ENTERPRISE PROJECT LIFECYCLE

# HRSA EPLC FRAMEWORK

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# DOCUMENT VERSION HISTORY

| Version # | Implemented By | Revision Date | Reason |
|---|---|---|---|
| 1.0 | EPLC Project Team | 15 Nov. 2008 | Baseline document. |
| 1.1 | EPLC Project Team | 5 June 2009 | Updated to match current HHS and HRSA activities. |
| 1.2 | EPLC Project Team | Dec 1 2010 | Updates to new Framework after team member review |
| 1.3 | EPLC Project Team | Jan 7 2011 | Final Revisions to Framework following team review |
| 2.0 | EPLC Project Team | April 26 2011 | Updates to add Initiation Review information and Final Revisions |

# 1 INTRODUCTION

## 1.1 Purpose

This document describes the Health Resources and Services Administration (HRSA) Enterprise Project Lifecycle (EPLC) Framework. The HRSA EPLC is the foundation for the management of projects and promotes a result driven work environment among stakeholders by establishing expectations, guidelines and providing tools supporting the management all information technology IT projects.

The HRSA EPLC provides project management standards across all of HRSA's technology initiatives while assuring alignment with HRSA's Enterprise Architecture (EA), HRSA's Capital Planning and Investment Control (CPIC) and the Health and Human Services (HHS) EPLC as well as other applicable Departmental guidelines and Federal directives.

The EPLC framework allows HRSA's vendors to continue using their preferred development methodologies while assuring HRSA's ability to deploy the desired level of insight into the technical project activities and oversight of the project management functions.

# 2 BACKGROUND

Federal agencies are continuously working to improve their mission performance. As part of managing performance, agencies identify opportunities for improvement, invest in the solutions to exploit the opportunities, and execute plans to implement the solutions. To achieve the targeted performance goals of an agency, the primary information technology (IT) functions of Enterprise Architecture (EA), Capital Planning and Investment Control (CPIC), and program and project management must be standardized, mature, and fully integrated. The relationships among the three layers are described in detail in section 2.1 Performance Improvement Lifecycle.

At HRSA, The EA function is in the process of identifying the complete As-Is architecture, building a To-Be architecture, and is documenting a road map to the desired state. The CPIC function is formal and mature. For project management, HRSA has an approved plan for implementing an Enterprise Performance Lifecycle (EPLC).

The HRSA EPLC Implementation Plan approved by HHS stipulates that the agency will be executing IT projects according to the HRSA EPLC on a consistent basis. HRSA will implement the EPLC through a controlled stepwise fashion using pilot projects.

The Office of Management and Budget (OMB) has made it clear that the focus of agency spending for IT should be on results that are achieved through good project management. Exhibit 300 as defined by OMB Circular A-11, Part 7, is primarily a scorecard for project management and performance results. In their Federal Enterprise Architecture (FEA) Practice Guidance, OMB integrates project management, or implementation, with EA, and investment, or CPIC. OMB states that,

> Results-oriented architecture is developed within the context of the Performance Improvement Lifecycle broken down into three-phases: 'Architect', 'Invest' and 'Implement'.[1]

Department of Health and Human Services (HHS) has developed a Enterprise Performance Life Cycle (EPLC) Framework to address the priorities established by OMB, key legislative and management drivers for its EA program, as well as to provide support for its EA governance plan, and to "improve the quality of project planning and execution, reducing overall project risk",[2] The HHS Enterprise Architecture Governance Plan states that, "individual IT program and project managers are obligated to comply with various information provision requirements as their projects move through each phase of the HHS Enterprise Performance Life Cycle".[3]

The HRSA Enterprise Project Life Cycle (EPLC) is the agency's implementation of the HHS framework.

## 2.1 Performance Improvement Lifecycle

The Office of Management and Budget (OMB) clarifies the linkages among Strategic Planning, Enterprise Architecture, CPIC and Project Management via a simple value chain consisting of three layers "Architect" (Enterprise Architecture), "Invest" (CPIC) and "Implement" (Project Management). OMB expects each government organization to be able to identify a clear relationship among their strategic goals and objectives, their investments, and the execution of projects to address the performance improvements identified by EA.

[1] OMB FEA Practice Guide, November 2007, p. 1-3

[2] HHS Enterprise Performance Life Cycle Framework Overview Document, October 2008, p. 3

[3] HHS Enterprise Architecture Governance Plan Version 3.0 February 2007, p. 22

### 2.1.1 Continuous Improvement

As shown in Figure 1, the Performance Improvement Lifecycle is continuous and bi-directional. The inherent interdependencies in the Performance Improvement Lifecycle drive the selection of investments and related projects. The completed projects are reviewed to determine if they achieved the desired outcome and closed a gap identified by EA. When projects do not achieve their objectives, agencies must decide whether to put extra effort to rescue a failing effort or to terminate it.

The diagram below depicts these interdependencies among the three layers in the Performance Improvement Lifecycle.

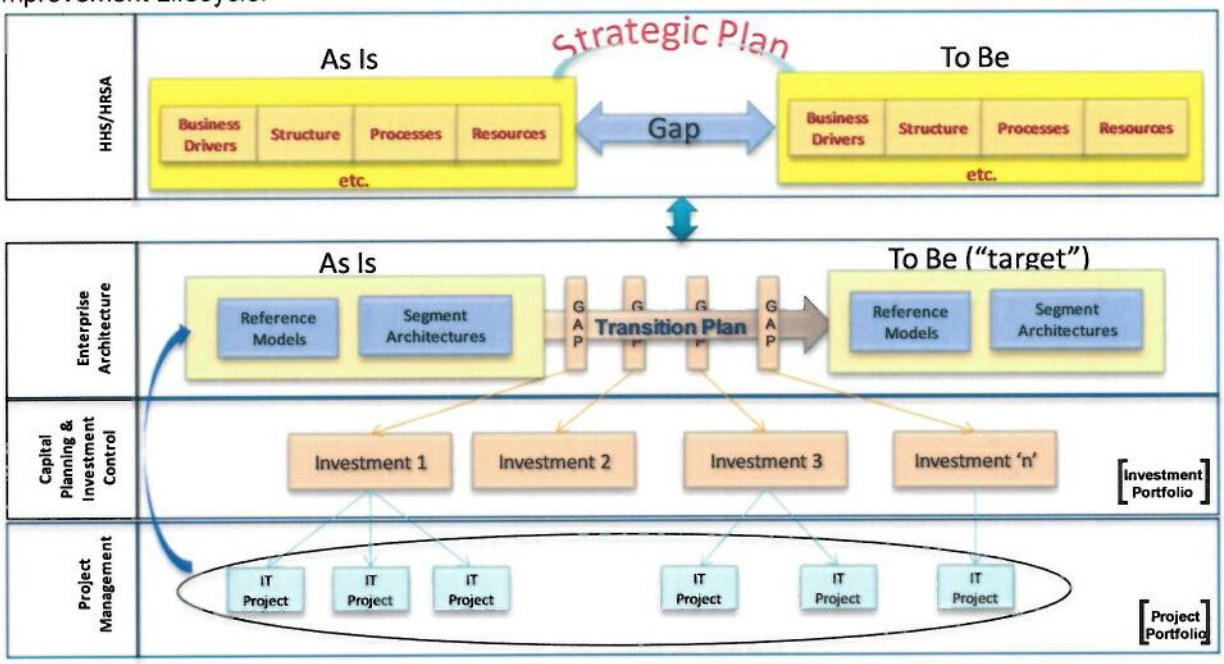


**Figure 1:** Performance Improvement Lifecycle

#### 2.1.1.1 Strategic Planning

Strategic Planning is the "strategize" part of HRSA's Performance Improvement Lifecycle. Strategic planning is an organization's process of defining where the enterprise wants to be at a defined time. The strategic plan includes an implementation plan as well as decisions on allocating capital and people, to achieve the organization's goals and objectives.

#### 2.1.1.2 Enterprise Architecture

Enterprise Architecture (EA) is associated with the "architect" part of HRSA's Performance Improvement Lifecycle. EA supports the execution of the organization's strategic plan by establishing a path to achieve the future states of the processes, structures, and data that meet the demands of the future environment envisioned in the strategic plan. EA describes the current (As-Is) and future (To-Be or "Target") states of the organization, and the modernization plan to transition from the current to the future state, based on the agency strategic plan. EA identifies performance improvement opportunities – i.e. gaps – that need to be addressed in order to reach the desired future state.

#### 2.1.1.3 Capital Planning and Investment Control

Capital Planning and Investment Control (CPIC) is represents the "Invest" component of OMB's Performance Improvement Lifecycle. Investments are approved to appropriate funds to address the

identified performance improvement opportunities (gaps) through a disciplined process. Investments are proposed, approved, and managed via the agency's CPIC program. This phase defines the funding strategy for individual initiatives, sets priorities among initiatives, and tracks investment execution and results.

