COMMONWEALTH OF VIRGINIA

Information Technology Resource Management (ITRM)

ENTERPRISE TECHNICAL ARCHITECTURE

IT ACCESSIBILITY TOPIC REPORT

IN THE

APPLICATION DOMAIN

Virginia Information Technologies Agency (VITA)

Acknowledgements

Reviews

- This publication was reviewed and approved by the Enterprise Architecture (EA) Division.
- Online review was 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 VITA's Enterprise Architecture Division. 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	11/04/2005	Base Document (GOV103-00)
01	02/01/2017	This update is necessitated by changes in the Code of Virginia and organizational changes in Vita. Also, the standard is reformatted to align it with current policy, standard and guideline formats without changing the requirements.
02	09/21/2017	*GOV103-02 is a* **complete rewrite** *of the GOV103-01 document to align it with the U.S. Access Board's update of Section 508 (accessibility) and inclusion of Section 255 (telecommunications)*

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 are underlined indicating language that has changed.

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

ITA-R-01   **Example with No Change –** The text is the same. The text is the same. The text is the same.

ITA-R-02   **Example with Revision –** The text is the same. _A wording change, update or clarification is made in this text._

ITA-R-03   ***Example of New Text –*** *This language is new.*

~~**ITA-R-03**   **Technology Standard Example of Deleted Standard** – This standard was rescinded on mm/dd/yyyy.~~

Preface

Publication Designation
IT Accessibility Topic Report (GOV103-02)

Subject
Information and Communication Technology (ICT)

Effective Date
09-21-2017

Compliance Date
01/18/2018

Compliance with *Telecommunications Act Accessibility Guidelines* under the Section 255 is not required until the guidelines are adopted by the Federal Communications Commission.

Scheduled Review:
01/18/2019, then every two years thereafter

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

Code of Virginia, § 2.2-2009
(Additional Powers of the CIO relating to security)

Code of Virginia, § 2.2-2012
(Additional powers and duties related to the procurement of information technology)

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 with respect to IT accessibility.

General Responsibilities
(*Italics indicate quote from the Code of Virginia requirements*)

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

Chief Information Security Officer
The Chief Information Officer (CIO) has designated the Chief Information Security Officer (CISO) to develop Information Security policies, procedures, and standards to protect the confidentiality, integrity, and availability of the Commonwealth of Virginia's information technology systems and data.

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 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. Comply with the requirements established by COV policies and standards. Apply for exceptions to requirements when necessary.

Relationship Management and Governance Directorate
In accordance with the *Code of Virginia § 2.2-2010* the CIO has assigned the Relationship Management and Governance (RMG) Directorate the following duties: Develop and adopt policies, standards, and guidelines for managing information technology by state agencies and institutions."

Definitions
Definitions are found in the single comprehensive glossary that supports Commonwealth Information Technology Resource Management (ITRM) documents (COV ITRM Glossary).

Related ITRM Policies, Standards, and Guidelines
Enterprise Technical Architecture (ETA)
Application Domain Report
Enterprise Architecture Standard (EA225- series)

Table of Contents

Introduction

Background

This report addresses the Information Technology Accessibility (ITA) topic of the Enterprise Technical Architecture (ETA) *Application Domain Report*. This report describes technical topics such as access to functionality, functional performance criteria, electronic content, hardware, software, support documentation and services. As a topic of the Application Domain, this report expands on the principles, requirements and recommended practices presented in the domain report. Requirements and technology product standards introduced in this topic report will be incorporated into the COV Information Technology Resource Management (ITRM) Enterprise Architecture Standard.

In the case of technology procurement and pursuant to *Code of Virginia*, § 2.2-2012 (Procurement of Information Technology and Telecommunications Goods and Services), this topic report applies only to those products directly relevant to the contract and its deliverables. Procurement of technology shall not exceed the requirements of the regulations that implement the information and communication technology (ICT) accessibility reports of the Rehabilitation Act of 1973 (29 U.S.C. § 794 (d)) as amended by the *Workforce Investment Act* of 1998 (P.L. 105-220, August 7, 1998).

