chief Enterprise Architects of the Deputy Chief Information Officer’s organizations and staff offices. The Enterprise Architecture Council reports to VA’s Enterprise Information Board for information technology planning process purposes. The Enterprise Architecture Council responsibilities include three processes: the Enterprise Architecture executive steering process, Enterprise Architecture business management process; and the Enterprise Architecture compliance education and enforcement process. The Chief Enterprise Architect is the process owner.

### **3.4 Roles and Responsibilities of VA’s Chief Enterprise Architect**

The VA’s Enterprise Architecture is a formal program initiated and endorsed by the Secretary of the Department of Veterans Affairs. As such, the program warrants a formal management structure, within the Office of VA’s Chief Information Officer, consisting of information technology experts, program/business experts, and technologists. The major component of this management structure is the Office of Enterprise Architecture

Management which is by the VA Chief Enterprise Architect. The Chief Enterprise Architect provides management and support of the Enterprise Architecture and reviews proposed projects for Enterprise Architecture compliance. The term “compliance” when applied to the VA’s Enterprise Architecture is not binary but represents different degrees of alignment to the VA’s Enterprise Architecture in terms of program/business objectives and technical standards.

The VA's Chief Enterprise Architect reports to the Deputy Assistant Secretary for Strategies Policy, Plans and Programs, who in turn reports to VA’s Chief Information Officer. The Chief Architect is the principal advisor to the DAS/SPPP, and the CIO (AS/IT) on VA’s enterprise architecture (EA). The Chief Architect oversees and manages the development, design, and implementation of the IT standards, and strategic planning policy of the Department’s EA activities as required by the Clinger-Cohen Act. The Chief Enterprise Architect is responsible for leading the development of the VA’s Enterprise Architecture and ensuring the integrity of the architectural development processes and the content of the Enterprise Architecture products. The Chief Enterprise Architect is the ombudsman to the information technology and program/business line units, and ensures that program/business unit processes are emphasized in the Enterprise Architecture. The Chief Enterprise Architect is also responsible for ensuring that the Enterprise Architecture provides the best possible information and guidance to information technology projects and stakeholders, and that systems development efforts are properly aligned with program/business unit requirements.

The VA's Chief Enterprise Architect is also the manager of the VA’s Office of Enterprise Architecture Management. In this role, the Chief Enterprise Architect has management responsibility for the Enterprise Architecture Program, with the authority, responsibility, and accountability for the overall Enterprise Architecture effort. In this regard, the Chief Enterprise Architect is responsible for the planning, staffing, and the ultimate success of the Enterprise Architecture Program, including acquisition of sustaining funding, negotiating schedules, and the timely and accurate delivery of the Enterprise Architecture products (or "artifacts").

The Chief Enterprise Architect will periodically refine the schedule and enhance the requirements for more comprehensive reporting, and in collaboration with the system owners, define the category of the system and the expected impact on VA Enterprise Architecture. There will be a sequencing of systems into the VA Enterprise Architecture; the first being those that are considered mission-critical, followed concurrently by in-process, new, and legacy systems.

The core competencies of the Chief Enterprise Architect include leadership skills, a comprehensive knowledge of Enterprise Architecture and requisite skills, and critical understanding of the role and relationship of information technology to supporting the programs/businesses of the VA. The Chief Enterprise Architect must be an effective communicator who can bridge the cultural differences that often exist between the

program/business and systems organizations, and among agencies, and facilitate interaction and cooperation.

The Chief Enterprise Architect provides a high-level project management framework for the VA's Enterprise Architecture project portfolio; and facilitates the evaluation and management of project, people, program/business, and technology risks and contingency plans, for the portfolio of information technology projects in the VA. The Chief Enterprise Architect also provides consulting advice to help ensure appropriate Enterprise Architect and project management tools, processes, and best practices will be used for project planning and management, and facilitates the collection and publishing of project metrics and status reporting on a consistent basis for all information technology projects within the VA.

The Chief Enterprise Architect is responsible for defining and managing the change management process, which includes changes to Enterprise Architecture products, processes, and technologies. The VA's Chief Enterprise Architect also advises senior managers of the potential human impacts involved in VA's Enterprise Architecture and information technology changes, including change planning, management, and communication processes in planning and implementing projects as defined in Enterprise Architecture sequencing plans.

### **3.5 Integrating VA's Enterprise Architecture with VA's Information Technology Capital Planning and Project Approval Processes**

Compliance with VA's Enterprise Architecture is a critical success factor. Full participation from both VA program/business and information technology communities is also an important factor to VA's Enterprise Architecture implementation and long-term relevance. Linking VA's Enterprise Architecture alignment review with VA's capital planning process is necessary to achieve the full benefits of both the Enterprise Architecture and information technology investments. Investment proposals often reflect changes in the organization's program/business functions as well as providing a window to technology advancements. This information is valuable as a feedback loop to VA's Enterprise Architecture planning and development function because the architecture must be changed to reflect current program/business functions and advances in technology must be considered when updating the Enterprise Architecture.

The integration of all three factors (i.e., program/business, technology, and investment) is illustrated in Figure 3-3, which shows that VA's Enterprise Architecture process guides the Department's capital planning yields information that guides changes to the Enterprise Architecture. This interaction results in Architecture Alignment and Assessment, thus VA's Enterprise Architecture facilitates the integration and alignment of program/business, technology, and investment.

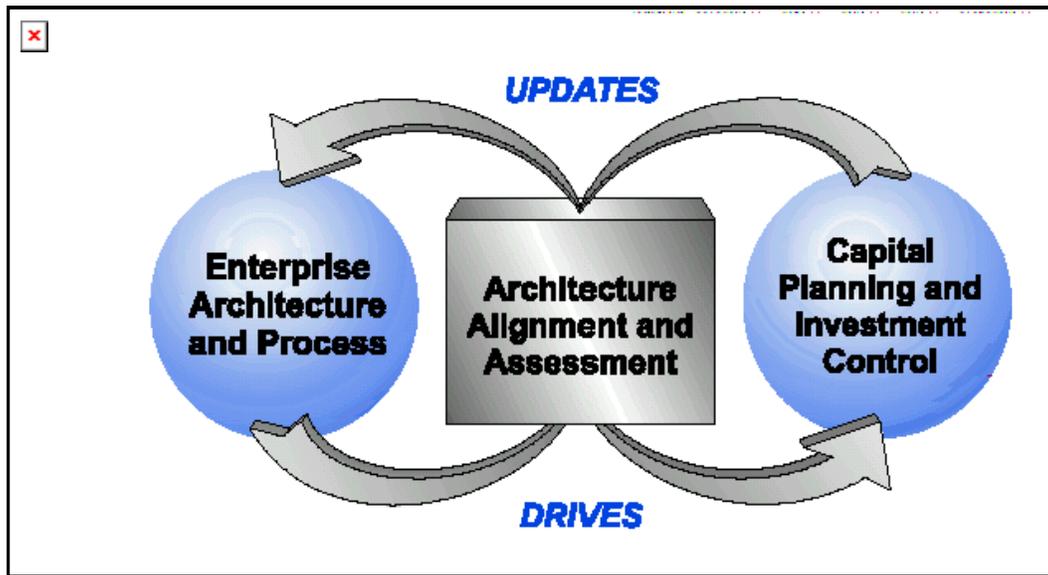


Figure 3-2: VA's Architecture Alignment and Assessment Process

### 3.6 Capital Planning

As previously described, proposed initiatives, with PATS Board recommendation, are submitted to the Strategic Management Council for review, and to the VA's Executive Board for approval, modification, or rejection as part of the information technology planning process. The Chief Enterprise Architect will continue to evaluate and review Strategic Management Council approved information technology initiatives for the VA Enterprise Architecture compliance.

Recognizing that full compliance will have to be phased in over time, if the Chief Enterprise Architect determines that a project does not comply with the VA's Enterprise Architecture, the Chief Enterprise Architect will recommend a remediation plan to the Enterprise Information Board to bring the project into alignment. If, at any time, the Chief Enterprise Architect believes a project does not comply with the VA's Enterprise Architecture, the Chief Enterprise Architect will recommend to the Enterprise Information Board that the initiative be terminated, suspended, or redefined.

The Chief Enterprise Architect will provide the PATS Board, the CIO and the and Strategic Management Council with regular reports concerning all approved projects focusing on its overall VA Enterprise Architecture outcome and progress, as well as required project management, security, and organizational change concerns.

### **3.7 Integrating VA's Enterprise Architecture with Program Execution**

The third and final element of linking VA's Enterprise Architecture to key Department processes is linking it to the execution of projects not only at milestone decision points but also throughout their execution. Compliance can be addressed as either a reactive inspection process or as a proactive process fully integrated with the project execution from the earliest stages of planning onward. VA has chosen this proactive approach. To affect this, clear relationships must be established between the Chief Enterprise Architect, Architects and all other offices under the CIO organization.

#### **3.7.1 VA Chief Enterprise Architect:**

The responsibilities of the VA Chief Enterprise Architect are as follows:

- Establish the overall Department policies for development, sustainment and implementation of the One-VA Enterprise Architecture.
- Plan, program, budget and oversee the execution of all funding allocated across the Department for Enterprise Architecture as well as architectural initiatives undertaken within the DCIO organizations.
- Chair the Enterprise Architecture Council (EAC) and through the EAC, lead Departmental efforts to develop and maintain the One-VA Enterprise Architecture.
- Ensure compliance with the One-VA Enterprise Architecture across all projects contained within the VA IT Portfolio. Identify any issues of non-compliance to the CIO. This includes all stages of a project life cycle from initiation to containment in service. It includes formal evaluation of compliance at Project Milestone reviews as well as regular interaction with the CIO, Architects and Development organizations between formal Milestone reviews.
- Ensure the identification of all common data, services, integration points and interdependencies among projects within the IT portfolio and the proper synchronization of projects to accommodate those interdependencies across the overall IT portfolio. Identify any project integration or synchronization issues to the CIO.
- Lead the development of any centrally managed applications layer projects that provide common services horizontally to other elements of the IT portfolio.

### **3.7.2 Health, Benefits and Memorial Affairs Architects:**

The responsibilities of the Health, Benefits and Memorial Affairs Architects are as follows:

- Represent the interests of the VA CIO and Chief Architect within the administrations in ensuring adherence within their organizations to the Department policies for implementation of the One-VA Enterprise Architecture.
- Represent the interests of the business lines within the administrations in the establishment of procedures for developing, implementing, and sustaining the One-VA Enterprise Architecture. Ensure adherence within their organizations to those procedures.

### **3.7.3 Development Directors and Project Managers / Project Chief Engineers:**

The responsibilities of the Development Directors and Project Managers / Project Chief Engineers are as follows:

- Proactively engage within their project team structure to ensure that their development projects are adequately reflected in the development and evolution of the One-VA Enterprise Architecture.
- Ensure compliance with the One-VA Enterprise Architecture across all projects being executed in their respective development organizations. This includes all stages of a project life cycle from initiating the project to sustaining the resulting system in production service. The objective is to ensure alignment with the One-VA Enterprise Architecture and its logical and physical distributed systems architecture throughout the design, development and integration process. It also includes formal evaluation of compliance at Project Milestone reviews.
- Ensure the identification of all common data, services, integration points and interdependencies among projects executing within their DCIO organization, both internally to other projects within the organization and with other external projects executing elsewhere in the Department or outside of the Department. Ensure proper synchronization of projects to accommodate those interdependencies.

## **3.8 Integrated Evaluation and Assessment Process**

The VA will continuously assess the effectiveness and efficiency of its Enterprise Architecture. The VA will use a balanced measures approach to review progress and results associated with Enterprise Architecture development and implementation. As such,

VA will measure outcomes, process management, program/business and technical alignment, customer satisfaction, employee satisfaction, and other factors.

The evaluation process will consider the phases of the *Architecture Alignment and Assessment Guide* developed by the Chief Information Officer Council and the *Information Technology Investment Management Framework* provided by the General Accounting Office. These phases of analysis are shown in Figure 3-4.

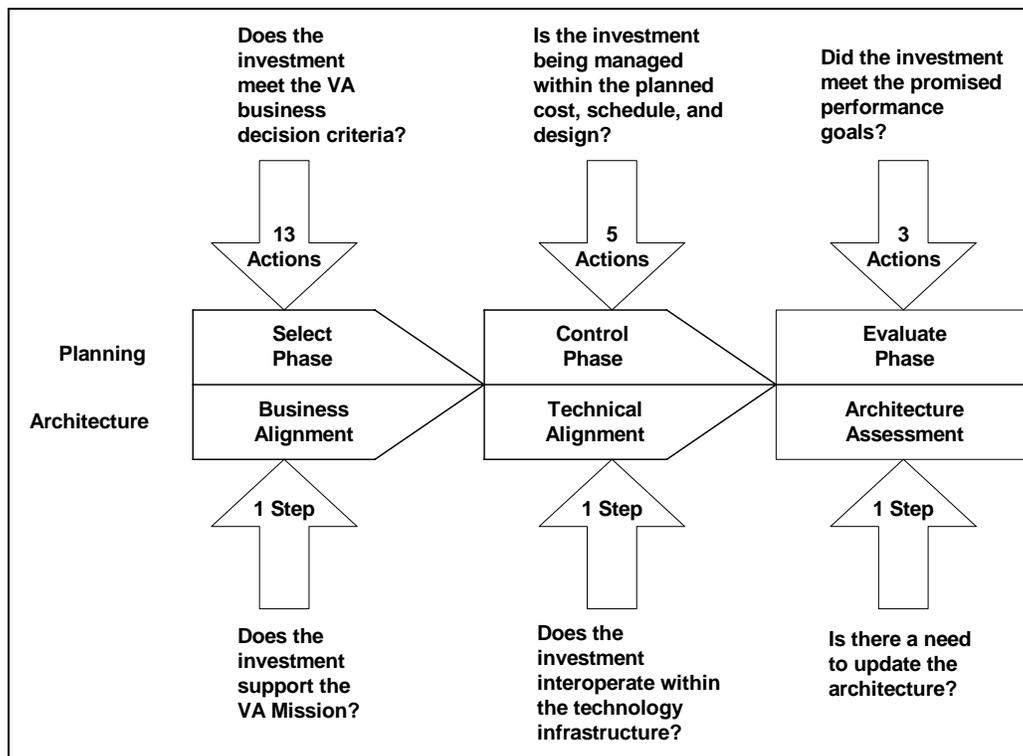
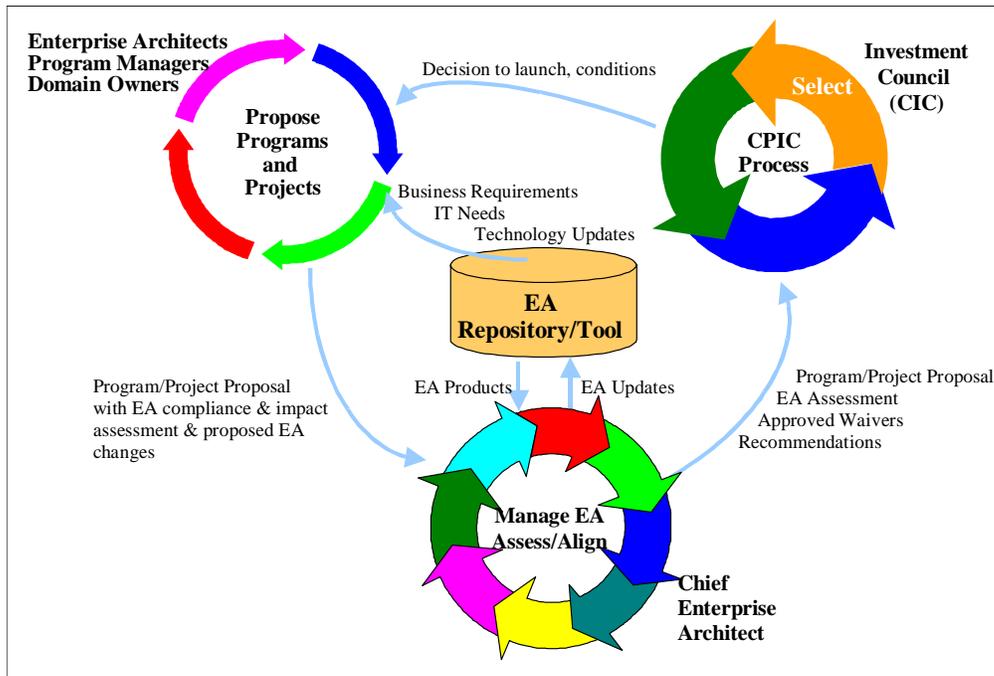


Figure 3-3: VA's Capital Planning Phases

As previously described, the Department will use the information technology planning process and capital planning processes to ensure that information technology investments consistently support strategic goals. All information technology projects must align with the Department's mission and support Departmental program/business needs while minimizing risks and maximizing returns throughout the investment's life cycle. The target architecture and the sequencing plan provide information for the three phases of the capital planning and investment control process, (i.e., select, control, and evaluate) as follows:

1. In the Select Phase, the VA evaluates the proposed investments to determine if they meet program/business decision criteria.





**Figure 3-4: VA's Information Technology Initiative Assessment Process**

Table 3-1 describes the main types of assessments that occur. In the initial phase of defining and selecting a project, the emphasis is on the program/business alignment, program/business case solution, location in the sequencing plan, and to a limited degree technical compliance. As the proposed project's concept matures, program/business and technical compliance are more equally addressed.

Type of Enterprise Architecture Reviews	Review Purpose/Goal
Program/business alignment assessment	Determine if the proposed project aligns with the VA's strategic plans, goals, values, and objectives. The goal of the review is to ensure that the expected outcomes of the project are aligned to program/business and high-level VA Enterprise Architecture requirements.
Program/business and technical case solution	Examine the proposed solution, at a high level, to determine the impact on the organization's information technology environment. The goal of the review is to ensure that the proposed solution supports both the program/business and technical architecture.
Sequencing plan assessment	Determine whether the proposed investment is consistent with the sequence and priorities in the VA's Enterprise Architecture

Type of Enterprise Architecture Reviews	Review Purpose/Goal
	and information technology plans. The goal of the review is to ensure progress toward the target architecture.
Architecture alignment assessment	Determine whether the architecture of the proposed solution complies with the enterprise standards (including security), VA's Enterprise Architecture, and project methodologies. The goal of this review is to ensure VA's Enterprise Architecture compliance of information technology projects.
Security architecture assessment	Determine that the proposed solution is compliant with VA standards and policies to ensure confidentiality, integrity, and availability.
Post-implementation assessment	Compare performance promised in the initial proposal, program/business case, and requirements to actual performance of the systems in production. Evaluate the ROI to validate estimated benefit.

**Table 3-1: Program Assessment Criteria**

Upon assessing the project's compliance with the VA's Enterprise Architecture, the VA's Chief Enterprise Architect will make recommendations and provide support to help bring non-compliant proposals into compliance. In cases where a waiver has been requested, the Chief Enterprise Architect will respond with an independent assessment of operational, economic, productivity, and other impacts of granting such a waiver, and make a recommendation to the PATS Board.

### 3.8.2 Assessing Progress (Execute and Control Phase)

The Chief Enterprise Architect is responsible and accountable to the PATS Board for maintaining VA Enterprise Architecture compliance once funding is committed and a project is initiated. Figure 3-6 depicts the information flow as the project cycles through the integrated VA Enterprise Architecture, systems life cycle, and capital planning and investment control processes. A project will pass through this cycle multiple times. There are continuous periodic interactions between the project implementers and the architecture governance process with more formal reviews at prescribed milestones.

