

Commonwealth of Virginia



Information Technology Resource Management

ENTERPRISE ARCHITECTURE STANDARD

Virginia Information Technologies Agency (VITA)

ITRM Publication Version Control

ITRM Publication Version Control: It is the user's responsibility to ensure they have the latest version of the ITRM publication. Questions should be directed to the Director of Policy, Practice, and Architecture (PPA) within VITA's Information Technology Investment and Enterprise Solutions directorate (ITIES). PPA will issue a Change Notice Alert for new versions, post releases on the VITA Web site, and provide an email announcement to the Agency Information Technology Resources (AITRs) at all state agencies and institutions of higher education and to other interested parties.

Document Version History

Version Information Table		
Version	Date	Purpose of Revision
EA225-00	07/10/2006	Base Document (a compilation of new and revised enterprise technical architecture standards except for the security standards).
EA225-01	10/21/2007	Updates Preface Provides examples for ITRM Publication Version Control Updates and clarifies Section 6, Networking and Telecommunications. Updates and clarifies the personal computing portion of Section 7. This update removes the prohibition of DVD writers (see change in PLA-R-08) Clarification of the location of the security standards in Section 8 Updates links. Clarifies glossary entries
EA225-02	10/1/2008	Updates and clarifies: the Preface; Section 1, Introduction; Section 5, Integration Domain; Section 6, Networking and Telecommunications Domain; and Section 8, Security Domain standards list.
EA225-03	4/1/2009	<ul style="list-style-type: none"> • General administrative updates to the introduction and name change from Enterprise Technical Architecture Standard to Enterprise Architecture Standard. • Section 3 ETA Database Domain – updated Database and Other Data Access Methods Technology Component Standard Table DB-S-01. • Section 6 ETA Networking and Telecommunications Domain – Added a topic and four (4) existing Internet Domain Naming requirements to this section. Eliminates the need for a separate standard on Virginia Government Internet Domain Naming. • Section 8 ETA Security Domain – administrative changes to reference the current versions of existing Security Standards. • Section 9 Enterprise Systems Management Domain- added domain wide requirement ESM-R-23 related to standard operations tools as mandatory components of services provided.

Version Information Table		
Version	Date	Purpose of Revision
EA225-04	June 19, 2009	<ul style="list-style-type: none"> Section 2, ETA Applications Domain has been changed to include all Web Site related development and maintenance requirements. Please note that only those requirements that were added or changed from those standards are highlighted with a side bar in Section 2. This change and the corresponding Web Site Topic report eliminate the need for a separate Web Site policy, standard and guideline; and an Internet Privacy Guideline.

Identifying Changes in Sections

- Take note of the Version Information Table entries above
- Note that page header dates vary throughout the document depending on when or if some portion of a particular section has been updated.

Identifying Changes in Standard Statements

The following examples demonstrate how the reader may identify updates, changes, and deletions within the standard sections of this document beginning in Section 2.

EXA -R-02 Technology Standard Example with No Change – The text is the same. The text is the same. The text is the same.

EXA -R-01 Technology Standard Example with Revision – The text is the same. A wording change or clarification is made in this text for the particular update noted in the page header. The text is the same.

EXA -R-03 Technology Standard Example of Deleted Standard – This standard was rescinded on mm/dd/yyyy.

EXA -R-04 Technology Standard Example of New Standard – This standard is new on mm/dd/yyyy.

Identifying Changes in Technology Component Standard Tables

The following examples demonstrate Technology Component Standard tables with updates, reviews without updates, and no review at the time.

