

COMMONWEALTH OF VIRGINIA



Information Technology Resource Management (ITRM)

TECHNOLOGY MANAGEMENT POLICY

Virginia Information Technologies Agency (VITA)

Publication Version Control

Questions related to this publication should be directed to Policy, Procedure and Architecture (PPA) Division in VITA. PPA notifies Agency Information Technology Resources (AITRs) at all state agencies, institutions and other interested parties of proposed revisions to this document.

This following table contains a history of revisions to this publication.

| Version | Date | Revision Description |
|---------------|------------|---|
| GOV 2002-02.1 | 03/03/2004 | Initial |
| GOV 105-03 | 08/03/2011 | Complete revision—all content is new. Change markings not included. |
| GOV 105-04 | 12/02/2013 | Section 3.4 added to define IT Program Management. Section 3.9.6 added to incorporate compliance into IT Governance and Oversight. Minor wording changes in Section 3.9 to clarify meaning. |
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Identifying Changes in this Document

- See the latest entry in the revision table above.
- Vertical lines in the left margin indicate the paragraph has changes or additions.
- Specific changes in wording are noted using *strikethroughs*, italics, and underlines; *strikethroughs indicating language that was deleted*; italics only indicating new/added language; and italics that is underlined indicating language that has changed.

The following examples demonstrate how the reader may identify updates and changes:

Example with no change to text – The text is the same. The text is the same. The text is the same.

Example with revised text – This text is the same. ~~This text was deleted.~~ A *wording change, update or clarification has been made in this text.*

Example of new section – *This section of text is new.*

Review Process

Enterprise Solutions and Governance Directorate Review

Policy, Practices, and Architecture (PPA) Division provided the initial review of this publication.

Online Review

All Commonwealth agencies, stakeholders, and the public were encouraged to provide their comments through the Online Review and Comment Application (ORCA). All comments were carefully evaluated and individuals that provided comments were notified of the action taken.

Preface

Publication Designation

COV ITRM Policy GOV 105-04

Subject

Technology Policy

Effective Date

December 2, 2013

Supersedes

COV ITRM Policy GOV 105-03
August 03, 2011

Scheduled Review:

One (1) year from the effective date, then every two years thereafter.

Authority

Code of Virginia, §2.2-225 (Powers and duties of the Secretary of Technology)

~~Code of Virginia, §2.2-2007 (Powers of the CIO)~~

~~Code of Virginia, § 2.2-2010 (Additional powers of VITA)~~

Code of Virginia, Chapter 20.1 of Title 2.2 (Virginia Information Technologies Agency)

Code of Virginia, § 2.2-1115 (D) (Procurement Violations)

Chapter 806 of the 2013 Acts of Assembly, § 4-5.04 (b), as amended and reenacted

Code of Virginia, § 2.2-2699.6 (Powers and duties of the ITAC)

Scope

This policy is applicable to all Executive Branch agencies and institutions of higher education (hereinafter collectively referred to as "agencies") that are responsible for the management, development, purchase and use of information technology resources in the Commonwealth of Virginia. This policy does not apply to research projects, research initiatives or instructional programs at public institutions of higher education.

Purpose

The purpose of this policy is to establish guiding principles for creating optimal business value from IT-enabled business investments at acceptable cost and risk.

General Responsibilities

Secretary of Technology

Reviews and approves statewide technical and data policies, standards and guidelines for information technology and related systems recommended by the CIO.

Chief Information Officer of the Commonwealth (CIO)

Develops and recommends for approval to the Secretary of Technology statewide technical and data policies, standards and guidelines for information technology and related systems.

Virginia Information Technologies Agency (VITA)

At the direction of the CIO, VITA leads efforts that draft, review and update technical and data policies, standards, and guidelines for information technology and related systems. VITA uses requirements in IT technical and data related policies and standards when establishing contracts; reviewing procurement requests, agency *IT programs and* projects, budget requests and strategic plans; and when developing and managing IT related services

Information Technology Advisory Council (ITAC)

Advises the CIO and Secretary of Technology on the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

Executive Branch Agencies

Provide input and review during the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

Related COV ITRM Policies, Standards, and Guidelines

Information Technology Investment Management Standard (CPM 516-Current Version)

Project Management Standard (CPM 112-Current Version)