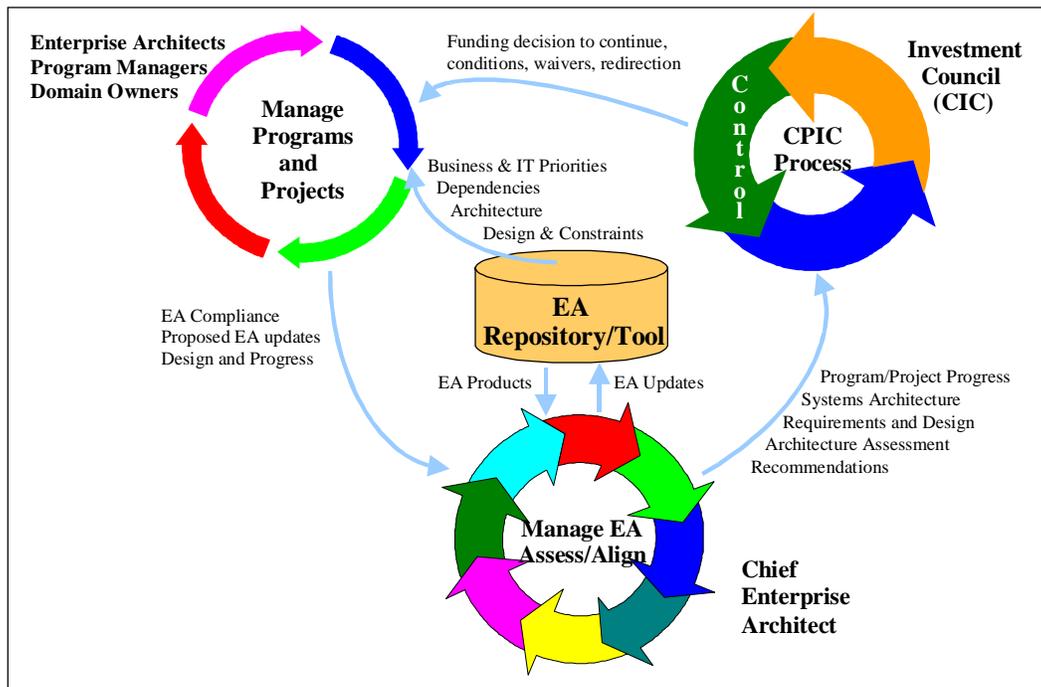


Figure 3-5: VA's Monitoring In-Development Projects (Execute/Control Phase)

In the control phase, assessment assures that the investment is being managed within the planned cost, schedule, design, and the VA Enterprise Architecture compliance. Status and deliverable information is provided by the project management process. The Chief Enterprise Architect and PATS Board will use this information as the basis for recommendations and decisions about continued funding, refocus, imposition of development constraints, technical modifications, or possible redirection of technical efforts. This is necessary to manage and mitigate risks, because other investment decisions rely on analysis of progress reports and compliance assessments to arrive at implications on the total cost, schedule, and performance of the overall VA Enterprise Architecture.

### 3.8.3 Completing the Project Assessment (Evaluate Phase)

Most projects are interdependent with other development projects and legacy systems. Many require additional increments of capability or modifications provided by additional operations and maintenance efforts. When the project is complete, there is a final assessment of impacts on the Department, VA's Enterprise Architecture, program/business operations, other projects in the sequencing plan, and consequently future investment and funding decisions. Figure 3-7 shows the information flow upon completion of a program or project.

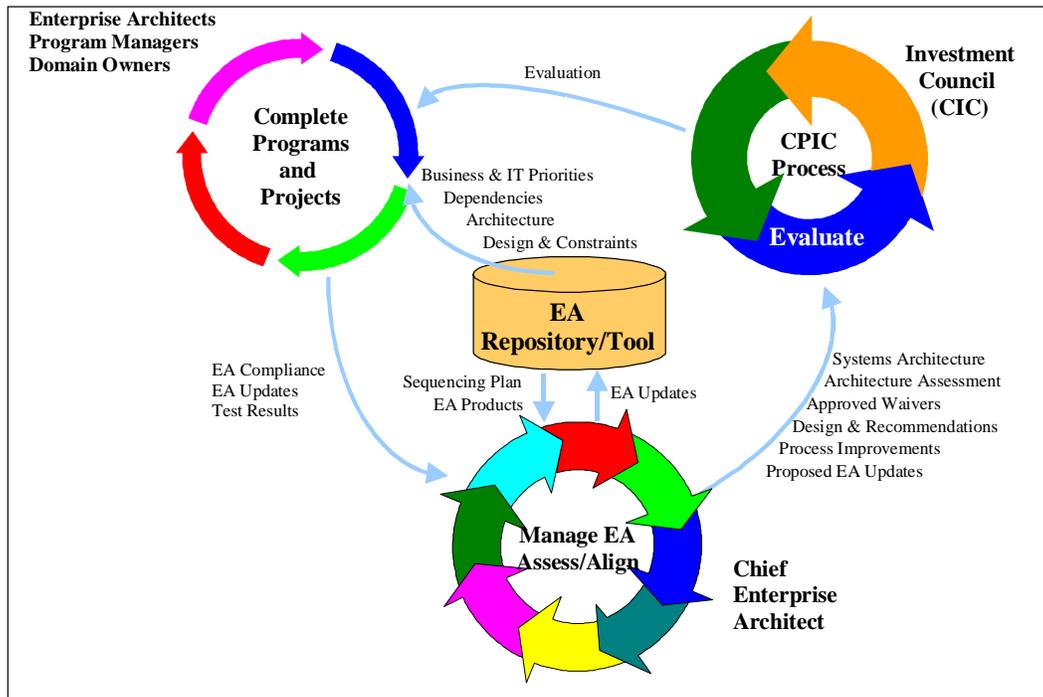


Figure 3-6: VA's Assessment of Completed Projects (Evaluate Phase)

The Chief Enterprise Architect performs an assessment of the project's implications and impacts on the VA's Enterprise Architecture and other concerns as required. The VA gains valuable information by evaluating the extent to which a project complies with the sequencing plan and target architecture. The experience and lessons learned contribute to the ongoing robustness of the VA's Enterprise Architecture.

The result of the final assessment is the updating of the baseline architecture with changes implemented in program/business processes, information technology products, deployment, technology, and operations. The sequencing plan, target architecture, and gap/transition analyses are also updated to show completion of the program/project. These results provide lessons learned for process improvement and form the basis of program/business cases for new programs and projects. The experience and lessons learned contribute to the ongoing evolution of the VA's Enterprise Architecture.

### 3.9 Developing Policy for VA's Enterprise Architecture

VA's Chief Enterprise Architect will advise the PATS Board on VA's Enterprise Architecture policy, process, and information technology; and develop policies for the type and level of architectural documentation required for legacy, in-process, infrastructure, new, and other categories of systems. These policies will address:

- Project investment approval process – describing the steps for obtaining approval and funding.
- Relationship and integration of VA’s Enterprise Architecture process to the capital investment process.
- Conducting in-process and post-implementation reviews.
- Waivers procedures for specific projects.
- Penalties for noncompliance to VA’s Enterprise Architecture and standards.
- Workforce impacts of VA’s Enterprise Architecture and information technology project changes.
- Project management considerations.

### **3.10 Configuration Management and Change Control within the Enterprise Architecture Program**

The combined Configuration Management Procedure and Change Control Procedure for the One-VA EA program is provided in Appendix C.

## Information Technology Planning

The VA's Enterprise Architecture is integrated with the Information Technology Investing Process via two major categories: Planning, and Execution.

### 3.11 Scope Management

#### 3.11.1 Applicability

All VA systems will be included within the Department's Enterprise Architecture. VA will develop, follow, and enforce policies and procedures that define and maintain its Enterprise Architecture. VA's Enterprise Architecture governance organization and processes will mature over time and various levels of detail are expected for different categories of systems. Systems will be engineered to a degree and timetable to be specified by the governance process according to categories such as:

1. infrastructure and networks
2. legacy applications
3. in-process applications
4. new initiatives
5. ad hoc/demand systems required for special/specific short-term needs and
6. stand-alone applications.

This chapter defines the scope of the One-VA Enterprise Architecture from an overall perspective as the primary authoritative resource within the Department for enterprise IT. The chapter also specifies the applicability of the One-VA EA for all IT projects to key processes across the Department including Capital Planning, Budgeting, Project Management Oversight and the day-to-day execution of Information Technology projects. It details specifically how the One-VA will be used in these key Department processes, and defines mandatory compliance requirements for all IT projects throughout their life cycle; from planning to in service use of the resulting IT system. The chapter concludes by discussing the Project Managers (PMs) perspective on the One-VA EA and how it supports, tasks, empowers and constrains PMs in the execution of their IT projects.

#### 3.11.2 Scope

The primary purpose of the One-VA EA Project Document is to *inform, guide* and *manage* the decisions of the enterprise, especially as they pertain to IT investments. It is intended to serve as the primary authoritative resource within the Department of Veterans Affairs for enterprise IT throughout the entire life cycle of the project including the planning, programming, budgeting, development, integration, test/certification,

deployment, and in service support. It addresses the entire spectrum of IT across the Department of Veterans Affairs.

### 3.11.3 Project Decision Authority Oversight

As the primary authoritative resource for enterprise IT, the One-VA EA is applicable to all IT projects in the Department. Compliance with it is mandatory throughout the evolution of all IT projects over their entire life cycle. This compliance is to be validated at multiple events and in multiple Departmental processes including the Project Management Oversight process, Capital Planning process and the overall budget submission preparation process. Specific requirements for validation of One-VA EA compliance within the Project Management Oversight process under the authority of the formally appointed Project Decision Authority (PDA) are listed in Table 4-1 below.

Milestone	Requirement	Validation
0: Business Case Validation --- Commence Project Proposal	<p>Prior to the Milestone-0 review, establish the business case.</p> <ul style="list-style-type: none"> <li>• Indicate what VA goals, PMA objectives, and veteran service objectives the project will satisfy;</li> <li>• Identify stakeholders;</li> <li>• Identify which material weaknesses or business risks the project will mitigate or eliminate;</li> <li>• Establish project performance metrics with base and target values;</li> <li>• Articulate project scope, what is within and what is without the project boundary;</li> <li>• Identify a project sponsor (who will be responsible for obtaining project funding);</li> <li>• Identify a qualified and available project manager;</li> <li>• Confer with OEAM, OCIS, and Operations;</li> <li>• Develop a project charter.</li> </ul> <p>Milestone-0 should result in establishment of a formal project and should initiate the requirements gathering phase.</p>	PDA

<b>Milestone</b>	<b>Requirement</b>	<b>Validation</b>
<p>I: Project Concept Approval -- Commence Detailed Design</p>	<p>Prior to the Milestone-1 review, gather and analyze business and technical requirements.</p> <ul style="list-style-type: none"> <li>• Understand and articulate the detailed business process flow and re-engineer the business process if it is not optimal;</li> <li>• Capture and validate general business requirements;</li> <li>• Identify products, services, and interfaces;</li> <li>• Develop a tentative concept of operations;</li> <li>• Estimate level of effort, cost and schedule;</li> <li>• Develop a project proposal including an alternative analysis, risk assessment, and cost benefit analysis;</li> <li>• Confer with OEAM, OCIS, and Operations</li> <li>• Develop an initial project plan.</li> </ul> <p>Milestone-1 should result in adoption of the conceptual approach to a solution and should provide permission to submit an Ex-300 budget request and permission to proceed with the project design phase.</p>	<p>PDA</p>

<b>Milestone</b>	<b>Requirement</b>	<b>Validation</b>
<p>II: System Design Approval -- Commence Development</p>	<p>Prior to the Milestone-2 review, complete detailed investment design and analysis;</p> <ul style="list-style-type: none"> <li>• Understand, articulate and validate the detailed system requirements;</li> <li>• Complete the technology selection;</li> <li>• Develop a detailed design specification;</li> <li>• Identify and research possible sharable solution components and sharable data;</li> <li>• If the design calls for multiple design-and-deployment phases; identify them in a sub-project development schedule;</li> <li>• Augment project plan and resource estimates;</li> <li>• Confer with OEAM, OCIS, and Operations;</li> <li>• Develop a development, monitoring and reporting plan.</li> </ul> <p>Milestone-2 should result in concurrence on the proposed design and on the development approach, it should provide required resources and permission to proceed with the project development phase.</p>	<p>PDA</p>

Milestone	Requirement	Validation
<p>III: System Development Approval -- Commence Deployment</p>	<p>Prior to the Milestone-3 review, verify that all aspects of development and testing are complete and accepted;</p> <ul style="list-style-type: none"> <li>• Complete all testing, training and system acceptance;</li> <li>• Complete system certification and accreditation;</li> <li>• Complete planning for infrastructure provisioning;</li> <li>• Complete all deployment planning and coordination;</li> <li>• Augment project plan and resource estimates;</li> <li>• Confer with OEAM, OCIS, and Operations;</li> <li>• Present project status and deployment plan.</li> </ul> <p>Milestone-3 should result in acceptance of the developed system, approval of the deployment plan and schedule, it should provide required resources and permission to proceed with project deployment.</p>	<p>PDA</p>
<p>IV: Deployment Approval -- Commence Post Implementation Reviews</p>	<p>Prior to the Milestone-4 review, verify that all aspects of deployment are complete and operational.</p> <ul style="list-style-type: none"> <li>• Verify operational integrity;</li> <li>• Collect and compile performance results and early user experiences;</li> <li>• Complete operational (steady-state) budget and planning;;</li> <li>• Confer with OEAM, OCIS, and Operations;</li> <li>• Prepare for project closeout.</li> </ul> <p>Milestone-4 should result in acceptance of the deployed system to Operations.</p>	<p>PDA</p>

**Table 3-2: One-VA EA Compliance Requirements and the Project Management Oversight:**

Specific requirements for validation of One-VA EA compliance within the Capital Planning process are listed in Table 4-2 below.

<b>Decision</b>	<b>Requirement</b>	<b>Validation</b>
Inclusion of planning funds in an Exhibit 300	Completion of a Milestone 0 review and validation of compliance with EA, Cyber security and with Provisioning requirements.	VA CIO plus Administration CIO (as appropriate)
Inclusion of full acquisition funds in an Exhibit 300	Completion of a Milestone 1 review and validation of compliance with EA, Cyber security and with Provisioning requirements.	VA CIO plus Administration CIO (as appropriate)

**Table 3-3: One-VA EA Compliance Requirements and the Capital Investment Planning Process**

The VA CIO and Administration CIOs together with their respective architects will validate compliance, and as appropriate such project consequences could include being terminated, suspended, or redefined.



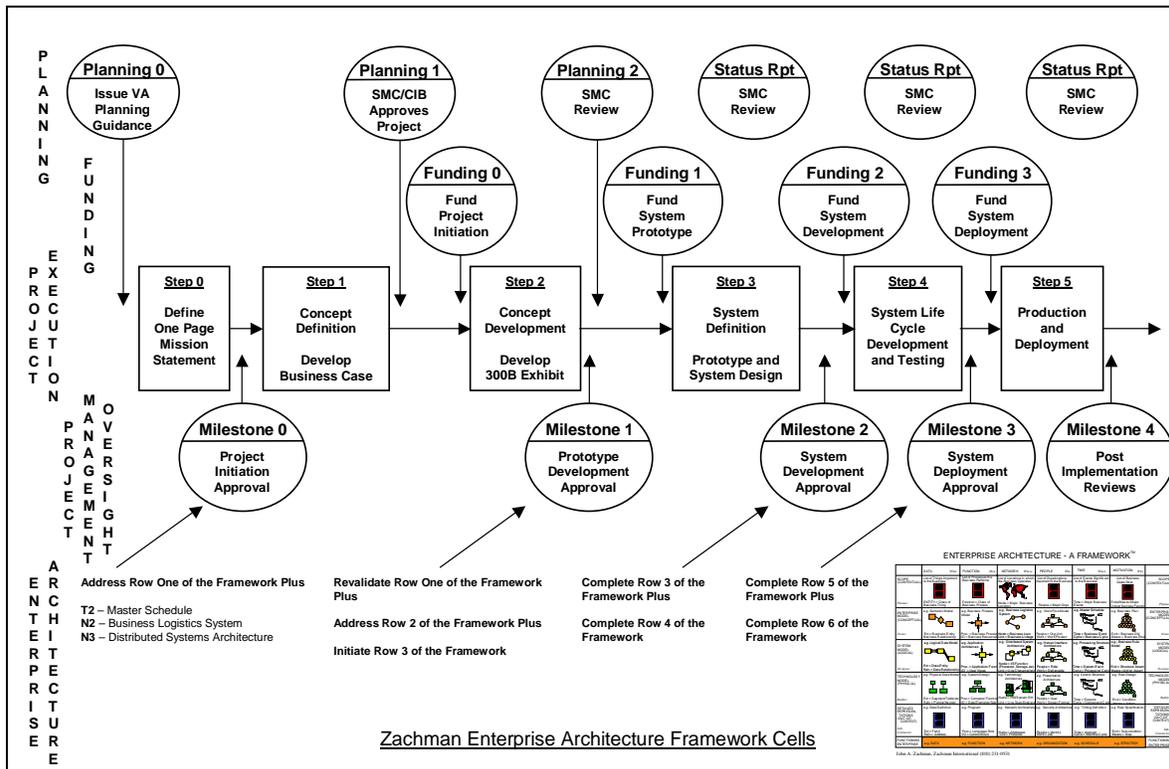


Figure 4-1: The Integrated Process Flow for VA Information Technology Projects

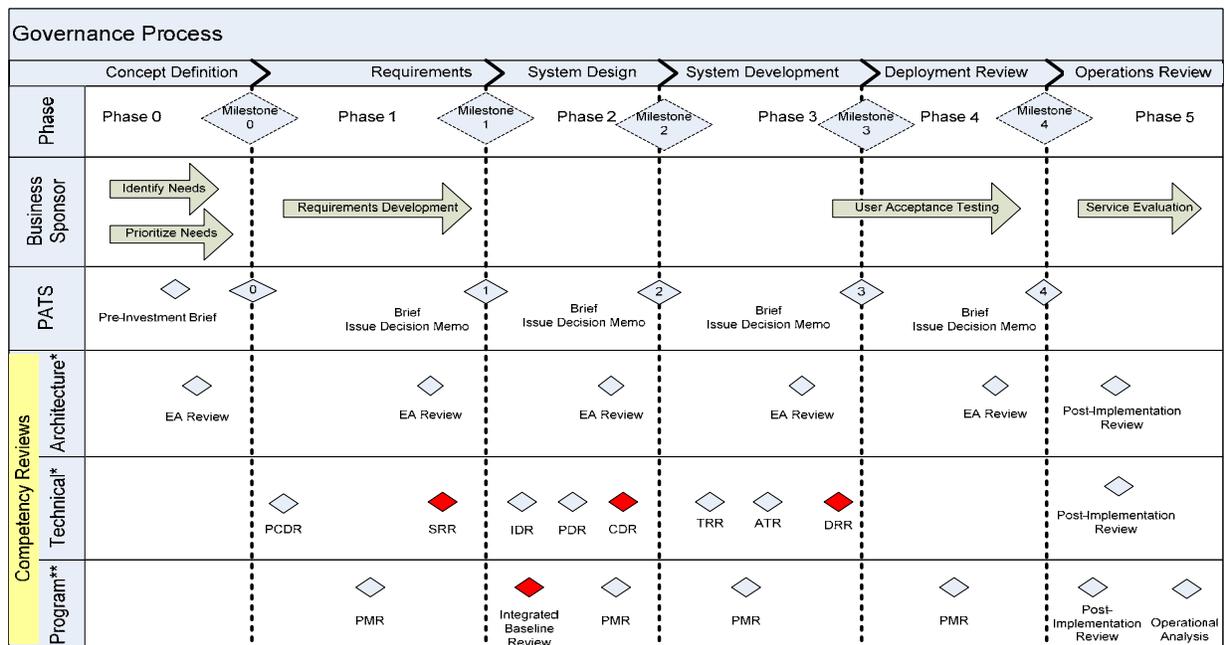
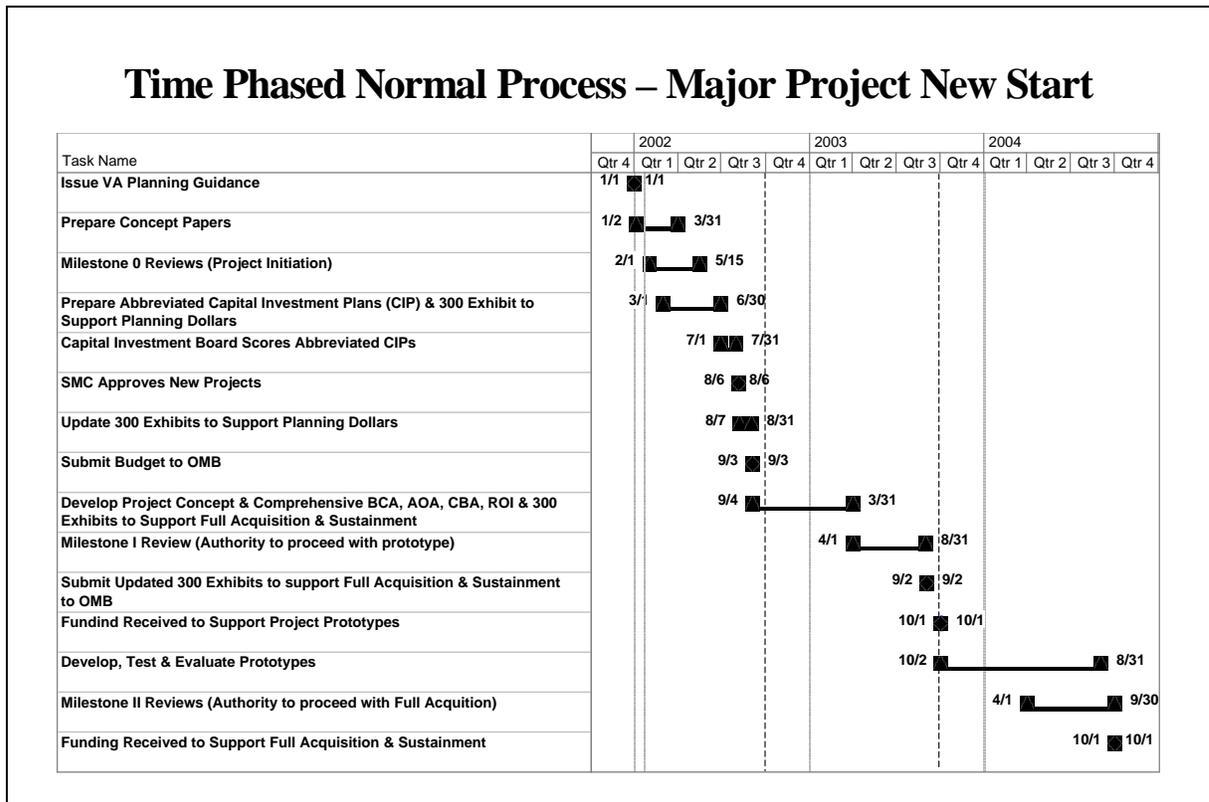


Figure 4-2: Integration of the Project Milestone Process with other review processes, creating a Project Oversight Governance Structure

#### **4.1 The Capital Planning Process and its Relationship to the One-VA EA and the Project Management Oversight Process**

Milestone 0 and I reviews, and therefore the early stages of addressing project compliance with One-VA EA are not only important from a Project Management Oversight perspective, they are integral to the Capital Planning process as well. The time phasing within the overall timeline for preparation of the Department's annual budget submission is therefore an important consideration for new start projects. Figure 5-3, Project Management Oversight Relationship to the Budget Cycle, presents a nominal schedule of major events, and shows the timeline for preparation of the Department's annual budget submission. It reflects the timing of Milestone 0 reviews for approval of project initiation in conjunction with the preparation of the Exhibit 300 information to support planning funding and prioritization of the project for incorporation in the Department's budget submission. In order to include an Exhibit 300 for planning funds into the Department budget submission, a project should have completed at least Milestone 0 and demonstrated compliance with the One-VA.



