COMMONWEALTH OF VIRGINIA

Information Technology Resource Management (ITRM)

INFORMATION TECHNOLOGY (IT)

PROGRAM MANAGEMENT STANDARD

Virginia Information Technologies Agency (VITA)

Reviews

- This publication will be reviewed and approved by the ~~Director of the Policy, Practice and~~ *Enterprise* Architecture Division ~~(PPA)~~ *(EA)*.
- Online review will be provided for agencies and other interested parties via the VITA Online Review and Comment Application (ORCA).

Publication Version Control

Questions related to this publication should be directed to the *Manager* ~~Director~~ of VITA's ~~PPA~~ *EA* Division. ~~PPA~~ *EA* 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
Original	7/1/2013	Base Document v-01
-01	2/7/2014	Corrected information on several diagrams; deleted unnecessary details; enhanced section six.
-02	11/10/2016	Modified to reflect changes in CIO and Secretary of Technology responsibilities per changes to the *Code of Virginia. Minor edits on required documentation and program roles tables.*

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 italics and underlines; with italics only indicating new/added language and italics that is underlines indicating language that has changed.
- Note that page header dates vary throughout the document depending on when or if some portion of a particular chapter/section has been updated.

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

EXA-R-01   **Technology Standard Example with No Change –** The text is the same. The text is the same. The text is the same.

EXA-R-02   **Technology Standard Example with Revision –** The text is the same. *A wording change, update or clarification is made in this text.*

EXA-R-03   *Technology Standard Example of New Standard – This standard is new.*

EXA-R-04   *Technology Standard Example of Deleted Standard – This standard was rescinded on mm/dd/yyyy.*

EXA-R-05   *Example of deleted Text – ~~This text was deleted.~~*

Preface

Publication Designation
ITRM Information Technology Program Management Standard Commonwealth Project Management (CPM) CPM ~~301-01~~ *301-02*

Subject
Management, governance, and oversight of Information Technology Programs

Effective Date
~~July 1, 2013~~ *November 10, 2016*

Supersedes
CPM ~~301-01~~ *301-02*

Scheduled Review:
This standard shall be reviewed on an annual basis.

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

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

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

Scope
This standard is applicable to all Executive Branch state 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 standard does not apply to research projects, research initiatives or instructional programs at public institutions of higher education.

Purpose
This standard establishes direction, documentation and processes requirements which govern the management of information technology programs by executive branch agencies.

General Responsibilities
Secretary of Technology (SoTech)
Reviews and approves ~~statewide technical and data policies, standards and guidelines for information technology and related systems recommended by the CIO~~ *the Commonwealth strategic plan for technology, as developed and recommended by the Chief Information Officer (CIO)*.

Chief Information Officer of the Commonwealth (CIO)
Develops and *approves* ~~recommends to the Secretary of Technology~~ statewide technical and data policies, standards and guidelines for information technology and related systems.

Directs the formulation and promulgation of policies, guidelines, standards, and specifications for the purchase, development, and maintenance of information technology for state agencies

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 projects, budget requests and strategic plans; and when developing and managing IT related services.

Information Technology Advisory Council (ITAC)
Advises the CIO on the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

Executive Branch Agencies
Provides input and reviews during the development, adoption and update of statewide technical and data policies, standards and guidelines for information technology and related systems.

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List of Figures and Tables

Section 1.   Introduction

This section addresses the purpose, authority, and applicability for establishing the Information Technology Resource Management Program Management (IT PgM) Standard for the Commonwealth of Virginia (COV).

1.1 Purpose of the Commonwealth Information Technology Resource Management Program Management Standard

One of the most exciting, valuable and expanding aspects in the field of Information Technology (IT) is the way IT is connecting the world. Accordingly, organizations are investing more into IT Projects that establish and leverage connections between various information sources and related functions across the enterprise. Creating standalone products through silo projects which have no connectivity to networks, services, security and/or enterprise systems are becoming increasingly rare. Very few IT Projects are capable of delivering their full value with only a standalone project. Hence, a growing need exists to implement IT products within the context of larger systems, and/or to conduct IT Programs, comprised of related, often interdependent, Component Projects. A program management approach will benefit the organization(s) involved as they succeed collectively in what would be difficult or impossible for a group of independently-managed projects to achieve.

The Commonwealth has recognized a need to establish policies, standards, documentation and procedures regarding IT Programs. This IT PgM Standard is designed to create a common framework for IT Program Management for two major stakeholder groups: 1) The Program Sponsors such as secretariats, agencies and departments to establish, manage and close out successful IT Programs, and 2) The Commonwealth Chief Information Officer (CIO), and the Virginia Information Technologies Agency (VITA) Project Management Division (PMD) to wisely, impartially, and properly exercise governance and oversight of IT Programs within the Commonwealth.

Effective program management increases the likelihood of improved Component Projects results, which, when combined with sibling Component Projects, deliver more business value to the organization than a non-integrated collection of independent projects.

Similar to the Commonwealth of Virginia Information Technology Resource Management (COV ITRM) Project Management (PM) Standard, the IT PgM Standard establishes the required processes and documentation for all IT Programs in the COV, leading to:

- Sound investment decisions,
- Effective management commitment and oversight,
- Adoption of a best-practice-based program management methodology,
- Improved management and delivery of business value to the organization through programmatic, centralized coordination and control,
- Integrated measures of success spanning several project lifecycles,
- Opportunity for program-level funding, and
- Consolidation and coordination of functions such as communication, risk management, stakeholder management, and scope management.

Implementation of this standard is intended to achieve a higher return on Commonwealth IT investments by promoting the use of sound management practices.

1.2 Authority

This section promulgates the authority over the IT PgM Standard and Program establishment.

1.2.1 Program Management Standard Authority

This standard is promulgated under the authority of the Commonwealth of Virginia Chief Information Officer (CIO).

1.2.2 Program Establishment Authority

A program can be established in a variety of ways:

- by an Agency to manage a group of projects collectively,
- by a Secretariat to manage a collection of projects that require collaboration across Agency boundaries,
- by the Governor to facilitate enterprise-wide (i.e. state government-wide) productivity and technology improvements, or collaboration across Secretariat boundaries, or,
- by the General Assembly.

The structure, budget, scope, schedule, performance, and other aspects of a program are usually defined by the entity that establishes the program. This includes the designation of a Program Manager and establishment of a Program Management Office (PMO) with staff and logistical support for the program. The Commonwealth CIO has program oversight responsibilities. The establishment of a Program Charter, which documents the responsibilities of the Program Manager, and describes the program staffing, funding, logistics, schedule, and relationships with other organizations, is required.

The VITA PMD will designate a Project Management Specialist to provide oversight and serve as liaison between the CIO and the Program.

1.3 Applicability

The IT PgM Standard will become effective July 1, 2013, and adherence to the rules and procedures will be required for all programs in the following phases:

- Phase 1: Program Strategic Planning
- Phase 2: Program Initiation

Programs already underway on July 1, 2013 in "Phase 3: Program Management Planning" or beyond are only required to adopt quarterly program status reporting as described in section 4.4. Otherwise, such programs are encouraged, but not required, to adopt the processes and documentation requirements of this standard. The CIO has discretionary authority to direct an organization to 1) establish a Program, and 2) have the Program conform to this standard.

1.3.1 Commonwealth-level IT Programs

A Commonwealth-level IT Program is a collection of two or more Commonwealth-level IT Projects. The Commonwealth-level IT Project is defined in the COV ITRM PM Standard. IT Programs can also be a combination of Commonwealth-level IT Projects and Sub-programs, defined in the next section. The IT PgM Standard is designed to establish a common-sense framework for managing multiple, related IT Programs and Projects. Although program management introduces an additional layer of coordination, control and oversight, conceptually it "pays for itself" by:

- Reducing overall risk within and across multiple project and Sub-program boundaries
- Eliminating redundant activities and documentation requirements
- Centralizing milestones and dependencies organization across Projects/Sub-programs
- Tracking and delivering integrated business value

Therefore, if a Sponsoring Organization, such as a Secretariat or Agency, has a collection of related, interdependent IT Projects, and two or more of the Component Projects are Commonwealth-level, as described in the COV ITRM PM Standard, then the Sponsoring Organization should establish an IT Program.

1.3.2 Sub-Programs

A Sub-program is a Commonwealth-level IT Program, which is subordinate to the overarching IT Program. Funding and control are two example reasons for logically grouping programs and projects at the Sub-program level for the purposes of satisfying the overarching IT Program goals.

1.3.3 Agency-level Related Projects

The COV ITRM PM Standard defines an Agency-level IT Project as one costing less than $250,000. In concept, it is possible for an Agency to have a collection of agency-level-related IT Projects, all costing less than $250,000 each. The IT PgM Standard does not apply in this scenario; however, managing the collection of projects using the IT PgM Standard best practices is encouraged.

1.3.3.1 State Agencies

The IT PgM Standard is applicable to all state agencies, secretariats and other sponsoring organizations responsible for the management, development, purchase, and use of information technology investments in the Commonwealth of Virginia.

1.3.3.2 Institutions of Higher Education

The IT PgM Standard is applicable to all state institutions of higher education responsible for the management, development, purchase, and use of information technology investments in the Commonwealth; however, this standard does not apply to research projects, research initiatives, or instructional programs at public institutions of higher education. Tier II or Tier III educational institutions placed under Management Agreements in accordance with the Code of Virginia are not subject to this Standard.