Program Management Standard (CPM-301-current version)

Project Manager Selection and Training Standard (CPM 111-Current Version)

Enterprise Architecture Policy (EA200-Current Version)

Enterprise Architecture Standard (EA225-Current Version)

Information Technology Security Policy (SEC 519-Current Version)

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1.0 Introduction

Virginia's Secretary of Technology, the Chief Information Officer of the Commonwealth (CIO), and the Virginia Information Technologies Agency (VITA) have a broad range of statutory technology management responsibilities. These assignments cover specific tasks related to technology security, reporting, budgets, sourcing and projects, and overarching responsibilities for technology policy, strategic planning, value creation and leadership. The Commonwealth Technology Management (CTM) Policy is intended to provide high-level guiding principles for use by executive branch agencies and institutes of higher education. Standards will be issued to implement this policy and provide specific direction and requirements on particular topics. Guidelines may also be issued to assist agencies with the execution of standards or this policy.

For high-level guidance on the Enterprise Architecture and the development, maintenance and enhancement of all information systems, please see the Enterprise Architecture Policy.

The eight technical domains in the Enterprise Technical Architecture (ETA) are:

1. Applications
2. Database
3. Information
4. Integration
5. Networking and Telecommunications
6. Platform
7. Security (addressed separately)
8. Enterprise Systems Management

For direction and requirements on the development and support of an organization's information systems and technology infrastructure within the context of the eight technical domains, please see the Enterprise Architecture Standard.

For high-level guidance on securing information and implementing information security programs, please see the Information Technology Security Policy.

2.0 Glossary

As appropriate, terms and definitions used in this document can be found in the COV ITRM IT Glossary. The COV ITRM IT Glossary may be referenced on the ITRM Policies, Standards and Guidelines web page on the VITA website at www.vita.virginia.gov.

3.0 Policy Statements

3.1 *Business Value of IT*

The Commonwealth shall give priority to investments in IT that demonstrate measurable contributions to improved constituent service levels, agency operational efficiencies, and the strategic goals of the investing agency and the Commonwealth.

- 3.1.1 Investments in IT shall support the efficient operation and consolidation of agency business functions under the central agencies responsible for those functions, and facilitate the elimination of redundant and unnecessary agency services, governing bodies, regulations and programs.
- 3.1.2 Investments in IT shall support the streamlining of constituent services by promoting cross-agency collaboration on self-service capabilities where appropriate.
- 3.1.3 Agencies with similar business needs shall collaborate on IT investments that serve multiple agencies and promote standard business practices along functional lines across the enterprise of government.
- 3.1.4 Investments in IT shall directly support the goals and objectives identified through the Department of Budget and Planning's Agency Strategic Planning process, the Commonwealth of Virginia Strategic Plan for Information Technology, the Governor's Executive Orders and Directives, and the Commonwealth's Enterprise Architecture.
- 3.1.5 Investments in IT shall directly support transparency in government and the availability of data, information and government services to the citizens of the Commonwealth to the greatest extent possible.
- 3.1.6 IT shall maximize the business value of IT services and assets throughout their lifecycles

3.2 *IT Service and Support Quality*

The Commonwealth shall strive for continuous improvements in the quality of IT service and support to assure customer satisfaction and staff efficiency. This will ensure that IT:

- 3.2.1 Delivers services that support the business functions of government.
- 3.2.2 Builds and maintains excellent relationships with customers.
- 3.2.3 Effectively engages and responds to customers and other stakeholders.

3.3 IT Investment Management

The Commonwealth shall follow Information Technology Investment Management (ITIM) recommended practices that have been modified to fit the Commonwealth's business operations and technology management environment. The Commonwealth's ITIM framework includes:

- 3.3.1 Strategic plans to identify potential IT-enabled business investments.
- 3.3.2 Agency business-oriented performance measures to determine the effectiveness of operational IT solutions.
- 3.3.3 A description of the business-driven lifecycle for:
 - Identifying the potential business value in proposed IT investments;
 - Selecting IT investments that best meet the Commonwealth's business needs while supporting inter-agency collaboration and enterprise-wide solutions;
 - Monitoring and controlling the performance of initiatives that place selected IT investments into operation; and,
 - Evaluating IT assets in the operations and maintenance phase of their life cycles by analyzing potential gaps between business needs and the performance of IT assets and deciding to maintain, migrate, improve or retire each IT asset.