**Figure 4-3: Project Management Oversight Relationship to the Budget Cycle; Nominal Schedule of Major Events**

Figure 5-3 also shows the nominal timing for a Milestone I review to approve prototype or pilot development upon receipt of planning funding, along with the preparation of Exhibit 300 information to support full acquisition funding. In order to include an Exhibit 300 for full acquisition funds in the Department’s budget submission, a project should have completed a Milestone I. It also shows the timing of Milestone II reviews including the verification of compliance with the One-VA EA to authorize proceeding with full-scale development upon receipt of full acquisition resources. To receive Department support for both planning and full acquisition funding therefore, projects must show compliance with the One-VA EA as discussed in detail in the earlier sections at each oversight Milestone beginning with project initiation. Additionally to receive Department support for maintenance funding, a project must, in its budget requests, identify its relationship to the One-VA EA and how it fits into the context the EA provides for the overall enterprise.

This discussion (and the requirements detailed above) illustrates the four-way coupling for every IT project in the Department between One-VA EA, the Capital Planning process, the budget submission preparation cycle, and the Project Management Oversight process.

## 4.2 EA Compliance

One-VA EA requires a fundamentally different way of viewing system design, development, deployment, and life cycle maintenance. Programmatic, business process, engineering, and operational decisions must consider enterprise-wide factors to ensure that the best decision is made for the enterprise and are not just local optimizations. EA compliance is important to increase the effectiveness of the One-VA infrastructure and network, as well as effectively use data and capabilities from legacy and other One-VA applications. EA compliance includes consideration of the full life cycle, beginning with project initiation and continuing all the way through program deployment, operational employment and retirement. One-VA EA compliance can significantly reduce integration problems across lines of business and improve interoperability.

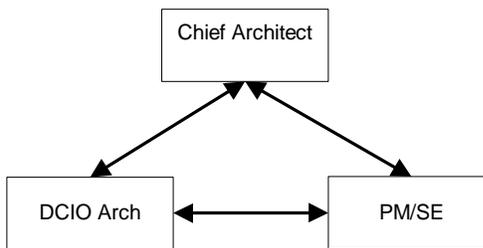
The process of determining whether an architectural component or project is “EA-compliant” requires evaluation against a defined set of criteria. These criteria can be grouped into a series of categories to capture information about particular attributes, such as how a component behaves in a network enterprise environment or uses data in an existing data store.

## 5 Quality Management/Configuration Management

### 5.1 Overview

In discussing Quality Management and Configuration Management there are two levels at which these disciplines must be addressed; the Project level and Enterprise level. In each of these cases the Project Manager has the primary responsibility for executing these disciplines. At the project level, the Project Manager must perform the Quality and Configuration Management tasks/responsibilities described in this chapter. At the Enterprise level, the Project Manager must also perform Quality/Configuration Management tasks. Oversight of the execution of these responsibilities will include both programmatic and architectural components of the project:

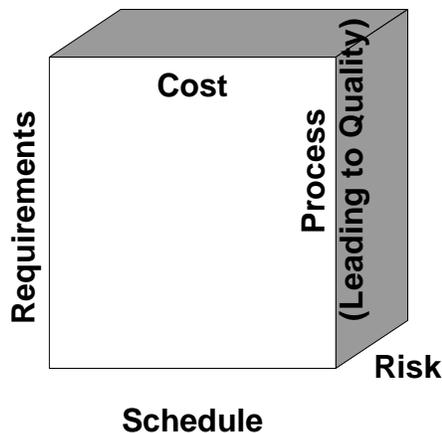
- Oversight for Quality/Configuration management issues such as (reliability, user acceptance, etc) is carried out by the Project Decision Authority (PDA)
  - For those projects identified as special interest the Deputy Secretary and Strategic Management Council (SMC) retain the PDA role, with review and recommendations from the CIO and the EIB.
  - For all other IT projects, the Deputy Secretary has delegated the PDA role to the CIO and EIB.
  - The CIO may, at his or her discretion further delegate the PDA role for individual IT projects to a DCIO;
- Oversight for architectural aspects of Quality Management and Configuration Management in dealing with enterprise level issues to include integration points, common data, common processes, interdependent schedules across multiple projects in multiple organizational components, and enterprise scale critical path relationships among key projects is carried out by the Chief Architect as a key advisor to the PDA. To carry out this responsibility, the Chief Architect will work with the DCIOs Architects and Project Managers and their Systems Engineers to ensure appropriate levels of architectural and programmatic integration as depicted below in Figure 6-1.



**Figure 5-1: Quality Management / Configuration Management Oversight Coordination**

For the One-VA EA Quality management and Configuration Management will be spread across both the Architecture level, and also at the program/project execution level.

Management should take quick and decisive actions to correct problems in light of established priorities. Examples of actions include infusion of additional resources (people, tools, or money), establishment of contingency plans, and redefinition of purpose and scope, introduction of missing or strengthening of existing control mechanisms, and increased oversight. Figure 6-2 depicts Cost, Schedule, Requirements, and Process leading to ensuring quality as four sides of a box, this box then leads to a quantified projected quality/risk projections in each of these four dimensions.



**Figure 5-2: Quality Risk Factors**

Modifying any one of these four factors while trying to hold the others constant changes the risk. Far too often projects increase requirements, reduce available funding or compress schedule without explicitly quantifying impact on the other factors. The result is often an implicit, unacknowledged sacrifice in processes leading to quality such as compressing scheduled test events or training, leading to a reduction in quality of the overall product and increased risk to the success of the project.

Therefore, any changes to the plans, projects, and/or architecture content to address deviations should be captured in an appropriate documentation trail, and should be justified on the basis of costs, benefits, and risks. Changes to an established baseline for a project, particularly post Milestone II where formal baselines have been established for a project in each of these factors must be processed through established change control processes and a formal board authority established for the project. The change documentation should characterize the problem, solution, and alternatives chosen and rejected in light of established priorities. It is a firm requirement in the Project Management Oversight process that PM's immediately report any breach in threshold for cost, schedule, or performance to the PDA, as soon as it is recognized and independent of the timing of formal MS reviews. In similar fashion once the specific EA compliance threshold for a project is established as discussed in Chapter 5, the PM must report any breach in this threshold to the Chief Enterprise Architect as soon as it is recognized. Also if any schedule change (with or without breaching threshold) adversely affects interdependencies among multiple projects, this must also be reported to the Chief Enterprise Architect as soon as it is recognized.

The EA process is a key support element of the operations of the Agency, and should assist the operations function in performance of its customer-focused mission.

The optimum EA process is not a single, one-time event, but is continuous and thus offers the opportunity for continuous improvement. This necessitates ongoing control with monitoring, reassessment, and refinement. As the discipline of enterprise architecting enters the mainstream of Agency operations, lessons can be learned from processes that worked and those that did not work, and from external organizations.

Quality management must be employed throughout the project life cycle to support the VA's goals to provide high-quality services to their customers. Project quality management provides structured feedback to project processes, inspections and testing of project products to ensure a successful effort. A quality plan provides direction and a road map to deliver high performance products and leads to a more productive use of scarce project resources.

Typically, a dedicated resource reporting to the Project Manager is allocated for the purpose of managing quality. Quality activities are performed at milestone reviews (and at other reviews between MS reviews) and may result in corrective actions that support project schedule, cost and performance goals.

Quality management is integrated with the project life cycle. Performance standards are established during project initiation; quality planning is incorporated with overall project plan development and quality control functions take place alongside the other project control processes. The Quality Manager is responsible for escalating quality issues.

Project management risk planning, change control and configuration management are interrelated with quality management, serving as vehicles for responding to quality control

and assurance issues. Project quality management results in an improvement in quality for project processes and products, which can be carried forward to future work efforts via the post implementation review, during project closeout.

## **5.2 Quality Requirements**

The establishment of quality requirements is critical to overall success throughout the project's life cycle. Quality requirements involve the development of standards against which the project's success is to be measured. Also customer oriented metrics and user (i.e., VA employee) oriented metrics are developed. Functional and technical requirement standards for each major milestone and/or deliverable are developed and established to ensure the project successfully accomplishes the overall mission. These metrics will be tracked at MS reviews, baselined, and managed in a formal manner. For each of the various program milestones, critical success factors relating quality metrics will need to be provided by the program manager at the same time that requirements, schedule, and funding needs are finalized.

## **5.3 Quality Planning**

Quality planning involves the development of a plan from the functional and technical requirements and is incorporated within the PMP. The plan maps out how quality will be measured throughout the project's life cycle and includes quality standards, review and sign-off of requirements for deliverables and establishing quality objectives.

In the quality plan, the Project Manager documents how quality will be measured at both the process and product functional and technical levels. Assuring project control measures are operating efficiently is just as critical as measuring any product variances from the plan. In addition, quality measurements should be tied to organizational goals, and should be specific, measurable, accountable, relevant and timely. This can be achieved by establishing quality measures that are tailored to the WBS. Basing quality measures on project milestones also discourages over-measurement, which is costly.

## **5.4 Quality Assurance**

Quality assurance involves evaluating overall project performance on a regular basis to determine if the project is meeting the relevant quality standards identified during the planning phase. Milestone deliverables are examined for compliance with requirements so that errors can be detected, analyzed and corrected before they are compounded and carried forward into additional phases, causing expensive rework and potential project failure. This is accomplished through testing, inspection and review of each project phase. Test results are used to determine the impact of detected errors on project schedules, cost and outcomes. Unacceptable deviations are mitigated through corrective action. Examples of quality assurance tasks are:

- Integrated project reviews for conformance to project cost and schedule standards
- Requirements review for adherence to the project goals and objectives stated in the PMP
- Design specifications review for adherence to the requirements specification
- System specifications review for adherence to the design specifications
- Milestone deliverables review for adherence to design and system specifications
- Code reviews (for IT projects) for adherence to coding standards
- Acceptance testing for adherence to user acceptance criteria
- Configuration audits to ensure all change activities conform to CM standards
- Post-implementation reviews for conformance to overall project performance goals and objectives

## 5.5 Quality Control

Once quality assurance reviews are conducted, the findings must be compiled, documented and communicated to the appropriate stakeholders. The quality plan should identify the communication method, timeframe, and recipients. The Project Manager and business sponsor should be included to ensure corrective action is authorized when applicable.

## 5.6 Quality Improvement

Project quality is improved through the consistent application of quality processes and the documentation and publication of quality assurance and control results. As the project moves into later phases, the quality of both the project process and output improves. The documented results allow for the development of quality metrics and the integration of quality processes into the organizational culture. In a project environment, the quality “system” ensures the product satisfies management’s commitment to improve the success of the overall organization. Success is the common goal of all project stakeholders, and quality is the link that establishes success in the organizational community.

## 5.7 Configuration Management Planning

### 5.7.1 Purpose

The purpose of Configuration Management is to establish and maintain the integrity of the products of the EA project throughout the project's life cycle. Planning for CM is to provide a thorough appreciation of the complexity, or simplicity, of the CM program needed for each Configuration Item (CI) or Computer Software Configuration Item (CSCI) (CI/CSCI) under their management responsibility. Documenting this required planning effort not only provides the VA with needed planning information, but the resultant CM plans also serve as instructional devices for defining specific CM responsibilities, procedures and practices. In addition, the CM plans provide management with a tool for monitoring and reviewing the program.

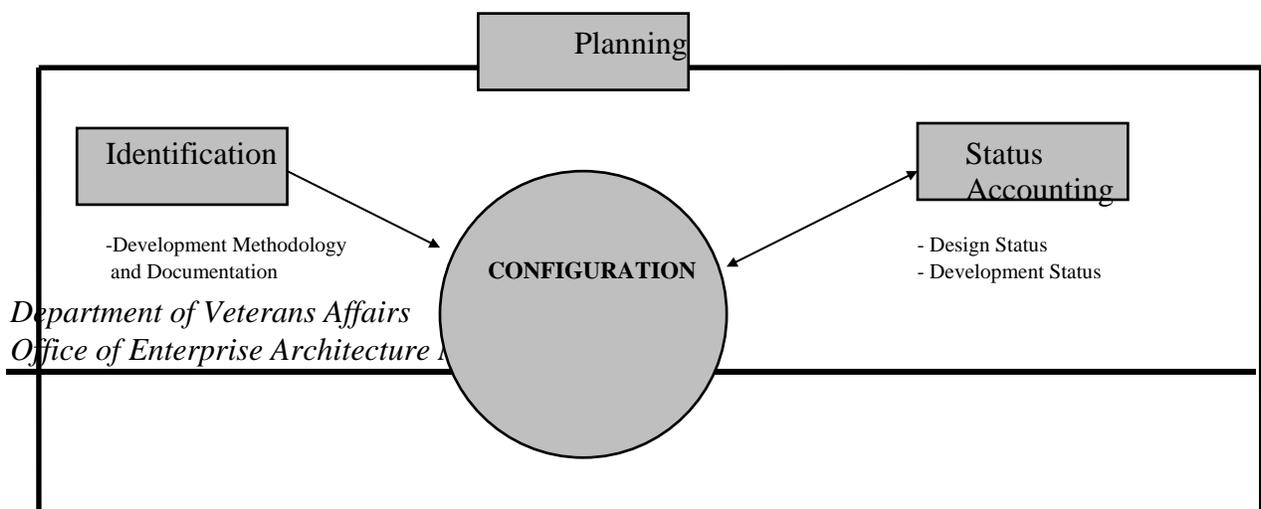
### 5.7.2 Application Configuration Management Plans

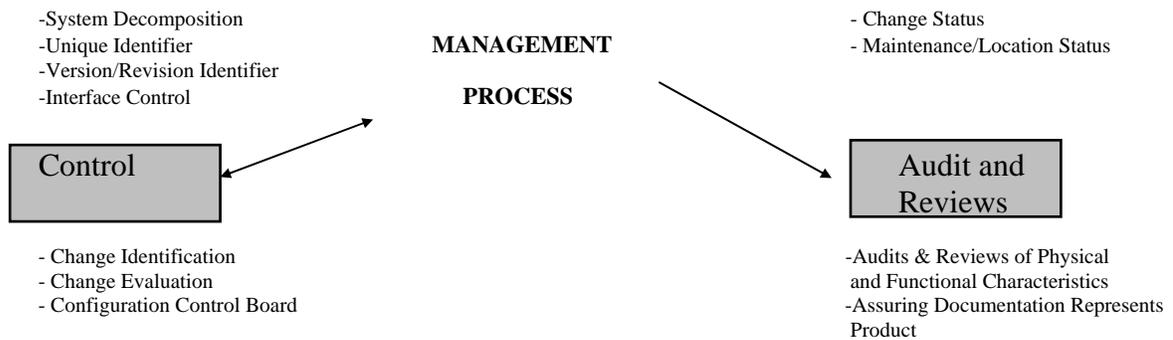
CM Plans are the means by which the Program Decision Authority, CIO, Chief Architect, and Project Managers establish and document the details of their respective programs. Initially, CM plans shall provide planning and procedural information. As the CI/CSCI progresses through its life cycle, the content of the CM plans shall be revised to reflect refined and updated planning and procedural information.

The CM plans shall identify the CI/CSCI and their relationship to the executing projects/programs. Implementing procedures pertinent to each element (as described below) shall be specified as they affect the CI/CSCI.

### 5.7.3 Configuration Management Elements

All five elements of CM (i.e., Planning, configuration identification, control, status accounting, audits/ technical reviews) shall be applied to each CI/CSCI. The degree, level, phasing, and intensity shall be determined by the tailoring process based upon the total program needs. Configuration Management involves identifying the configuration of the software and hardware (i.e., selected software work products and their descriptions) at given points in time, systematically controlling changes to the configuration, and maintaining the integrity and traceability of the configuration throughout the software life cycle.





**Figure 5-3: Configuration Management Elements**

Therefore Project Managers shall perform the following functions:

- Plan configuration management activities.
- Identify, control, and make available selected work products.
- Control changes to identified work products.
- Inform affected groups and individuals of the status and content of software baselines.
- Establish a board having the authority for managing the project's baselines (i.e., a configuration control board - CCB).
- Appoint a group to be responsible for coordinating and implementing CM for the project (i.e., the CM group).
- Provide adequate resources and funding for performing the CM activities.
- Train members of the CM group in the objectives, procedures, and methods for performing their CM activities.
- Train members of the software engineering group and other software-related groups to perform their CM activities.
- Prepare a CM plan for each software project according to a documented procedure.
- Use a documented and approved CM plan as the basis for performing the CM activities.



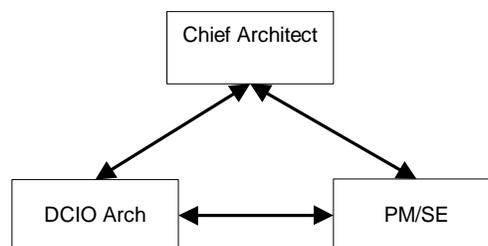
## 6 Risk Management

### 6.1 Overview

A critical aspect of project planning is to identify and effectively manage all project risks. The project management office (PMO) reviews current activities, issues, and progress to identify any additional potential risks that may affect the success of the project. Risk mitigation strategies are developed for each potential risk, and specific information about each risk should be documented and archived in a risk database.

Risk management must address the “portfolio” of applications, and the various dependencies upon shared infrastructure and services, as well as the execution of the individual project. In each of these cases the Project Manager has the responsibility for ensuring there are risk mitigation strategies in place. Oversight of the execution of these responsibilities will include both programmatic and architectural components of the project:

- Oversight for Risk Management issues such as (shared infrastructure, services, etc) is conducted by the Project Decision Authority (PDA)
  - For those projects identified as key or major the Deputy Secretary and Strategic Management Council (SMC), after review by the CIO and the EIB.
  - For most projects CIO and EIB unless further delegated to the DCIO;
- Oversight for Architectural aspects of Risk Management in dealing with enterprise level issues such to include integration points, common data, common processes, interdependent schedules among multiple projects in multiple components of the organization, and enterprise scale critical path relationships among key projects is carried out by the Chief Architect as a key advisor to the PDA. To carry out this responsibility, the Chief Architect will work with the DCIOs Architects and Project Managers and their Systems Engineers to ensure appropriate levels of architectural and programmatic integration as depicted below in Figure 7-1:



**Figure 6-1: Risk Management Oversight Coordination**

Through their respective reports and review activities, the CIO, and the Chief Architect will be able to identify what, if any, EA program expectations are not being met. For the EA Program there are two separate types of risks which will need to be addressed.

At the enterprise level for the One-VA effort, there is now the risk of various projects being dependent upon each other to be deployed. These risks must be identified in the various implementation and sequencing plans. The appropriate risk mitigation strategies will be incorporated into the yearly deployment implementation plans.

The second is at the individual executing projects; these will be addressed as part of the normal reviews. For example, if risk management has been effectively implemented, program risk lists should be regularly generated that assign a risk level based on impact and probability, define risk mitigation strategies, report on progress in implementing these strategies, and whether the progress being made is successfully addressing the risk item. Also, periodic configuration audits should be conducted to ensure that EA configuration items are being defined, controlled, and reported. The CIO and Chief Architect can also rely on independent reviews by the quality assurance function or a verification and validation agent to advise them of deviations from expectations.