Table EXA-S-01: Example Table New or Changed Technology Component Standard Added/Updated: [page header date]	
Strategic:	No change. No Change. <u>This is a change. This is a clarification.</u> <u>This is an addition</u>
Emerging:	No change in this bullet and second bullet moved to strategic
Transitional/Contained:	No change
Obsolescent/Rejected:	

Table EXA-S-01: Example Table New or Changed Technology Component Standard <i>Added/Updated: [page header date]</i>	
	No Change
Exception History:	

Table EXA-S-02: Example Table No Change Technology Component Standard <i>Reviewed: [page header date]</i>	
Strategic:	No change
Emerging:	No change
Transitional/Contained:	No change
Obsolescent/Rejected:	No Change
Exception History:	

Table EXA-S-03: Example Table Not Reviewed Technology Component Standard	
Strategic:	Not reviewed since last publication
Emerging:	Not reviewed since last publication
Transitional/Contained:	Not reviewed since last publication
Obsolescent/Rejected:	Not reviewed since last publication
Exception History:	

Preface

Publication Designation

ITRM Standard EA225-04: Enterprise Architecture Standard

Subject

Enterprise architecture implementation

Effective Date

June 19, 2009.

Supersedes

COV ITRM Standard EA 225-03, April 1, 2009

COV ITRM Web Site Policy GOV105-00, December 8, 2005

COV ITRM Web Site Standard GOV106-00, April 11, 2007

COV ITRM Web Site Guideline GOV107-00, November 4, 2005

COV ITRM Internet Privacy Guideline SEC2001-02.1, February 27, 2001

Scheduled Review:

The requirements identified in this standard for the technical domain components of the Enterprise Architecture shall be reviewed on an annual basis.

Value Statement

This document provides a consolidated list of requirements (in the form of a standard) from the Commonwealth's Enterprise Architecture, including the eight domains that make up the Enterprise Technical Architecture. Provides a single source for Enterprise Architecture related requirements for use by agencies and their business partners.

Authority

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

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

Code of Virginia, §2.2-2458 (Powers and duties of the Board [ITIB])

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 and technical requirements which govern the acquisition, use and management of information technology resources by executive branch agencies.

General Responsibilities

The Chief Information Officer of the Commonwealth (CIO)

- Directs the formulation and promulgation of ITRM standards

The Virginia Information Technologies Agency (VITA)

- Drafts the ITRM standard
- Updates the ITRM standard
- Uses requirements in the ITRM standard when establishing contracts, reviewing procurement requests, agency IT projects, developing services and managing services

The Information Technology Investment Board (ITIB, the Board)

- Approves the standard requirements or delegates approval to the CIO

Executive Branch Agencies

- Provide input during the development of requirements and the drafting of the standard
- Provide input for the review and updating of the standard
- Comply with the requirements established
- Use standards information in planning for the acquisition and modification of information technology resources
- Apply for exceptions when necessary