An example depiction of Program and Project-level entities is shown in Figure 1.

```
                        Program
                   Management Office
        ┌──────────────┬──────────┴───────────┬──────────────────────┐
   Sub-program PMO  Component Projects    Sponsoring            Sponsoring
                                      Organization Project  Organization Projects
        │                                                            │
        ├── Component Project 1                            ┌── Component Project 1
        │                                                  │
        ├── Component Project 2                            └── Component Project 2
        │
        └── Component Project 3
```
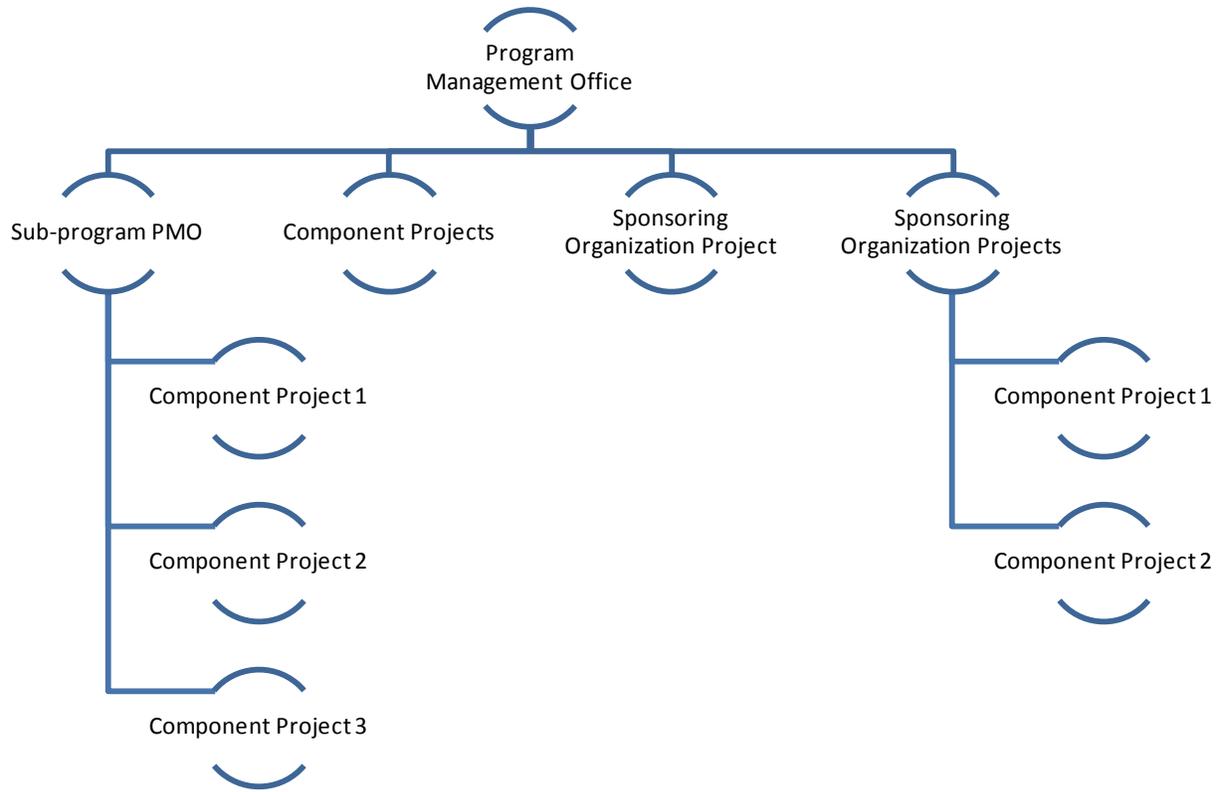
Figure 1. Example Program-level Organization Structure.

Section 2. Program Management in the Commonwealth of Virginia

The methodology and governance structure for IT Programs are derived from the *Code of Virginia* and the COV ITRM PM Standard.

2.1 Definition of an IT Program

The IT PgM Standard establishes the required agency processes and documentation for the management of all IT Programs in the COV. The applicability of the standard is first determined by the classification of an endeavor as an IT Program.

> ***Note:*** An IT Program is the coordinated planning, management, and execution of a group of related IT Projects that meet a specific dollar threshold organized within a common management structure to achieve specific organizational goals and benefits not attainable by managing by IT Projects individually. Programs may include elements of related work outside the scope of the Component Projects.

IT Programs share some characteristics of IT Projects. For instance, an IT Program, like a Project, is a temporary endeavor undertaken by a lead organization to develop a unique product or service. Temporary means there is a definite beginning and end to the IT Program. Unique means the products and/or services produced by a Program are different in some distinguishing way from all other products or services provided by the subject organization.

> ***Note:*** Typically, the "end" of an IT Program is identified as the closeout of the final Component Project. The Program has completed the implementation work and had transitioned to the new product or service ongoing operations.

2.2 IT Program Considerations

Sometimes, it is not intuitively obvious whether a collection of IT Projects is truly an IT Program. Some criteria used to determine an IT Program are listed below; if the following answers are 'yes' – you might have a program:

- Is there a natural grouping of two or more IT Projects?
- Does the organization desire/need to manage the related projects in a coordinated way?
- Are the projects in question related to a common business objective? The business benefit or return on investment of a single project within a program may be difficult or impossible to determine, but the overall program would be diminished or rendered useless without the inclusion of the Component Projects.
- Is more than one system or more than one application impacted?
- Are there multiple initiatives under a single funding source?
- Are there project dependencies and sequencing issues (such as schedule, architecture, resources, requirements, etc.) needing coordination?
- Are multiple organizations (agencies, secretariats, etc.) required to interact for the overall business benefits to be achieved?

Note: "IT Project" is defined in the COV ITRM PM Standard.

Additionally, for purposes of this standard, IT Programs should not be confused with IT service offerings which are continuous, ongoing operations. Likewise, Operations and Maintenance (O&M) activities, which support existing products and services within an organization, are not programs so long as the focus of the activity is the continued use of the current products and services.

Tip: Not all collections of projects need program management. For instance, in a scenario where there is no:

- Interdependencies,
- Common architecture, or
- Direct schedule relationships,

…establishing an IT Program is not needed. However, when a collection of projects do have:

- Interdependencies, such as input from another project, and/or
- Output(s) to another project,
- Common architecture, and
- Direct schedule relationships,

…then, like pieces of a puzzle, the group of projects would benefit from a program management framework encasing the Component Projects to benefit from the big picture.

2.3 Relationship between the IT PgM Standard and the COV ITRM PM Standard

The general concept is that, for Component Projects within a Program, all of the COV ITRM PM Standard requirements apply:

- Required Procedures
- Required Governance
- Required Documentation

Therefore, the IT PgM Standard requires no changes to the COV ITRM PM Standard. However, for Component Projects within a Program, some Project-level documentation can be consolidated and completed at the Program-level, which satisfy certain Project-level requirements. This approach reduces the administrative burden on each IT Project Manager and standardizes procedures, governance and documentation for the entire Program.

The IT Program Management function will add another layer of required procedures and governance to IT Project Management; however, the additional layer is intended to enhance/complement, rather than diminish/contradict Project-level management. For instance, each Component Project still retains its Independent Agency Oversight Committee (IAOC), which serves as the first level of oversight. Additional communication, planning,

coordination, reporting, approvals, etc. will be required at the Program level, because the projects are related and interdependent rather than isolated.

See "Section 5: Commonwealth IT Program Management Lifecycle Phases" for required documentation for the Program and constituent projects.

2.4 Key Functions of IT Program Management

IT Programs involve both management and technical functions as described in Table 1. Consider these functions when establishing a Program and tailor appropriately to meet the Program needs. Ultimately, the Program functions will be described in the Program documentation. Program documentation requirements are described later in this standard.

Table 1. IT Program Functions.

IT Program Function	Function Description
Governance Management	Provides the overall Program governance and oversight for the overarching Program and all Sub-programs and Component-level Projects; establishes stakeholder roles and responsibilities, describes plans for various activities including audits, quality, configuration, and change, for example. Governance is so fundamental to the success of a Program that Section 5 of this IT PgM Standard is dedicated to the subject.
Integration Management	Provides coordination and unification of related component projects to ensure delivery of overall business value.
Scope Management	Manages overall program scope, ensuring scope creep is controlled; documented in the Program Charter including what is "in-scope" and what is "out-of-scope." Scope Management includes the following management sub-functions: • Requirements • Scope Change Control Communications • Enterprise Architecture (following the VITA standard) • Enterprise Security (following the VITA standard) • System Integration • Operations Transition • Training *Tip*: Due to the size and complexity of IT Programs, it is advisable to leverage automated tools to manage Program requirements. Used properly, Requirements Traceability Matrix (RTM) management software is very useful for ensuring Program-level and Component Project-level requirements are reconciled, effectively managed, and traceable from requirements to design to test.
Scheduling Management	Provides overall summary schedule oversight (key milestones) and synchronization at the Program level. The intent is to empower component projects and Sub-programs with the authority to manage their own schedules, but the coordination/sequencing and interdependencies between components will be accomplished at the program level.

IT Program Function	Function Description
Communications Management	Provides overall guidance on the creation, storage, and dissemination of Program information. Stakeholders involved in a Program should understand how communications impact the Program and be aware of specific procedures for the communication types outlined in the Communications Management Plan.
Financial Management	Provides the plan and oversight for overall budget versus actual spend; ensures the program stays within defined financial parameters.
Risk Management	Manages risk and provides overall risk guidance and oversight on a Program-level, organizational-level, operational-level, benefits-level, and project-level (those risks escalated to the Program-level).
Procurement Management	Manages overall procurement approach with the potential opportunity to consolidate large purchases to realize cost savings and procedural efficiencies. In general, IT procurements are governed by the procurement management section of the COV ITRM PM Standard. However, under circumstances subject to the CIO discretion, opportunities exist to consolidate procurement approvals for Projects within a Program. The PMO may be the most effective and appropriate coordination point for vendor interaction and management across the Component Projects, where applicable. CIO approval to award a Program or Project contract *will not* be granted until the IT Project has received Project Initiation Approval (PIA). However, as appropriate, the CIO approval to award a contract may be granted for an IT Program where a single contract encompasses a major portion of the program and the IT Program Charter has been approved by the entire approval hierarchy. Where the success of an IT Program is significantly dependent on a major procurement, the Program Charter must identify either the manager of the procurement or the VITA Supply Chain Management point of contact as part of the program team or Program Oversight Committee (POC).
Stakeholder Management	Provides overall management of the overarching Program stakeholder population. According to Project Management Institute (PMI), stakeholders are internal or external individuals and organizations whose interests may be affected by Program positive and/or negative outcomes.
Organizational Change Management	Provides overall management of organizational change for the program, with the potential opportunity to consolidate strategy and activities and deliverables from component projects into an overall plan.

Section 3.   Commonwealth Information Technology Program Management Lifecycle

This section provides an overview of the VITA IT Program Management lifecycle.

3.1 Overview

Several expert sources developed a variety of Program Management Lifecycle models. Two of them were referenced in the development of the VITA IT Program Management Lifecycle model, blending best practices from these sources with the unique VITA IT requirements and constraints. 1) PMI is the world's largest association dedicated to the advocacy of portfolio, program, and project management. 2) Gartner, Inc. is the world's leading information technology and advisory company.