Figure 1 below illustrates the component phases of the ITIM framework that enable agencies to minimize risks, maximize return on investments, and support business decisions to maintain, migrate, improve, retire, or obtain IT investments.

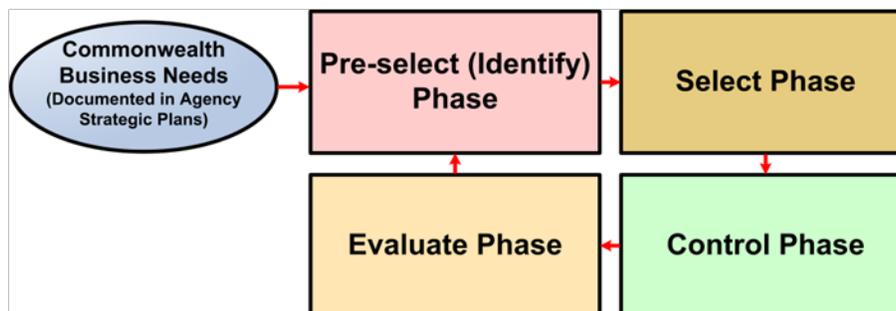


Figure 1: Commonwealth of Virginia IT Investment Management Framework

3.4 IT Program Management

The Commonwealth shall follow a Commonwealth Program Management (CPgM) methodology for the execution of all IT programs. The CPgM methodology includes establishment of:

- 3.4.1 Roles and responsibilities, processes, documentation, governance, and oversight for the execution of IT programs.
- 3.4.2 Procedures, processes, requirements, and recommended practices used to execute and control IT programs and deliver IT assets.
- 3.4.3 A process for assuring that program managers are selected to lead IT programs.
- 3.4.4 The recommended practice lifecycle, as illustrated in Figure 2 below.

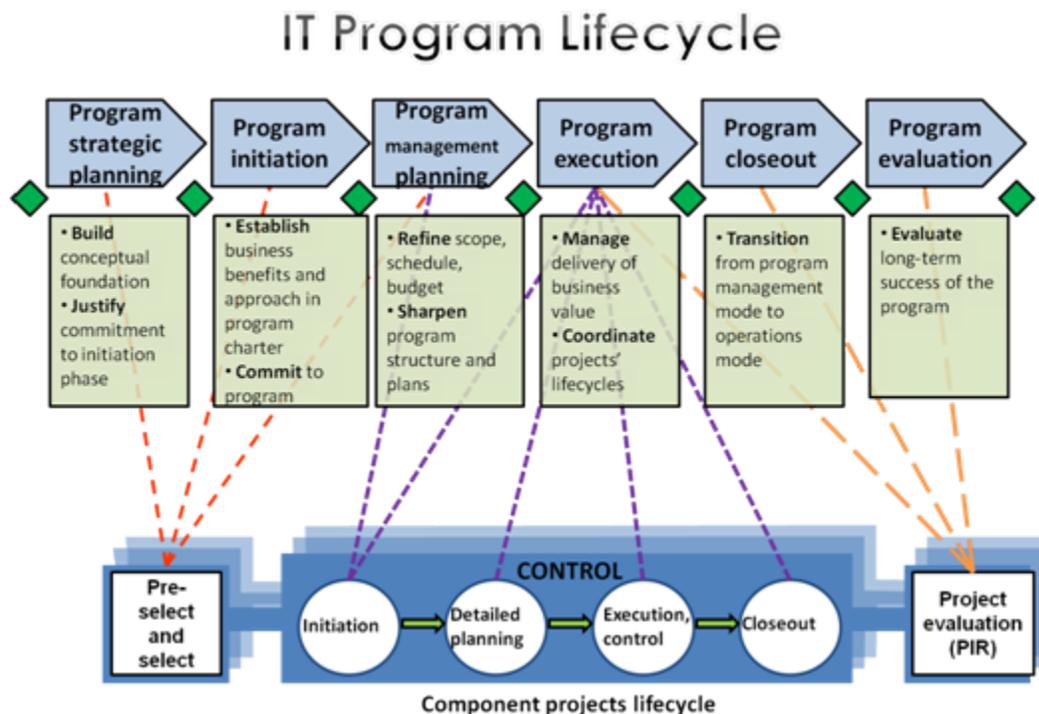


Figure 2: Commonwealth IT Program Lifecycle

3.5 IT Project Management

The Commonwealth shall follow a Commonwealth Project Management (CPM) methodology for the execution of all IT projects. The CPM methodology includes *the establishment of*:

- 3.5.1 Roles and responsibilities, processes, documentation, and governance and oversight for the execution of IT projects.
- 3.5.2 Processes, requirements, procedures, and recommended practices used to execute and control IT projects and deliver IT assets.
- 3.5.3 A process for assuring that qualified project managers are selected to lead agency IT projects, including a rigorous program of training and testing employed to qualify project managers.

3.5.4 A description of the recommended practice lifecycle for:

- Initiating an ITIM-selected IT project by analyzing solution alternatives, documenting the selected solution and the business case for pursuing that alternative, and gaining the appropriate approvals to proceed with the project;
- Planning an approved IT project by defining, organizing, documenting and communicating project activities, developing metrics to gauge and evaluate project progress, and gaining the appropriate approvals for continuing the project;
- Executing an approved IT project based on the plan, schedule scope and budget baselines, and managing baselines through an appropriate change control and approval process; and,
- Closing a completed IT project after implementing operational assets or services, confirming that the Project Sponsor accepts the project deliverables, documenting that the project deliverables satisfy the project purpose, and gaining the appropriate approvals for closing the project.

Figure 3 below illustrates the component phases of the CPM methodology that increase IT Project success through sound investment decisions, management commitment and oversight, implementation of a recommended practice-based project management methodology, and the establishment of defined processes that measure and evaluate project progress throughout the project lifecycle.

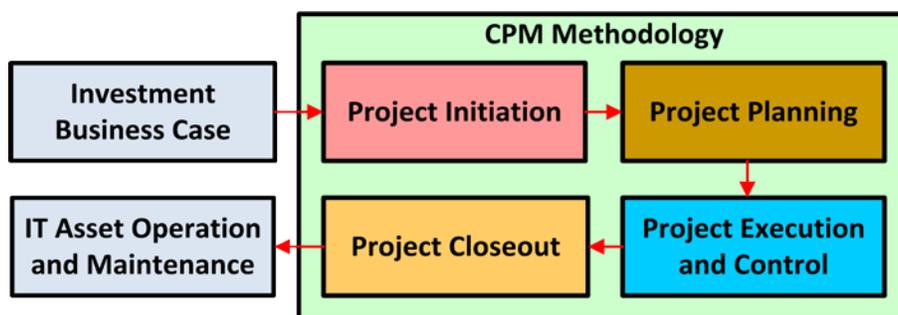


Figure 3: Commonwealth Project Management Methodology

3.6 IT Sourcing

A uniform approach shall be used to solicit, evaluate and engage suppliers of IT, improve and evaluate IT purchasing activities, and implement controls to reduce IT sourcing risks.

- 3.6.1 IT sourcing shall support an enterprise perspective by promoting both the Commonwealth's long-term strategy as well as the best possible achievement of current business objectives.
- 3.6.2 IT sourcing shall utilize thorough, business-centered, and legally compliant (including but not limited to the Virginia Public Procurement Act [VPPA])

evaluation processes to allow the selection of suppliers who demonstrate superior cost and quality performance, and excellent customer and citizen service.

- 3.6.3 IT sourcing shall engender public trust through transparency of action, fairness in all dealings, providing equal opportunities for all suppliers, and ensuring that all suppliers promote the equality and diversity of their workforce.

3.7 Centralization of IT

A technology management approach shall be adopted that continually assesses Commonwealth IT activities to determine if the Commonwealth can achieve increased efficiency and effectiveness through the centralization and consolidation of the activities, or through the promotion of appropriate competition for the performance of the activities.