These deviations may be program management plan-related, such as omission of work tasks, delays in the completion of work tasks, or additional costs to complete work tasks; or they may be management function-related, such as not following change control procedures, not adhering to the selected EA framework, or not engaging SMEs and domain owners within business and technical areas.

The process of identifying, allocating, managing and minimizing risk is crucial to the success of the project. The ability of the project management team to identify and understand various risks and then to implement tools and/or allocate resources to mitigate them will be a major factor in bringing the project in on time and within budget.

Accordingly, the risk management plan will identify risks and the appropriate methods for managing them. The tools, techniques, and procedures shown here will serve as a guideline for team members and stakeholders to deal with the uncertainties of risk.

The major steps that need to be performed to manage risk in the project are:

- Risk Identification
- Risk Assessment/Quantification
- Risk Allocation
- Risk Management.

## 6.2 Risk Identification

Identifying risk will occur in two phases: formal planning and ongoing identification. Once the goals, objectives, and preliminary schedule are set and the approach to meeting the need is approved, the Project Control Board (PCB) will study all aspects of the approach to identify any associated risks. Risk identification is a function of experience, historical knowledge, 'what if' scenarios, checklists, and any and all other applicable tools. The use of the PCB will provide an automated method of recording and tracking risks and make managing them simpler.

At the EA level program dependencies will be identified through the use of Integration Points (IPs). These IPs will provide the equivalent of a contractual understanding between various executing programs on the various resources, interfaces, or fundamental infrastructure dependencies required for the successful execution of programs in their different phases. As an example in an earlier milestone program, the critical dependencies might be software (and their requisite interfaces), however in a later program the dependencies could be deployed hardware/software/networks/security programs, etc in order for the program to be deployed.

## 6.3 Risk Assessment/Quantification

Once risks are identified by the various means, the risks need to be analyzed and quantified. The PCB, in association with subject matter experts, will assign probabilities and consequences of risk occurrence. Should the risks profiled turn out to be high impact but low probability, different strategies will be shaped accordingly. In a project environment, it is not feasible to manage all identified risks. As such, the PCB will prioritize the initial list and direct the project team to concentrate on the higher impact risks to ensure a manageable number for the resources available.

Suggested qualitative values for probabilities and impacts:

### Probabilities

- High (Very Likely)
- Medium (Probable)
- Low (Possible)

### Impacts

- High
- Medium
- Low

The following definitions of impact will be used for the risk management plan:

- High  $\frac{3}{4}$  Any risk that in and of itself can cause at least an overall 10% slip in goal/functional requirement achievement or project baseline in the project.
- Medium  $\frac{3}{4}$  Any risk that alone can impact the baseline of the project or cause a specific goal to be unattainable.
- Low  $\frac{3}{4}$  Risks that do not meet the criteria for the above two categories.

#### 6.4 Project Control Board (PCB) Evaluation

Once risks have been identified and quantified, the PCB will evaluate the risks judged to have program wide impact if they occur. Risk factors are the combination of the probability and the impact of the risk on the program. An adjustment to the plan can occur should the profile show that the bulk of identified risks have a high probability of occurrence but low impact on overall goals and schedules.

Figure 7-2 shows a risk factor matrix that will be used to generate risk profiles for planning purposes. The PCB will compile a “watch list” of those risks that if manifested and allowed to continue could stop the project in its tracks. This list will be reviewed formally on a weekly basis at the project status meetings.

Probability of Occurrence:			
High (Very Likely)	Medium	High	High
Medium (Probable)	Low	Medium	High
Low (Possible)	Low	Low	Medium
Program Impact	Low	Medium	High

**Figure 6-2: Risk Factor Matrix**

The PCB will monitor those risks in the dark shaded “high risk factor” areas more closely than others.

#### 6.5 Risk Allocation

Once risks have been identified in the initial project planning phase, they will be assigned to appropriate persons, sections or teams for day to day monitoring and management. This step is crucial--incorrect assignment will undoubtedly lead to programmatic difficulties downstream. Once assigned a risk item, the person or organizations with the responsibility are the single point of contact for the item and thus become the ‘owner’ for risk management and accountability. If required, risk owners are expected and encouraged to examine and challenge the PCB’s initial assessment of probabilities and impacts. The PCB will adjudicate any major disagreements and ensure owner’s concerns are adequately addressed and integrated into overall project risk management strategies.

#### 6.6 Risk Mitigation

Once assigned a risk, the owner should study it carefully, then draw up a mitigation plan for the assigned item. The PCB will aggregate the risks and analyze the combined strategies. The intent will be to identify strategies that are or could work at cross-purposes with each other or other strategies. Should the resources required to fully mitigate all risks

exceed those available, the PCB must work to further refine risk probabilities and impacts and broker a tailored plan that will ensure the risks with the most potential for causing failure are addressed and mitigated. The prioritization process will be useful in ensuring the number of strategies competing for resources will be manageable. Although the PCB will rely on risk owners of lower priority risks to manage them on a day to day basis, the PCB will continually monitor and spot check to ensure small risks do not suddenly become large ones. Where applicable, mitigation plans should be linked into the project schedule. This will greatly assist with impact analysis.

## **6.7 Ongoing Identification of Risk**

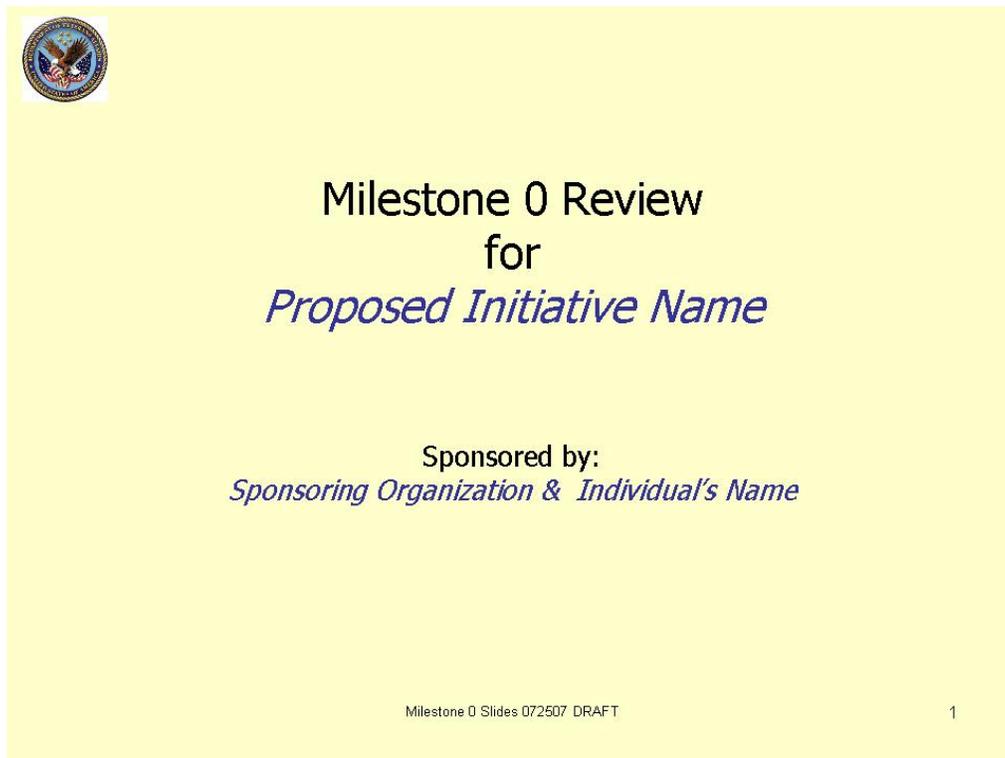
As the project progresses, it is assumed that aspects of it will change and evolve. Requirements may be added or changed, unanticipated technical difficulties may arise and environmental factors may cause resources to become unavailable or inoperable for extended periods. As conditions change, the risks initially identified in the planning phase may be magnified or reduced or disappear altogether while others surface and are addressed. The management of risk will continue throughout the project life cycle and coincide with other project control processes. The Risk Control Form (see appendices) can be used to capture emerging risks for PTS input. The completed form is then forwarded to the PCB for review and action. During weekly status meetings, emerging risks will be reviewed, an owner assigned, impact and probability assessments performed and mitigation strategies selected.

1. Measure user expectations and satisfaction at each level in the organization.

## Appendix A – Milestone Decision Briefing Slides

IT Project Milestone briefings are DAS-level reviews which are conducted in the PATS board forum. Each milestone briefing is preceded by a Staff level competency review, as indicated in the governance process diagram. Detailed instructions for preparation of the Milestone decision briefing slides are provided in the *VA IT Project Management Guide*

### Milestone 0 Briefing Slides



The image shows a template for a Milestone 0 Review slide. It features a yellow background. In the top left corner, there is a circular seal of the Department of Veterans Affairs. The main text is centered and reads: "Milestone 0 Review for *Proposed Initiative Name*". Below this, it says "Sponsored by: *Sponsoring Organization & Individual's Name*". At the bottom left, there is a small text string "Milestone 0 Slides 072507 DRAFT", and at the bottom right, the number "1".



## Business Problem or Opportunity

Explain the business problem or opportunity in quantifiable terms (i.e., Reduce the time to process veterans' benefit claims from current level of 2 months to 1 month). Identify any mandatory legislation or direction to be satisfied and any material weakness that must be resolved.

State the Recommended Course of Action (e.g. Establish a project to . . . )

Milestone 0 Slides 072507 DRAFT

2



## VA Objectives, Lines of Business & Stakeholders

Which VA Strategic Objectives, Interagency Partnership Objectives and PMA Objectives will be advanced by this initiative?

Which VA Lines of Business are Impacted by this business need or opportunity?

Who are the Principal Stakeholders (List Organizations and Organization POCs)

Milestone 0 Slides 072507 DRAFT

3



## Potential Mission (Lost Opportunity) Risks

Provide a brief discussion of potential risks to the VA mission if this problem is not solved or if the opportunity is not taken.

Milestone 0 Slides 072507 DRAFT

4



## Assumptions, Constraints and Dependencies

What assumptions are made and why?

What constraints will shape the scope or limit it in other ways?

What are the dependencies, especially to other investments?

Milestone 0 Slides 072507 DRAFT

5



## Defining Scope and Measuring Success

What is the current understanding of this initiative's Scope (identify boundary activities that are not included – as well)

What business metrics will be used to measure success (provide baseline and target values as well as metric description)

Milestone 0 Slides 072507 DRAFT

6



## Budget Cycle Timeline

Which budget cycle is being identified for the receipt of initial funding of this initiative?

What activities can be conducted before the beginning of the first funded budget cycle

Who will function as the Project Decision authority (A Customer-Side Individual who will approve budgets, approve changes and accept deliverables? (List organization and Individual)

Milestone 0 Slides 072507 DRAFT

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## Milestone 1 Briefing Slides



### Milestone-1 Review for *Project Name*

---

Project Sponsor:  
*(Name, Phone, e-mail, sponsoring office)*

Proposed Project Manager:  
*(Name, Phone, e-mail, sponsoring office)*

Milestone I Slides 072407 DRAFT

1



### Business Problem or Opportunity Summary

Summarize the Business Problem or Opportunity to be addressed (which was described at the Milestone 0 Review)

Milestone I Slides 072407 DRAFT

2



### Project Description Summary

Summarize the Course of Action adopted at milestone 0 (Project Description/Scope/Desired Outcomes)

Summarize the project's benefits, both qualitative and quantitative. (Refer to the instructions document for benefit categories.)

Summarize the Project Metrics and the Definition of Project Success from Milestone 0

Milestone I Slides 072407 DRAFT 3



### Project's Principal Requirements

Describe the project's functional requirements in a non-technical manner. What will the solution be able to do and what are the functions it will perform?

Describe how this project's solution will interface with other processes and systems and with other ongoing development projects across VA

Milestone I Slides 072407 DRAFT 4



### Current Process – Concept Diagram

Provide a high-level graphical depiction of the process by which this business function is currently accomplished

Milestone I Slides 072407 DRAFT

5



### Current Process – Narrative Description

Provide a high-level narrative description of the processes by which this business function is currently accomplished

Milestone I Slides 072407 DRAFT

6



## Target Process – Concept Diagram

Provide a high-level graphical depiction of the conceptual target process

Milestone I Slides 072407 DRAFT

7



## Target Process – Narrative Description

Provide a high-level narrative description of the conceptual target process

Milestone I Slides 072407 DRAFT

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### Risk Management

		Risk Management		
		Impact		
		Design	Medium	High
Probability of Occurrence	High	Schedule Investment Management Capability Project Resources	Initial Costs Overall Project Failure	Life-cycle Costs Organizational and Change Mgmt.
	Medium	Technical Obsolescence Business	Feasibility Data/Info	Reliability of Systems Technology
	Low	Dependencies and Interoperability Strategic	Surety Considerations Security	Procurement Monopoly Privacy

Milestone I Slides 072407 DRAFT 9



### Risk Planning

Summarize the risk mitigation plan for the significant risks (probability and impact medium or higher) shown on the prior slide

Milestone I Slides 072407 DRAFT 10



### Project Cost/Schedule

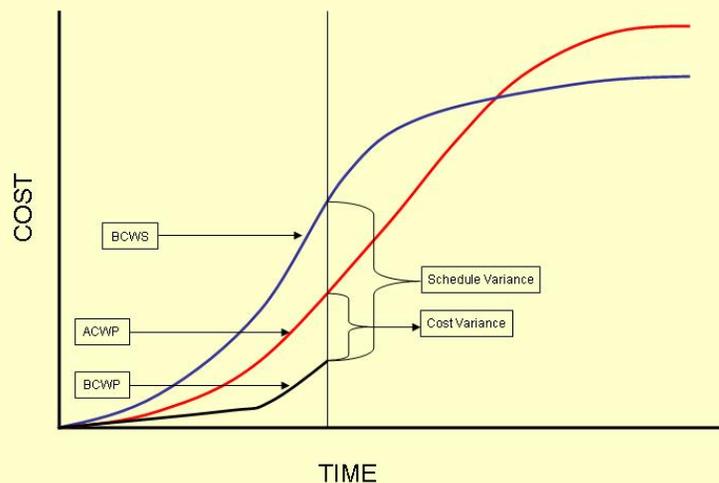
Task:	Planned Start Date	Planned End Date	Planned Cost	Planned % Complete	Planned Value at Analysis Date	Actual/Forecast Start Date	Actual/Forecast End Date	Actual Cost	% of Activity Completed	PM Estimate of Remaining Work	Estimate at Completion	Earned Value	% Cost Variance	% Schedule Variance
Concept Def. and Devel. (Steps 0-1):														
Activity 1	10/1/02	9/30/07	340.0	21.04%	71.54	10/1/02	9/30/10	172.40	12.00%			\$40.80	-322.55%	-42.97%
Activity 2	10/1/02	12/1/03	187.7	80.14%	169.19	10/1/02	9/30/10	87.80	85.00%			\$159.55	44.87%	-5.70%
Activity 3	12/1/02	12/31/03	108.7	81.98%	89.11	12/1/02	9/30/10	497.80	60.00%			\$65.22	-663.26%	-26.81%
System Design & Prototype (Step 2):														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
System Devel. & Testing (Step 3):														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
System Deployment (Step 4):														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
Total Development Cost			636.40		329.85			758.00		0.00	0.00	\$265.57	-185.43%	-19.49%
Maintenance Schedule (Step 5):														
Year 1:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 2:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 3:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 4:				0.00%	0.00							\$0.00	0.00%	0.00%
Total Maintenance Cost			0.00		0.00			0.00		0.00	0.00	\$0.00	0.00%	0.00%
Project Totals:			636.40		329.85			758.00		0.00	0.00	\$265.57	-185.43%	-19.49%
Analysis Date:	10/20/03													

Milestone I Slides 072407 DRAFT

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### Earned Value Graph



Milestone I Slides 072407 DRAFT

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### Performance Measures

Insert the Performance Goals and Measures Table from the project's OMB-300.

Fiscal Year	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvements to the Baseline
20xx	Processes and Activities	Innovation and Improvement			
20xx	Technology	Functionality			
20xx	Etc.				

Milestone I Slides 072407 DRAFT 13



### Lifecycle Spend Plan per OMB E-300

Life Cycle Phase	PY-1 & Earlier	PY2006	CY2007	BY2008	BY+1 2009	BY+2 2010	BY+3 2011	BY+4 & Beyond	Total
Total									

Milestone I Slides 072407 DRAFT 14



## Acquisition Strategy & Plans

Provide an overview of the project's acquisition strategy and procurement efforts underway.

Milestone I Slides 072407 DRAFT

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## Development & Test Strategy

Describe the plan to obtain and validate additional detailed requirements through the design phase

Describe the plan to design this project or system and to obtain design approval

Describe the plan to introduce, validate and approve project changes

Milestone I Slides 072407 DRAFT

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## Documentation Review

Provide a concise summarization of the deviations, waivers, and exceptions that resulted from the reviews of the documents that were developed or updated during this phase.

Milestone I Slides 072407 DRAFT

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## Exit Criteria Satisfied

- Exhibit 300 submitted to OMB ✓
- Validated Performance Measurement Baseline ✓
- Requirements Document ✓
- PIA completed and submitted to VA Privacy ✓
- Project Management Plan and all required subsidiary plans complete ✓
  
- Project Schedule and other information entered into Primavera® in accordance with the [Primavera® Policy and Standard Operating Procedures](#) ✓
- Integrated Project Team (IPT) identified. ✓
- Milestone 1 Review briefing presented to the ITLB.
- Approved Milestone 1 Decision Memorandum

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### Coordination & Concurrences

Board/Office	Name/Date	Waivers/Deviations
<b>BNI</b>		
<b>PATS</b>		
<b>ESP3</b>		
<b>EA</b>		
<b>Cyber Security</b>		
<b>Privacy</b>		
<b>508</b>		
<b>Infrastructure</b>		
<b>Development</b>		
<b>Business Requirements</b>		
<b>Operations</b>		
<b>Resource Mgt.</b>		

Milestone I Slides 072407 DRAFT

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### Decision Requested

Milestone I Slides 072407 DRAFT

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### Backup Slides

Phase I Documentation Reviews and Results	Slides 28-30

Milestone I Slides 072407 DRAFT

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### Phase I Document Reviews and Results

Document	Reviewed	Results
Stakeholder List	<i>Sponsor</i>	(approve/variance/reject)
Scope Statement	(name)	
Requirements Document	<i>business &amp; technical</i>	
Life Cycle and Milestone Review Schedule		
Organizational Breakdown Structure		
Work Breakdown Structure and Dictionary		
Project Schedule (Primavera)		
Risk Management Plan		
Quality Management Plan		
Integrated Change Control Plan		
Communications Management Plan	sponsor	

Milestone I Slides 072407 DRAFT

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Phase I Document Reviews and Results (cont'd)

Document	Reviewer	Results
Life Cycle Cost Estimates	(name)	(approve/variance/reject)
Performance Measurement Baseline		
Project Management Plan		
Privacy Impact Assessment	Privacy	
Acquisition Strategy Plan	Contracting Officer	
Procurement Management Plan	Contracting Officer	
OMB Exhibit 300		
Technical Requirements	EA	
Concept of Operations	EA	
General Design Solution	EA	
System Security Plan	ISO	
Security Controls Assessment Plan	ISO	

Milestone I Slides 072407 DRAFT

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Phase I Document Reviews and Results (cont'd)

Document	Reviewed	Results
Security Configuration Management Plan	ISO	
Security Management and Reporting Tool	ISO	
Security Plan of Action and Milestones	ISO	
Conformance Validation Statement	508	
Test and Evaluation Plan		
Product Support Plan		
Milestone I Review Package		

Milestone I Slides 072407 DRAFT

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## Milestone 2 Briefing Slides



### Milestone-2 Review for *Project Name*

Project Sponsor:  
*(Name, Phone, e-mail, sponsoring office)*

Proposed Project Manager:  
*(Name, Phone, e-mail, sponsoring office)*

Milestone II Slides 072507 DRAFT 1



### Business Problem or Opportunity Summary

Summarize the Business Problem or Opportunity to be addressed (which was described at the Milestone 0 Review)

Milestone II Slides 072507 DRAFT 2



## Project Description Summary

Summarize the Course of Action adopted at milestone 0 (Project Description/Scope/Desired Outcomes)

Summarize the project's benefits, both qualitative and quantitative. (Refer to the instructions document for benefit categories.)

Summarize the Project Metrics and the Definition of Project Success from Milestone 0

Milestone II Slides 072507 DRAFT

3



## Concept of Operations Target State

Provide the current version of the target ConOps diagram that was introduced at Milestone 1

Summarize the current version of the ConOps Narrative that was introduced at Milestone-1

Milestone II Slides 072507 DRAFT

4



## Detailed Requirements Synopsis

Describe the current state of Detailed Requirements Capture – is this effort complete

What is the current status of requirements approval by the customer's Project Decision Authority

Describe the process in place for introducing and approving changes

Milestone II Slides 072507 DRAFT

5



## Detailed Design Discussion

Provide a discussion of the proposed detailed project design

Milestone II Slides 072507 DRAFT

6



## Detailed Design Conformity

Does the design conform to the Enterprise Architecture and is it consistent with the related segment architecture

Does the design employ available solutions through the FTF Registry, the e-Gov initiatives and the PMA Solution Set wherever practical?