The VITA model follows the:

- VITA Information Technology Investment Management (ITIM) lifecycle and
- VITA COV ITRM PM Standard lifecycle

The VITA model is analogous to the COV ITRM PM Standard project lifecycle, and is also based on industry research, experiences and lessons from the current Commonwealth IT Programs. Phases are explained in the next section, and are summarily depicted in Figure 3. The Program Management phases consist of:

- Program Strategic Planning
- Program Initiation
- Program Management Planning
- Program Execution
- Program Closeout
- Program Evaluation

3.2 Information Technology Investment Management and Program Management Lifecycle Overlap

Since ITIM provides the foundation for managing IT investments in the COV, Programs will follow the same ITIM lifecycle phases of Pre-Select, Select, Control, and Evaluate as established in the COV ITRM ITIM Standard CPM 516-01.

As described in the Program Strategic Planning and Program Initiation phases, explained in a later section of this document, the first step in establishing an IT Program is to describe the business objectives and justification of the program in the (Agency or Secretariat) biennial Information Technology Strategic Plan (ITSP) for the sponsoring organization.

Typically, a Program will be established before the related Component Projects are subsequently identified. However, it is also possible to assemble a number of projects that are already underway in various phases of the ITIM Lifecycle, through the establishment of a Program. Figure 2 illustrates the "ideal" Program lifecycle, while it is acknowledged that unique circumstances will occur that would be difficult to 'force fit' into the ideal lifecycle. For instance, there may be a scenario where an organization desires to incorporate one or more independent, "underway" projects into a new or existing Program, thus transforming the Project into a Component Project. In such a case, both Project and Program documentation must be revised and formally approved to recognize the new organization

and reporting structure. In such unique circumstances, Program lifecycle phases must still be completed, appropriate and commensurate with the given situation. Such a scenario is not depicted in Figure 2.

> ***Note:*** The IT PgM Standard does not change the ITIM process for the Component Project. For more information on the ITIM process, see the COV ITRM PM Standard.

3.3 Project Selection and Investment Business Case Approval

Project Selection and Investment Business Case (IBC) approval will operate in the same manner as it does today; it is unaffected by the IT PgM Standard.

Ideally, the sponsoring organization will first establish the IT Program before proposing Component Projects. See explanation below regarding the sequencing/interaction between the Program lifecycle and Project lifecycle. However, it may happen that opportunities for Program Management may arise concerning a grouping of Projects in various phases of the ITIM Lifecycle. In such cases, each individual Project will follow the ITIM lifecycle, as normal.

Project Selection and IBC approval occur within the framework of the ITIM process and are outside the scope of the IT PgM Standard. The agency Information Technology Summary and Appendix A, which extracts projects and procurements from the Commonwealth Technology Portfolio (CTP), is incorporated within the Agency IT Strategic Plan, which is part of the Department of Planning and Budget strategic planning process. If a proposed Project is not part of the Agency IT Strategic Plan, the Agency will amend the IT Strategic Plan and submit appropriate documentation for CIO IT strategic planning approval in accordance with existing ITIM procedures.

> ***Note:*** IT Programs must obtain Program IBC approval and be listed in Appendix A of the IT Strategic Plan.

Section 4.   Commonwealth Information Technology Program Management Lifecycle Phases

The IT Program Lifecycle is designed to integrate with the ITIM methodology and the PM Standard. At the same time, recognizing that IT Programs vary greatly regarding scope, schedule, cost, risk, complexity, number of stakeholders, etc., the IT Program Lifecycle scales to Programs of all sizes.

The following sections describe the phases and documentation requirements promulgated in the IT PgM Standard. Figure 2 represents the IT Program Lifecycle, and its relation to the Component Projects Lifecycle. It illustrates the flexibility in how Component Projects come into a Program—either as separate Projects with IBC approval or as part of the Program Strategic Planning IBC.

In the scenario where an organization desires to create a Program consisting of Component Projects – some of which are already "active" – meaning beyond the Initiation phase – Program lifecycle phases must still be completed, appropriate and commensurate with the given circumstance. Such a scenario is not depicted in Figure 2.
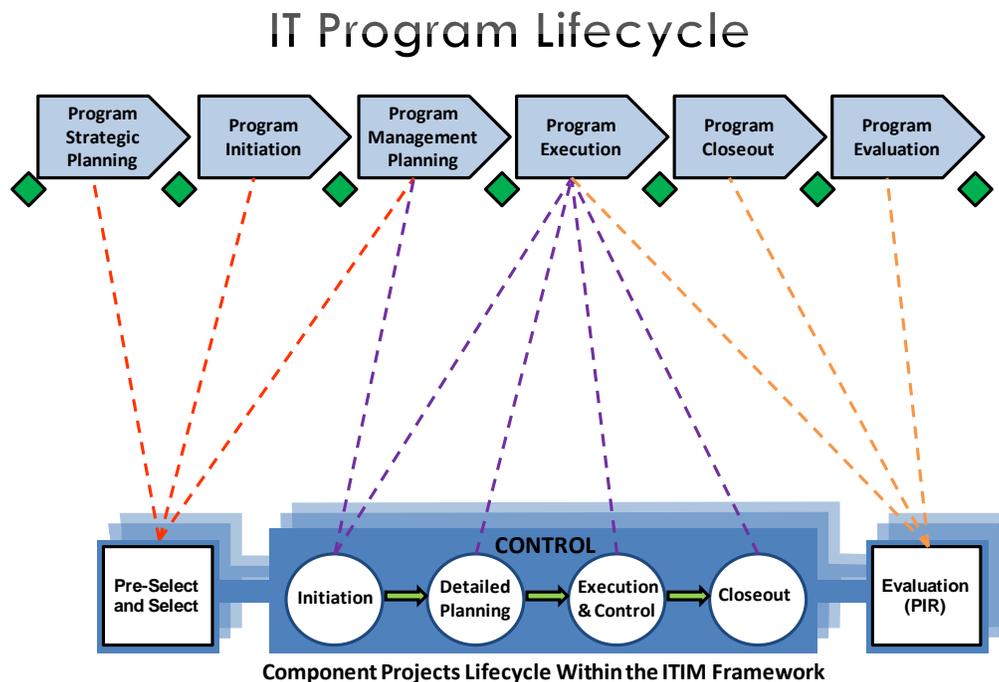
Figure 2. Summary of Commonwealth-level IT Program Lifecycle within the ITIM Framework.

While the IT PgM Standard may appear to be primarily focused on the preparation of documents, the true key to successful program management is diligent preparation and careful execution of detailed plans. Communication and coordination are vitally important. Documentation is merely proof that the important work of planning and managing has taken place and will be used as the baseline against which program execution is measured. In the COV, the official source and repository of Project documentation is the Commonwealth Technology Portfolio (CTP).

Additionally, the program management function should not place extra burdens on the Component IT Project Managers; instead, the Program can serve to make the Component Projects more successful and relieve some of the administrative burden of project management through consolidation of key Program plans.

> *Notes:* IT Program documentation, because it has to accommodate a wide variety of scenarios, will not be constrained to the CTP forms. However, IT Program documentation will be uploaded and archived in the CTP repository.
>
> A PMD document repository will contain the most current standard tools and templates. Refer to this location for resources during Program Initiation.

4.1 Phase 1: Program Strategic Planning

The purpose of this phase is to explore the desirability and viability of establishing an IT Program. The Program must have an approved Program IBC to move into "Phase 2: Program Initiation." If the proposed Program does not achieve IBC approval status, by default it is assigned the status of "Identified for Preliminary Planning" (IPP). At the point in time a Project IBC has been approved, it may be a candidate for a Program. Flexibility is necessary to structure Programs and Component Projects around strategic goals. Figure 3 depicts the significant inputs, activities, and outputs during this phase. Table 2 details the program strategic planning documentation requirements.

Phase Name: 1 -Program Strategic Planning	Phase Start Status: A Triggering Event
Phase Objective: Lay the foundation and justification for committing resources to the next phase.	

Inputs	**Activities**	**Outputs**

Types of Triggering Events:
• Approved Baseline COV Strategic Plan Update
• Changes in the following (for example):
   ○ COV Strategy
   ○ Government Regulations
   ○ Security Threats
   ○ Technological Advancements
   ○ *CODE* (Legal) Requirements
	• Build a Program business case
	• Develop and gain core consensus regarding:
	   ○ Outline / Road Map
	   ○ Program Goals
	   ○ Justification: Articulate -
	     ✓ What problem needs solving?
	     ✓ What opportunities are we capturing?
	     ✓ How does this Program align to the Organizational Strategy?
	   ○ Identify Component Projects
	   ○ In business value terms, what high-level functions are needed to achieve the desired outcomes?
	   ○ Do dependencies exist with ongoing efforts?
	• Estimate/Identify Component Projects
		IT Program Investment Business Case (IBC) and (if applicable) Component Project–level IBC:
		• Project Business Alignment
		• Investment Business Case
		• Risk & Complexity Assessment
		• May use the IBC document in CTP as a skeleton, and upload a white paper IBC.
		• Biennium Funding Forms
		• Agency (or Secretariat) IT Strategic Plan (ITSP) entry
		• ITSP entry for each Component Project

Phase End Status: Program Investment Business Case (IBC) Approval

Figure 3. Phase 1: Program Strategic Planning Inputs, Activities, and Outputs.

Notes: This is an explanation of the Planning Documentation Requirements tables for each phase. If the Program Document is required or optional, it is indicated in the column labeled, "Program Document." If a CTP form is needed to support the requirement it is annotated in the column titled, "Use of Commonwealth Technology Portfolio (CTP) form*". Notes are provided to clarify the requirements. If there is an opportunity for Component Projects to consolidate project documentation at the Program level, this is documented in the last column to the right.

Table 2. Phase 1: Program Strategic Planning Documentation Requirements.

IT Program Documentation Requirements			
Program Strategic Planning			
Program Document	**Use of Commonwealth Technology Portfolio (CTP) form***	**Notes**	**Potentially Consolidate Project Documentation at Program Level?**
REQUIRED: Business Requirement for Technology (BRT)	Mandatory. Fill out form completely.	Complete form as much as possible; additional detail should be captured as needed in the uploaded Program Investment Business Case document from template.	No, however much of the alignment and justification for a component project can be referenced from the Program level.
REQUIRED: Investment Biennium Funding	Mandatory. Fill out form completely.	Complete form as much as possible; additional detail should be captured as needed in the uploaded Program Investment Business Case document from template.	No, however much of the alignment and justification for a component project can be referenced from the Program level.
REQUIRED: CPGA Select Risk/Complexity Assessment	Mandatory. Fill out form completely.	IT Programs will not be subject to CPGA categories; however this assessment will be useful to begin planning for risk and complexity.	No
REQUIRED: CPGA Investment Business Case	Mandatory. Fill out form completely; capture approvals in CTP	As needed, upload additional IBC documentation from template into CTP; capture additional approvals per PgM Roles Matrix.	No, however much of the alignment and justification for a component project can be referenced from the Program level.
REQUIRED: PMD Recommendation & Approval – Strategic Planning	Required	PMD internal form.	No
	* Use the existing CTP "project" form to document "program" information.	The green boxes denote where approvals are captured.	