The U.S. Access Board's revised 508 Standards and 255 Guidelines replace the current product-based regulatory approach with an approach based on ICT functions. The revised technical requirements, which are organized along the lines of ICT functionality, provide requirements to ensure that covered hardware, software, electronic content, and support documentation and services are accessible to people with disabilities. In addition, the revised requirements include functional performance criteria, which are outcome-based provisions that apply in two limited instances: when the technical requirements do not address one or more features of ICT or when evaluation of an alternative design or technology is needed under equivalent facilitation.

Definition of EA Key Terms

This document presents architecture direction for agencies when planning or making changes or additions to their information technology through:

- Requirements – statements that provide mandatory Enterprise Architecture direction.

- Recommended Practices – statements that provide guidance to agencies in improving cost efficiencies, business value, operations quality, reliability, availability, decision inputs, risk avoidance or other similar value factors. Recommended Practices are optional.

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 at http://www.vita.virginia.gov/library/default.aspx?id=537.

Agency Exception Requests

Agencies that want to deviate from the requirements and/or technology standards specified in COV ITRM Standards may request an exception using the *Enterprise Architecture Change/Exception Request Form.* All exceptions must be approved prior to the agency pursuing procurements, deployments, or development activities related to technologies that are not compliant with the standard. The instructions for completing and submitting an exception request are contained in the current version of *COV ITRM Enterprise Architecture Policy.* The Policy and exception request form is on the ITRM Policies, Standards and Guidelines web page at http://www.vita.virginia.gov/library/default.aspx?id=537.

To request an exception to all Security related ITRM Standards please refer to the *Process for Requesting Exceptions* section of the Information Security Policy - COV ITRM Policy SEC519 on the ITRM Policies, Standards and Guidelines web page
At: http://www.vita.virginia.gov/library/default.aspx?id=537.

Executive Summary

Enacted in 2004, the *Code of Virginia*, § 2.2-2012 (Additional powers and duties related to the procurement of information technology), requires information technology procurements be made in accordance with the Virginia Public Procurement Act (§ 2.2- 4300 et seq.), regulations that implement Section 508 of the electronic and information technology accessibility standards of the Rehabilitation Act of 1973 (29 U.S.C. § 794d), as amended, and any regulations, policies, procedures, standards, and guidelines of VITA. In no case shall such procurements exceed the requirements of the regulations that implement the electronic and information technology accessibility standards of the Rehabilitation Act of 1973, as amended.

On January 18, 2017 the Access Board issued a final rule that updates accessibility requirements for information and communication technology (ICT) in the federal sector covered by Section 508 of the Rehabilitation Act. The rule also refreshes guidelines for telecommunications equipment subject to Section 255 of the Communications Act. The rule jointly updates and reorganizes the Section 508 standards and Section 255 guidelines in response to market trends and innovations, such as the convergence of technologies. Like the original 508 Standards, the updated 508 Standards apply to a federal agency's full range of public-facing content, including websites, documents and media, blog posts, and social media sites.

Given the passage of nearly two decades since their issuance, the existing 508 Standards and 255 Guidelines were in need of a "refresh" in several important respects. This final rule is intended to, among other things, address advances in information and communication technology that have occurred since the guidelines and standards were issued in 1998 and 2000 respectively, harmonize with accessibility standards developed by standards organizations worldwide in recent years, and ensure consistency with the Board's regulations that have been promulgated since the late 1990s.

In a single rulemaking, the Board revised and updated its standards for electronic and information technology developed, procured, maintained, or used by Federal agencies covered by section 508 of the Rehabilitation Act of 1973, as well as its guidelines for telecommunications equipment and customer premises equipment covered by Section 255 of the Communications Act of 1934. The revisions and updates to the section 508 standards and section 255 guidelines are intended to ensure that information and communication technology covered by the respective statutes is accessible to and usable by individuals with disabilities.