#### 2.1.1.4 Project Management

The "Implement" component of the OMB Performance Improvement Lifecycle consists of the projects that were funded by an approved investment. Here projects are proposed and approved to deliver the IT products and services needed to achieve the stated objectives defined in the strategic plan. Project Management is the comprehensive set of disciplines that are required to plan, execute and close out those approved projects.

As shown in Figure 1, the Performance Improvement Lifecycle is continuous and bi-directional. The inherent interdependencies in the Performance Improvement Lifecycle drive the selection of investments and related projects. The completed projects are reviewed to determine if they achieved the desired outcome and closed a gap identified by EA. When projects do not achieve their objectives, agencies must decide whether to put extra effort to rescue a failing effort or to terminate it.

### 2.1.2 Project Management at HRSA

At HRSA, IT projects are proposed, planned, executed and tracked using the HRSA Enterprise Project Lifecycle (EPLC) Framework as a guide. Achievement of the project plan within acceptable variance for schedule and budget are measured through the life of the project. Upon completion of a project, the IT Project Management Office notifies Enterprise Architecture of the delivery of IT products/services so that EA can update their models representing the current ("As Is") state.

# 3 AUTHORITY

The Federal Government has a number of mandates that define the manner in which information technology project management will be conducted. Table 1 Federal Government Mandates outlines the relevant statutes, guidance, and direction promoted by the Federal government and HRSA compliance.

At HRSA, the OIT Project Management Office (PMO) within Division of Capital Planning, Architecture, and Project Management (DCPAPM) has been chartered to drive the effective deployment of the EPLC.

| Legislation / Regulation | HRSA EPLC Relationship |
|---|---|
| **Clinger-Cohen Act (CCA)** | CCA calls for increased efficiency and reduced operating costs for federal agencies through proper planning and control.<br>▪ HRSA EPLC will promote use of performance-based and results-based management.<br>▪ HRSA EPLC will capture data consi*stent with OMB's role in tracking and analyzing risks and results of major* capital investment.<br>▪ HRSA EPLC will assist CIO in advising agency heads on IT policy recommendations; developing, maintaining, and facilitating information systems; and evaluating, assessing, and reporting to agency heads on the progress of IT development. |
| **Government Performance and Results Act (GPRA)** | GPRA is focused on increasing accountability and improving federal management.<br>▪ HRSA EPLC, as implemented via the Project Portfolio Management system, will assist in aligning all IT resource requests to IT strategic plans will:<br>▪ HRSA EPLC will develop reports in support of OMB and department-wide Performance Plan reporting requirements. |
| **Federal Records Act** | This act requires that all records made or received by HRSA that document its organization, functions, policies, decisions, procedures, operations and other activities must be identified, classified, retained and disposed of in accordance with procedures authorized by the National Archives and Records Administration. |
| **Federal Acquisition Streamlining Act (FASA)** | FASA reduces barriers and increasing flexibility of procurement:<br>▪ HRSA EPLC will assist in selecting best value rather than lowest cost offered.<br>▪ HRSA EPLC will use commercially available Project Portfolio Management system for deployment of the framework and management of projects.<br>▪ HRSA EPLC will develop data that can be used to promote fixed price, performance-based contracts to reduce cost overruns. |
| **Chief Financial Officers (CFO) Act** | The CFO Act improves the efficiency and effectiveness of the Federal government.<br>▪ HRSA EPLC will develop data that can be used to reduce the amount of money lost to fraud, waste, and mismanagement.<br>▪ HRSA EPLC will contribute to the improvement of the Federal government's financial reporting processes.<br>▪ HRSA EPLC will develop structured, dependable information that can be used to report to the Office of Federal Financial Management within OMB as required. |

| Legislation / Regulation | HRSA EPLC Relationship |
|---|---|
| **Government Paperwork Elimination Act (GPEA)** | Under the GPEA, Federal Agencies are required to provide when practicable for the electronic maintenance, submission, or disclosure of information, and acceptance of electronic signatures.<br>▪ HRSA will use a range of electronic signature alternatives<br>▪ HRSA will develop and maintain an implementation plan for meeting the requirements of the Act |
| **Government Information Security Reform Act (GISRA)** | The GISRA provides a framework for program management and evaluation of an agency's information assurance program.<br>▪ HRSA EPLC will assist the project manager in incorporating all project level information assurance requirements into the project plan.<br>▪ HRSA EPLC is a structured project/program management framework based on industry best practices |
| **Rehabilitation Act (Section 508)** | Section 508 requires that electronic and information technology developed, procured, maintained, or used by the Federal government be accessible to people with disabilities. After June 25, 2001, Federal employees and members of the public who have disabilities must have access to and use of information and services that is comparable to the access and use available to non-disabled Federal employees and members of the public. HRSA will institute standards to comply with all Section 508 requirements. |
| **Federal Acquisition Regulations Part 7 (Acquisition Planning)** | FAR Part 7 describes, acquisition plans; preference for buying in economic quantities; choosing between government and commercial sources; equipment lease and purchase methods; and inherently governmental functions. |
| **Part 12 of the FAR, Acquisition of Commercial Items** | FAR Part 12 focuses on special requirements for acquiring commercial items; and streamlined procedures for evaluation and solicitation of commercial items. |

**Table 1 Federal Government Mandates**

## 3.1 OMB Direction

The HRSA EPLC supports and satisfies Office of Management and Budget (OMB) oversight guidelines and directives.

OMB requires agency investment submissions to be justified by defined cost/benefit analyses. OMB also requires that full life cycle costing is determined; that full funding for costs be appropriated in advance; and that cost, schedule, and performance goals be identified, achievable, and measured using Earned Value Management (EVM). OMB also requires all risks be identified and actively managed. Each one of these areas is directly related to project management. OMB circulars describing these requirements include:

- Circular A-11 Part 2, Strategic Plans and Annual Performance Plan
- Circular A-11 Part 3, Capital Assets
- Circular A-11 Part 3, Supplement, Capital Programming Guide
- Circular A-94, Benefit-Cost Analysis
- Circular A-109, Major Systems Acquisitions

- Circular A-123, Management Accountability and Control
- Circular A-127, Financial Management Systems
- Circular A-130, Management of Federal Information Resources

### 3.1.1 OMB Performance Assessment

The OMB rates programs as follows[4]:

| | |
|---|---|
| **Effective.** | This is the highest rating a program can achieve. Programs rated Effective set ambitious goals, achieve results, are well-managed and improve efficiency. |
| **Moderately Effective.** | In general, a program rated Moderately Effective has set ambitious goals and is well-managed. Moderately Effective programs likely need to improve their efficiency or address other problems in the programs' design or management in order to achieve better results. |
| **Adequate.** | This rating describes a program that needs to set more ambitious goals, achieve better results, improve accountability or strengthen its management practices. |
| **Ineffective.** | Programs receiving this rating are not using your tax dollars effectively. Ineffective programs have been unable to achieve results due to a lack of clarity regarding the program's purpose or goals, poor management, or some other significant weakness. |
| **Results Not Demonstrated.** | A rating of Results Not Demonstrated (RND) indicates that a program has not been able to develop acceptable performance goals or collect data to determine whether it is performing. |

**Table 2 OMB Program Performance Assessment**

Using the HRSA EPLC, performance is reviewed and documented using the Gate Reviews at the end of every phase.

The OMB performance assessment questions include:

- Does the program address a specific and existing problem, interest or need?
- Is the program designed so that it is not redundant or duplicative of any other federal, state, local or private effort?
- Does the program have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the program?
- Does the program have ambitious targets and timeframes for its long-term measures?
- Does the program (including program partners) achieve its annual performance goals?
- Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support program improvements and evaluate effectiveness and relevance to the problem, interest, or need?
- Are budget requests explicitly tied to accomplishment of the annual and long-term performance goals, and are the resource needs presented in a complete and transparent manner in the program's budget?
- Does the program use strong financial management practices?
- Has the program demonstrated adequate progress in achieving its long-term performance goals?

[4] As of July 2009, see expectMore.gov, program performance website.

- Does the program demonstrate improved efficiencies or cost effectiveness in achieving program goals each year?

EPLC captures and reports on all of the OMB assessment areas. Performance is reviewed and tracked as part of the Gate Reviews at the end of every phase.

### 3.1.3 Government Accountability Office

Government Accountability Office (GAO) direction includes two directives in particular:

- GAO/AIMD 10.1.13, Assessing Risks and Returns
- GAO/AIMD 10.1.23, Information Technology Investment Management: A Framework for Assessing and Improving Process Management

### 3.1.4 Department of Health and Human Services EPLC

Department of Health and Human Services (HHS) EPLC framework establishes a project management and accountability environment where HHS IT projects consistently achieve successful outcomes that maximize alignment with Department-wide and individual Operational Divisions (OPDIV) goals and objectives.