Does the design reuse existing enterprise data and reusable system components where possible

Has the design been approved by the Customers Project decision Authority?

Milestone II Slides 072507 DRAFT

7



## Development Strategy

Describe the proposed approach for project development

Describe the planned methodology for Configuration Management

Describe the planned approach for testing and acceptance (include pilots, prototypes and phased deliveries)

Milestone II Slides 072507 DRAFT

8



## Risk Management

		Risk Management		
		Impact		
		Low	Medium	High
Probability of Occurrence	High	Schedule Investment Management Capability Project Resources	Initial Costs Overall Project Failure	Life-cycle Costs Organizational and Change Mgmt
	Medium	Technical Obsolescence Business	Feasibility Data/Info	Reliability of Systems Technology
	Low	Dependencies and Interoperability Strategic	Surety Considerations Security	Procurement Monopoly Privacy

Milestone II Slides 072507 DRAFT 9



## Risk Planning

Summarize the risk mitigation plan for the significant risks (probability and impact medium or higher) shown on the prior slide

Milestone II Slides 072507 DRAFT 10



### Project Cost/Schedule

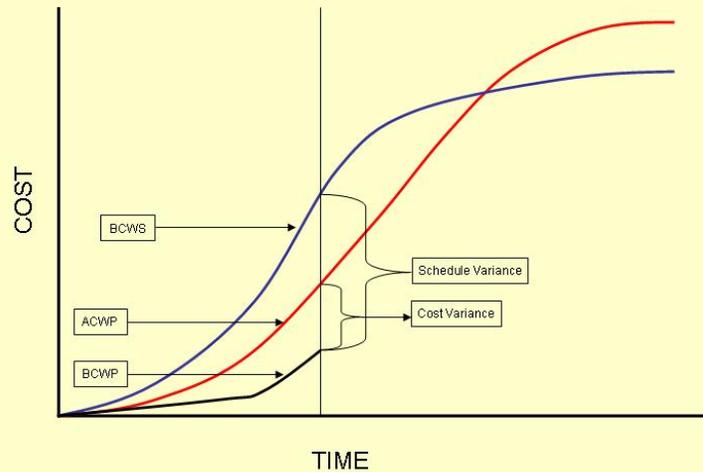
Task:	Planned Start Date	Planned End Date	Planned Cost	Planned % Complete	Planned Value at Analysis Date	Actual/Forecast Start Date	Actual/Forecast End Date	Actual Cost	% of Activity Completed	PM Estimate of Remaining Work	Estimate at Completion	Earned Value	% Cost Variance	% Schedule Variance
<b>Development Schedule</b>														
Concept Def. and Devel. (Steps 0-1)														
Activity 1	10/1/02	9/30/07	340.0	21.04%	71.54	10/1/02	9/30/10	172.40	12.00%			\$40.80	-322.55%	-42.97%
Activity 2	10/1/02	12/1/03	187.7	90.14%	169.19	10/1/02	9/30/10	87.80	85.00%			\$159.55	44.97%	-5.70%
Activity 3	12/1/02	12/30/03	108.7	81.88%	89.11	12/1/02	9/30/10	497.80	60.00%			\$95.22	-863.26%	-28.81%
<b>System Design &amp; Prototype (Step 2)</b>														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
<b>System Devel. &amp; Testing (Step 3)</b>														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
<b>System Deployment (Step 4)</b>														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
<b>Total Development Cost</b>			636.40		329.85			758.00		0.00	0.00	\$265.57	-185.43%	-19.49%
<b>Maintenance Schedule (Step 5)</b>														
Year 1:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 2:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 3:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 4:				0.00%	0.00							\$0.00	0.00%	0.00%
<b>Total Maintenance Cost</b>			0.00		0.00			0.00		0.00	0.00	\$0.00	0.00%	0.00%
<b>Project Totals:</b>			636.40		329.85			758.00		0.00	0.00	\$265.57	-185.43%	-19.49%
Analysis Date:	10/20/03													

Milestone II Slides 072507 DRAFT

11



### Earned Value Graph



Milestone II Slides 072507 DRAFT

12





## Acquisition Strategy & Plans

Provide an overview of the project's acquisition strategy and any procurement efforts underway.

Milestone II Slides 072507 DRAFT

15



## Documentation Review

Provide a concise summarization of the deviations, waivers, and exceptions that resulted from the reviews of the documents that were developed or updated during this phase.

Milestone II Slides 072507 DRAFT

16



### Exit Criteria Satisfied

- System Design Specifications document ✓
- Updated System Security Plan, Security Controls Assessment plan and procedures, Security Risk Assessment, Contingency Plan, SMART FISMA Survey, and POA&M. ✓
- Milestone 2 Review briefing presented to the ITLB.
- Approved Milestone 2 Decision Memorandum

Milestone II Slides 072507 DRAFT

17



### Coordination & Concurrences

Board/Office	Name/Date	Waivers/Deviations
BNI		
PATS		
ESP3		
EA		
Cyber Security		
Privacy		
508		
Infrastructure		
Development		
Business Requirements		
Operations		
Resource Mgt.		

Milestone II Slides 072507 DRAFT

18



## Decision Requested

Milestone II Slides 072507 DRAFT

19



## Backup Slides

Phase II Documentation Reviews and Results	Slides 26 - 29

Milestone II Slides 072507 DRAFT

20



### Phase 2 Document Reviews and Results

Document	Reviewed	Results
System Design Specifications	EA, PATS	(approve/variance/reject)
Life Cycle Cost Estimates (updated)	(name)	
Acquisition Strategy Plan (updated)	Contracting Officer	
Procurement Management Plan (updated)	Contracting Officer	
Final Procurement Documents (for each procurement)	<i>Contracting Officer</i>	
Results Document for Prototype Test, Proof of Concept Validation, or Demonstration		
User Design Approval	Sponsor, Business User, Customer	

Milestone II Slides 072507 DRAFT

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### Phase 2 Document Reviews and Results (cont'd)

Document	Reviewer	Results
System Security Plan (updated)	ISO	(approve/variance/reject)
Contingency Plan	ISO	
Disaster Recovery Plan	ISO	
Security Configuration Management Plan (updated)	ISO	
Security Controls Assessment Plan and Procedures (updated)	ISO	
Security Risk Assessment and Security Assessment Plan	ISO	
SMART Survey and POA&M (updated)	ISO	
Authority to Operate	ISO	
Privacy Impact Assessment (updated)	Privacy	

Milestone II Slides 072507 DRAFT

22



Phase 2 Document Reviews and Results (cont'd)

Document	Reviewed	Results
Performance Measurement Baseline (updated)		
OMB Exhibit 300 (updated)		
Technical Requirements	EA	
Concept of Operations (updated)	EA	
General Design Solution	EA	
Project Management Plan (updated)		
Project Schedule (Primavera)		
Risk Management Plan (updated)		
Quality Management Plan (updated)		
Test and Evaluation Plan (updated)		

Milestone II Slides 072507 DRAFT

23



Phase 2 Document Reviews and Results (cont'd)

Document	Reviewed	Results
Product Support Plan (updated)		
Voluntary Product Accessibility Template	508	
Conformance Validation Statement	508	
Milestone 2 Review Package		

Milestone II Slides 072507 DRAFT

24

## Milestone 3 Briefing Slides



### Milestone-3 Review for *Project Name*

---

Project Sponsor:  
*(Name, Phone, e-mail, sponsoring office)*

Proposed Project Manager:  
*(Name, Phone, e-mail, sponsoring office)*

Milestone3 Slides 11162007 DRAFT 1



### Business Problem or Opportunity Summary

Summarize the Business Problem or Opportunity to be addressed (which was described at the Milestone 0 Review)

Milestone3 Slides 11162007 DRAFT 2



## Project Description Summary

Summarize the Course of Action adopted at milestone 0 (Project Description/Scope/Desired Outcomes)

Summarize the project's benefits, both qualitative and quantitative. (Refer to the instructions document for benefit categories.)

Summarize the Project Metrics and the Definition of Project Success from Milestone 0

Milestone3 Slides 11162007 DRAFT

3



## System Development Results

Is the developed system consistent with the enterprise architecture as prescribed within the design specifications

Was the use of standard, available solutions successful in developing the system (e.g. available solutions through the FTF Registry, the e-Gov initiatives and the PMA Solution Set as specified in the approved design). If substitution or abandonment of a shared solution was necessary – explain why.

Does the developed system reuse existing enterprise data and reusable system components as specified within the design

Has the developed system completed all scheduled tests successfully

Has the customers Project Decision Authority approved the test procedure and accepted all test results – explain exceptions and deviations from plan

Milestone3 Slides 11162007 DRAFT

4



## System Deployment Planning Results

Summarize the status of deployment planning to date – is the plan complete and has it been approved by the customer and the deployment site managers.

Have all Infrastructure augmentation requirements been identified and has all infrastructure provisioning been initiated?

Are all training and staff augmentation plans complete and have the training materials been previewed, critiqued and approved by the appropriate subject matter specialists?

Are all Operational documents developed, reviewed and approved and have all SLA and MOUs been developed and approved?

Has the deployment plan been de-conflicted with the deployment schedules for other investments and have the deployment plans been approved by the impacted field operations managers?

Milestone3 Slides 11162007 DRAFT 5



## Operational Support Strategy

Describe the plans to provide training, helpdesk support, documentation, and other services, products, or activities necessary to support the operation of the system.

Milestone3 Slides 11162007 DRAFT 6



### Risk Management

		Risk Management		
		Impact		
		Low	Medium	High
Probability of Occurrence	High	Schedule Investment Management Capability Project Resources	Initial Costs Overall Project Failure	Life-cycle Costs Organizational and Change Mgmt
	Medium	Technical Obsolescence Business	Feasibility Data/Info	Reliability of Systems Technology
	Low	Dependencies and Interoperability Strategic	Surety Considerations Security	Procurement Monopoly Privacy

Milestone3 Slides 11162007 DRAFT

7



### Risk Planning

Summarize the risk mitigation plan for the significant risks (probability and impact medium or higher) shown on the prior slide

Milestone3 Slides 11162007 DRAFT

8



### Project Cost/Schedule

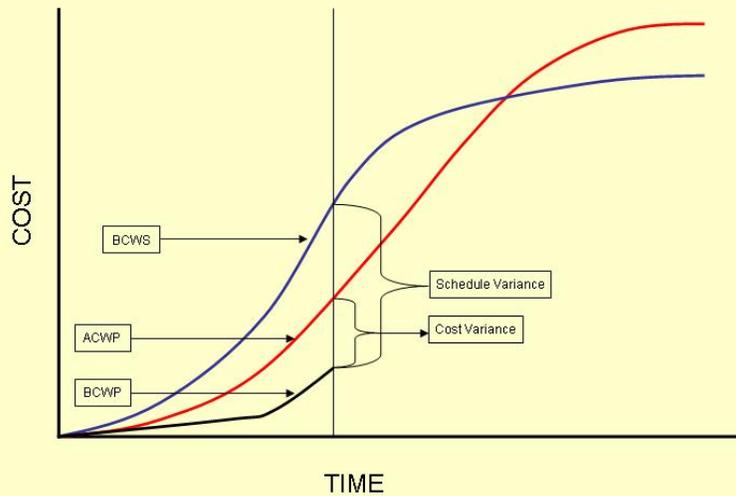
Task:	Planned Start Date	Planned End Date	Planned Cost	Planned % Complete	Planned Value at Analysis Date	Actual/Forecast Start Date	Actual/Forecast End Date	Actual Cost	% of Activity Completed	PM Estimate of Remaining Work	Estimate at Completion	Earned Value	% Cost Variance	% Schedule Variance
<b>Development Schedule</b>														
Concept Def. and Devel. (Steps 0-1)														
Activity 1	10/1/02	9/30/07	340.0	21.04%	71.54	10/1/02	9/30/10	172.40	12.00%			\$40.80	-322.55%	-42.97%
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Activity 3	12/1/02	12/30/03	108.7	81.98%	89.11	12/1/02	9/30/10	497.80	60.00%			\$65.22	-663.26%	-26.81%
System Design & Prototype (Step 2)														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
System Devel. & Testing (Step 3)														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
System Deployment (Step 4)														
Activity 1				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 2				0.00%	0.00							\$0.00	0.00%	0.00%
Activity 3				0.00%	0.00							\$0.00	0.00%	0.00%
<b>Total Development Cost</b>			636.40		329.85			768.00		0.00	0.00	\$265.57	-185.43%	-19.49%
<b>Maintenance Schedule (Step 5)</b>														
Year 1:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 2:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 3:				0.00%	0.00							\$0.00	0.00%	0.00%
Year 4:				0.00%	0.00							\$0.00	0.00%	0.00%
<b>Total Maintenance Cost</b>			0.00		0.00			0.00		0.00	0.00	\$0.00	0.00%	0.00%
<b>Project Totals:</b>			636.40		329.85			768.00		0.00	0.00	\$265.57	-185.43%	-19.49%
Analysis Date:	10/20/03													

Milestone3 Slides 11162007 DRAFT

9



### Earned Value Graph



Milestone3 Slides 11162007 DRAFT

10



### Performance Measures

Insert the Performance Goals and Measures Table from the project's OMB-300.

Fiscal Year	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvements to the Baseline
20xx	Processes and Activities	Innovation and Improvement			
20xx	Technology	Functionality			
20xx	Etc.				

Milestone3 Slides 11162007 DRAFT

11



### Lifecycle Spend Plan per OMB E-300

Life Cycle Phase	PY-1 & Earlier	PY2006	CY2007	BY2008	BY+1 2009	BY+2 2010	BY+3 2011	BY+4 & Beyond	Total
Total									

Milestone3 Slides 11162007 DRAFT

12



## Documentation Review

Provide a concise summarization of the deviations, waivers, and exceptions that resulted from the reviews of the documents that were developed or updated during this phase.

Milestone3 Slides 11162007 DRAFT

13



## Exit Criteria Satisfied

- Users' guide, operations guide, and/or training plan created. ✓
- System test results documented. ✓
- Supporting security documentation and Authority to Operate (ATO) memorandum. ✓
- Milestone 3 Review briefing presented to the ITLB.
- Approved Milestone 3 Decision Memorandum

Milestone3 Slides 11162007 DRAFT

14



### Coordination & Concurrences

Board/Office	Name/Date	Waivers/Deviations
BNI		
PATS		
ESP3		
EA		
Cyber Security		
Privacy		
508		
Infrastructure		
Development		
Business Requirements		
Operations		
Resource Mgt.		

Milestone3 Slides 11162007 DRAFT

15



### Decision Requested

Milestone3 Slides 11162007 DRAFT

16



### Backup Slides

Phase III Documentation Reviews and Results	Slides 22 - 24

Milestone3 Slides 11162007 DRAFT

17



### Phase 3 Document Reviews and Results

Document	Reviewed	Results
Project Management Plan (updated)	(name)	(approve/variance/reject)
Project Schedule (Primavera)		
Risk Management Plan (updated)		
Quality Management Plan (updated)		
Test and Evaluation Plan (updated)		
Product Support Plan (updated)		
Life Cycle Cost Estimates (updated)		
Performance Measurement Baseline (updated)		
OMB Exhibit 300 (updated)		

Milestone3 Slides 11162007 DRAFT

18



### Phase 3 Document Reviews and Results

Document	Reviewed	Results
User's Guide	Business	(approve/variance/reject)
Operation Guide	Business	
Training Plan	Business	
Contracts and Proposals Review	Contracting Officer	
Test Readiness Review	EA	
Acceptance Test Results	EA	
Prototype Results	EA	
Deployment Plans & Schedules (updated)	EA, Business	
System Security Plan (updated)	ISO	
Security Risk Assessment	ISO	
Security Controls Assessment Test and Results	ISO	

Milestone3 Slides 11162007 DRAFT

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### Phase 3 Document Reviews and Results

Document	Reviewed	Results
Statement of Residual Risk and POA&M	ISO	(approve/variance/reject)
Authority to Operate Request	ISO	
Continuous Monitoring Plan	ISO	
Privacy Impact Assessment (updated)	Privacy	
Conformance Validation Statement	508	
Voluntary Product Accessibility Template	508	
Milestone 3 Review Package		

Milestone3 Slides 11162007 DRAFT

20

## Milestone 4a Briefing Slides



### Milestone-4a Review for *Project Name*

---

Project Sponsor:  
*(Name, Phone, e-mail, sponsoring office)*

Proposed Project Manager:  
*(Name, Phone, e-mail, sponsoring office)*

Milestone 4a Slides 11162007 DRAFT 1



### Business Problem or Opportunity Summary

Summarize the Business Problem or Opportunity to be addressed (which was described at the Milestone 0 Review)

Milestone 4a Slides 11162007 DRAFT 2



## Project Description Summary

Summarize the Course of Action adopted at milestone 0 (Project Description/Scope/Desired Outcomes)

Summarize the project's benefits, both qualitative and quantitative. (Refer to the instructions document for benefit categories.)

Summarize the Project Metrics and the Definition of Project Success from Milestone 0

Milestone 4a Slides 11162007 DRAFT

3



## Investment Deployment Results

Was the Investment (system) deployed in accordance with the deployment plan, if not explain contingencies

Were early customer experiences consistent with test results and customer expectations

Has it been possible to demonstrate all required functionality

Has it been possible to demonstrate customer service improvements and/or performance improvements

Have anticipated improvements in the projects performance metrics been validated?

Milestone 4a Slides 11162007 DRAFT

4



## Investment Deployment Results

Did the deployment activity adhere to plan

were the early production user's experiences

Did Operational Support and training programs function as anticipated

Did the customer's Project Decision Authority accept the deployed systems

Milestone 4a Slides 11162007 DRAFT

5



## Performance Measures for Operational Analysis

Refer to the Operational Analysis and Integrated Control Guide:  
[http://vawww.ppo.eit.va.gov/docs/evms/OA\\_ICC\\_Guide113006.pdf](http://vawww.ppo.eit.va.gov/docs/evms/OA_ICC_Guide113006.pdf).

Milestone 4a Slides 11162007 DRAFT

6



## Risk Management

		Risk Management		
		Impact		
		Low	Medium	High
Probability of Occurrence	High	Schedule Investment Management Capability Project Resources	Initial Costs Overall Project Failure	Life-cycle Costs Organizational and Change Mgmt.
	Medium	Technical Obsolescence Business	Feasibility Data/Info	Reliability of Systems Technology
	Low	Dependencies and Interoperability Strategic	Surety Considerations Security	Procurement Monopoly Privacy

Milestone 4a Slides 11162007 DRAFT

7

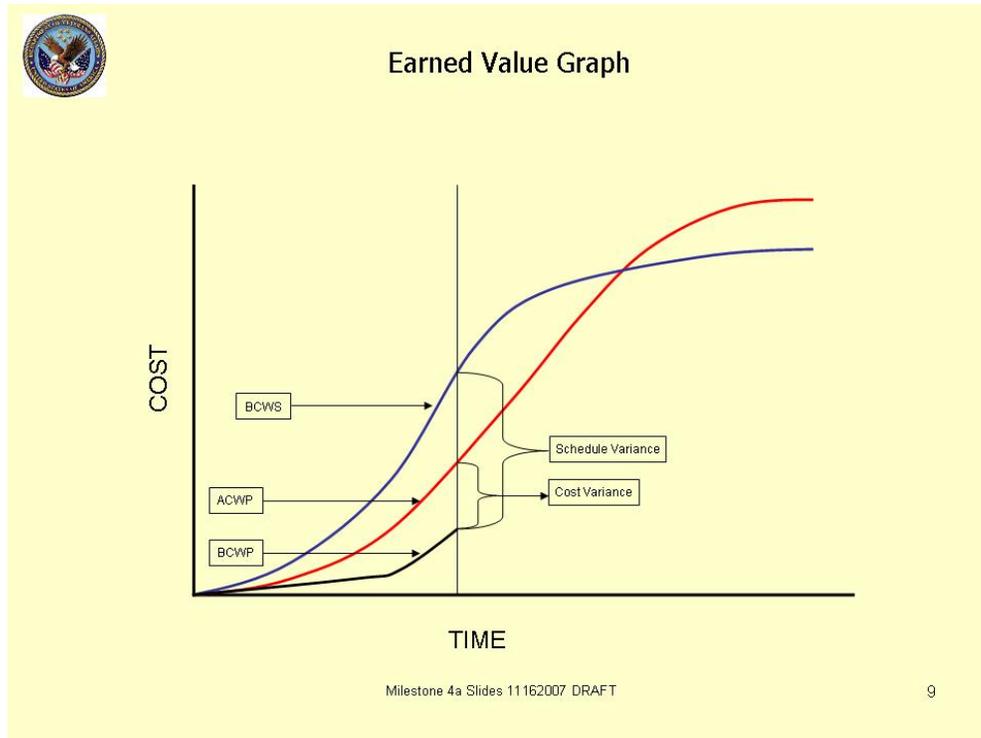


## Risk Planning

Summarize the risk mitigation plan for the significant risks (probability and impact medium or higher) shown on the prior slide

Milestone 4a Slides 11162007 DRAFT

8



Lifecycle Spend Plan per OMB E-300

Life Cycle Phase	PY-1 & Earlier	PY2006	CY2007	BY2008	BY+1 2009	BY+2 2010	BY+3 2011	BY+4 & Beyond	Total
Total									

Milestone 4a Slides 11162007 DRAFT 10



## Documentation Review

Provide a concise summarization of the deviations, waivers, and exceptions that resulted from the reviews of the documents that were developed or updated during this phase.