4.2 Phase 2: Program Initiation

During Program Initiation, the Sponsoring Organization identifies the IT Program objectives and approach, agrees to pursue business benefits described in the Program Charter, and commits resources to create the Program Governance Framework. PIA is required to move into "Phase 3: Program Management Planning." Figure 4 depicts the significant inputs, activities, and outputs during this phase. Table 3 details the program initiation documentation requirements.
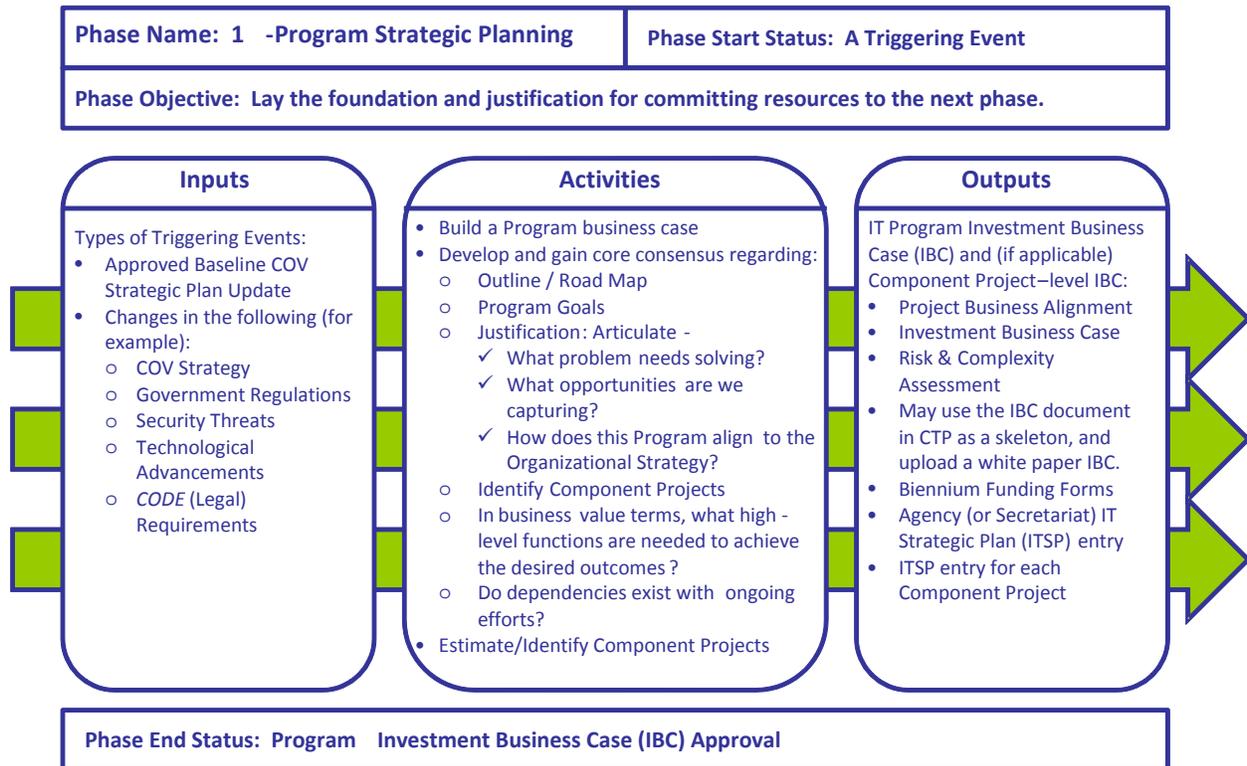
Phase Name: 2 -Program Initiation	Phase Start Status: Program IBC Approval
Phase Objective: Identify the IT Program Objectives and Approach; Commit to Pursuing IT Program.	

Inputs	Activities	Outputs

• Program Investment Business Base (IBC) Approval	• Build the Program Governance Model
	  o Establish PMO
	  o Create and Finalize Charter
	  o Draft Initial High-Level Plans
	    ✓ Program Management Plan
	    ✓ Scope
	    ✓ Communication/SharePoint
	    ✓ Schedule
	    ✓ Budget/Funding/Metrics
	    ✓ Quality
	    ✓ Risks
	    ✓ Control
	    ✓ Compliance/Test/IV&V
	    ✓ Transition
	  o Further Identify Component Projects
	  o Document Exceptions to Standard Governance Model and Documentation Requirements
		• Initial High-level Plans Drafted
		• Exceptions to Standard Governance Model and Documentation Requirements Approval
		• Program Initiation Approval (PIA)

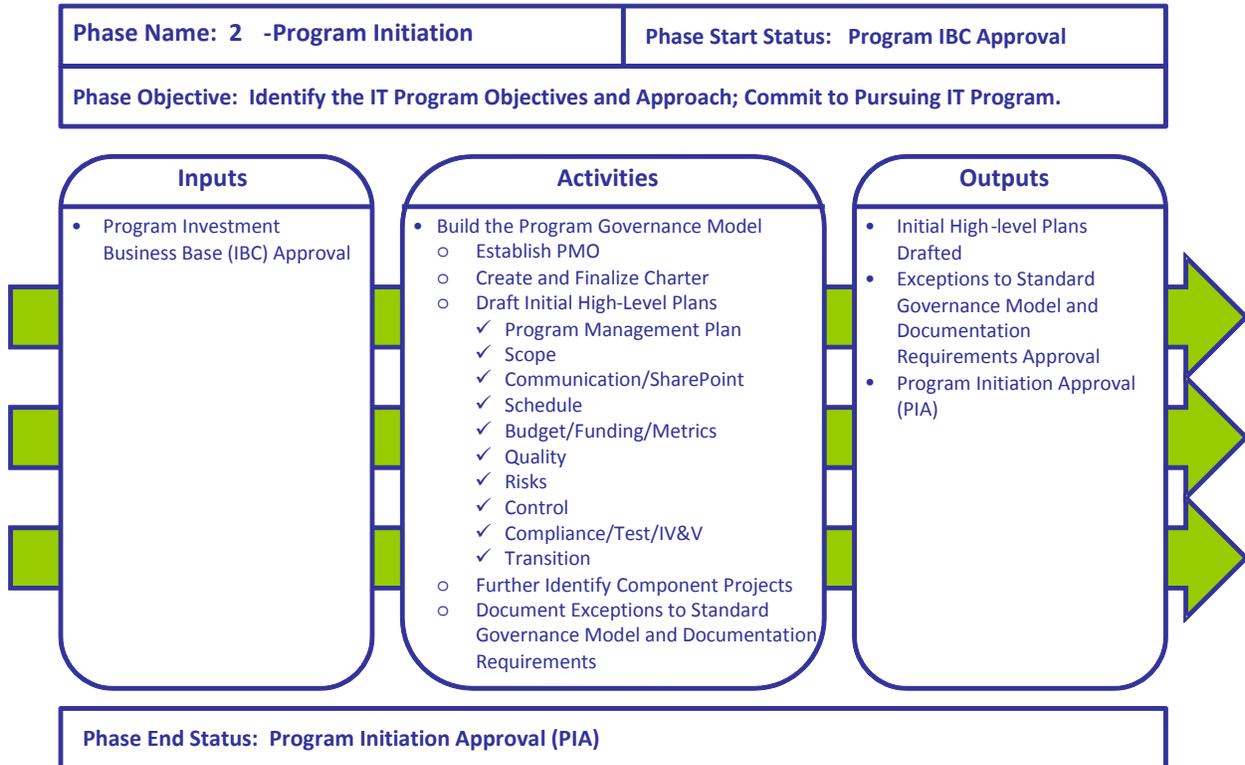| Phase End Status: Program Initiation Approval (PIA) |
|---|

Figure 4. Phase 2: Program Initiation Inputs, Activities, and Outputs.

Table 3. Phase 2: Program Initiation Documentation Requirements.

IT Program Documentation Requirements			
Program Initiation			
Program Document	**Use of Commonwealth Technology Portfolio (CTP) form***	**Notes**	**Potentially Consolidate Project Documentation at Program Level?**
REQUIRED: Business Case & Alternatives Analysis (BCAA)	Mandatory, but Partial: Enter vital information only; upload supplemental documentation as necessary.	Incorporate general BCAA analysis into Program Charter	No, however much of the business case and alternatives analysis for a project can be referenced from the Program level.
REQUIRED: Cost/ Benefit Analysis	Use CBA spreadsheet.	Incorporate general CBA analysis into Program Charter.	No, however much of the cost and benefit analysis for a project can be referenced from the Program level.
(Optional): **Project Manager Qualification Form**	Mandatory. Fill out form completely.	Incorporate Program Manager background/qualifications discussion into Program Charter.	No
REQUIRED: CPGA Project Initiation Approval Risk / Complexity Assessment	Mandatory. Fill out form completely.	IT Programs will not be subject to CPGA categories; however this assessment will be useful to begin planning for risk and complexity.	No
REQUIRED: CPGA Charter, with Program Org. Chart	Mandatory, but Partial: Enter vital information only; upload supplemental documentation as necessary. Capture approvals in CTP, and…	Create Program Charter document from template and upload into CTP; capture additional approvals per PgM Roles Matrix.	No, however significant sections of the Project Charter can simply refer to the Program Charter.
REQUIRED: Balanced Scorecard	Required; Modified Delphi	PMD will use the Balanced Scorecard to explore and support a recommendation for CIO approval.	No
	* Use the existing CTP "project" form to document "program" information.	The green boxes denote where approvals are captured.	

4.3 Phase 3: Program Management Planning

The purpose of this phase is to document the thought processes governing Program execution. The activities in this phase center on decomposing and refining program scope, schedule, budget and measures of success, from the high-level summary presented in the Program Charter to more actionable, measurable detailed levels.

The Component Project Initiation Approval (PIA) should occur after the Program PIA.

An approved PMP is required to begin the next phase, "Phase 4: Program Execution." Figure 5 depicts the significant inputs, activities, and outputs during this phase. Table 4 details the program management planning documentation requirements.

Phase Name: 3 -Program Management Planning	Phase Start Status: Initiation Approval (PIA)
Phase Objective: Identify the IT Program Objectives and Approach; Commit to Pursuing IT Program.	