The Board also notes that the WCAG 2.0 Level A and AA Success Criteria are more explicit than the previous 508-based standards. Careful attention has been given to ensure that the Success Criteria are written as objectively testable requirements. In addition, unlike the existing 508 Standards, WCAG 2.0 is written in a way that is technology neutral and is therefore directly applicable to a wide range of content types and formats.

Furthermore, the revised 508 standards and 255 guidelines support the access needs of individuals with disabilities, while also taking into account the costs of providing accessible information and communication technology to Federal agencies, as well as manufacturers of telecommunications equipment and customer premises equipment.

ITRM IT Accessibility Requirements

Revised Section 508 Standards and Section 255 Guidelines – incorporated herein by reference

As noted earlier, the *IT Accessibility Topic Report* (GOV103-02) is a complete rewrite of COV103-01 to align it with the U.S. Access Board's revised section 508 (accessibility) and inclusion of section 255 (telecommunications) pursuant to the *Code of Virginia*, § 2.2-2012.

GOV103-02 replaces previous versions of this document. It incorporates the following topic-specific requirements by reference:

ITA-R-01   **Appendix A to Part 1194 – Section 508 of the Rehabilitation Act: Application and Scoping Requirements –** are incorporated by reference into the IT Accessibility Topic Report and are accessed at: https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#appendix-a

Table of Contents

508 Chapter 1: Application and Administration
E101 General
E102 Referenced Standards
E103 Definitions

508 Chapter 2: Scoping Requirements
E201 Application
E202 General Exceptions[1]
E203 Access to Functionality
E204 Functional Performance Criteria
E205 Electronic Content
E206 Hardware
E207 Software
E208 Support Documentation and Services

ITA-R-02   **Appendix B to Part 1194 – Section 255 of the Communications Act: Application and Scoping Requirements -** are incorporated by reference into the IT Accessibility Topic Report and are accessed at: https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#appendix-b

Table of Contents

255 Chapter 1: Application and Administration
C101 General

---

[1] NOTE: E202.2 Legacy ICT. Any component or portion of existing ICT that complies with an earlier standard issued pursuant to Section 508 of the Rehabilitation Act of 1973, as amended (as republished in Appendix D), and that has not been altered on or after January 18, 2018, shall not be required to be modified to conform to the Revised 508 Standards.

C102 Referenced Standards
C103 Definitions

255 Chapter 2: Scoping Requirements
C201 Application
C202 Functional Performance Criteria
C203 Electronic Content
C204 Hardware
C205 Software
C206 Support Documentation and Services

ITA-R-03   **Appendix C to Part 1194 – Functional Performance Criteria and Technical Requirements** – are incorporated by reference into the IT Accessibility Topic Report and are accessed at: https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines#appendix-c

Table of Contents

Chapter 3: Functional Performance Criteria
301 General
302 Functional Performance Criteria

Chapter 4: Hardware
401 General
402 Closed Functionality
403 Biometrics
404 Preservation of Information Provided for Accessibility
405 Privacy
406 Standard Connections
407 Operable Parts
408 Display Screens
409 Status Indicators
410 Color Coding
411 Audible Signals
412 ICT with Two-Way Communication
413 Closed Caption Processing Technologies
414 Audio Description Processing Technologies
415 User Controls for Captions and Audio Descriptions

Chapter 5: Software
501 General
502 Interoperability with Assistive Technology
503 Applications
504 Authoring Tools

Chapter 6: Support Documentation and Services
601 General
602 Support Documentation
603 Support Services

Chapter 7: Referenced Standards
701 General
702 Incorporation by Reference

Agency Implementation Dates and Plan

Implementation Dates

The following requirement applies to information and communication technology (ICT) that is procured, developed, maintained, or used by Executive Branch agencies.

ITA-R-5: **Compliance Date** – Executive Branch agencies ICT covered by the *IT Accessibility Topic Report* (GOV103-01) are required to comply with the revised *IT Accessibility Topic Report* (GOV103-02) by January 18, 2018.

Existing ICT, including content, that meets the original GOV103-01 does not have to be upgraded to meet the revised requirements unless it is altered. This "safe harbor" clause (E202.2) applies to any non-altered component or portion of ICT that complies with GOV103-01 requirements. Any component or portion of existing, compliant ICT that is altered after the compliance date (January 18, 2018) must conform to the revised requirements in GOV103-02.