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Section 1. Introduction

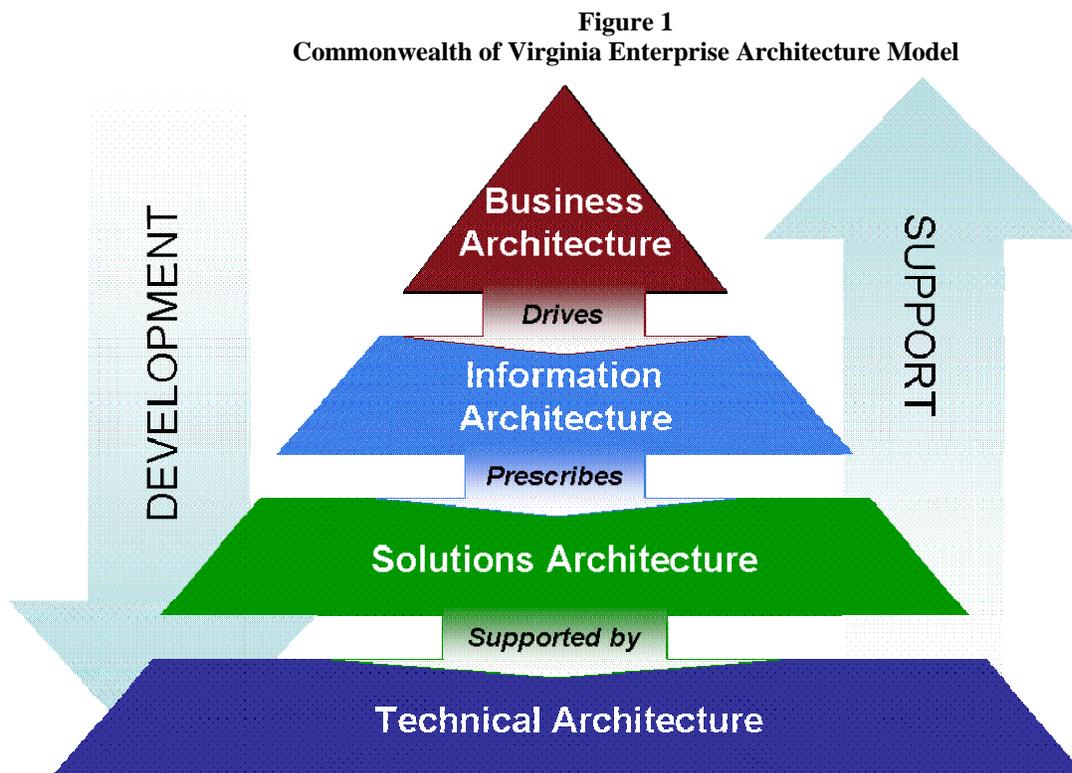
Overview

The Commonwealth’s Enterprise Architecture is a strategic asset used to manage and align the Commonwealth’s business processes and Information Technology (IT) infrastructure/solutions with the State’s overall strategy.

The Enterprise Architecture is also a comprehensive framework and repository which defines:

- the models that specify the current (“as-is”) and target (“to-be”) architecture environments,
- the information necessary to perform the Commonwealth’s mission,
- the technologies necessary to perform that mission, and
- the processes necessary for implementing new technologies in response to the Commonwealth’s changing business needs.

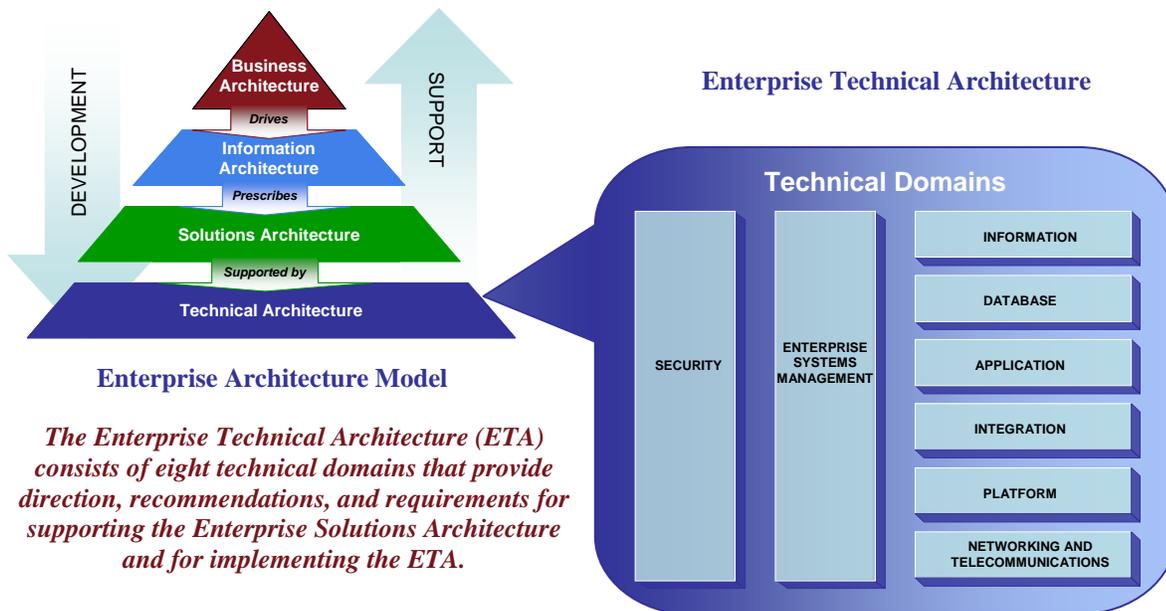
The Enterprise Architecture contains four components as shown in the model in Figure 1.