HRSA has mandated IT projects will use the HRSA EPLC on a consistent basis starting in December 2009. [5]

## 3.2 Benefits of HRSA EPLC

The HRSA EPLC offers a structured and integrated framework to IT projects from the origination of the solution concept to the retirement of the IT solution. The framework provides:

- Improved predictability of project results through increased focus on planning and analysis
- A central resource for IT project management
- Defined phase gates to review the project on a periodic basis and ensure that the project will be completed as planned. Allows for projects to be terminated for not meeting approved objectives at any time during the project life cycle
- Flexibility to tailor both the process framework and project artifacts to meet the specific needs of a given project
- An approach that is independent of any particular development methodology
- An integrated set of best practices based on and aligned with the HHS EPLC
- Consistency of deliverables across projects that satisfies HRSA management oversight needs and standardizes project management within HRSA
- Support for Governance and project reviews to ensure IT projects align with the HRSA Mission by meeting the requirements of HRSA Capital Planning and Investment Control (CPIC), Enterprise Architecture (EA), Security and other specialized areas

[5] See Health and Human Services OCIO portal for more information. Implementation strategy for the HRSA EPLC is defined in the HRSA EPLC Implementation Plan, October 2008.

# 4 HRSA EPLC ENVIRONMENT

The HRSA EPLC applies to all IT projects originating at the program offices and bureaus within HRSA as well as agency wide (cross-cutting) and multi-office/bureau initiatives. The HRSA EPLC is based on industry standard best practices for project management. Many aspects of the framework can be applied or tailored to meet the needs of virtually any project within HRSA.

## 4.1 Responsible Office

HRSA's Project Management Office within its Division of Capital Planning, Architecture and Project Management (DCPPM) is responsible for the development and management of the EPLC. HRSA's DCPPM director is the EPLC project sponsor. The EPLC is being formulated collaboratively with active participation from HRSA IT leads of the Office of Information Technology (OIT), HRSA bureaus, and supporting offices.

Requested changes to the EPLC framework should be addressed to the Director DCPPM.

## 4.2 IT Portfolio, Investments, Programs, and Projects

HRSA's EPLC is an enterprise standard to manage projects. HRSA's EPLC is also used to manage the inventory of projects at the Agency, the relationship between those projects, and the funding for those projects.

The following key definitions are included to understand the relationship between IT portfolio, investments, programs, and projects.[6]

| IT Portfolio, Investments, Programs, and Projects | |
|---|---|
| **IT Portfolio** | The combination of all IT assets, resources, and investments owned or planned by an organization in order to achieve its strategic goals, objectives, and mission. HRSA EPLC recognizes two types of portfolios: the HRSA IT Investment Portfolio and the HRSA IT Project Portfolio.<br>o The IT Investment Portfolio represents all of the investments at the organizational level as maintained by Capital Planning and Investment Control (CPIC). This includes the investments identified as Programs within each of HRSA's bureaus.<br>The IT Project Portfolio is an EPLC function where the Project Management Office (PMO) manages projects and groups of projects. The grouping of projects is a program. The list of Projects and Programs makes up the IT Project Portfolio. |
| **Investment** | An organizational investment employing or producing IT or IT-related assets. Each investment has or will incur costs for the investment, has expected or realized benefits arising from the investment, has a schedule of project activities and deadlines, and has or will incur risks associated with engaging in the investment. An investment can have more than one project or program. |

[6] From United States Department of Health & Human Services, Enterprise Performance Life Cycle Framework Overview Document V1.2, October 1, 2008. P.10

| | |
|---|---|
| **Program** | A collection of projects supporting a shared scope is a program. Program management is the process of managing several related projects, with the intention of improving an organization's performance through a centralized repository of tightly related project data. From a project management perspective, a single investment can be best managed as a program. |
| **Project** | A project is a temporary planned endeavor funded by an approved information technology investment; thus achieving a specific goal and creating a unique product, service, or result. A project has a defined start and end point with specific objectives that, when attained signify completion. A collection of projects supporting a shared scope is a program. |

**Table 3 IT Portfolio, Investment, and Project Definitions**

### 4.2.1 Portfolio and Investment Management

Portfolio Management combination of all IT assets, resources, and investments owned or planned by an organization in order to achieve its strategic goals, objectives, and mission.

Investment Management is the inventory of efforts that executive management has allocated financial resources. Investment Management is also the process of determining those efforts that should be allocated financial resources. The Capital Planning and Investment Control (CPIC) process contributes to HRSA's utilization of Portfolio Management for programs and projects.

### 4.2.2 Program Management

A program consists of several associated projects contributing to the achievement of one or more objectives of the organization's strategic plan. Programs may also contain elements of ongoing operations such as releases and updates that could have an impact on the development of new capabilities.

### 4.2.3 Project Management

The Project Management Institute (PMI) defines a project as unique and temporary, in that there is a defined start (the decision to proceed) and a defined end (the achievement of the goals and objectives). Ongoing and repetitive business or maintenance operations are not projects.

A project exists only after a decision has been made to address a specific business need, either internal or external (customer need) to the organization, funding is available to support its execution, and measurable goals and objectives are well defined. Without knowing the expected results, quality level or capability of the end product, a project is difficult to plan, execute or conclude.

Table 4 Comparative Overview of Projects, Programs, and Portfolio Management gives a Comparative Overview of Projects, Programs, and Portfolio Management.

| | Portfolios | Programs | Projects |
|---|---|---|---|
| **Planning** | Portfolio managers create and maintain necessary processes respond to the opportunities and threats of the organizational environment. | Program managers develop the overall program plans and create high level plans to guide detailed planning at the component level. | Project managers continually translate information into updated project plans throughout the project. |

| | Portfolios | Programs | Projects |
|---|---|---|---|
| **Scope** | Portfolios have a business scope that is directly related to the strategic objectives of the organization. | Programs have a large scope that is satisfied by the culmination of individual projects. | Projects have defined objectives which are used to define the project's scope of work.. |
| **Change** | Portfolio manager monitors change as it relates to opportunities and threats of the organizational environment. | The program manager manages change received from both inside and outside the program. | Project Managers expect change. A primary role of a Project Manager is to implement processes to keep change managed and controlled. |
| **Management** | Portfolio manager coordinates with senior management staff and communicates information to program and project managers. | The program manager manages the program staff and the project managers and provides overall vision and leadership | The project manager manages the project team. |
| **Monitoring** | Portfolio manager monitors the performance of the organization as well as program and project contribution to the success of the organization. | Program managers monitor the progress of program components to ensure the overall goals, schedules, budget, and benefits of the program will be met. | Project managers monitor and control the work of producing the products, services, or results that the project was undertaken to produce. |
| **Success** | Success is measured in terms of success of the organization. | Success is measured by the degree to which the program satisfies the needs and benefits for which it was undertaken. | Success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction. |

**Table 4 Comparative Overview of Projects, Programs, and Portfolio Management**

IT project management encompasses the application of knowledge, skills, tools, and techniques necessary to ensure that an IT project progresses toward the achievement of its objectives in accordance with planned or revised cost, schedule, and technical baselines, as well as performance outcomes.

IT projects at HRSA consist of the defined set of activities and resources that:

- Address HRSA's strategic and programmatic objectives
- Support programmatic managerial and administrative functions
- Improve and support the use of information technology in business process

### 4.2.4 IT Project Management Office[7]

A Project Management Office (PMO) assists an agency by creating a full end-to-end project portfolio management framework to meet the demands of the CPIC, EVMS, EA and OMB Exhibit 300 processes. The PMO deploys standard methods, processes, procedures and tools across all types of projects, oversees and coordinates multiple related and/or unrelated projects, provides the ability to share and coordinate resources across all PMO projects, to ensure consistency between PMO projects, and saving on development time.

A PMO can also make strategic use of the ongoing work to support CPIC and EA. The PMO typically owns lessons learned which are valuable for continuously improving project planning and execution. The PMO can create enterprise-wide earned value metrics which gives insight to IT policies and acquisition strategies.

Through the use of an enterprise project and portfolio management tool, the PMO facilitates project, program and investment level reporting for wide variety of internal (CIO, Office of the Administrator, Office of Planning and Evaluation, Office of Financial Administration and Management, etc.) and external (HHS, OMB, etc) audiences. Through a PMO, OMB 300 goals and metrics can be rolled up to a Balanced Scorecard that demonstrates the value of well-executed IT planning.

In different organizations a PMO can have various responsibilities. A PMO can be established to mentor and support the skills of project managers. Some PMOs track and report on the performance of the portfolio of projects but do not manage the projects. Some PMOs are responsible for direct management of the projects and reporting performance on the portfolio.