Milestone 4a Slides 11162007 DRAFT

11



## Lessons Learned

Provide a summary of the project's lessons learned, including any risk events, problems, successes, or other relevant information.

Milestone 4a Slides 11162007 DRAFT

12



### Exit Criteria Satisfied

- Post Implementation Review ✓
- Performance Measurements for Operational Analysis ✓
- Updated Risk Management Plan ✓
- Operating and Maintenance Plans ✓
- Deployed System Acceptance

Milestone 4a Slides 11162007 DRAFT

13



### Coordination & Concurrences

Board/Office	Name/Date	Waivers/Deviations
BNI		
PATS		
ESP3		
EA		
Cyber Security		
Privacy		
508		
Infrastructure		
Development		
Business Requirements		
Operations		
Resource Mgt.		

Milestone 4a Slides 11162007 DRAFT

14



### Decision Requested

Milestone 4a Slides 11162007 DRAFT

15



### Backup Slides

Phase 4a Documentation Reviews and Results	Slides 18 - 19

Milestone 4a Slides 11162007 DRAFT

16



Phase 4 Document Reviews and Results

Document	Reviewed	Results
Life Cycle Cost Estimates (updated)	(name)	(approve/variance/reject)
Project Management Plan (updated)		
Operational Service Contracts		
Closeout Plan & Checklist		
Termination Report		
Lesson Learned		
System Security Plan (updated)	ISO	
Security Risk Assessment	ISO	
Security Controls Assessment Test and Results	ISO	
Continuous Monitoring Plan (updated)	ISO	

Milestone 4a Slides 11162007 DRAFT

17



Phase 4 Document Reviews and Results

Document	Reviewed	Results
Privacy Impact Assessment (updated)	Privacy	(approve/variance/reject)
Milestone 4a Review Briefing		

Milestone 4a Slides 11162007 DRAFT

18

## Milestone 4b Briefing Slides



### Milestone-4b Operational Analysis Review for *Investment Name*

**Business Sponsor:**  
*(Name, Phone, e-mail, sponsoring office)*

**Operations Manager:**  
*(Name, Phone, e-mail, sponsoring office)*

Milestone IV Slides 072507 DRAFT

1



### Steady-State Investment Description

If the Investment is a system, describe its scope of function and indicate the number and distribution of its deployed instances. If the investment is a PMO, describe its role and the resources that it requires

Identify the specific products and services that this investment produces

Milestone IV Slides 072507 DRAFT

2



## Steady-State Investment Business Alignment

Identify the Business Lines or Enterprise Functions that this investment is intended to satisfy

Are there any additional business Lines or Enterprise Functions that have attached requirements to this investment since its deployment?

Milestone IV Slides 072507 DRAFT

3



## Investment Benefits

Does this investment still meet the requirements and expectations of the business stakeholders; is this investment still required?

Describe this investment's benefits, both qualitative and quantitative, and discuss whether the benefits originally proposed are being realized.

What are this investment's metrics – are these metrics being met or exceeded?

Milestone IV Slides 072507 DRAFT

4



## Investment Requirements Impact

Identify any business requirements that are new, or have changed and are within the scope of this investment but are not currently being met by this investment.

What is the planned strategy for meeting these new or changed requirements, will doing so require rework or replacement of the investment, and what is the estimated cost and targeted implementation date of these changes?

Milestone IV Slides 072507 DRAFT

5



## Investment Performance Results

Does this investment function efficiently in providing customer/client service? If this investment is a system, does it provide sufficient throughput, sufficient concurrency, and does it exhibit tolerable/acceptable transaction latency?

What is the planned strategy for addressing any performance deficits? Will doing so require rework or replacement of the investment? Will doing so require alteration or replacement of supporting infrastructure? What, if any, are the estimated cost and targeted implementation date of these performance improvements?

Milestone IV Slides 072507 DRAFT

6



## Potential for Obsolescence

Apart from this investment's business suitability, does this investment rely upon dated or outdated technology, programming methodologies, or infrastructure which (because of its age, limited use or limited market presence), may pose a business risk to the continued, sustained reliance upon this investment.

If so, what is the planned strategy for addressing any potential obsolescence risks? Will doing so require rework or replacement of the investment? Will doing so require alteration or replacement of supporting infrastructure? What, if any, are the estimated cost and targeted implementation date of these risk mitigation improvements?

Milestone IV Slides 072507 DRAFT

7



## Investment Planned Retirement

Indicate this investment's associated retirement (or sunset) date? If this investment is a system, this date will be the date when the system is removed from production?

If a retirement/sunset date is provided for this investment, indicate if and when development of a replacement investment will begin? Indicate if sufficient planning and development time has been allotted to the deployment of a replacement investment, prior to the existing investment's sunset date.

Milestone IV Slides 072507 DRAFT

8



## Operational Support Assessment

Indicate what, if any, service improvements (such as training, helpdesk support, documentation, etc.) are required to support the continued operation of this investment.

If any operations support improvements are required, for this investment, what is the planned strategy for addressing any potential obsolescence risks? Will doing so require rework or replacement of the investment?

Milestone IV Slides 072507 DRAFT

9



## Performance Measures for Operational Analysis

Refer to the Operational Analysis and Integrated Control Guide:  
[http://vawww.ppeo.oit.va.gov/docs/evms/OA\\_ICC\\_Guide113006.pdf](http://vawww.ppeo.oit.va.gov/docs/evms/OA_ICC_Guide113006.pdf).

Milestone IV Slides 072507 DRAFT

10



## Risk Management

		Risk Management		
		Impact		
		Low	Medium	High
Probability of Occurrence	High	Schedule Investment Management Capability Project Resources	Initial Costs Overall Project Failure	Life-cycle Costs Organizational and Change Mgmt.
	Medium	Technical Obsolescence Business	Feasibility Data/Info	Reliability of Systems Technology
	Low	Dependencies and Interoperability Strategic	Surety Considerations Security	Procurement Monopoly Privacy

Milestone IV Slides 072507 DRAFT

11



## Risk Planning

Summarize the risk mitigation plan for the significant risks (probability and impact medium or higher) shown on the prior slide

Milestone IV Slides 072507 DRAFT

12





## Waivers and Deviation from Standards

Provide a concise summarization of the deviations, waivers, and exceptions that resulted from the review of this investment

Milestone IV Slides 072507 DRAFT

15



## Lessons Learned

Provide a summary of the project's lessons learned (in the course of production operations), including any risk events, problems, successes, or other relevant information.

Milestone IV Slides 072507 DRAFT

16



### Coordination & Concurrences

Board/Office	Name/Date	Waivers/Deviations
<b>BNI</b>		
<b>PATS</b>		
<b>ESP3</b>		
<b>EA</b>		
<b>Cyber Security</b>		
<b>Privacy</b>		
<b>508</b>		
<b>Infrastructure</b>		
<b>Development</b>		
<b>Business Requirements</b>		
<b>Operations</b>		
<b>Resource Mgt.</b>		

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### Decision Requested

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### Backup Slides

Phase IV Documentation Reviews and Results	Slides 18 - 19

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### Phase 4b Document Reviews and Results

Document	Reviewed	Results
Life Cycle Cost Estimates (updated)	(name)	(approve/variance/reject)
Project Management Plan (updated)		
Operational Service Contracts		
Closeout Plan & Checklist		
Termination Report		
Lesson Learned		
System Security Plan (updated)	ISO	
Security Risk Assessment	ISO	
Security Controls Assessment Test and Results	ISO	
Continuous Monitoring Plan (updated)	ISO	

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### Phase IV Document Reviews and Results

Document	Reviewed	Results
Privacy Impact Assessment (updated)	Privacy	(approve/variance/reject)
Milestone 4b Review Briefing		

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## Appendix B – Information Technology Reviews

This Appendix provides descriptions and review questions for each of the five SDLC competency reviews and subsequent milestone reviews

### PROJECT PHASE 0 and MILESTONE 0

**1. Purpose.** The purpose of the Concept Definition Phase (Phase 0) is to identify and articulate a business problem or service improvement recommendation and to recommend a course of action or concept to resolve it (such as initiating a business process improvement or an IT development project). The Phase 0 timeframe is used to systematically identify, research, and validate general business requirements; to identify material weaknesses; and to associate the proposed initiative with supporting policy guidance (such as VA and JEC strategic Objectives, the Presidents Management Agenda, the VA Strategic Plan and VA Target Enterprise Architecture).. The goal of this phase is to obtain PATS Board approval (or to “charter” these concepts) for more intense planning and to authorize this initiative to progress to the next phase of the VAITPM Framework. This approval to proceed is granted at the Milestone 0 review which follows and marks the end of the Phase 0 effort.

**2. Entry Criteria.**

a. Phase 0 is initiated when a VA Business Sponsor (usually a VA business executive or manager with the authority to initiate a budget request and to marshal staff resources) identifies a business need and decides to engage THE VAITPM process.

### 3. Process.

- a. The Business Sponsor coordinates with the Executive Director of Business Requirements to initiate the VAITPM process.
- b. The Business Sponsor has access to Office of Enterprise Architecture to provide guidance and assistance in preparing the concept definition.
- c. The Business Sponsor identifies the impact of this problem upon VA operations, -upon overall operating cost and upon the quality of delivered services to veterans. The sponsor also identifies supporting policy guidance and develops meaningful business performance measures (metrics) by which achieving success can be measured
- d. The Business Sponsor completes the investigation and summarizes the findings in a Concept Paper and a supporting set of briefing slides. The Concept Paper identifies the principal stakeholders, describes the business need (or high-level business requirements) and a high-level justification for the proposed effort.
- e. The Business Sponsor and the Office of Enterprise Development collaborate and select a PM.
- f. The Business Sponsor and/or PM submit the Concept Paper to the Office of IT Enterprise Strategy, Policy, Plans, and Programs (ESP3) in accordance with information provided in the CIO's Concept Paper Data Call memorandum.
- g. ESP3 performs a competency review of the Concept Paper, in conjunction with the Offices of Enterprise Architecture, Cyber Security, Enterprise Development, Infrastructure Management and IT Operations. These offices prepare a joint recommendation which then accompanies the concept paper and preparation slides through the remainder of the phase/milestone 0 review process.
- h. The Sponsor and PM create the Milestone 0 Review briefing slides to present the business impact, assumptions, constraints, and a preliminary ROM estimate of project scope, schedule and cost, based upon the findings of the competency review.
- i. The Business Sponsor and/or PM present the Milestone 0 Briefing to the PATS board, along with the joint assessment of the afore mentioned CIO staff organizations. If the board approves the briefing, the PATS board chair will schedule a Milestone 0 Review Briefing with the BNI and ITLB Boards.
- j. The PATS board will inform BNI and ITLB.
- k. The ITLB will document concerns and render the decision and any conditions and constraints in the form of a Milestone Decision Memorandum.

### 4. Exit Criteria. The Exit Criteria for Phase 0 are as follows:

- a. Approved Charter. The approved charter consists of the Concept Paper, Milestone 0 Review Briefing, and an approved Milestone 0 Decision Memorandum from the ITLB.
- b. Identified PM or a list of viable candidates to serve as PM.



Department of Veterans Affairs Enterprise Architecture Project Review: Concept Validation

Project Name:	Overall Assessment: <b>R Y G</b>	Date of Last Milestone Review:	Milestone <b>0</b>
Project Sponsor:		Date of Next Milestone Review:	
Project Value:			

1	EA Alignment	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
1.1	What Objectives, within the VA Strategic Plan and JEC Strategic Plan will, the proposed project satisfy?	Concept is inconsistent with VA and JEC Strategic Objectives	Vague or Unclear	Concept clearly aimed to satisfy VA and JEC Strategic Objectives		R Y G
1.2	Which elements within the Presidents Management Agenda (PMA) will the proposed project address?	No Answer or inappropriate answer	Vague or Unclear	Concept clearly aimed to satisfy VA and JEC Strategic Objectives		R Y G
1.3	What areas within the One-VA Target Architecture will the proposed project support?	Concept inconsistent with business		Concept clearly aimed to satisfy VA and JEC Strategic Objectives		R Y G
1.4	Which Segment Architecture will the proposed project support?	No Answer or inappropriate answer		Concept clearly aimed to satisfy VA and JEC Strategic Objectives		R Y G
1.5	What business performance will be established to measure service efficiency improvement from the proposed project?	Desired business results not defined	Results defined, but not measurable and/or not traceable	Results defined are measurable and and/or not traceable		R Y G
1.6	Does the proposed project significantly overlap any ongoing development efforts? How does it do so, and can these efforts be combined?	Yes	Yes, but the following effort is being made to combine the efforts	No		R Y G
1.7	Has the business case addressed the full VA-wide scope of the problem or planned service improvement, in order to assure that the resulting solution will have the broadest applicability?	No	Insufficiently demonstrated	Yes		R Y G
1.8	Does the business case address the possibility of information sharing and information reuse across VA?	No	Insufficiently demonstrated	Yes		R Y G

2	<b>Business Alignment</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
2.1	Veteran Self Service and service improvement objectives have been considered in developing the business case.	No	Insufficiently demonstrated	Yes		R Y G
2.2	Concept paper identifies what business problem the proposed project will resolve? How will the proposed project result in VA process efficiencies and/or veteran service improvements. (including self service)	No Answer or inappropriate answer	Vague or Unclear	Compelling case is made to resolve a business weakness, to accomplish cost reduction or to improve veteran service		R Y G
2.3	Does the proposed project address business areas supported by existing IT systems? Are any of these redundant stove-piped systems or are they obsolete legacy systems?	No Answer or inappropriate answer	Vague or Unclear	Impact thoroughly addressed		R Y G
2.4	Which VA stakeholders will the proposed project impact, and how?	No Answer or inappropriate answer	Impact marginally addressed	Impact thoroughly addressed		R Y G
2.5	Does the business case identify the impacted user populations, the numbers of impacted users and their geographic distribution?	No	Insufficiently demonstrated	Yes		R Y G
3	<b>Data Compliance</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
3.1	Has the project reviewed the VA Conceptual Information Model and has gained an high level understanding of the types of data needed by the project and whether they are already available within the VA?	No	Insufficiently demonstrated	Yes		R Y G
4	<b>Technical Compliance</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
4.1	If use of certain technologies are addressed in the business case, are these technologies currently in use at VA and part of the approved TRM?	No	Unclear	Yes		R Y G
5	<b>Security and Privacy Compliance</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
5.1	Project Sponsor has included the OIT Cyber Security Office and Privacy Office in developing the business case for this initiative.	No	Insufficiently demonstrated	Yes		R Y G
6	<b>PM Oversight Compliance</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
6.1	Have a Business Sponsor and a Project Sponsor been assigned?	No	Unclear	Yes		R Y G
6.2	Has the Concept Paper been completed?	The document is incomplete or lacking basic information for management decision making.	The document requires revisions or changes to meet acceptable standards within VA.	The document is complete and useful for making management decisions.		R Y G

## PROJECT PHASE1 and MILESTONE 1

**1. Purpose.** The purpose of the Requirements Development Phase is to further expand upon the approved concept by integrating functional requirements analysis and concept exploration to create a general, cost-effective solution concept to satisfy the need or to exploit the opportunity. While developing this general solution concept, the concept development team should identify and mitigate as much high risk and uncertainty as possible.

**2. Entry Criteria.** The entry criteria for Phase 1 are as follows:

a. Approved Charter. The approved charter consists of the Concept Paper, Milestone 0 Review briefing, and an approved Milestone 0 Decision Memorandum from the PATS.

b. Identified PM or a list of viable candidates to serve as PM.

**3. Process.**

a. The Business Sponsor and Office of Enterprise Development identify a PM (if none was identified in the previous phase).

b. The Business Sponsor and PM have access to Office of Enterprise Architecture to provide guidance and assistance in performing Phase 1 and Milestone 1 activities.

c. The Business Sponsor and PM review and update (if necessary) the list of stakeholders identified in the Concept Paper and select the IPT members – the sponsor list is then incorporated with the project charter.

d. The Business Sponsor, PM, and stakeholders refine and agree upon the initiative's scope statement (which was drafted in the concept paper) – the scope statement is then incorporated with the project charter.

e. The Business Sponsor, PM, IPT, enterprise architecture representative, and stakeholders conduct a requirements analysis study and document their findings in a Requirements Document. The requirements document should address all business functions and processes that will be impacted, to include accessibility (508), security and privacy, general impact on VA's shared IT infrastructure, and enterprise architecture concerns.

f. The team creates a requirements traceability matrix to ensure that all requirements are addressed during the later design and development phases; and that all requirements are traceable to their authoritative source.

g. The team develops a general design concept based upon their current understanding of the requirements and solution possibilities.

h. The team chooses an appropriate development life cycle for the program and establishes a proposed Milestone Review schedule.

i. The team updates the concept paper to include justification for proposed general solution concept.

j. The team and Office of Enterprise Architecture complete the Preliminary Design Concept Review (PDCR) and System requirements Review (SRR) within the technical review process.

k. The team and Cyber Security make C&A determination (minor or major)

- l. The PM is responsible for completing the following activities with the assistance of the IPT:
  - a. Create an Organizational Breakdown Structure (OBS).
  - b. Create a Responsibility Assignment Matrix (RAM).
  - c. Create a Work Breakdown Structure (WBS), WBS Dictionary, and schedule using Primavera<sup>®</sup>.
  - d. Create a Risk Management Plan (Identification, Analysis, Response Planning, and Monitoring and Controlling).
  - e. Create acceptance and quality criteria and document them in a Quality Management Plan. The Quality Management Plan should reference performance metrics.
  - f. Create an Integrated Change Control Plan and Configuration Management Plan which includes approval to changes in requirements.
  - g. Create a Communications Management Plan.
  - h. Update ROM life cycle cost and schedule estimates.
  - i. Create the Program/Project Management Plan. The minimum requirements for the Program/Project Management Plan are objectives, expected deliverables, milestones, scope, and risk-adjusted Performance Measurement Baseline (PMB).
  - j. Create a preliminary Procurement Management Plan (or Acquisition Plan) with the Contracting Officer and/or contracting activity's assistance.
  - k. Create a preliminary draft OMB Exhibit 300 budget Request, within the CAMS system.
  - m. ESP3 performs the Milestone 1 competency review, in conjunction with the Offices of Enterprise Architecture, Cyber Security, Enterprise Development, Infrastructure Management and IT Operations. These offices prepare a joint recommendation which then accompanies the Milestone 1 artifacts through the remainder of the phase/milestone 1 review process.
  - n. The PM develops the Milestone 1 Review briefing slides, which reflect the findings of the competency review, and forwards them to ESP3.
  - o. The PM finalizes the draft OMB Exhibit 300 to reflect the status of the project to date, and submit it to the Office of IT Enterprise Strategy, Policy, Plans, and Programs (ESP3). ESP3 reviews the Exhibit 300 and works with the PM to correct deficiencies and strengthen the document.
  - p. ESP3 then schedules a Milestone 1 briefing with the PATS Board.
  - q. The PM presents the Milestone 1 Review briefing to the PATS Board.
  - r. The PATS Board evaluates the program and renders their decision and any conditions or constraints in the form of a Milestone 1 Decision Memorandum.
- 4. Exit Criteria.** The exit criteria for Phase 1 are as follows:
  - a. Compatibility with the EA and successful completion of the PDCR and SRR, certified by the office of Enterprise Architecture.

- b. Exhibit 300 approved by the Office of Programming and Portfolio Management and ready for submission to the Office of Management and Budget (OMB).
- c. Validated Performance Measurement Baseline.
- d. Requirements Document and Requirements Traceability Matrix
- e. Project Management Plan and all required subsidiary plans complete.
- f. Preliminary Procurement Management Plan (or Acquisition Plan).
- g. Project schedule and other information entered into Primavera® in accordance with the Primavera® Policy and Standard Operating Procedures.
- h. Integrated Project Team (IPT) identified.
- i. Milestone 1 Review briefing presented to the PATS Board.
- j. Approved Milestone 1 Decision Memorandum.