Inputs	Activities	Outputs
• Initial High-Level Plans Drafted • Exceptions to Standard Governance Model Approval • Program Initiation Approval (PIA)	• Implement Program Governance Model • Create Program Management Plans • Further Identify Component Projects • Commence each Component Project's ITIM lifecycle • Ensure proper SharePoint setup for Component Projects • Conduct first IV&V Review, if within this phase, six months have elapsed from Program Initiation Approval • Secure Funding • Initiate Procurements	• Program Management Plan (PMP) and related high-level Plans Approval • Component Projects Initiated through CTP • Component Projects' SharePoint sites established and accessible to key resources • Budget Approval

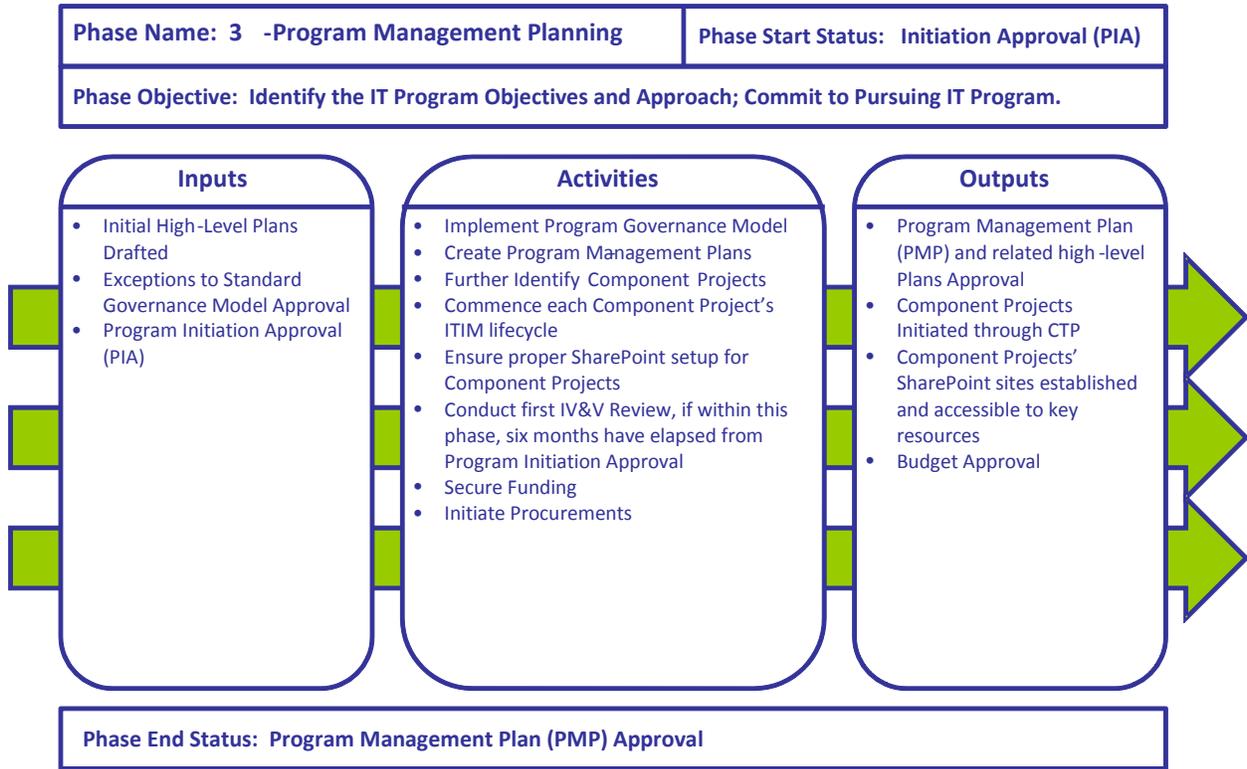**Phase End Status: Program Management Plan (PMP) Approval**

Figure 5. Phase 3: Program Management Planning Inputs, Activities, and Outputs.

Table 4. Phase 3: Program Management Planning Documentation Requirements.

IT Program Documentation Requirements			
Program Management Planning			
Program Document	**Use of Commonwealth Technology Portfolio (CTP) form***	**Notes**	**Potentially Consolidate Project Documentation at Program Level?**
REQUIRED: Post Implementation Review Plan (PIR)	No CTP form exists; the preferred method is to include this topic in the PMP.	Elaborate on program scope & business objectives as part of the Program Management Plan (PMP). Break down Program Business Objectives into project "chunks"; expectation is that each project then breaks it down further; Program manages business value delivered by each project. Describe scope management; benefits realization plan which will be found in the PIR.	No; however each component project should be able to show how its scope and objectives trace back to the overarching program scope and objectives.
REQUIRED: Program Governance and Quality Management Plan (GQM)	Do not use CTP Quality Management form; instead…	Create Program Governance and Quality Management Plan from template; use and upload to CTP.	Yes; Defer to Program-level Plan for governance, IV&V and audit info; each project still needs to develop a test plan (see 2nd tab of CTP form). Plus, the project IAOC may deem it necessary for additional IV&Vs.
REQUIRED: Change & Configuration Management Plan (CCM)	Do not use CTP Change and Configuration Management form; instead…	Create Program Change and Configuration Management Plan from template; use and upload to CTP.	Yes; Enter applicable configuration management information (see 2nd tab of CTP form); projects must still manage their own system configuration, (such as version control) but the scope, schedule, and budget baseline change plan exists at the Program level.
REQUIRED: Communication Management Plan (COMM)	Do not use CTP Communication Plan form; instead…	Create Program Communication Management Plan from template; use and upload to CTP.	Yes; There may be communication tasks assigned at the project level.
REQUIRED: Risks and Issues Management Plan (R&I)	Do not use CTP Risk Plan form; instead…	Create Program Risk and Issue Management Plan from template; use and upload to CTP.	Yes; Leverage Program-level artifact; there may be risk management tasks assigned at the project level, i.e., projects must still maintain a risk log.
REQUIRED: Program Architecture Plan (ARC)	No CTP form exists; the preferred method is to include this topic in the PMP.	Create Program System Architecture Plan (includes Solution architecture, security plan and data plan) from template; use and upload to CTP.	Yes; however this is currently not a required document for projects.
(Optional): Work Breakdown Structure	No CTP form exists; the preferred method is to include this topic in the PMP.	Optional as part of the Program Management Plan (PMP). At Program level, something like a WBS may help identify work products and effort at the Program level.	No
(Optional): Organization Work Breakdown Structure	No CTP form exists; the preferred method is to include this topic in the PMP.	Elaborate on program roster, roles, responsibilities and resource allocation as part of the Program Management Plan (PMP). If the PMO is centrally managing the organizational resources, the PMO needs a plan; else, the component projects will manage each of their WBS; something like an OBS may help identify resource constraints at the Program level.	No

IT Program Documentation Requirements
Program Management Planning

Program Document	Use of Commonwealth Technology Portfolio (CTP) form*	Notes	Potentially Consolidate Project Documentation at Program Level?
REQUIRED: Resource Management Plan (RM)	Do not use CTP Resource Plan form; instead…	Elaborate on program resource analysis and requirements as part of the Program Management Plan (PMP).	No
(As needed): **Procurement Plan (PRO)**	Optional; preferred method is to include this topic in the PMP.	Elaborate on program procurements as part of the Program Management Plan (PMP).	Yes
(Optional): **Activity Definition & Sequencing Worksheet (AD&SW)**	No CTP form exists; the preferred method is to include this topic in the PMP.	Incorporate this as part of the Program Management Plan (PMP). Something like an AD&SW may help identify project dependencies at the Program level.	No
REQUIRED: Program Implementation and Transition to Operations Management Plan (IMP)	No CTP form exists; the preferred method is to include this topic in the PMP.	Include this topic as part of the Program Management Plan (PMP); use template.	Yes
REQUIRED: Organizational Change Management Plan (OCM)	No CTP form exists; the preferred method is to include this topic in the PMP.	Create Program OCM Plan; (optional use of OCM template on PMD website) and upload to CTP.	Yes; Defer to Program-level plan; there may be OCM tasks assigned at the project level.
REQUIRED: Program Financial Management Plan (BDGT)	Mandatory use of CTP Budget Plan form. Upload supplemental documentation as necessary.	Include refined baseline Program Financial Management Plan as part of the Program Management Plan (PMP); maintain budget changes in CTP.	No
REQUIRED: CPGA Project Plan	Mandatory; Complete program 'vital statistic' information in CTP, capture PMD approval in CTP, and…	**Create Program Management Plan (PMP)** from template. Capture additional approvals per PgM Roles Matrix.	No
REQUIRED: CPGA Planning Risk / Complexity Assessment	Mandatory. Fill out form completely.	IT Programs will not be subject to CPGA categories; however this assessment will be useful for assessing risk and complexity.	No
REQUIRED: Change Control Request	Do not use CTP form; instead…	Create Program Change Control Log; use Decision Papers uploaded to CTP. Capture approvals per PgM Roles Matrix.	No
REQUIRED: Project Oversight Plan	Required	PMD internal form.	No
	* Use the existing CTP "project" form to document "program" information.	The green boxes denote where approvals are captured.	

4.4 Phase 4: Program Execution

The purpose of this phase is to manage the delivery of business value by coordinating the lifecycles of Component Projects; keep the IT Program relevant and valuable through effective governance, oversight and management of Program value delivery. The Program-level plans are maintained through proper Change Control policies and procedures.

The Program Execution Phase is complete when the last Component Project has finished providing the business value identified in the Program Charter to begin the next phase, "Phase 5: Program Closeout." Figure 6 depicts the significant inputs, activities, and outputs during this phase. Table 5 details the program execution documentation requirements.

Notes: **Program Status Reports will be required quarterly.**

Project status reporting for Commonwealth technology programs will take place quarterly. At this time, no prescribed template exists for Program Status Reports; however, use the CTP Project Status form for Program status reporting. Quarterly reports will be archived in the CTP and any PgM SharePoint site created for the Program use.

Component Project Managers will submit status reports in accordance with normal procedures described in the COV ITRM PM Standard.

The PMO will require Program Status Reports summarizing component project status. Program Managers will submit quarterly status reports for the months ending: March, June, September, and December.

The Program Status Report, modeled after the CTP Project Status Report, but in a paper format, must provide a summary status on the program accomplishments during the reporting period, and those anticipated to complete in the next reporting period. The report should specifically address milestones and other key tasks accomplished in the current reporting period and those key tasks that have been delayed, including the reason for the delay and impact on the overall schedule. In addition, a summary review of the following topics should also be presented at a Program level:

- Key Status Indicators;
- Project High Risk Status including new risks;
- Measures of Success;
- Planned Cost versus Actual Costs, including an explanation of any variance;
- Program Baselines; and,
- IT Partnership infrastructure Requests for Service.