At HRSA, the PMO will establish the HRSA project management methodology and standards and will audit projects for adherence. The PMO will be responsible for tracking and reporting on the performance of the agency's portfolio of projects, but will not manage them. The PMO will not manage the Project Managers.

## 4.3 EPLC Stakeholders

The HRSA EPLC is a collaborative process forming a bridge across all major enterprise functions from planning and architecting to the development and implementation of solutions that move the enterprise toward the architecture of the future. This framework enables integrations of processes to define stakeholder requirements, drive investment decisions, and implement business and information management solutions. The EPLC work products consist of detailed results-oriented project management plans, processes, and measurements, and a transition strategy for core mission areas, business services and enterprise services.

As with all levels of solutions development, involving the appropriate stakeholders in the development process is critical to the successful deployment of solutions. Solutions development is conducted by an integrated project team (IPT) comprising business subject matter experts, enterprise architects and technical subject matter experts. IPT activities and meetings are coordinated and managed by Program and Project Managers.

The IPT asks and answers questions about business and information management requirements, makes informed decisions about the nature and priority of improvement opportunities and helps to achieve performance goals. This also fosters a collaborative approach to segment architecture development with stakeholder buy-in and enhances the project management process.

[7] Details on the mission, objectives and operations of the IT Project Management Office can be found in its approved charter.

A list of stakeholders along with their characteristics and responsibilities is outlined in Table 5 HRSA EPLC Stakeholders. Some of these may not be in place at HRSA at the time EPLC is deployed and certain individuals may be handling several roles described here.

| Role | Characteristics and Responsibilities |
|---|---|
| **Senior Management** | • Set agency strategic goals and priorities.<br>• Define business drivers, business issues and performance goals for the agency. |
| **Chief Architect and EA Team**<br>**(Enterprise Architects)** | • Share knowledge and information and serve as an advocate for architecture development and implementation within the agency.<br>• Support the governance structure and help promote the use of common technologies, standards and services.<br>• Provide a common structure for the segment architecture development.<br>• Provide universal components of the EA inherited and used by segments and solutions.<br>• Identify new performance improvement opportunities.<br>• Identify opportunities to increase collaboration and reuse, including the implementation of cross-agency initiatives described in the Federal Transition Framework (FTF).<br>• Define and institutionalize sound architecture development processes.<br>• Advocate common goals and objectives in architecture programs.<br>• Communicate new mandates or initiatives at the enterprise level.<br>• Communicate and share information where critical intersections occur between segments. |
| **CPIC Lead** | • Support development of segment funding strategy and business cases.<br>• Manage development, review and submission of IT investment business cases.<br>• Execute investment selection exercises.<br>• "Select, Control" and "Evaluate' the execution of approved investments. |
| **Security Personnel** | • Account for information used and compliant with the Federal Information Security Management Act (FISMA) requirements and reporting.<br>• Define security requirements.<br>• Identify where security is a critical element in a business process, data, application, or technology in use by an application or process within the segment. |
| **IT Investment Review Board (ITIRB)** | • Provides business driven leadership to HRSA IT operations and development to ensure that HRSA IT resources are efficiently deployed to meet short- medium and long-term business demand.<br>• Deliberates and provides recommendations to the Office of the Administrator (OA) regarding expenditure of appropriated IT capital investment funds. |
| **Technical Business Review Board (TBRB)** | • Provides technical support and analysis to the ITIRB on a quarterly basis.<br>• Conducts reviews from an enterprise perspective, prioritizes IT investment requests using scoring criteria approved by the ITIRB, and prepares recommendations for the ITIRB. |

| Role | Characteristics and Responsibilities |
|---|---|
| **Sponsor** | • Has the principal need and ultimate responsibility for the IT project.<br>• Requests project funding. |
| **Government and Industry Partners** | • Define areas of collaboration and commonality.<br>• Define process overlaps and data exchanges. |
| **Acquisition Management** | • Conduct pre-solicitation process, including preparation of the request for contract package.<br>• Evaluate HRSA acquisitions and award proposals.<br>• Perform contract monitoring of performance and contract cost control.<br>• Conduct contract close-out.<br>• Coordinate the processing of Inter- and Intra-Agency Agreements. |
| **Office of Financial Management (OFM) and Budget Office** | • Provide leadership and coordination in the development and administration of HRSA's budget, financial management policies, and processing acquisitions.<br>• Coordinate the review of annual operating plans.<br>• Conduct financial wellness reviews.<br>• Manage budget formulation and execution processes.<br>• Provide technical budgeting expertise needed to formulate and justify requests and execute appropriations. |
| **Business Owners** | • Defines and validates system functionality, access rights, business rules, and the privacy classification, timeliness, completeness, and accuracy of data.<br>• Responsible for performing user acceptance of the final solution based on those business needs and user requirements.<br>• Define change drivers and business and information management requirements for the segment.<br>• Identify goals and objectives and performance measures. |
| **Business Analysts** | • Analyze and document Bureau business processes and metrics.<br>• Build Business Process Models. |
| **Project Management Office** | • This position will be established with the introduction of the EPLC framework.<br>• Provide EPLC Framework processes support, EPLC training and mentoring.<br>• Perform IT program and project tracking and reporting.<br>• Manage HRSA EPLC best practices, standards, policies, procedures and documentation.<br>• Manage the Project Portfolio Management system.<br>• Coordinate the IT project management resources and the need for project managers across the agency. |

| Role | Characteristics and Responsibilities |
|---|---|
| **Program Manager** | • This position will be established with the introduction of the EPLC framework.<br>• Develop over-all program plan that guides activities at the project/component level.<br>• Coordinate and manage all IPT activities during segment architecture development and maintenance.<br>• Apply segment architecture work products to develop an IT investment business case and program management plan.<br>• Maintain line of sight from programs and projects to the agency strategic goals and objectives. |
| **Contracting Officer** | • Authorized to enter into, administer, and/or terminate contracts and make related determinations and findings.<br>• Signs contracts on behalf of HRSA and bears the legal responsibility for contracts. |
| **Contracting Officer's Technical Representative (COTR)** | • Responsible for monitoring the contractor's technical progress in accordance with the Statement of Work (SOW), including the surveillance and assessment of the contractor's work performance, the timeliness of deliverables, and compliance with all substantive project objectives.<br>• Assists the Project Manager in ensuring that contract requirements are met and services are delivered. |
| **Project Managers** | • Execute projects, aligned with the target segment architecture and documented as part of the target architecture or transition plan.<br>• Ensure project teams adhere to standard lifecycle development processes and best practice. |
| **Gate Review Committee Members** | • Participates in the Gate Review meeting at the end of each project phase or discipline.<br>• Verifies successful completion of the phase objectives in review.<br>• Monitors corrective action and approving completion to allow the project to advance to the next phase.<br>• Provides decision authority on readiness of the project to move to the next phase or to terminate the project. |
| **Configuration and Control Board** | • Group responsible for evaluating and approving or disapproving proposed changes and ensuring implementation of approved changes. |
| **Subject Matter Experts** | • Individuals who provide input and guidance to the IT project based on their various areas of knowledge. Their expertise is used throughout the lifecycle of an IT project at both the EPLC and Governance levels to help ensure its successful completion. |
| **Solutions Architects** | • Inherit universal, common and unique elements of the enterprise and segment architecture to support solutions development.<br>• Adhere to technology standards and use of common technologies and services to promote architecture implementation. |

**Table 5 HRSA EPLC Stakeholders**

## 4.4 OIT Governance Structure

EPLC framework does not define the policies, procedures, and guidelines for OIT functions that interact during the project lifecycle, However, EPLC framework fully integrates the project activities across all relevant functional areas.

EPLC integration with other OIT functions provides a basic mechanism for the review and approval or rejection of IT proposals and investments as they move through HRSA's management structure. Recent legislation, OMB and HHS guidance, and good business practices all dictate that IT be viewed from a corporate perspective, rather than the sum of individual needs.