Department of Veterans Affairs Enterprise Architecture Project Review: Business Case Definition			
Project Name:	Overall Assessment:  R Y G	Date of Last Milestone Review:	Milestone  <b>1</b>
Project Sponsor:		Date of Next Milestone Review:	
Project Value:			

1	EA Alignment	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
1.01	Project has Identified possible uses of e-Gov and PMA solutions, FEA transition framework solutions, and/or COTS solutions, or project has determined that none of these solutions apply	Use of eGov, PMA,FEA-TF and COTS has not been addressed	Use of eGov, PMA,FEA-TF and COTS has been partially addressed	Use of eGov, PMA,FEA-TF and COTS has not been comprehensively addressed. Either an available solution has been identified or it has been determined that it does not		R Y G
1.02	Project has created a general design solution concept of operations diagram and narrative.	No	Artifact is incomplete or			R Y G
1.03	Project has identified existing sharable and sharable data	Use of eGov, PMA,FEA-TF and COTS has not been addressed	Use of eGov, PMA,FEA-TF and COTS has been partially addressed	Use of eGov, PMA,FEA-TF and COTS has not been comprehensively addressed. Either an available solution has been identified or it has been determined that it does not		R Y G
1.04	Project has Identified new sharable service sharable data	Creation of Sharable Components and Data has not been identified	Creation of Sharable Components and Data has been partially identified	Creation of Sharable Components and Data has been adequately identified or has been shown not to apply		R Y G
1.05	Business Performance Metrics have been defined	Performance measures and metrics not defined	Performance measures and metrics insufficient	Project's metrics have been appropriately interpreted and refined		R Y G
1.06	Requirements are structured to enable veteran self service access to VA services via the Web and/or other service enhancing technology	No	Insufficiently demonstrated	Yes		R Y G
1.07	Requirements are structured to ensure that to the maximum extent possible, business and veteran service systems and applications must be share, multi-use, and accessible to all possible users	No	Insufficiently demonstrated	Yes		R Y G

2	<b>Business Alignment</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
2.01	Project has Identified detailed requirements and has developed a business process concept of operations diagram and narrative	Detailed Requirements not developed	Requirements unclear or incomplete	Requirements are as complete as possible at this stage and have been signed-off by Project Sponsor		R Y G
2.02	Detailed requirements are traceable to legislation, executive direction, VA policy or business needs	Requirements are incomplete or untraceable	Partial traceability has been completed	Significant traceability has been established		R Y G
2.03	Potential impacts on business operations identified	No	Potential impact partially identified	Potential impact thoroughly identified		R Y G
2.04	Potential organizational impact identified	No	Potential impact partially identified	Potential impact thoroughly identified		R Y G
2.05	Potential training need identified	Training needs not addressed	Potential needs partially identified	Potential needs thoroughly identified		R Y G
3	<b>Data Compliance</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
3.01	The need for efficient and appropriate handling of data is recognized and addressed in functional requirements	No	Pending	Yes		R Y G
3.02	Data requirements for the project have been collected and documented in a Logical Data Model	No	Pending	Yes		R Y G
3.03	The project has worked with the Data Architecture Service to explore whether the project's data requirements can be satisfied, completely or in part, using existing VA data	No	In Progress	Yes		R Y G
4	<b>Technical Compliance</b>	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
4.01	Project has completed the TRB Preliminary Design Concept Review	No	Pending	Yes		R Y G
4.02	Project has completed the TRB System Requirements Review	No	Pending	Yes		R Y G
4.03	508 Requirements have been identified as part of the overall business requirements	No	Unclear	Yes		R Y G
4.04	Project has developed a requirements traceability matrix (RTM) for tracking of system design and system test elements back to the approved requirements	No	Unclear	Yes		R Y G

5	Security and Privacy	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
5.01	Security and Privacy requirements have been addressed as part of the overall business requirements.	No	Unclear	Yes		R Y G
5.02	Initial determination of major or minor project for C&A.	No	Unclear	Yes		R Y G
6	PM Oversight Compliance	Assessment Criteria Guidance			Summary Finding:	R Y G
	Assertion	Red	Yellow	Green	Comment	Finding
6.01	Has a certified Project Manager been assigned?	No	Not Certified	Yes		R Y G
6.02	Was a Project Management Plan developed inclusive of a scope statement, an Integrated Change Control Management Plan, a Quality Management Plan, a Communications Management Plan, a Procurement Management Plan, a Responsibility Assignment Matrix, an Organizational Breakdown Structure, and a Work Breakdown Structure?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.		R Y G
6.03	Has a System Development Life Cycle Strategy been defined?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.		R Y G
6.04	Has a Risk Management Plan been developed? If so, has a Risk Register been completed?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.		R Y G
6.05	Was the PMB validated?	No	Unclear	Yes		R Y G
6.06	Was the cost basis of estimate updated/refined?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	What is the relationship to the ROM?	R Y G
6.07	Was an analysis of alternatives completed?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.		R Y G
6.08	Was the OMB Exhibit 300 approved by the agency and sufficient funding for design allocated?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.		R Y G

## PROJECT PHASE 2 and MILESTONE 2

**1. Purpose.** The purpose of the System Design and Prototype Design Phase (Phase 2) is to create the detailed design specifications required for the development of a process improvement or IT system or Application. Not all initiatives require the design of an entirely new system; some involve a modification to an existing system or the acquisition of a system or application. In the event that a Pilot or Prototype is envisioned as part of this initiative, then, Phase 2 is used to specify the detailed design specifications for that Pilot or Prototype, as well, prior to the prototype's development in Phase 3. Whenever a Pilot or Prototype is called for or when an entire system is designed and developed in increments, then there is a separate design phase followed by a development phase for each increment within that initiative (following in the sequence: Phase 2a; Phase 3a; Phase 2b, Phase 3b; etc.).

**2. Entry Criteria.** The entry criteria for Phase 2 are as follows:

a. Compatibility with the EA and successful completion of the PDCR and SRR, certified by the office of Enterprise Architecture.

b. Exhibit 300 approved by the Office of Programming and Portfolio Management and ready for submission to the Office of Management and Budget (OMB).

c. Validated Performance Measurement Baseline.

d. Requirements Document and Requirements Traceability Matrix

e. Project Management Plan and all required subsidiary plans complete.

f. Preliminary Procurement Management Plan (or Acquisition Plan).

g. Project schedule and other information entered into Primavera<sup>®</sup> in accordance with the Primavera<sup>®</sup> Policy and Standard Operating Procedures.

h. Integrated Project Team (IPT) identified.

i. Milestone 1 Review briefing presented to the PATS Board.

j. Approved Milestone 1 Decision Memorandum.

**3. Process.**

a. The Project Team has access to Office of Enterprise Architecture to provide guidance and assistance in performing Phase 2 and Milestone 2 activities.

b. Using the requirements identified in Phase 1, the IPT documents general and detailed design specifications, consistent with approved requirements, the One-VA EA, and the general design concept provided in Phase I. The IPT incorporates knowledge of emerging technology (approved for use at VA) and of sharable data and components available from VA, the eGov initiatives and the OMB Transition Framework inventory. Project's design document must be of sufficient detail that it can serve as (or support) a statement of work for the development effort (Phase 3)

c. Assure that all requirements in the requirements tractability matrix are traceable to deliverable elements within the detailed design document

d. Complete risk assessment and alternative analysis, consistent with design document

e. The project's EA representative reviews the design documentation and that the design is consistent with the Enterprise Architecture

f. The PM is responsible for the following:

- a. Develop the Privacy Impact Assessment (PIA), if required.
- b. Develop System of Record Notification (SORN), if required.
- c. Develop Test and Evaluation Plan and Product Support Plan).
- d. Develop Acquisition Plan with Government Independent Cost Estimates
- e. Update life cycle cost estimates.
- f. PM develops solicitation requirements for proposed procurements.
- g. Enter appropriate procurement information into the VA IT Tracker System.
- h. PM and Contracting Officer finalize required procurement documents.
- i. Develop and submit the required artifacts, to the Office of Cyber Security, for a C&A review.
- j. Technical review artifacts.

g. The team completes Technical Review Process Initial Design Review (IDR) , Preliminary Design Review (PDR) and Critical Design Review (CDR).

h. ESP3 performs a competency review of the Milestone 2 material, in conjunction with the Offices of Enterprise Architecture, Cyber Security, Enterprise Development, Infrastructure Management and IT Operations. These offices prepare a joint recommendation which then accompanies the concept paper through the remainder of the Phase 2 process.

i. The PM prepares Milestone 2 briefing slides reflecting the findings of the competency review process.

j. ESP3 then schedules a Milestone 2 briefing with the PATS Board.

k. The PM presents the Milestone 2 Review briefing to the PATS Board.

l. The PATS Board evaluates the program and renders their decision and any conditions or constraints in the form of a Milestone 2 Decision Memorandum

**4. Exit Criteria.** The exit criteria for Phase 2 are as follows:

a. Compatibility with the EA and successful completion of the IDR, PDR and CDR, certified by the office of Enterprise Architecture.

b. System detailed Design Specifications document.

c. Prototype Design Document (if applicable).

d. PIA (draft or final)

e. SORN (draft or final)

f. Test and Evaluation Plan

- g. Product Support Plan
- h. Updated RD and RTM
- i. System Security Plan, Security Controls Assessment plan and procedures, Security Risk Assessment, Contingency Plan, SMART FISMA Survey and POA&M.
- j. Milestone 2 Review briefing presented to the PATS Board.
- k. Approved Milestone 2 Decision Memorandum.

Department of Veterans Affairs Enterprise Architecture Project Review: Solution Design Alignment					
Project Name:		Overall Assessment:  R Y G			Version:
Project Sponsor:					Date of Last Milestone:
Project Value:					Date of Next Milestone:
1	EA Alignment	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
1.02	Project design includes identification of dependencies upon other development projects and with other existing systems. These dependencies have been adequately addressed within the EA sequencing plan and within this projects risk management plan.	Dependencies have not been addressed	Dependencies have been identified but schedules have not been altered, risk mitigation not been developed to accommodate	Sequencing Plan and project schedules reflect in	
1.05	The design does not duplicate functionality being developed under another project; if project recommendation for project coordination has been developed and presented to impacted project teams.			Project overlap has been resolved by consolidation or rebaselining the impacted projects	
1.06	The original business performance have been expanded consistently with still relevant to the detailed design	No	Unclear	Yes	
1.07	Confirm the use of e-Gov, PMA and FEA Transition Framework solutions and the use of COTS products, within the final detailed design specification, or verify that none of these off-the-shelf solutions apply.	Use of Off-the-Shelf solutions has not been addressed	Use of Off-the-Shelf solutions has not been confirmed	Project is committed to the use of Off-the-Shelf solutions where applicable or Off-the-Shelf services do not apply	
1.08	Confirm the use of sharable services and sharable data (in lieu of creating redundant services and data) within the final detailed design specification, or validate that no sharable entities apply.	Use of sharable solutions has not been addressed	Use of sharable solutions has not been confirmed	Project is committed to the use of sharable solutions where applicable or sharable services do not apply	
1.09	Confirm the commitment to produce sharable services or sharable enterprise data within this project's final design specification, which may then be used within other projects/systems across the enterprise, and assure that these service and data components have been identified within the VA's FEA Service Reference Model;	Creation of sharable solutions has not been addressed	Creation of sharable solutions has not been confirmed	Project is committed to the creation of sharable solutions where applicable or the creation of sharable solutions does not apply	
1.10	The project design solution is consistent with the segment architecture governing its functional domain and the common segment functions and services, required from this project by the segment, are identified within the design.	Segment Architecture requirements are not evident in the detailed design	Segment Architecture requirements are incompletely or inadequately addressed	Segment Architecture requirements are adequately addressed within the detailed design	

2	Business Alignment	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
2.01	Solution includes business process improvement recommendations. <i>These process improvements must be prepared prior to initiating a major IT development effort, in order to satisfy Clinger-Cohen</i>	Business Process analysis not addressed	Business Process analysis unclear or incomplete	Business process analysis is thorough and has either produced sustentative improvements or has demonstrated that current processes are optimal	
2.02	Implementation plan includes recommended organization structure changes, staffing changes and training requirements (if necessary) to facilitate adoption and operation of new solution.	No	Pending	Yes	
3	Data Compliance	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
3.01	Data requirements have been refined and all related documentation has been updated	No	Insufficiently demonstrated	yes	
3.02	All data related project documentation (i.e. Logical Data Models, Data Exchange Packages, etc.) has been updated in the VA Data Architecture Repository	No	Insufficiently demonstrated	yes	
3.03	The project design reflects the architectural priorities of data sharing and reuse. If data reuse or sharing is not feasible, the project documents clearly and specifically the rationale	No	Insufficiently demonstrated	yes	
3.04	The design reflects a Service Oriented Architecture approach by exposing access to project data via well documented APIs or takes advantage of existing data access services	No	Insufficiently demonstrated	yes	
3.05	The design is compatible with the VA Identity Management strategy and implementation if applicable	No	Insufficiently demonstrated	yes	
4	Technical Compliance	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
4.01	Project has cleared TRB reviews (IDR, PDR, CDR) as appropriate, which will include 508 reviews	No	Pending	Yes	
4.02	Program has determined lifecycle maintenance needs of proposed solution	No	Insufficient analysis	Yes	
4.03	Any reuse or adaptation of existing services has been thoroughly planned and coordinated with service providers	No	Unclear	Yes	
4.04	Does the design incorporate appropriate disaster recovery planning?	No	Unclear	Yes	
4.05	Does the design identify infrastructure requirements?	No	Unclear	Yes	
4.06	Solution design is compliant with the Technical Reference Model (TRM)	No	Introduces new standards to be incorporated into TRM	Yes	
4.07	Implementation schedule includes user training	Training needs not addressed	Training needs insufficiently addressed	Yes	
4.08	Solution design includes an approved plan for providing onsite / virtual support (e.g. help desk, manuals)	No	Unclear	Yes	
4.09	Based on results of testing, solution has performance measures and metrics that enable accurate measurement of reliability and availability	Performance measures and metrics not defined	Performance measures and metrics insufficient	Yes	
4.10	The project's development plan (including phased implementation and development of pilots) is sufficient to manage dependencies among implementation increments	Dependencies across increments unmanaged	Dependencies across increments insufficiently managed	Dependencies across increments adequately Planned	

5	Security and Privacy Compliance	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
5.01	Solution ensures that all data is handled in a manner fully consistent with legislative and other legal requirements	No	Pending	Yes	
5.02	Solution ensures that all data is handled in a manner fully consistent with the department's security and privacy regulations	No	Unclear	Yes	
5.03	A Privacy Impact Assessment will be in place for this solution prior to implementation	No	Unclear	Yes	
5.04	System of Records Notice (SORN) for this system will be in place prior to implementation	No	Unclear	Yes	
5.07	Depending on program designation (major/minor), a System Security Plan, Security Controls Assessment Plan, and Security Risk Assessments are drafted.	No	Unclear	Yes	
6	PM Oversight Compliance	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
6.01	Was an updated/current Project Management Plan provided?	No	Unclear	Yes	
6.02	Was an updated Risk Management Plan and a updated Risk Register provided?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.05	Was an updated Performance Measurement Baseline (PMB) validated?	No	Unclear	Yes	
6.06	Was the project certified as using an ANSI compliance EVMS?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.07	Have monthly EVM Performance Reports been submitted? And is the Project within 10% of schedule and cost?	No	yes	Not within 10%	
6.08	Was a Change Control Log maintained?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.09	Were corrective actions captured?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.10	Was the cost basis of estimate updated/refined?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	

### PROJECT PHASE 3 and MILESTONE 3

**1. Purpose.** The purpose of the System Development and Testing Phase (Phase 3) is to develop, test and validate an operational solution in accordance with the program/project management plan, the approved requirements, and other applicable program/project documentation, based upon the detailed design established in Phase 2. The system is developed and documented, and all required internal testing and validation is performed. In the event that the project calls for a Pilot, Prototype or a Phased Implementation, then a separate occurrence of Phase 3 is scheduled to develop, test and validate each of these increments, corresponding to the separate occurrences of Phase 2 which call-out the design for the respective increments of the initiative (following in the sequence: Phase2a; Phase3a; Phase2b; Phase3b; etc.). Phase 3 is also used to perform the deployment planning and to complete the deployment plan that must precede production deployment of the system or system increment being developed.

**2. Entry Criteria.** The entry criteria for Phase 3 are as follows:

- a. Compatibility with the EA and successful completion of the IDR, PDR and CDR, certified by the office of Enterprise Architecture.
- b. System detailed Design Specifications document.
- c. Prototype Design Document (if applicable).
- d. PIA (draft or final)
- e. SORN (draft or final)
- f. Test and Evaluation Plan
- g. Product Support Plan
- h. Updated RD and RTM
- i. System Security Plan, Security Controls Assessment plan and procedures, Security Risk Assessment, Contingency Plan, SMART FISMA Survey and POA&M.
- j. Milestone 2 Review briefing presented to the PATS Board.
- k. Approved Milestone 2 Decision Memorandum.

**3. Process.**

- a. The Project Team has access to Office of Enterprise Architecture to provide guidance and assistance in performing Phase 3 and Milestone 3 activities
- b. PM develops statements of work, solicitation documents, obtains funding and contracting approval, and initiates any necessary solicitation with the assigned contracting officer.
- c. PM reviews proposals and performs bid selection with Contracting Officer.
- d. Complete contracting actions and contract awards necessary to perform work within Phase 3, and performs contract kick-off activities.
- e. Develop and test system components, incorporating sharable components and data as specified in the detailed design document; and document and manage all components under version control using the configuration management methodology established in Phase 2.

- f. Document and obtain approval of all changes with respect to the change control procedure established in Phase 2.
- g. Prepare users' guide, operation guide, and training plan.
- h. Develop and validate training materials.
- i. Establish functional and security controls testing criteria. (The testing criteria should comply with metrics established in prior phases.)
- j. Solicit feedback from customer to ensure all requirements are met.
- k. Test pilot, prototype, application-segment or entire system (as appropriate), validate proof of concept, and/or conduct demonstration, as required.
- l. Document results of the test, validation, and/or demonstration.
- m. Obtain and document user, and customer acceptance.
- n. Office of Enterprise Operations and Infrastructure formally identifies an Operations Manager.
- o. The team selects the method of deployment and obtains Business Sponsor approval.
- p. The team develops detailed deployment plans including training, infrastructure augmentation, site requirements, and de-confliction with other project deployment schedules. These requirements are then coordinated with the Office of Infrastructure management, the office of Operations Management and all affected field units.
- q. The PM is responsible for the following:
  - r. Review/update Risk Management Plan.
  - s. Revise project development cost and schedule estimates;
  - t. Update life cycle cost estimates.
  - u. Update program/project management plan and subsidiary plans.
  - v. Complete SMART FISMA Survey and POA&Ms.
- w. Complete Technical Review Process including the Test Readiness Review (TRR) and the Deployment Reviews (DR).
- x. ESP3 performs a competency review, in conjunction with the Offices of Enterprise Architecture, Cyber Security, Enterprise Development, Infrastructure Management and IT Operations. These offices prepare a joint recommendation which then accompanies the concept paper and preparation slides through the remainder of the phase/milestone 3 review process.
- y. The PM develops the Milestone 3 Review briefing slides and forwards them to ESP3.
- z. ESP3 then schedules a Milestone 3 briefing with the PATS Board.
- aa. The PM presents the Milestone 3 Review briefing to the PATS Board.
- bb. The PATS Board evaluates the program and renders their decision and any conditions or constraints in the form of a Milestone 3 Decision Memorandum.