The Business Architecture drives the Information Architecture which prescribes the Solutions Architecture that is supported by the Technical (technology) Architecture.

The Enterprise Technical Architecture (ETA) shown in Figure 2 consists of eight technical domains that provide direction, recommendations and requirements for supporting the Solutions Architecture and for implementing the ETA. The ETA guides the development and support of an organization's information systems and technology infrastructure.

Figure 2
ETA Relationship to the Enterprise Architecture



Each of the domains is a critical piece of the overall ETA. The Networking and Telecommunications and Platform Domains address the infrastructure base and provide the foundation for the distributed computing. The Enterprise Systems Management, Database, Applications, and Information Domains address the business functionality and management of the technical architecture. The Integration Domain addresses the interfacing of disparate platforms, systems, databases and applications in a distributed environment. The Security Domain addresses approaches for establishing, maintaining, and enhancing information security across the ETA.

Standard Inputs

The requirements and technology component standard tables contained in this standard have been consolidated from inputs from EA workgroups and the domain teams responsible for researching, providing recommendations, and developing the Commonwealth's Enterprise Architecture.

Definition of Key Terms

This standard presents two forms of architecture direction for agencies when planning or making changes or additions to their information technology:

- **Requirements** – statements that provide mandatory Enterprise Architecture directions.

- **Technology Component Standard Tables** – tables that indicate what technologies or products agencies may acquire at a particular point in time. The requirements are mandatory when acquiring a new or replacing an existing technology or product. All technology component standard tables are included within the EA Standard.

The following terms and definitions are applicable to the technology component standard tables presented in this standard:

Strategic:

This technology is considered a strategic component of the Commonwealth's Enterprise Architecture. It is acceptable for current deployments and shall be used for all future deployments.

Emerging:

This technology requires additional evaluation in government and university settings. This technology may be used for evaluative or pilot testing deployments or in a higher education research environment. Any use, deployment or procurement of this technology beyond higher education research environments requires an approved *Commonwealth Enterprise Architecture Exception*. The results of an evaluation or pilot test deployment should be submitted to VITA's Policy, Practice and Architecture Division for consideration in the next review of the Enterprise Architecture for that technology.

Transitional/Contained:

This technology is not consistent with the Commonwealth's Enterprise Architecture strategic direction. Agencies may use this technology only as a transitional strategy for moving to a strategic technology. Agencies currently using this technology should migrate to a strategic technology as soon as practical. A migration or replacement plan should be included as part of the Agency's IT Strategic Plan. New deployments or procurements of this technology require an approved Commonwealth Enterprise Architecture Exception.

Obsolescent/Rejected:

This technology may be waning in use and support, and/or has been evaluated and found not to meet current Commonwealth Enterprise Architecture needs. Agencies shall not make any procurements or additional deployments of this technology. Agencies currently using this technology should plan for its replacement with strategic technology to avoid substantial risk. The migration or replacement plan should be included as part of the Agency's IT Strategic Plan.

Glossary

A glossary of terms is included as Appendix A to assist with understanding this standard.

Agency Exception Requests

Agencies that desire to deviate from the requirements or the technology component standards specified in this standard shall request an exception for each desired deviation and receive an approved *Enterprise Architecture Change/Exception Request Form* prior to developing, procuring, or deploying such technology or not complying with a requirement specified in this standard. The instructions for completing and submitting an exception request are contained within the *Commonwealth Enterprise Architecture Policy*.