The HRSA ITIRB provides business-driven leadership to the review and recommendation of Agency IT investments. The TBRB serves as a working group for the ITIRB. EPLC Critical Partners will serve on the Gate Review Committees as part of the Monitor and Control function of the Execution phase during the IT project lifecycle. The gate review process can be found in the HRSA EPLC Gate Review Practice Guide. Controls and associated roles and responsibilities of these groups are defined in Table 6 HRSA EPLC Governance Integration Roles and Responsibilities.

| | HRSA OIT | EARB | ITIRB | TBRB | HRSA OIT PMO |
|---|---|---|---|---|---|
| **Chair** | HRSA CIO | Chief Architect | Chief Operating Officer | OIT/CPAS Division Director | HRSA PMO Manager |
| **Members** | Project Portfolio and EPLC Framework Management team | Associate Administrators and Directors | Associate Administrators and Directors | Administrative and Program Representatives | All HRSA IT Project Managers (virtual membership); EPLC and PPM management team; |
| **Roles & Responsibilities** | Manages and assures effective deployment of EPLC Framework and PPM system; Assisting OIT and Program Offices in successful planning and execution of HRSA IT projects. | Establishes EA priorities and tasks to be performed. Reviews and maintains ongoing monitoring of enterprise projects for adherence to HRSA's EA. Makes recommendations to the ITIRB and performs analyses of IT investment alignment and compliance. | Reviews and recommends that composition and prioritization of the HRSA IT portfolio (see ITIRB Charter) | Screening, scoring, and review of all proposed IT investments (see TBRB Charter) | Responsible for successful planning and execution of HRSA IT projects that are within the domain of OIT. |

**Table 6 HRSA EPLC Governance Integration Roles and Responsibilities**

Along with HRSA OIT boards staffed by senior management, the EPLC must operate in concert with other functional areas. These areas include Enterprise Architecture (EA), CPIC, and Security and Privacy.

### 4.4.1 Enterprise Architecture

HRSA is performing data collection and populating their enterprise architecture repository. The EA Program Management Plan (PMP) explains the sequence of activities that are the basis for the EA Implementation Plan. The PMP documents the development of the business, technology, and application layers of the architecture.

The HRSA EA captures the multi-dimensional interrelationships and interdependencies among bureau/offices, business processes, and technology and allows the agency to make the most appropriate decisions. The HRSA EA promotes sound business and information technology decisions by facilitating

comprehension of HRSA's environment, in turn, enabling HRSA to effectively support customers, manage programs, and manage change.

### 4.4.2 CPIC

Capital Planning and Investment Control (CPIC) is HRSA's primary process for decisions concerning IT initiatives and investments. The CPIC process establishes the analysis required for the rationale associated with HRSA's investments.

As defined by OMB Circular A-11, "Capital Planning and Investment Control is a systematic approach to managing the risks and returns of IT investments for a given mission. It is an integrated management process which provides for the continuous selection, control, and life-cycle management and evaluation of IT investments and is focused on achieving a desired business outcome."

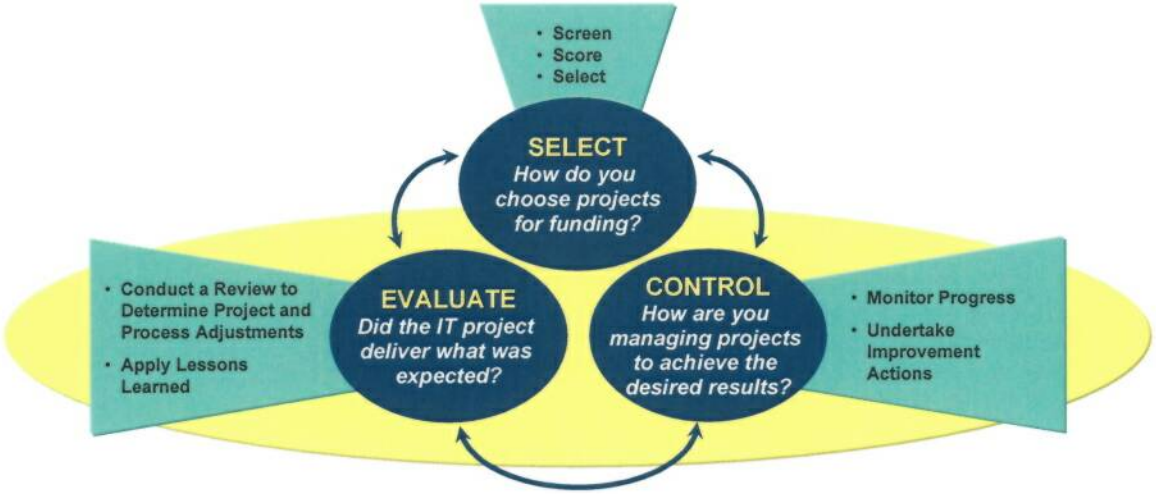


**Figure 1 HRSA CPIC Process Model**

HRSA applies the Select, Control, and Evaluate processes of the CPIC model, as described below, to formulate, manage, and maintain its portfolio of IT investments. HRSA will select, fund (regardless of funding source), manage, control, and evaluate IT investments in accordance with the CPIC process and procedures established by the CIO in conjunction with other key HRSA bureau/offices throughout the organization. Figure 1 HRSA CPIC Process Model illustrates the flow of information between these three phases.

More information about the implementation of CPIC at HRSA can be found in the HRSA CPIC Guide.[8]

### 4.4.3 Security and Privacy

The Federal Information Security Management Act (FISMA) requires:

- agencies to integrate IT security into their Capital Planning, Enterprise Architecture, and Project Management processes at the agency
- conduct annual IT security review of all programs and systems
- report the results of those reviews to OMB

[8] See HRSA CPIC Guide

At HRSA, as at other Federal agencies, security and privacy issues must be addressed when information systems are being developed or modified. Security activities need to be integral part of the investment and must be cost-effective and risk based. Privacy protections must be also integrated into the development life cycle of all information systems.

For IT investments under development, security planning must proceed in parallel with the development of the system to ensure that IT security requirements and costs for the lifecycle of the investment are identified and validated. All IT investments must have up-to-date security plans and be fully certified and accredited prior to becoming operational. Anything short of a full certification and accreditation indicates that identified IT security weaknesses remain. These must be remediated to ensure funding for the investment.

Security cost information is required in the HRSA IT Investment Worksheet and the OMB Exhibits 300. The Exhibit 300 requires that security and privacy issues for the investment are addressed and a privacy impact assessment is provided in appropriate circumstances. Security/privacy detail is also provided about the individual investment throughout the life cycle to include budgeting for security

# 5 HRSA EPLC FRAMEWORK

The HRSA EPLC Framework is built on a comprehensive set of policies, processes, procedures, artifacts, reviews, standards and resources that align with the HRSA IT Mission and provide guidance for IT projects. The framework's design does not adhere to any specific type of development methodology---it can be applied to any IT development process.

The HHS and the HRSA frameworks utilize industry best practices including PMI's Project Management Body of Knowledge (PMBOK)[9] and the Carnegie Mellon Software Engineering Institute's (SEI) Capability Maturity Model Integration (CMMI). . CMMI also focuses on project management with a spotlight on requirements management, configuration management, and verification and validation. Both CMMI and PMBOK call for documented evidence of project performance and traceability across process areas. Both standards require project monitoring and control, periodic reviews of project performance, and enable HRSA to determine projects that require a Corrective Action Plan (CAP) or termination.

The HRSA EPLC Framework includes five (3) phases: Initiation, Planning and Execution which includes project closure. Data collected by the project following Deployment is used for the lifecycle performance of the related Investment. Within the Execution phase there are five disciplines: Requirements, Design, Development, Test, and Deployment. Regardless of the development methodology used projects must go through some form of each phase and discipline. The rigor applied to each phase or discipline for a given project will be documented and agreed upon with a Process Planning Agreement (PPA) in the Planning phase. Project deliverables are defined in the Project Management Plan (PMP).

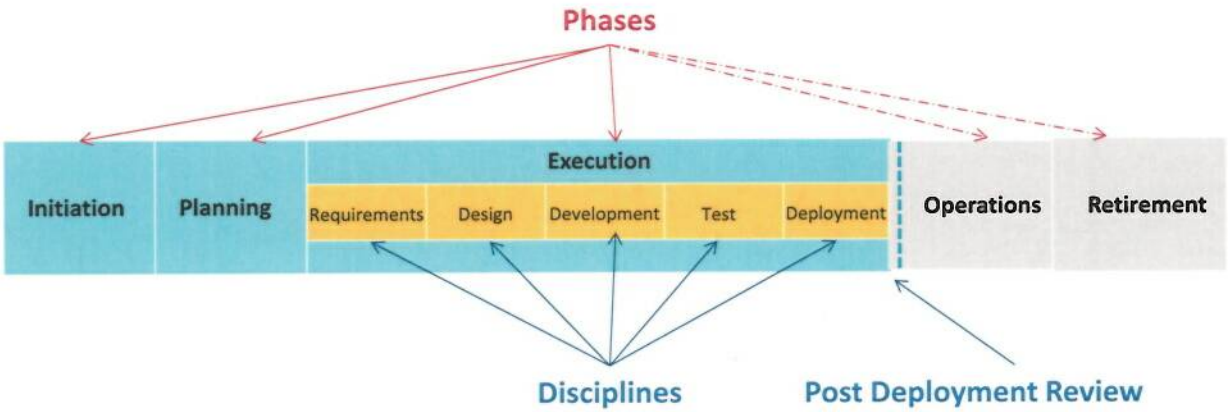


**Figure 2 HRSA EPLC Framework**

For the successful completion of a phase or discipline the HRSA EPLC will require a gate or technical review. These reviews provide both the IT project manager (PM) and the Business Owner the benefit of having a comprehensive review of the project to determine if the project is ready for its next phase. These reviews encompass: mission-related performance, EVM results, risks, security, compliance issues, technical performance, innovation, and quality. These reviews ensure HRSA's readiness to receive and operate the IT system the project is planned to deliver. The reviews also support an assessment of whether the project is in compliance for continued funding in the upcoming fiscal year.