- 1. Exit Criteria.** The exit criteria for this phase are as follows:
- a. Compatibility with the EA and successful completion of the TRR and DR, certified by the office of Enterprise Architecture
  - b. Milestone 3 Review briefing presented to the PATS Board.
  - c. Approved Milestone 3 Decision Memorandum.
  - d. Approved Deployment Plan
  - e. Approved Product Support Plan
  - f. Users' guide, operations guide, and training plan.
  - g. Completed Training Materials
  - h. System test results documented.
  - i. Documented user acceptance of the tested (pre-deployed) system.
  - j. Supporting security documentation and Authority to Operate (ATO) memorandum.
  - k. Supporting Privacy documentation – PIA, SORN
  - l. Supporting accessibility documentation – Section 508

Department of Veterans Affairs Enterprise Architecture Project Review: Solution Implementation Approval

Project Name:  
Project Sponsor:  
Project Value:

Overall Assessment:

R Y G

Version:  
Date of Last Milestone R  
Date of Next Milestone R

1	EA Alignment	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
1.01	Project has provided all System As-Built, System Administration, User Documentation, and Configuration Definition and Management Documentation for review and inclusion within the EA.	Documentation not provided	Documentation is incomplete or deficient	Document provided and appropriate to def	
1.03	Stakeholders have approved the developed system for deployment	No	Undetermined Provision pending cha		
1.04	Pre-deployment dependencies between this and other projects and systems have been met	No			
1.08	Formal change control process is implemented and operational	No			
1.10	Project's deployment plan addresses provisioning requirements, local deployment-site shared-infrastructure provisioning requirements have been communicated for completing provisioning action allotted to complete all provisioning deployment schedule.	Provisioning reported or not reported	Sufficient time has not been allotted for provisioning within the deployment schedule	All provisioning is planned and staged pending approval of the deployment schedule	
1.11	Deployment plan ensures uninterrupted service coverage while legacy systems are being replaced with this solution	No	Unknown	Yes	
1.12	Final System provides Veterans access to VA services via self service on the Web and/or other service enhancing technology	No	Insufficiently demonstrated	Yes	
1.13	To the maximum extent possible, the final system and application can be shared, multi-use, and accessible to all possible users	No	Insufficiently demonstrated	Yes	
2	Business Alignment	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
2.01	Planned organization structure and staffing changes, required to support deployment are approved and ready to implement.	No	Unknown	Yes	
2.02	Validity of project's performance measures (metrics) has either been confirmed through system testing or deficiencies in performance measures have been eliminated.	No	Unknown	Yes	

3	<b>Data Compliance</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
3.01	Data stewards and owners are identified for each community of interest	No	Incomplete identification	Yes	
3.02	Program has performed key data transformations needed to transfer legacy data into the solution's database(s) (if applicable)	No	Insufficient	Yes	
3.03	Arrangements and enforceable agreements (e.g. SLAs and MOUs) are in place to govern the use of external data	No	Pending	Yes	
3.04	All data related project documentation (i.e. Logical Data Models, Data Exchange Packages, etc.) has been updated in the VA Data Architecture Repository and a plan is in place to maintain the documentation during system operation and maintenance	No	Insufficient	Yes	
3.05	The project implementation reflects the architectural priorities of data sharing and reuse. If data reuse or sharing is not feasible, it is clearly documented specifically providing the rationale	No	Insufficiently demonstrated	Yes	
3.06	The implementation is compatible with the VA Identity Management strategy and implementation if applicable	No	Insufficiently demonstrated	Yes	
4	<b>Technical Compliance</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
4.01	Program has completed the Test Readiness Review, Acceptance Testing Review and Deployment Review by the TRB, to include meeting 508 requirements	No	Pending	Yes	
4.02	Performance measures and metrics that enable accurate measurement of reliability and availability are in place and documented in an SLA	Performance measures and metrics not defined	Performance measures and metrics insufficient	Yes	
4.03	Does the design incorporate appropriate disaster recovery planning?	No	Insufficient	Yes	
4.04	Is the infrastructure in place to accommodate the developed solution?	No	Insufficient	Yes	
4.05	Requirements traceability matrix (RTM) has been updated to ensure that successful testing has been accomplished for all approved requirements.	No	Insufficient	Yes	
5	<b>Security and Privacy Compliance</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
5.01	All data is handled in a manner fully consistent with legislative and other legal requirements	No	Pending	Yes	
5.02	All data is handled in a manner fully consistent with the department's security and privacy regulations	No	Unclear	Yes	
5.03	System has an approved authority to operate (ATO)	No	Unclear	Yes	
5.04	System has an approved PIA which will be included in the OMB 300, if required	No	Unclear	Yes	
5.06	System has an approved and published System of Records, if required	No	Unclear	Yes	

6	PM Oversight Compliance	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
6.01	Was an updated Project Management Plan provided?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.02	Was an updated Risk Management Plan and Risk Register provided?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.04	Was an updated Performance Measurement Baseline (PMB) validated?	No	Unclear	Yes	
6.05	Is an EVMS ANSI Surveillance process in place?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.06	Have monthly EVM Performance Reports been submitted?	No	Unclear	Yes	
6.07	Was a Change Control Log maintained?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.08	Were corrective actions captured?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.09	Was the cost basis of estimate updated/refined?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	

## PROJECT PHASE 4 and MILESTONE 4

**1. Purpose.** The purpose of the System Deployment Phase and Milestone (Phase 4) is to complete system deployment (including completing any remaining training and provisioning activities; and conducting data conversion and system implementation); and to observe and measure the results of the system's impact in production operations. Production operation measurements are made in conjunction with the metrics established for the project at Milestone 0 (which have been refined with each successive milestone). Milestone 4 is also used for in-process review for systems that have been in production for two or more years.

**2. Entry Criteria.** The entry criteria for Phase 4 are as follows:

m. Compatibility with the EA and successful completion of the TRR and DR, certified by the office of Enterprise Architecture

n. Milestone 3 Review briefing presented to the PATS Board.

o. Approved Milestone 3 Decision Memorandum.

p. Approved Deployment Plan

q. Approved Product Support Plan

r. Users' guide, operations guide, and training plan.

s. Completed Training Materials

t. System test results documented.

u. Documented user acceptance of the tested (pre-deployed) system.

v. Supporting security documentation and Authority to Operate (ATO) memorandum.

w. Supporting Privacy documentation – PIA, SORN

x. Supporting accessibility documentation – Section 508

**3. Process for Initial system deployment.**

a. The Project Team has access to Office of Enterprise Architecture to provide guidance and assistance in performing Phase 3 and Milestone 4 activities.

b. Complete Technical Review Process Deployment Review.

c. Complete and certify all planned pre-deployment training.

d. Communicate benefits of system/capability to users via communications strategies.

e. Complete and certify all pre-deployment infrastructure provisioning.

f. Operations Manager, PM, and Contracting Officer prepare any remaining service contract(s), as required.

g. Assess user deployment readiness

h. Deploy Pilot, Prototype, System-Increment or entire system (as appropriate), in accordance with the deployment plan that was approved at Milestone 3.

- i. Assure that data and customer services are uncompromised through the deployment process and re-initiate production operations under the deployed system.
- j. Provide augmented customer support during initial production experience.
- k. Monitor and report early production results (including trouble reports, system outages, help desk activities, user observations, and capture system performance and customer service metrics.
- l. Obtain and document customer acceptance of the deployed system.
- m. PM completes the following activities:
  - (1) Update life cycle cost estimates.
  - (2) Update project plans.
  - (3) Update RTM.
  - (4) PM creates and implements Closeout Plan and Termination Report.
  - (5) PM consolidates lessons learned. Lessons learned should be collected throughout the program life cycle and from as many different sources as possible. During this phase, the PM consolidates and documents the lessons learned in preparation for closeout and the Post Implementation Review.
- n. ESP3 performs a competency review, in conjunction with the Offices of Enterprise Architecture, Cyber Security, Enterprise Development, Infrastructure Management and IT Operations. These offices prepare a joint recommendation which then accompanies the milestone artifacts.
- o. The PM develops the Milestone 4 Review briefing to reflect the conclusions of the competency, and forwards them to ESP3.
- p. ESP3 then schedules a Milestone 4 briefing with the PATS Board.
- q. The PM presents the Milestone 4 Review briefing to the PATS Board.
- r. The PATS Board evaluates the program and renders their decision and any conditions or constraints in the form of a Milestone 4 Decision Memorandum.

#### **4. Exit Criteria.**

- a. Compatibility with the EA, documentation of the deployed instance and successful completion of the DR, certified by the office of Enterprise Architecture.
- b. Milestone 4 Review briefing presented to the PATS Board.
- c. Approved Milestone 4 Decision Memorandum.
- d. Complete deployment of system.
- e. Complete user acceptance of deployed system.
- f. Closeout plan with checklist.
- g. Documented evidence of a properly closed out project including reassignment of human resources

- h. Business Sponsor formally accepts system.

#### **5. Alternative Milestone 4 Reviews Process for Steady-State Systems.**

When Milestone 4 is used to evaluate a steady-state system the issues to be resolved include:

- a. Establish that a business function or need still exists, which can justify the continued use of this system
- b. Establish that the system still satisfies the requirements and business rules of its sponsoring business function (or that change requests have been initiated to correct any deficiencies).
- c. Establish that the system provides its user community with reasonable response time, workload-capacity and with reasonable options in functionality or access, consistent with the current state of technology, with the level of the initial investment and with customer expectations. In the event that major changes in technology have occurred (since the development of this system), which may render the system to be severely limited in customer access or self-service (for example) then document the condition, since that fact may provide sufficient reason to justify system replacement.
- d. Establish that the system relies upon current technologies which are commercially available and are supported within the marketplace and that the programming methodologies employed are currently practiced within the commercial marketplace and that skilled personnel are available (for hire or contract) to support this system. If not, the reliance upon obsolete hardware or software or upon out-dated techniques, may pose an unacceptable business risk with the continued use of the present system (even when the present system is working acceptably well in production).

Department of Veterans Affairs Enterprise Architecture Project Review: Implementation Review

Project Name:	Overall Assessment: <b>R Y G</b>	Version:
Project Sponsor:		Date of Last Milestone F
Project Value:		Date of Next Milestone I

1	EA Alignment	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
1.01	All Directives, Policies and Handbooks (governing this systems deployment and operations) have been approved and are in use	No	Unclear	Yes	
1.02	Data for performance measures is being collected and reported in accordance with SLA (and operational analysis) and reviewed to determine if project performance objectives are being met	No	Unclear	Yes	
1.03	Deployed-system and configuration documentation has been provided for inclusion in the enterprise architecture	No	Incomplete		
1.04	Deployed system is available via the Web and/or other technology	No			
1.05	This steady state system is still in use to support an existing business case			Yes - business case still valid or has been replaced by another business case which was also validated through the Milestone-0 review process	
1.06	Does the steady state system support that business requirement?		Undetermined	Yes - As currently configured, the system supports all associated business requirements	
1.07	The infrastructure, technology and programming methodology (supporting this system) is sustainable within the marketplace	No - either one or more of the hardware and software components is no longer supported by its OEM vendor; and/or programmers familiar with this systems development methods are difficult to find within the marketplace.	Undetermined	Yes - all materials and techniques used to support this system are currently supported in the marketplace	
1.08	If any upgrades, modifications or enhancements to this system have been identified (which extend beyond those allowed through normal Operations & Maintenance activities), those proposed changes have been included in a business case and have been submitted for review through the milestone-0 process.	No - requirements for upgrades or enhancements have been identified, but have not been articulated in a business case for milestone-0 review.	Unknown	Yes - Either no enhancements or upgrades are required or those that have been identified have been sent forward for milestone-0 review.	
1.09	To the maximum extent possible, the deployed system and application is shared, multi-use, and accessible to all possible users	No	Insufficiently demonstrated	Yes	

2	<b>Business Alignment</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
2.01	Employees are fully trained and qualified to operate business systems/processes	No	Unclear	Yes	
2.02	The program has implemented the appropriate organizational structure to maximize benefits of implemented solution(s)	No	Pending	Yes	
2.03	Appropriate MOUs, MOAs and SLAs are in effect to allow full operation of business systems and processes	No	Unclear	Yes	
3	<b>Data Compliance</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
3.01	All legacy data is transformed into solution's database(s) (if required)	No	Insufficient	Yes	
3.02	Arrangements and enforceable agreements (e.g. SLAs and MOUs) are in place to govern the use of external data	No	Pending	Yes	
3.03	Data related project documentation (i.e. data models, data dictionaries, etc.) are being kept up to date and stored in the VA Data Architecture Repository	No	Pending	Yes	
3.04	Data quality criteria have been defined and are being applied	No	Pending	Yes	
3.05	Data stewardship roles are being fulfilled according to Departmental guidelines and best practices	No	Pending	Yes	
4	<b>Technical Compliance</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
4.01	Technology in use still meets user requirements	No	Pending	Yes	
4.02	All upgrades meet 508 requirements	No	Pending	Yes	
4.03	Upgrade solution capability is appropriately reconciled with target implementation environment	No	Unclear	Yes	Program has completed necessary modifications to locations and workforce to implement capability
4.04	Site-specific configurations have been reconciled with Enterprise Architecture	No	Unclear	Yes	
4.05	Changes to design (as a result of production, testing, adaptation, etc.) are reconciled with the EA as part of a formal change control process	No	Unclear	Yes	All sites have same minimum capabilities
4.06	Outgoing and legacy systems have been decommissioned and appropriately disposed of	No	Unclear	Yes	
4.07	Risk management controls adequately address risks associated with the management and operation of services and technology	Risks not addressed	Risks insufficiently addressed	Yes	

5	<b>Security and Privacy</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
5.01	All data is handled in a manner fully consistent with the department's security and privacy regulations	No	Unclear	Yes	
5.02	ATO is current and any POA&Ms are being worked	No	Unclear	Yes	
5.03	SOR is current	No	Unclear	Yes	
5.04	PIA is current	No	Unclear	Yes	
6	<b>PM Oversight Compliance</b>	Assessment Criteria Guidance			Summary Finding:
	Assertion	Red	Yellow	Green	Comment
6.01	Was the final Project Plan for close out developed?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.02	Were Lessons Learned documented?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.03	Were an updated Risk Management Plan and Risk Register provided?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.04	Was an updated Operational Baseline validated?	No	Unclear	Yes	
6.05	Was the basis of estimate updated/refined?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.06	Have monthly OA Performance Reports been submitted?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.07	Was an Operational Analysis Annual Report conducted?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.08	Was a Change Control Log maintained?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	
6.09	Were corrective actions captured?	The documents or outputs are incomplete or lacking basic information for management decision making.	The documents or outputs require revisions or changes to meet acceptable standards within VA.	The documents or outputs are complete and useful for making management decisions.	

## **Appendix C**

### **One-VA Enterprise Architecture Configuration Management and Change Control Procedure**

#### Purpose

This document describes the Configuration Management and Change Control Procedure established within the Office of Enterprise Architecture Management (OEAM) for the orderly development and maintenance of the One-VA Enterprise Architecture. The procedure has two parts:

1. The Configuration Management Procedure provides version control of all acquired and developed content within the One-VA Enterprise Architecture. It provides separation of content between the various versions of the EA that are published over time.
2. The Change Control Procedure provides tractability, accountability and approval identification for all changes to the annual EA assessment products.

#### Scope

This procedure applies to all content within the One-VA Enterprise Architecture Repository and its derivative products. One exception is that certain detailed logical and physical data models, data schemas, data definitions, and other data constructs are managed and controlled independently by the Data Management Board, and the OEAM Data Architecture Service through the One-VA Data Registry and Data Repository. Another exception is that these entities are only represented in summary within the One VA Enterprise Architecture Repository.

#### Authority

The VA Chief Architect is the owner of the EA Configuration Management and Change Control Process.

The Chief Architect, the Deputy Chief Architect, and the Director, Enterprise Architecture Service approve and oversee the development of specific annual EA assessment products within the EA Change Control Process.

The Chief Architect is the Program Decision Authority for overall approval of the annual EA Assessment as delivered to OMB.

#### Execution

The One VA Configuration Management and Change Control Process is executed and enforced by the Director, Enterprise Architecture Service (EAS), under the direction of the Chief Architect. The Director, EAS, is responsible for building and maintaining the One-VA EA Repository and its content, and for designing and developing the EA products approved by the Chief Architect.

## EA Configuration Management Procedure

### EA Configuration Specification

Content for inclusion in the One-VA EA Repository is submitted to or developed by the Director, Enterprise Architecture Service (EAS). EA Repository Content may originate from the CPIC process, from stakeholder-submitted Exhibit-300 budget requests, from working sessions between EAS and various EA stakeholder, from chartered working groups, from the EAC and DMB, from IT project teams, from executive fora (such as the JEC, the BEC and the HEC), and from other related sources as well as from the research and analysis performed within the EAS .

The Director, EAS assures that EA repository Content is traceable to the content submitter and to the date of submission, within the EA Repository. Content is also edited and configured to the standards and the constraints imposed by the EA Meta-model and the repository tool. The repository tool is currently the "Caliber-RM" COTS product.

The EA Repository provides explicit and implicit versioning of all submitted content. Implicit versioning consists of programmatic sequencing of content, at the entry level, within the repository, which permits reconstructing the order in which content was added as well as the ability to roll-back any entry to any previous content state. Explicit versioning consists of manually applying an assigned version control number to all content within the repository that pertains to an identically numbered published version of the EA. Content pertaining to separate versions of the EA will appear in separately versioned instances of the repository database. Current versions of the published EA that conform to this convention are:

1. EA V4.0, published May 31, 2005; and
2. EA V4.1, published Feb 28, 2006.
3. EA V4.2, published Feb 28, 2007.

The One-VA EA Repository is also furnished with several sensitivity indicators to classify content and to regulate content exposure. These indicators are:

1. "Critical Infrastructure Protection - Sensitivity" which isolates content which, when exposed, could compromise the security of VA facilities and infrastructure; and
2. "Procurement Sensitivity" which isolates content which, when exposed, could compromise the competitiveness of a federal procurement or could create a non-competitive advantage for the viewer.

These indicators are currently under development and will be completely deployed for EA V4.3, which is planned for delivery in February 2008.

The EA Repository is restricted from containing, and will not contain, any individual veteran identification information, veteran-case information, medical or other individual information. The EA Repository and CM process will exclude all information covered under individual identity, privacy and HIPAA regulation.

### EA Configuration Management Tasks

1. The Director, EAS , will assure that all content, managed under this procedure, is electronically backed-up and is electronically recoverable in the event that the supporting production hardware is inoperative.
2. The Director, EAS, will provide Intranet and Internet exposure, of the content managed under this procedure, as directed by the Chief Architect.

3. The Director, EAS, will provide a CD-Rom version of the content managed under this procedure, which is equivalent in scope to the EA material provided on the VA Intranet. This version will be made available to OMB and GAO as well as any other recipient identified by the Chief Architect.
4. When any version of the One-VA EA is retired and replaced by a later version, the Director, EAS, will assure that a copy of that version's CD-Rom product (in the form delivered to OMB) is retained in a permanent archive.
5. During the course of the year following any EA delivery to OMB, the EA Web-portal (Intranet view) of the EA repository and assessment will consist of
  - a) The complete EA Assessment most recently released to OMB; most recently released to OMB;and
  - b) The work-in-progress version that is under development for the subsequent OMB delivery. The work in progress version will be subject to continuous change without notification until it becomes the next delivered version.

#### EA Configuration Management Verification

Adherence to this procedure will be verified and reported as part of the annual EA Independent Verification and Validation Process.

#### EA Change Control Procedure

##### EA Change Control Specification and Tasks

The EA Change Control Procedure governs the manner in which changes to the annual EA Assessment Products are proposed, approved, and published.

The EA Change Control procedure is constrained by the annual delivery cycle of the current EA to OMB for review and evaluation. The current delivery cycle (which may be changed at any time by OMB ) is detailed here:

1. The EA product development cycle begins with the submission to VA of OMB's evaluation of the previously submitted EA assessment product. This is scheduled to occur in March of any year.
2. In March, the OEAM IV&V contractor evaluates the EA that was delivered to OMB in February, and briefs the Chief Architect and the Director, EAS, on the completeness and compliance of that EA delivery
3. The Director, EAS, reviews and evaluates the OMB assessment and develops an EA improvement plan with the product improvements and omissions indicated by the OMB assessment.
4. The Director, EAS, then includes any planned improvements, which may have been developed in-house or may have been recommended, from other sources, into the EA improvement plan and then he/she develops a work plan for review and approval by the Chief Architect.
5. In April, the Director, EAS, briefs the EA work plan Chief Architect and receives direction and approval for the development of the next EA assessment. The Chief Architects approval is recorded within the EA Change Control Log.
6. From May through September the Director, EAS, is responsible for performing EA reviews of Exhibit-300 IT budget requests for delivery to OMB in the September budget-cycle, in addition to developing the next annual EA assessment.
7. In September, The Director, EAS, begins to develop an EA assessment of the new IT portfolio for delivery as part of the following Target Architecture. This amended EA assessment addresses the

portfolio projects in the current budget submission. As the Portfolio is impacted by Pass-Back discussions, the Director, EAS alters the target Architecture accordingly;

8. In October, The Director, EAS, briefs the EAC on the content of the forthcoming EA delivery.
9. On December 31, the Director, EAS, delivers a preliminary draft of the forthcoming EA Product set to the Chief Architect for internal review.
10. On January 31, the Director, EAS, delivers a decision draft to the EAC and the VA CIO community for review and comment, prior to delivery to OMB.
11. On February 20, the Director, EAS, must receive all comments and corrections in order to be considered for inclusion in the OMB delivery.
12. On February 28, The Chief Architect delivers the new EA Product set to OMB. At this point, the process reiterates with OMB's assessment of the new EA product.

At any time during this process cycle, the Director, EAS, may receive additional guidance from OMB, GAO, or the Chief Architect, which may result in additional changes to the EA version being developed. Any of these products, which have been scheduled and approved for change, can be, at that time, further modified to receive these additional changes without additional coordination. However, if an additional product is involved, it must be added to the EA work plan and approved by the Chief Architect.

#### EA Change Control Verification

Adherence to this procedure will be verified and reported as part of the annual EA Independent Verification and Validation Process. The Chief Architect will assure that the EA Continuing Improvement Process is included within the EA products delivered to OMB, and that this product includes the related EA work plan and EA self assessment.