Status reporting will continue until the Program Closeout Report is submitted. The PMD Project Management Specialist will advise Program Managers and Program Sponsors on specific reporting practices as needed.

Phase Name: 4-Program Execution	Phase Start Status: Mgt Plan (PMP) Approval

Phase Objective: Provide governance/oversight; coordinate component projects' lifecycles; deliver commitments

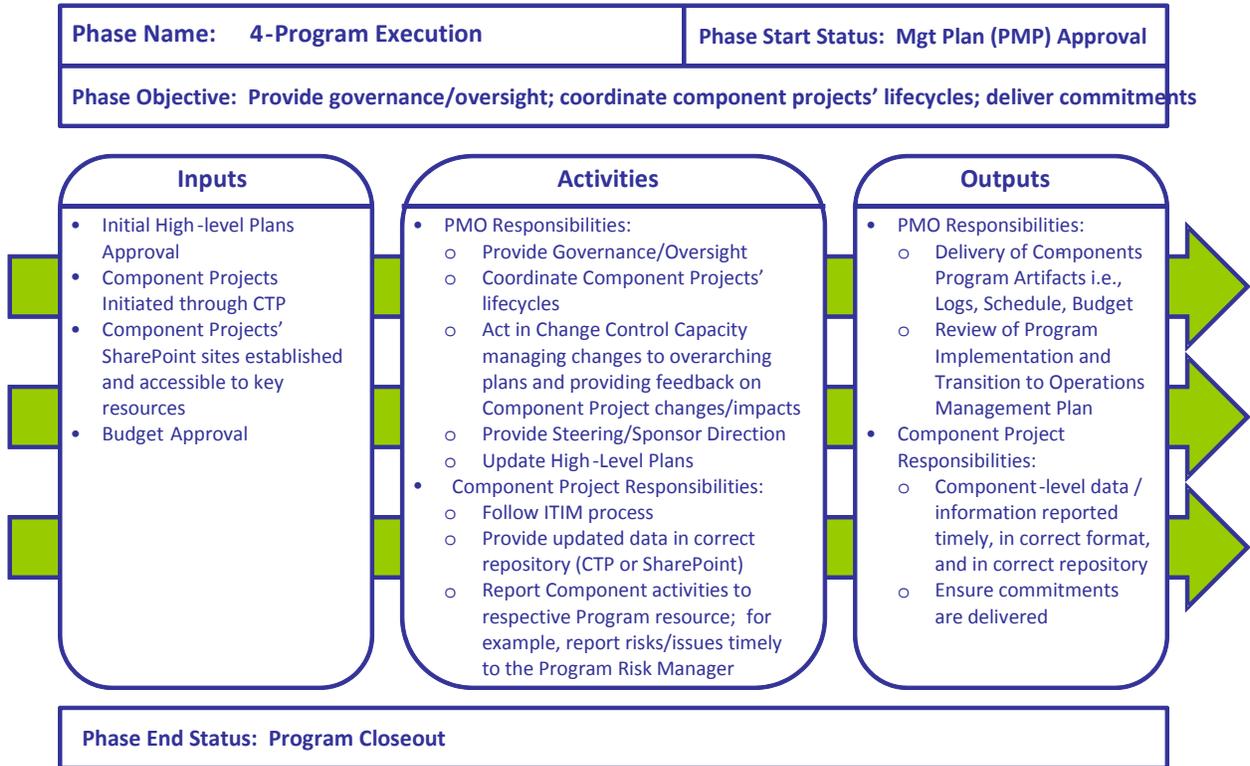| Inputs	Activities	Outputs

• Initial High-level Plans Approval
• Component Projects Initiated through CTP
• Component Projects' SharePoint sites established and accessible to key resources
• Budget Approval
	• PMO Responsibilities:
	  o Provide Governance/Oversight
	  o Coordinate Component Projects' lifecycles
	  o Act in Change Control Capacity managing changes to overarching plans and providing feedback on Component Project changes/impacts
	  o Provide Steering/Sponsor Direction
	  o Update High-Level Plans
	• Component Project Responsibilities:
	  o Follow ITIM process
	  o Provide updated data in correct repository (CTP or SharePoint)
	  o Report Component activities to respective Program resource; for example, report risks/issues timely to the Program Risk Manager
		• PMO Responsibilities:
		  o Delivery of Components Program Artifacts i.e., Logs, Schedule, Budget
		  o Review of Program Implementation and Transition to Operations Management Plan
		• Component Project Responsibilities:
		  o Component-level data / information reported timely, in correct format, and in correct repository
		  o Ensure commitments are delivered

Phase End Status: Program Closeout

Figure 6. Phase 4: Program Execution Inputs, Activities, and Outputs.

Table 5. Phase 4: Execution Documentation Requirements.

IT Program Documentation Requirements			
Program Execution			
Program Document	Use of Commonwealth Technology Portfolio (CTP) form*	Notes	Potentially Consolidate Project Documentation at Program Level?
REQUIRED: Program Independent Verification & Validation (IV&V) Report	No CTP form exists.	See Program Management Standard for IV&V requirements.	Projects have latitude to be included in Program IV&V, or as needed, to purchase additional, individual IV&V reviews.
REQUIRED: Issue Log	Do not use CTP form; instead…	Create Program Issue Log; use and upload to CTP or other program repository.	Yes; Projects should leverage Program-level Issues Log as appropriate.
REQUIRED: Status Report	Do not use CTP form; instead…	See Program Management Standard for Program Reporting requirements. A supplemental Program status report may also be used and uploaded into CTP. Capture additional approvals per PgM Roles Matrix.	No
REQUIRED: Change Control Request	Do not use CTP form; instead…	Create Program Change Control Log; use Decision Papers uploaded to CTP. Capture approvals per PgM Roles Matrix.	No
(Optional): CPGA O&M Costs Estimate	Mandatory, but Partial: Enter vital information only; upload supplemental documentation as necessary.	Be careful not to "double count" O&M estimates - since this is a required form for each component project.	Yes; however, do not "double count" O&M estimates - this is a required form for each component project.
	* Use the existing CTP "project" form to document "program" information.	The green boxes denote where approvals are captured.	

4.5 Phase 5: Program Closeout

The purpose of this phase is to transition the outputs of the Program to Operations. By the completion of this phase the PMO will be closed and the approved Program Implementation and Transition to Operations Management Plan will be fully executed. Warranty support and asset conservation will be invoked and agency service-level agreements will be in force. The Program Closeout Report (modeled after the Project Closeout Report) will contain essentially everything that a Project Closeout Report does, but broadened and amplified to the Program level addressing the business objectives established in the Program Charter. The Program Closeout Phase is completed when the last Component Project has finished its Closeout Report and the CIO approved it.

The final approved Closeout Report is required to begin the next phase, "Phase 6: Program Evaluation." Figure 7 depicts the significant inputs, activities, and outputs during this phase. Table 6 details the program closeout documentation requirements.
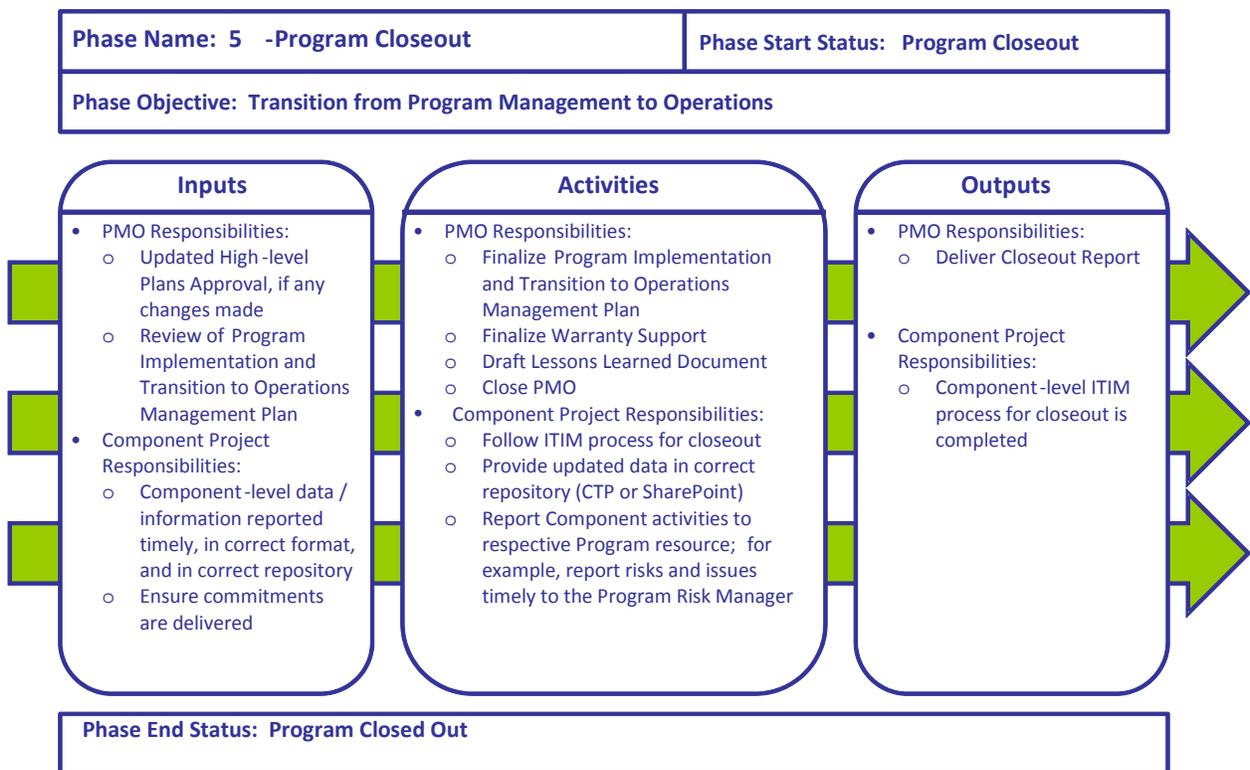
Phase Name: 5 -Program Closeout

Phase Start Status: Program Closeout

Phase Objective: Transition from Program Management to Operations

Inputs

- PMO Responsibilities:
  - Updated High-level Plans Approval, if any changes made
  - Review of Program Implementation and Transition to Operations Management Plan
- Component Project Responsibilities:
  - Component-level data / information reported timely, in correct format, and in correct repository
  - Ensure commitments are delivered

Activities

- PMO Responsibilities:
  - Finalize Program Implementation and Transition to Operations Management Plan
  - Finalize Warranty Support
  - Draft Lessons Learned Document
  - Close PMO
- Component Project Responsibilities:
  - Follow ITIM process for closeout
  - Provide updated data in correct repository (CTP or SharePoint)
  - Report Component activities to respective Program resource; for example, report risks and issues timely to the Program Risk Manager

Outputs

- PMO Responsibilities:
  - Deliver Closeout Report
- Component Project Responsibilities:
  - Component-level ITIM process for closeout is completed

Phase End Status: Program Closed Out

Figure 7. Phase 5: Program Closeout Inputs, Activities, and Outputs.