HRSA has adopted the Health and Human Services Enterprise Performance Life Cycle (HHS EPLC) as well as the Project Management Institutes Project Management Book of Knowledge (PMBOK) as the standards to be followed for the HRSA EPLC Framework. While the framework is largely based on the

[9] Project Management Institute: Project Management Body of Knowledge, Version 4. 2008

HHS EPLC and PMBOK standards, it is tailored to meet specific needs of the HRSA mission and IT strategic goals. At the highest level, the framework is organized into:

- Phases
- Artifacts
- Governance Reviews

This EPLC framework guides the activities of project managers, business owners, stakeholders, and IT Governance executives throughout the life cycle of the project to ensure an enterprise perspective is maintained during the initiation, planning, execution, operations and governance processes.

It is designed to be adaptable to meet the specific requirements and circumstances of any given project through controlled and approved tailoring of its components and activities. Project Managers are responsible for proposing any tailoring they believe is appropriate for IT governance approval during the Planning phase. The tailoring will be subject to review and approval as part of the Planning phase Governance Review.

## 5.1 Phases of the HRSA EPLC

A phase is a time-bound cohesive group of activities characterized by one specific type of activity. The HRSA EPLC is comprised of the three phases described below:

1. Initiation
2. Planning
3. Execution

Most phases of the project are characterized by one specific type of activity. However, the Execution phase is further divided into disciplines or sub-phases. A discipline is characterized by one specific type of activity or skill. These disciplines may be performed sequentially, iteratively or incrementally, depending upon the type of IT methodology used for the project.

### 5.1.1 Initiation Phase

The Initiation Phase is significant because it establishes the initial scope and the need of a project. Projects can focus on either the creation of a new technology solution or major enhancements to an existing solution. Significant business needs must be defined and alternatives may be considered to verify that the project does not duplicate another existing project or an investment that is underway. During this phase, Business Process Models are built to capture the work performed by the Bureaus, preliminary requirements are gathered from the business owner, high level scope is established with possible alternate solutions and corresponding cost estimates. The Enterprise Architecture team reviews the concept of the proposed new project or enhancement for alignment with the HRSA Mission. An approved Project Charter is required for the project to proceed to the Planning Phase.

### 5.1.2 Planning Phase

In this phase, acquisitions are performed including contractor support and resources (software, hardware etc) if necessary and the concept is further extended by describing how the business will operate once the approved project is implemented. To ensure that the project can deliver the products and/or services required on time and within budget, the project resources, activities, schedules, tools, and reviews are defined and detailed and documented in a Project Management Plan. In addition, a Project Process Agreement (PPA) is created to tailor the EPLC requirements in terms of justifications for selection, substitution or omission of specific reviews, deliverables, and other EPLC components relevant to the

specific project. The Enterprise Architecture team will review the expanded concept for compliance with the segment architecture.

An approved Project Baseline including the Project Management Plan, Project Process Agreement, and any other approved Initiation Phase documentation is required in order for the project to proceed to the next set of project activities.

### 5.1.3 Execution Phase

In the Execution Phase the project manager and project team use the plans developed during the Planning Phase to perform project work and execute various activities in applicable disciplines. Throughout the Execution Phase the project's progress is monitored. Reports are sent to CPIC on a quarterly basis. .

The primary activities within the Execution phase include:

- Refine, analyze and confirm project requirements
- Design the solution/service per the requirements
- Develop the solution/service per the design
- Evaluate and ensure the developed solution/service meets the requirements
- Deploy the solution/service for intended use
- Ensure that the solution/service development is aligned with HHS and HRSA Enterprise Architecture
- Ensure that all IT Security requirements are satisfied
- Monitor, control and guide costs in alignment with CPIC and project budget requirements

The project team meets the above objectives by performing the activities defined in the following five disciplines:

- Requirements
- Design
- Development
- Testing
- Deployment

#### 5.1.3.1 *Requirements Discipline*

In the Requirements Discipline project needs are transformed into detailed descriptions of both functional and non-functional requirements that define the IT project in more detail. At the functional level, the project is described in terms of the functions to be performed (what it will do). A logical depiction of users, interfaces (external and internal), data entities, relationships and attributes will be created. At the non-functional level, requirements should be gathered including the needs of the HRSA IT environment, IT Security, and performance as applicable to the project.

#### 5.1.3.2 *Design Discipline*

In the Design Discipline a complete set of designs are created based on the functional and non-functional requirements. These design specifications will guide the development of the solution/service. The Design may be conducted in an iterative fashion, producing first a general design that emphasizes the functional aspects of the project.

Formal design reviews are conducted during this discipline. The objective of the reviews is to achieve the confidence that the design satisfies the stated functional and technical requirements and is in conformance with the enterprise architecture and prescribed standards. The reviews give an opportunity to raise and resolve any technical and/or project related issues and to identify and mitigate project, technical, security, and/or business risks affecting subsequent lifecycles.

#### 5.1.3.3 *Development Discipline*

The Development Discipline is where the design is translated into a working solution that satisfies the requirements and ultimately meets the users' needs. Hardware, networking and telecommunications equipment, and COTS/GOTS software are acquired and customized if necessary. Other activities in this discipline include building a unique solution (software, hardware, data, and network and automation procedures) and unit testing. Special procedures for data conversion and/or data warehousing are also developed and tested.

Integration plans, training plans, user guides, and maintenance procedures are also defined. These will be required for integration testing upon the closure of the development activities. At the closure of the development activities and approval of the Test Readiness Review, the system (or the component) being developed will be ready for testing.

#### 5.1.3.4 *Testing Discipline*

Test activities ensure that the individual system components are integrated and tested to validate that they will meet requirements once operational. Testing activities usually start as early as the Requirements Discipline, where traceability matrixes showing the linkages from requirement to test case are formulated.

An important skill for the Testing Discipline is Configuration Management. At the end of each test cycle the test manager must be able to report to the project test results for specific software, data, and hardware configurations. Those configurations should model the configurations that will be used operationally.

Several types of tests can be conducted based on the project needs, and they may include: Functional, System, Performance, Security, Data, Section 508, and User Acceptance. Additional tests may be conducted to validate documentation, training, contingency plans, disaster recovery, and installation procedures depending upon the specific needs of the project. Finally, the test activities end with a review to determine readiness to proceed to deployment of the solution.

#### 5.1.3.5 *Deployment Discipline*

The purpose of the deployment activities is to install the project's solution in the operational environment. Deployment activities are scheduled once there is confidence that the solution will be successfully tested and accepted by the sponsor and users. Deployment activities include notification of deployment to end users, security certification and accreditation, execution of the previously defined training plan, data entry or conversion, and the Operational Readiness Review. Upon successful deployment the project undergoes project closure activities. A Post Deployment Review is conducted to ensure all activities needed to complete the project have been executed and assess how successful the system is in terms of functionality, performance, and cost versus benefits, as well as the effectiveness of the life-cycle development activities that produced the system..

## 5.2 HRSA EPLC Artifacts

The HRSA EPLC requires project teams to produce artifacts for each IT project. Artifacts include Practice Guides, review documents, templates, models, and executables. There are certain artifacts that every HRSA IT project must produce which are identified in the EPLC Practice Guides. However, the artifacts

required for each project may be adapted to match each individual project's goals and objectives. The justifications for selection, substitution or omission of specific reviews, deliverables, and other EPLC components relevant to each project are defined in the Project Process Agreement.

Appendix D HRSA Artifacts Roadmap lists a sampling of the artifacts used during the HRSA EPLC--- others may be applicable based on the type/size/complexity of the IT project.

## 5.3 IT Project Lifecycle Reviews

HRSA IT projects are governed by a series of reviews throughout their lifecycle. These reviews are intended to formalize a disciplined approach to continual monitoring of the progress of the project within each of its lifecycle phases and to streamline the activities surrounding the final exit from each phase.

There are three types of reviews:

Gate Reviews: - Gate Reviews are required for all IT projects. During this process, Gate Review Committees are established in conjunction with HRSA PMO to examine project performance against existing baselines and confirm that the project has satisfactorily produced all the required deliverables and satisfied the criteria for the project to proceed to the next planned set of activities.