Existing requirements – prior to January 18, 2018, agencies must continue to comply with the existing GOV103-01 requirements.

Compliance with the Section 255 guidelines is not required until the guidelines are adopted by the Federal Communications Commission.

Implementation Plan

An Agency Implementation Plan documents the results of the agency's analysis of its website for compliance with the requirements identified in this document and as needed, how the agency plans to bring the current information on its website into compliance with those requirements and how the agency shall ensure that future content is also compliant.

ITA-RP-01: **Agency Implementation Plan –** Each agency should develop a plan describing how and when it intends to meet the website related (all "ITA-R-nn" labeled requirements, where "*nn*" is the specific requirement number) requirements identified in this document and update the plan when there is a subsequent material change to the plan.

The agency plan should contain an analysis of the website for compliance with the related requirements identified in this document, identify by requirement number all current non-compliant items, identify agency plans and schedules for correcting all non-compliant pages, and identify the agency's process and procedures for ensuring future Web content is compliant. (Note – Appendix A of the Website Topic Report provides additional guidance in developing agency implementation plans)

ITA-RP-02: **Agency Implementation Plan** – Each agency should provide an electronic copy of its current agency implementation plan (initial and revised) to the VITA's Enterprise Architecture Division. Electronic copies should be submitted to: EA@vita.virginia.gov

Appendix A: Example of an agency implementation plan

Implementation Plan Questions

(a) Plan Strategy

Describe how the agency addresses each of the following:

(i) The agency's overall effort:

- Who will lead the compliance effort? (name, title, phone & e-mail);

- Who will lead the Web conversion or clean-up effort? (name, title, phone & e- mail);

- To whom does that person report? (name, title & email);

- Who will educate the agency on the need to comply with the Website Topic Report?

(ii) The agency's plans for producing new, compliant pages.

- Who has development access rights to the Web servers and websites or the number with such access?

- How will you avoid adding non-compliant pages to the website?

(iii) The agency's plans for checking existing pages for compliance problems.

- How will the agency check for non-compliant pages?

- Who will do the compliancy checking?

- How will the agency prioritize its Web work? Possible options to consider:

  o the entire site at once,
  o the most popular (highest hit) pages,
  o pages that are of most interest to your disabled audience,
  o by folder or feature,
  o by a specific number of levels deep from your main home page,
  o by file type (HTML, PDF, other), or
  o a combination of the above

(iv) The agency's plans for converting non-compliant pages.

- How will the agency prioritize your work?

- How will staff be allocated to this phase? (Will they be assigned specific areas of the website? Will they be given production quotas?)

(b) Plan Milestones

Provide information in a table with a column for *Milestones* and a column for *Target Dates,* as illustrated in the example below:

Milestone	Target Date

(a)   **Existing Web Page Count**

(i)   Provide the number of Web pages/files on the agency's website(s) and Web based-applications.

(ii)   Explain how and when the agency will obtain the number.

(b)   **Staff Resources**

Show the amount of staff resources to be assigned to the agency's site modifications in any of the following manners.

(i)   Number of staff times the average number of hours each will work per month.

(ii)   Number of FTE's to be assigned to the modification effort.

(c)   **Future Staff**

Indicate any substantial changes to staff resources anticipated over time, and how your plan will manage the changes.

(d)   **Signature**

The plan must be signed and dated by the agency head or equivalent. Please print the individual's title. Plans must be submitted by e-mail to *EA@vita.virginia.gov*.

Appendix B: References and Links

Federal Site/Document References:

See ITA-R-01 – ITA-R-03 above.

ICT Background:
https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/background

ICT Resources:
https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/other-resources

Comparison Table of WCAG 2.0 to former 508 Standards:
https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/background/comparison-table-of-wcag2-to-existing-508-standards

Web Content Accessibility Guidelines (WCAG) Overview:
https://www.w3.org/WAI/intro/wcag.php