Table 6. Phase 5: Program Closeout Documentation Requirements.

IT Program Documentation Requirements			
Program Closeout			
Program Document	**Use of Commonwealth Technology Portfolio (CTP) form***	**Notes**	**Potentially Consolidate Project Documentation at Program Level?**
REQUIRED: Project Closeout Report	Mandatory; Complete program 'vital statistic' information in CTP, capture approvals in CTP, and…	As necessary, upload supplemental information into CTP and capture additional approvals per PgM Roles Matrix.	No
	* Use the existing CTP "project" form to document "program" information.	The green boxes denote where approvals are captured.	

4.6 Phase 6: Program Evaluation

The purpose of the Program Evaluation Phase is to assess the long-term success of the Program. This evaluation occurs between six and 12 months after the completion of Phase 5: Program Closeout. The affected business unit (typically the Program Sponsor/Lead Organization) conducts research and analysis to determine whether the IT Program actually delivered the benefits which were articulated and agreed to in the IT Program Charter. An overall IT Program Post Implementation Review (PIR) document will satisfy the need for each Component Project.

PIR approval signals the end of the overarching IT Program. Figure 8 depicts the inputs, activities, and outputs during this phase. Table 7 details the program evaluation documentation requirements.
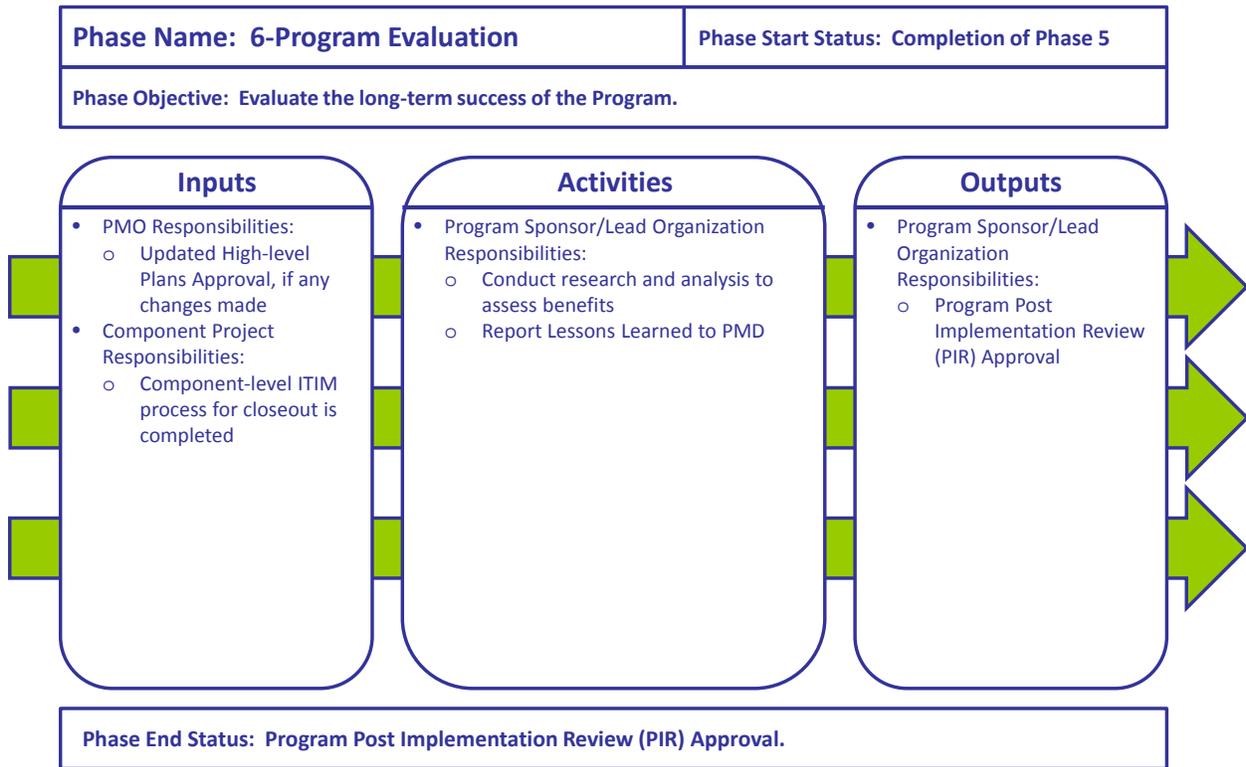
Phase Name: 6-Program Evaluation   **Phase Start Status: Completion of Phase 5**

Phase Objective: Evaluate the long-term success of the Program.

Inputs
- PMO Responsibilities:
  - Updated High-level Plans Approval, if any changes made
- Component Project Responsibilities:
  - Component-level ITIM process for closeout is completed

Activities
- Program Sponsor/Lead Organization Responsibilities:
  - Conduct research and analysis to assess benefits
  - Report Lessons Learned to PMD

Outputs
- Program Sponsor/Lead Organization Responsibilities:
  - Program Post Implementation Review (PIR) Approval

Phase End Status: Program Post Implementation Review (PIR) Approval.

Figure 8. Phase 6: Program Evaluation Inputs, Activities, and Outputs.

Table 7. Phase 6: Program Evaluation Documentation Requirements.

IT Program Documentation Requirements			
Program Evaluation			
Program Document	Use of Commonwealth Technology Portfolio (CTP) form	Notes	Potentially Consolidate Project Documentation at Program Level?
REQUIRED: Post Implementation Review	No CTP form exists; instead…	Create Post Implementation Review report; upload to CTP. Capture approvals per PgM Roles Matrix.	Yes
		The green boxes denote where approvals are captured.	

Section 5. Governance and Oversight of Commonwealth Information Technology Programs

This section addresses relevant topics such as roles and responsibilities, approval hierarchy, phase gate reviews, formal change control process, and Program-level Independent Verification & Validations (IV&V).

5.1 Roles and Responsibilities

One of the critical success factors for producing the desired results of an IT Program is the clear understanding, agreement and execution of roles and responsibilities. A fundamental concept is that the Program Sponsor and Program Management Office (PMO) must focus attention on and manage Program-level issues and objectives. Conversely, each Project within the IT Program needs an IT Project Manager with decision-making authority to impact the success of the Component Projects without the PMO micro-managing the Projects.

Each Project within the Program retains all of the procedures and documentation as described in the COV ITRM Project Management Standard. In addition, an extra layer of control, communication, and governance is exercised by the PMO. See Figure 1 for an example Program Management organization.

There must be widespread agreement on stakeholder roles and responsibilities so each person performs their role effectively. The following Program Roles and Responsibilities, Table 8, is not exhaustive; a thorough explanation of roles and responsibilities must be presented in the IT Program Charter. The roles and responsibilities below are in addition to those discussed in the COV ITRM Project Management Standard.

Table 8. Program-level Roles and Responsibilities.

IT Program Role	IT Program Responsibilities
Secretary of Technology (SoTech)	- Designate specific programs as enterprise information technology programs, prioritize the implementation of enterprise information technology programs, and establish enterprise oversight committees to provide ongoing oversight for enterprise information technology programs. - Be a voting member of the POC where VITA is a participating agency or part of the IT Program is an Enterprise Application. - Approves the six-year statewide plan for technology.
Commonwealth Chief Information Officer (CIO)	- Be a voting member of the POC where VITA is a participating agency or part of the IT Program is an Enterprise Application. The CIO will have the authority through legislature to stop a Program not meeting the business expectations of the Commonwealth. - Approves Program Initiation and termination. - Approves of the Program Manager via signing the Program Charter. - Retains the discretion to advise the Program Sponsor to interview Program Managers with VITA PMD assistance. - Approves all Program- and Project-level Closeout Reports.

IT Program Role	IT Program Responsibilities
Cabinet Secretaries and Agency Heads	Depending on the level of program oversight, the Cabinet Secretaries and Agency Heads may participate in the Program as: • Chair • Co-Chair • Participant in Program Oversight Committees The Cabinet Secretaries and Agency Heads' roles must be clarified in the Program Charter.
Secretariat Oversight Committees (SOC)	When an Executive Branch Secretary chairs the POC, no need exists for a separate SOC level of review and approval. If the highest ranking POC member is an Agency head, the SOC will carry out its duties for the Program, modeling the COV ITRM PM Standard. The roles and responsibilities of the SOC are performed by the POC when more than one Secretariat is involved. For IT Programs entirely contained within one agency, the POC can be "scaled down" so that the highest ranking member is the Agency Head or designated representative. In that case, the SOC will resume its normal functions as described in the COV ITRM PM Standard.

IT Program Role	IT Program Responsibilities
Program Oversight Committee (POC)	• Provides leadership, oversight, and guidance for the duration of the Program.
	• Comprises voting and non-voting members.
	• Sets and adjusts the Program course providing maximum value to the stakeholder organizations. Where an IT Program comprises more than one secretariat, a formal, separate POC is required.
	• Consists of the following members:
	o Proponent Secretary (Chair ex officio) – if the program spans multiple secretariats;
	o Proponent Deputy Secretary (Chair) – or a representative;
	o Representation from other stakeholder secretariats (e.g., SoTech);
	o CIO Representative (VITA – PMO Supervisor);
	o IT Program Director;
	o Secretary of Finance Representative – (Department of Planning and Budget – DPB Analyst);
	o Stakeholder Agenc(ies) Head or designated substitute; and
	o Others, as appointed by the Chair and CIO.
	• Validates proposed IT Program and Project business cases, making IT Program and Project recommendations to the CIO.
	• Reviews Change Control Requests forwarded for CIO approval and make recommendations to the CIO.
	• Reviews other Program and Project IV&V reports and recommends corrective actions, if necessary.
	• Accepts escalated issues to consider/ resolve from the Component Projects' IAOC and forwards final recommendations to the CIO.
	• Meets at least quarterly with a prepared agenda addressing recent and expected changes to the Program baselines of budget, scope, schedule, and performance. Relevant questions from which an agenda can be derived include:
	o Is the program on track to meet planned business goals and the associated measures of success?
	o Are the costs within the planned budget?
	o Is the program on schedule?
	o Does the program remain within the approved scope? and,
	o How is the program being managed to minimize or mitigate identified risks?
	• Be familiar with the Program Risks and Issues Management Plan and associated contingency plans to act accordingly should critical risks become reality. Meeting minutes are essential for the Program records and will be formally approved by the committee from the previous meeting and taken for the current meeting.