**Technical Reviews –** These are in depth technical reviews of project deliverables.

**Project Reviews –** These are formal reviews by the Project Manager conducted at specific points in the project life cycle to ensure that events have occurred (e.g. – all relevant documentation has been completed) and decisions have been made before continuing with the project. These are similar to Gate Reviews; however the level of compliance to the governance is left up to the discretion of the project manager based on the project need.

The number of reviews, scope and timing of these reviews will be determined as a part of the Project Process Agreement (PPA) during the Planning phase and reflected in the baselined Project Management Plan (approved Project Management Plan).

Figure 3 HRSA IT Project Lifecycle Review Examples is a linear representation of the EPLC IT project lifecycle that includes examples of reviews that occur during the course of an IT project.

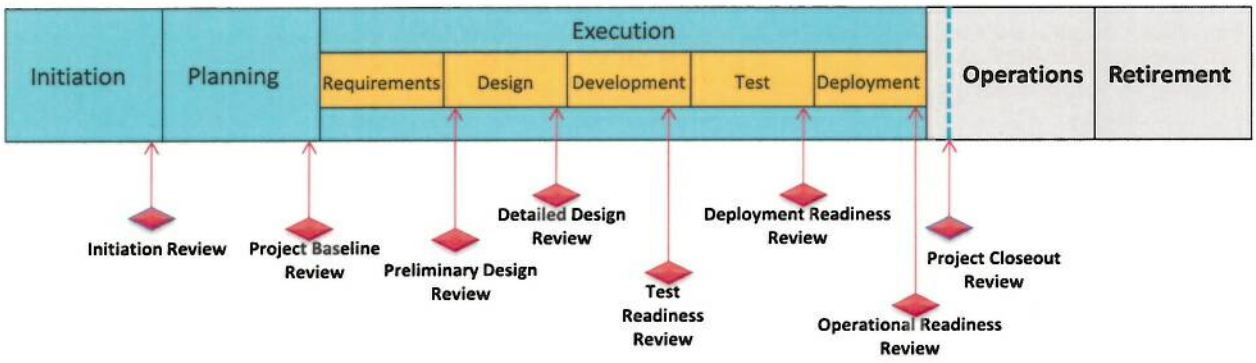


**Figure 3 HRSA IT Project Lifecycle Review Examples**

Figure 4 HRSA EPLC Cross Functional Interactions and Phase Gates, highlights the Architect, Invest, Implement performance improvement lifecycle promoted by OMB. The figure shows the HRSA functional areas and the flow of information and activities from need identification to project closure. At the gate reviews the health of the project is examined and it is determined whether the project should proceed or if corrective action is needed. A figure with more detail can be seen in Appendix D HRSA EPLC Cross Functional Interaction.

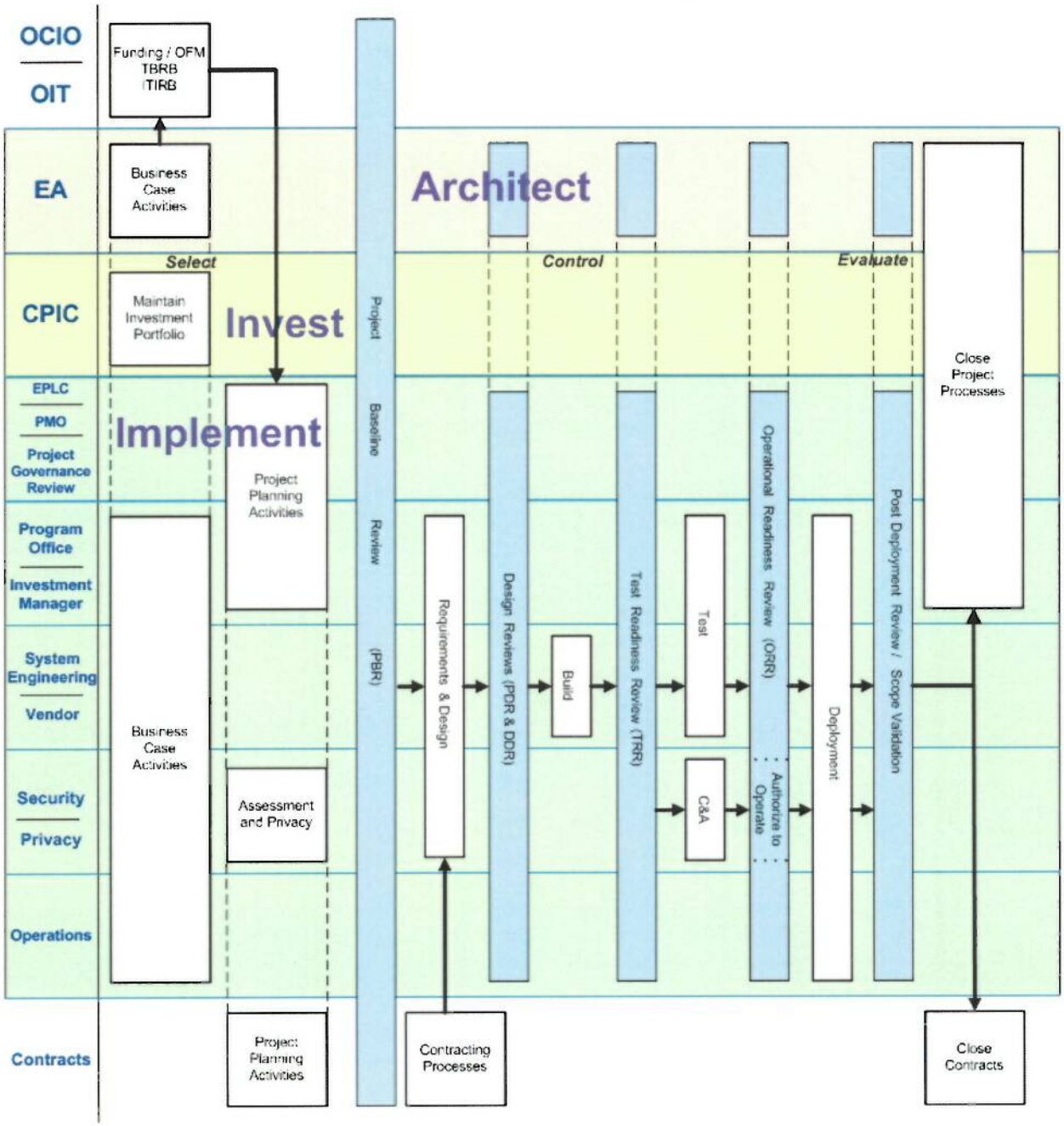


**Figure 4 HRSA EPLC Cross Functional Interactions and Phase Gates**

## 5.3.1 Functional Area Reviews

### 5.3.1.1 *CPIC Reviews*

EPLC guides the realization of the investments selected during the CPIC process. CPIC Reviews ensure that the funded IT project corresponds in form, function, budget, and schedule to both the investment visualized during the CPIC as well as to the HRSA Enterprise Architecture.

The Investment Review Board (ITIRB) and Technical and Business Review Board (TBRB) provide executive and management oversight to a mission-focused enterprise-wide approach to technology investments.

#### 5.3.1.2 *IT Security Reviews*

IT Security reviews are planned based on their applicability to the IT project. These reviews are conducted by the HRSA IT Security team. The IT projects that require Security Planning, Certification and Accreditation must demonstrate that IT security controls are explicitly incorporated with FISMA, OMB guidance, NIST and HRSA Security Methodology.

#### 5.3.1.3 *Enterprise Architecture Reviews*

All IT projects under EPLC must conform to the principles, practices, and policies established by the departmental Enterprise Architecture (EA), and must contribute to the attainment of the strategic goals of HRSA. The degree of this conformance is normally referred to as the alignment of a project to the EA. The determination of the degree of conformance is done through EA reviews. These reviews determine to which extent IT projects:

1. Contribute to the attainment of the department's EA strategic goals
2. Align with HRSA EA practices
3. Interoperate with other IT service systems
4. Meet the department's policy and technical standards
5. Align with department's best practices for data management

# APPENDIX A HRSA EPLC FRAMEWORK APPROVAL

The undersigned acknowledge they have reviewed the EPLC Framework Document. Changes to this EPLC Framework Document will be coordinated with and approved by the undersigned or their designated representatives.