- 3.7.1 IT infrastructure shall be centralized to provide for an enterprise-wide, cohesive, secure, and efficient IT environment.
- 3.7.2 The Commonwealth shall adopt a solutions delivery approach that takes advantage of economies of scale, enables purchasing leverage, and ensures information and system security in a state-controlled environment by building and hosting solutions within the Commonwealth infrastructure.
- 3.7.3 The Commonwealth shall promote an efficient shared services model that provides cost effective solutions for local governments and state agencies of all sizes.
- 3.7.4 The information needed for effectively managing operational agency IT assets shall be consolidated in a central repository for use by agency business leaders in the evaluation of IT solution performance and the planning of future IT investments.
- 3.7.5 Where appropriate, management of information shall be centralized to support the state and local government, acquisition, storage, use, sharing and distribution of information.

3.8 Enterprise ~~Data Management~~ Information Architecture

The Commonwealth shall adhere to Enterprise Information Architecture (EIA) principles to promote the governance, management, and sharing of its information assets. EIA provides a common framework for cost effective sharing of data across organizational lines while respecting security, privacy, and appropriate use of information.

- 3.8.1 *An EIA program shall be established to support the availability of consistent, secure, high quality, timely, and accessible information to enable quality service to citizens of the Commonwealth.*
- 3.8.2 *The EIA program shall build upon shared, collaborative data governance activities and data stewardship among Commonwealth agencies.*

- 3.8.3 Enterprise data shall be managed as a Commonwealth asset to provide value for citizens and all agency stakeholders.

3.9 IT Governance and Oversight

As required by law, the Commonwealth shall establish IT governance and oversight designed to “support a unified approach to information technology across the totality of state government” (§2.2-2007).

- 3.9.1 A recommended practice-based IT portfolio management methodology shall be used to support both the selection of new agency IT investments and the evaluation of operational IT investments based on criteria established by the CIO, with Secretary of Technology approval.
- 3.9.2 Policies and standards shall be promulgated by the CIO to ensure that Commonwealth IT resources are used and appropriately managed within the confines of this policy and the strategic direction of the Commonwealth.
- 3.9.3 All agencies, their staff, and agency contractors or suppliers with IT responsibilities shall comply with the policies and standards promulgated by the CIO.
- 3.9.4 All *agencies, their staff*, and agency contractors or suppliers who use Commonwealth IT resources or data from Commonwealth systems shall comply with the policies and standards promulgated by the CIO.
- 3.9.5 IT governance and oversight shall ensure that all IT activities in the Commonwealth are performed in compliance with the policies and standards promulgated by the CIO.
- 3.9.6 *Agencies within the scope of this policy shall comply with the enumerated policy statements. Failure to comply with this policy may result in remedial actions by CIO or Secretary of Technology, as provided for or required by law (page iv), including but not limited to:*
- *Requirement that an agency obtain additional approvals, including approval by the responsible Secretary or Chief of Staff.*
 - *Restriction or denial of delegated authority, including delegated IT procurement authority.*
 - *Modification, suspension, or termination of an IT program or project by the CIO or Secretary of Technology.*
 - *Limitations on the approval to initiate new IT programs or projects, including lack of approval.*
 - *Termination of any IT procurement or contract by the CIO or Secretary of Technology.*

- *Withdrawal of or modification to exceptions from COV/IT policies and standards previously approved by VITA, the CIO, or the Secretary of Technology.*
- *Limitations on the approval of an IT Strategic Plan, including lack of approval or required conditions and corrective actions.*
- *Implementation of additional charges, including contractual fees and JLARC-approved rates, to address the cost of remediating unaddressed risks on noncompliant systems in the COV domain.*
- *Report instances of non-compliance to appropriate parties, including the Governor, the Governor's Secretaries, the Auditor of Public Accounts, the Joint Legislative Audit and Review Commission, and the Office of the State Inspector General.*
- *Report to appropriate parties, which may include the Comptroller, that procurement violated established COV/IT policies and standards, the VPPA, provisions of Chapter 20.1 of Title 2.2, or other applicable law.*

The CIO or Secretary of Technology may take these remedial actions if an agency within the scope of this policy fails to follow statutory requirements or COV/IT policies and standards, including but not limited to:

- *Submission and maintenance of an approved IT Strategic Plan or amendments thereto.*
- *Implementation of security auditing, including assessment of security risks and determination of appropriate corrective actions.*
- *Compliance with established COV policies and standards (including but not limited to procurements and investments) and applicable law (including but not limited to the VPPA and provisions of Chapter 20.1 of Title 2.2).*
- *Compliance with a contingent approval, exemption, or delegated authority.*