IT Program Role	IT Program Responsibilities
Sub-Program Oversight Committees	Acts in the same manner as the POC, performing POC roles and responsibilities at a Sub-program level. At times IT Programs establish subordinate IT Sub-programs within the overarching IT Program. An example is a Sub-program providing a critical product or output for the overarching IT Program, and after interacting with the overarching IT Program, the Sub-program continues to provide other functionality for other Programs and Projects.
Internal Agency Oversight Committees (IAOC)	Retains all functions described in the COV ITRM PM Standard. It is still the first level of oversight for IT projects. For sibling component projects within an IT Program, IAOC membership and required meetings can be consolidated, as long as the quality of oversight is not diminished.
Organizational Change Manager	• Acts as a consultant. • Assists the business shift/transition individuals, teams and organizations from a current state to a desired future state. • Helps state workers accept and embrace business environment changes.
Project Management Division (PMD)	"Scales up" governance and oversight activities commensurate with the size, risk and complexity of an IT Program and its Component Projects. Helps the program interpret and comply with applicable standards.
Program Management Office (PMO)	• Ensures the desired business outcomes occur as documented in the Program Charter. • Does not manage Component Projects, but the coordination, communication, interdependencies and interaction between them. • Consists, at a minimum, a Program Manager. Depending on the complexity and scope of a Program a PMO can also include other roles such as Program Coordinator, Program Scheduler, etc. These roles will be documented within the Program Charter.
Program Sponsor	• Is a voting member of the POC. • Develops the IT Program business case. • Has the authority and responsibility to define Program goals, secure resources, establish program priorities, and resolve intra- and inter-organizational issues and conflicts. • Works closely with the Program Manager ensuring objectives are met, resources, especially functional subject matter experts, are available to the Program, and issues are resolved as expeditiously as possible. • Dedicates a portion of their time on a weekly, if not daily basis, to attend to their Program in detail.
Project Sponsor	Remains unchanged per the COV ITRM PM Standard.

IT Program Role	IT Program Responsibilities
Program Manager	• Provides oversight and coordination of assigned IT Programs. • Guides and supports PMO PgM development and enhancement capabilities ensuring appropriate processes and procedures are in place. • Enforces adherence to IT Program standards and guidelines. *Tip:* **Program Manager Selection Characteristics** The Program Manager should be Commonwealth Project Management Qualified to conduct Major IT Projects. Beyond this minimum requirement, the ideal candidate should possess the following desirable characteristics: • Works well with others, establishing a climate of trust. • Energizes and builds relationships among team members. • Makes timely and substantive decisions. • Effectively manages communications by delivering the right message to the right audience in a timely manner. • Prioritizes resources to maximize productivity and efficiency. • "Sells the vision" of the Program to other team members and to higher authorities on the chain of command. • Applies a variety of models and methods to obtain desired results. • Facilitates and delivers incremental value to minimize risk and makes necessary adjustments as soon as possible. • Has skills in Program practices and people management. • Is professional and politically savvy. • Is flexible, pragmatic, and people-focused.
Component Project Manager	• Is qualified as required per the ITRM Project Manager Selection and Training Standard. • Adheres to all Program-level management plan requirements. • Follows the COV ITRM PM Standard. • Manages the Project within certain scope/schedule/budget control limits, free from PMO intervention unless help is requested or control limits are breeched. Refer to the COV ITRM PM Standard for documentation requirements.

5.2 Approval Hierarchy

An approval hierarchy, maintained at the Program and Project levels for all formal, hierarchical decisions within IT Programs, specifically addresses events where approval is required before entering the next phase. Table 9 anticipates all the major, predictable events requiring a hierarchy of approvals. For events not covered in this analysis, use common sense and find an analogous event as guidance. Follow the numerical sequence of approvers and record approvals at every step.

Table 9. Approval Hierarchy.

(See Notes below)	Component Project Manager	Agency Project IAOC	Agency IT Rep. (AITR)	Agenc(ies) Head	Program PMO[1]	VITA PMD Recommend-ation	Lead POC / SOC	CIO	SoTech
IT Programs: Approval Hierarchy/Sequence — Approvals are numbered in sequence.									
Program Strategic Planning									
Program Investment Business Case			1	2	3[2]	4[3]	5[2]	6	
Program Initiation									
Program Charter Approval (PIA)				2[4]	1[4]	3	4	5	
Component Project Selection (IBC)			1	2	3[4]	4[3]	5	6	
Program Management Planning									
Program Management Plan (PMP)				2[4]	1	3	4	5	
Program Execution									
Component Project Charter Approval (PIA)	Per Project Mgt. Standard			1[5]	2[x]	3	4	5	
Detailed (Component) Project Plan	Per Project Mgt. Standard				2[x]	1			
Program Execution: Status Report					1	2	3	4	5
Component Project Status Report	Per Project Mgt. Standard				1[x]	2	3[x]	4	
Program Execution: Change Control					1[7]	2	3	4	
Component Project Change Control	Per Project Mgt. Standard				1[x]	2	3	4	
Program Closeout Report									
Program Closeout Report				2[4]	1	3	4	5	
Project Closeout Report	Per Project Mgt. Standard				1	2	3	4	
Program Evaluation									
Program Evaluation (PIR)					1[9]	2[x]	3[4]	4	
Component Project PIR	Per Project Mgt. Standard				1[9]	2[x]	3[4]		

Notes:

1 If there is a Sub-Program under the Lead Program, approvals must first be processed at the Sub-Program level prior to the Lead Program.

2 Typically, in this stage of the Program lifecycle, Secretariat representation of the Program Oversight Committee (POC) is not formed yet.

3 VITA ITIM recommendation.

4 As necessary. Example: There may not be any Sub-Programs under the Lead Program.

5 If component project involves multiple agencies, the Lead Agency Head has approval authority for this step.

6 For component projects costing $1,000,000 or more.

7 Program-level changes, such as adding/deleting scope, extending/shortening schedule.

8 For component projects CPGA category 1.

9 If the Lead Program is still active.

X No vote/approval required, but this step performs a coordination/integration function; may formulate recommendation.

5.3 Phase Gate Reviews

A distinct formal event or "Phase Gate Review" is necessary for a Program to transition from one phase to another. The approval hierarchy in Section 3.2 indicates the path, sequence, and required approvals for transitioning from one phase to another.

5.4 Formal Change Control Process

A formal Change Control Process provides clarity, structure and consent of proposed changes in Program scope, schedule, budget and measures of success. It is a critical PMO function and will be followed for all Commonwealth-level IT Programs. A template is available.

5.4.1 Program-level Change Control

A formal change control plan provides overall guidance on official change processes and procedures, ensuring awareness, coordination and agreement on baselined items, as well as accurate configuration at all times. The Change and Configuration Management Plan (CCM) describes the change management processes used to manage changes to scope, schedule, budget, and measures of success. Changes to Program-level configuration items (e.g., program documents) are also addressed. An effective and efficient change control process is a critical success factor, and is required for every Program.

5.4.2 Managed Baseline

All Programs will use a "Managed Baseline" approach to execute the Program schedule, budget, and scope deliverables. The "Managed Baseline" approach means the Program scope, schedule, and budget are considered locked down at PIA. However, the relatively long duration and adaptive nature of a Program suggests that Program elements will change over time. Accordingly, the POC is authorized to approve Program business need/priority changes gaining a more meaningful and effective governance over the Projects within the Program.

After the PMO accepts a draft document, the approved version will be considered the baseline. All changes to the baseline document will be based on an approved change control procedures outlined in the CCM.

The CCM does not intend to prescribe how individual projects and/or systems will conduct Configuration Management; that is left to each project or system to decide. Additions, Deletions and other changes to 'significant' project and program deliverables may need to be escalated to the PMO level for POC approval; although the intent is not to micro-manage individual component projects on changes that do not materially impact the business value potential of the program.

5.5 Independent Verification & Validation (IV&V)

The motivation and justification for conducting IT Program IV&V reviews are the same as described in the COV ITRM PM Standard for projects. In an effort to reduce unnecessary duplication and leverage the IT Program Management framework, the following IV&V regulations represent the minimum requirements for a Program:

- At a minimum, the IT Program must conduct one IV&V review within six months of obtaining PIA.
- Thereafter, the IT Program must conduct in-process IV&V reviews every six months for the duration of the Program.
- By utilizing a Program IV&V, the reviews may satisfy the IV&V requirements for each of the Component Projects if all of the following conditions apply:

- o The Program IV&V is designed to be comprehensive, covering a) the IT Program, as well as b) each of the component projects that are eligible for IV&V review (see the COV ITRM PM Standard for IV&V requirements for active projects).
- o The Program IV&V is designed to usually coincide with significant program phases.
- o The POC and the project IAOC approve this approach.
- Agencies, project IAOC's, and POC's may choose to purchase additional IV&V of the reviews as desired.

The IT Program IV&V ensures the IT Program and Component Projects are successful by having independent, experienced reviewers assess Program and Project strengths and weaknesses. The IV&V reviewers make suggestions to improve Program and Project processes and outcomes. The format for the Program-level IV&V will follow the standard format for Projects, but will report on significant summary findings across the entire Program.

Section 6. Conclusion

The Program Management Standard was designed and written to be useful and effective for managing a wide variety of Commonwealth IT Programs, ranging from relatively small, simple and short in duration, to remarkably large, complex, wide-ranging and expensive. As such, the Program Management Standard leaves sufficient latitude for common-sense interpretation and implementation of many requirements, as long as the basic concepts and structures of appropriate and commensurate governance and oversight are effectively retained.

In its position of public trust, the VITA Project Management Division administers, upholds and fortifies the Codified responsibilities for effective IT Project and Program Management governance and oversight on behalf of the Chief Information Officer of the Commonwealth. In this capacity, the Program Management Standard is intended to safeguard citizens' IT investment, as well as promote confidence, good faith and reliance that IT Projects and Programs are managed effectively, ultimately producing the intended business value.