Signature: _____ Date: _____

Print Name: Catherine Flickinger

Title: Director-Office of Information Technology

Signature: _____ Date: _____

Print Name: Nicki Wiszneauckas

Title: Deputy-Office of Information Technology

Signature: _____ Date: _____

Print Name: Nora Carswell

Title: Director-Division of Capital Planning and Project Management

# APPENDIX B TERMINOLOGY

## Acronyms

| Term | Definition |
|---|---|
| BSCR | Business Solution Concept Report |
| CAP | Corrective Action Plan |
| CI | Configuration Item |
| COTS | Commercial off the Shelf (software) |
| CPIC | Capital Planning and Investment Control |
| DCPPM | Division of Capital Planning and Project Management |
| EA | Enterprise Architecture |
| EARB | Enterprise Architecture Review Board |
| EVM | Earned Value Management |
| FEA | Federal Enterprise Architecture |
| FISMA | Federal Information Security Management Act |
| GAO | General Accountability Office |
| GOTS | Government off the Shelf (software) |
| IPT | integrated project team |
| IT | Information Technology |
| ITIRB | IT Investment Review Board |
| HRSA | Health Resources and Services Administration |
| HW or H/W | Hardware |
| OFAM | Office of Financial and Administrative Management |
| OIT | HRSA's Office of information Technology |
| OMB | Office of Management and Budget |
| PMI | Project Management Institute |
| PMO | Program Management Office |
| PMP | Project Management Plan |
| PPA | Project Process Agreement |
| SEI | Software Engineering Institute |
| SW or S/W | software |
| TBD | To be determined |
| TBR | To be resolved |
| TBRB | Technical and Business Review Board |
| TBS | To be supplied |

## Definitions

| Term | Definition |
|---|---|
| Agile | Agile software development is a conceptual framework that promotes development iterations throughout the life-cycle of the project. The characteristics of Agile include close continuous cooperation between business people and developers, continuous delivery of useful software, and regular adaptation to changing circumstances. |
| Deliverable | Any measurable, tangible, verifiable outcome, result, or item that must be produced to complete a project or part of a project. Often used more narrowly in reference to an external deliverable, this is a deliverable that is subject to approval by the project sponsor or customer. |
| e.g. | for example |
| Earned Value Management | A project management tool that integrates the scope of an effort with the cost and schedule parameters of planned and actual work. EVM gives managers a quick understandable snap shot of the status of an effort, as well as an estimate of when the work will be completed and how much it will cost. |
| Gate Review | A requirement for all IT projects based on the Project Process Agreement. A gate review is a governance oversight function to review project performance and ensure successful project deliverables. |
| i.e. | that is |
| PMBOK® | Project Management Body of Knowledge® An inclusive term that describes the sum of knowledge within the profession of project management. As with other professions—such as law, medicine, and accounting—the body of knowledge rests with the practitioners and academics that apply and advance it. The PMBOK® includes proven, traditional practices that are widely applied, as well as innovative and advanced ones that have seen more limited use. |
| Project | A project is a temporary activity with a starting date, specific goals and conditions, defined responsibilities, a budget, a planning, a fixed end date and multiple parties involved. |
| Program | A program is a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. |
| Waterfall | The waterfall model is a sequential software development process, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of Conception, Initiation, Analysis, Design, Construction, Testing and Maintenance. |

# APPENDIX C REFERENCES

### *EPLC*

HRSA EPLC Implementation Plan, October 2008.

### *Information Resource Management*

HHS Enterprise Performance Life Cycle Framework
OMB Circular A-11, Preparation, Submission and Execution of the Budget
OMB Circular A-127, Financial Management Systems
OMB Circular A-130, Management of Federal Information Resources
HHS Policy for Section 508 Electronic and Information Technology, January 2005

### *Enterprise Architecture*

HHS OCIO IT Policy for Enterprise Architecture, January 10, 2006

### *Capital Planning and Investment Control*

HHS OCIO Policy for IT Capital Planning and Investment Control, December 30, 2005
HHS OCIO CPIC Procedures, December 30, 2005
HRSA CPIC Guide
OIT Capital Planning HRSA Major Tactical Guidance
HRSA's IBR Handbook.
Charter for the HRSA Information Technology Investment Review Board, February 2006

### *Earned Value Management*

OMB Memorandum 05-23, Improving Information Technology (IT) Project Planning and Execution, August 5, 2005
HHS OCIO Policy for IT Earned Value Management, December 30, 2005
HHS OCIO IT Earned Value Management Processes and Procedures, December 30, 2005

### *Acquisition*

HHS Acquisition Regulation, January 17, 2001

### *Security & Privacy*

HHS OCIO Information Security Program Policy, December 15, 2004

### *Records Management*

HHS OCIO Policy for Records Management, September 15, 2005

HHS OCIO Policy for Electronic Records Management, September 15, 2005

# APPENDIX D HRSA ARTIFACTS ROADMAP

| PHASE / ARTIFACT | Initiation | Planning | Execution | | | | | Operations | Retirement |
|---|---|---|---|---|---|---|---|---|---|
| | | | *Requirements* | *Design* | *Development* | *Test* | *Deployment* | | |
| HRSA EPLC Overview | Referenced | | | | | | | | |
| Gate Review Practice Guide | | Referenced | | | | | | | |
| Gate Review Action Plan | | As Required | | | | | | | |
| Meeting Minutes | As Required | | | | | | | | Archived |
| Meeting Agenda | As Required | | | | | | | | Archived |
| Project Status Report | As Required | | | | | | | | Archived |
| EVM Guide (HRSA Standard) | | | Referenced | | | | | | |
| Initiation Practice Guide | Referenced | | | | | | | | |
| Business Solution Concept Report | Baselined | Updated | | | | | | Archived | |
| Candidate Project Fact Sheet | Baselined | Updated | | | | | | Archived | |
| Business Process Definition | Baselined | Updated | | | | | | | Archived |
| Project Charter | Baselined | Updated | | | | | | Archived | |
| Alternatives Selection Spreadsheet | Baselined | Updated | | | | | | Archived | |
| Planning Practice Guide | | Referenced | | | | | | | |
| Project Management Plan | | Baselined | Updated | | | | | Archived | |
| Project Process Agreement | | Baselined | Updated | | | | | Archived | |
| Project Schedule (MS-Project) | | Baselined | Updated | | | | | Archived | |
| Project Budget | | Baselined | Updated | | | | | Archived | |
| Schedule Activity List | | Baselined | Updated | | | | | Archived | |
| Project Communications Plan | | Baselined | Updated | | | | | Archived | |
| Project Change Management Plan | | Baselined | Updated | | | | | Archived | |
| Risk Management Plan | | Baselined | Updated | | | | | Archived | |
| Risk Management Log | | Baselined | Updated | | | | | Archived | |
| Change Management Log | | Baselined | Updated | | | | | Archived | |
| Resource Requirements Log | | Baselined | Updated | | | | | Archived | |
| Stakeholder Analysis Log | | Baselined | Updated | | | | | Archived | |
| Project Quality Management Plan | | Baselined | Updated | | | | | Archived | |
| Project Acquisitions Plan | | Baselined | Updated | | | | | Archived | |
| Work Breakdown Structure Dictionary | | Baselined | Updated | | | | | Archived | |
| Lessons Learned | | Baselined | Updated | | | | | | Archived |
| Project Baseline Review | | Baselined | As Required | | | | | | |
| Project Baseline Review Guide/Checklist | | Baselined | As Required | | | | | Archived | |
| Project Baseline Review Exit Form/Sign | | Baselined | As Required | | | | | Archived | |
| Requirements Definition Practice Guide | | | Referenced | | | | | | |
| Requirements Management Practice | | | Referenced | | | | | | |
| Business Systems Requirements | | | Baselined | Updated | | | | Archived | |
| Business Systems Requirements Review | | | Baselined | | | | | Archived | |
| Capacity Planning | | | Baselined | Updated | | | | Archived | |
| Section 508 Assessment | | | Baselined | Updated | | | | Archived | |
| Preliminary Design Review | | | | Baselined | | | | Archived | |
| Preliminary Design Review | | | | Baselined | | | | Archived | |
| Detailed Design Review | | | | Baselined | | | | Archived | |
| Detailed Design Review Guide/Checklist | | | | Baselined | | | | Archived | |
| Requirements Traceability Matrix | | | | | Baselined | Updated | | Archived | |
| Test Readiness Review | | | | | | Baselined | | Archived | |
| Test Readiness Review Guide/Sign Off | | | | | | Baselined | | Archived | |
| Test Readiness Review Checklist | | | | | | Baselined | | Archived | |
| Operational Readiness Review Checklist | | | | | | | Baselined | Archived | |
| Project Closure Checklist | | | | | | | | Baselined | Archived |
| Post Deployment Review | | | | | | | | Baselined | Archived |
| System Retirement Review Checklist | | | | | | | | Baselined | Archived |

| LEGEND | |
|---|---|
| Baselined: | Initial approval and placement under Configuration Management |
| Updated: | Revised according to Configuration management guidelines |
| Referenced: | Used for information and process, no changes made |
| Archived: | Stored for future reference as data of record |
| As Required: | Template exists to be updated with phase specific data i |