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UNIFIED ENDPOINT MANAGEMENT (UEM) SECURITY REQUIREMENTS GUIDE (SRG) OVERVIEW

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Developed by DISA for the DOD

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1 INTRODUCTION

1.1 Executive Summary

The Unified Endpoint Management (UEM) Security Requirements Guide provides a framework for the development of a product-specific UEM Security Technical Implementation Guide (STIG). The UEM SRG applies to applications that manage endpoint devices, including Apple iOS phones and iPadOS tablets, Android phones and tablets, Apple macOS computers, and Windows 10 computers and tablets.

The UEM SRG package includes two sub-SRGs: one for the UEM server (UEM Server SRG) and one for UEM agents (UEM Agents SRG). The UEM Agents SRG requirements must be included in a UEM server STIG if the UEM vendor provides an agent to be installed on managed endpoint devices (for example, Android). The UEM Agents SRG requirements must be applied to the operating system (OS) if the UEM product includes an OS endpoint management agent (for example, an iOS- or macOS-based agent).

Note: Procedures to verify that a UEM product can manage all required controls in the corresponding iOS/iPadOS STIG, Android STIG, macOS STIG, or Windows 10 STIG are not within scope of the UEM SRG. It is the responsibility of each DOD mobile service provider/UEM server manager to verify a UEM product has the capability to fully implement all controls in an endpoint operating system STIG.

A UEM product may include a number of optional components, including mobile application manager, database, web server, and network connector (provides access to enterprise services for endpoint devices). Required controls for the mobile application manager are included in the UEM Server SRG, however the controls for optional components including database, web server, and network connector, are not included in the UEM Server SRG. During the development of a UEM STIG, the controls from the database and web server SRGs or the relevant product-specific STIGs will need to be included in the UEM STIG package if the UEM server includes these optional components.

1.1.1 Security Requirements Guides (SRGs)

SRGs are collections of requirements applicable to a given technology family. SRGs represent an intermediate step between Control Correlation Identifiers (CCIs) and STIGs. CCIs represent discrete, measurable, and actionable items sourced from Information Assurance (IA) controls defined in a policy, such as the National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53. STIGs provide product-specific information for validating and attaining compliance with requirements defined in the SRG for that product's technology area.

There are four core SRGs: Application, Network, Operating System, and Policy. Each addresses the applicable CCIs in the context of the technology family. Subordinate to the core SRGs, Technology SRGs are developed to address the technologies at a more granular level.

This UEM SRG is based on the APP SRG. This UEM SRG contains general check and fix information that can be used for products for which STIGs do not exist.

The STIGs based on this SRG will provide the product-specific technical implementation guidance for that product. The STIG will contain the specific check and fix information for the product it covers.

SRG Hierarchy Example:

```

Application SRG
|__ Database SRG
    |__ MS SQL Server 2005 STIG
  
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The SRG relationship and structure provides the ability to identify requirements that may be considered not applicable for a given technology family and provide appropriate justification. It also provides the structure to identify variations in specific values based on the technology family. These variations will be captured once and will propagate down to the Technology SRGs and then to the STIGs. This will eliminate the need for each product-specific STIG to address items that are not applicable.

1.1.2 SRG Naming Standards

In an effort to establish consistency across the SRGs, a naming standard for the Group Title and STIGIDs has been established.

Technology SRG Naming Standards

For Technology SRG Group Title and STIGIDs the following applies:

{Core SRG value}- {Technology SRG}- {5- or 6-digit numeric sequence number}

Examples:

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SRG-NET-000001-RTR-000001
SRG-APP-000001-COL-000001
SRG-NET-000001-VVSM-00001
SRG-OS-000001-UNIX-000001
  
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Checks/fixes will be included at this level in a general form. These checks and fixes will apply for any STIGs that are created for products that do not have product-specific check and fix guidance.

1.2 Authority

DOD Instruction (DODI) 8500.01 requires that “all IT that receives, processes, stores, displays, or transmits DOD information will be [...] configured [...] consistent with applicable DOD cybersecurity policies, standards, and architectures” and tasks that Defense Information Systems Agency (DISA) “develops and maintains control correlation identifiers (CCIs), security

requirements guides (SRGs), security technical implementation guides (STIGs), and mobile code risk categories and usage guides that implement and are consistent with DOD cybersecurity policies, standards, architectures, security controls, and validation procedures, with the support of the NSA/CSS, using input from stakeholders, and using automation whenever possible.” This document is provided under the authority of DODI 8500.01.

Although the use of the principles and guidelines in these SRGs/STIGs provides an environment that contributes to the security requirements of DOD systems, applicable NIST SP 800-53 cybersecurity controls need to be applied to all systems and architectures based on the Committee on National Security Systems (CNSS) Instruction (CNSSI) 1253.

1.2.1 Relationship to STIGs

The SRG defines the requirements for various technology families, and the STIGs are the technical implementation guidelines for specific products. A single SRG/STIG is not all-inclusive for a given system, which may include, but is not limited to: Database, Web Server, and Domain Name System (DNS) SRGs/STIGs. For a given system, compliance with all (multiple) SRGs/STIGs applicable to a system is required.

1.3 Vulnerability Severity Category Code Definitions

Severity Category Codes (referred to as CAT) are a measure of vulnerabilities used to assess a facility or system security posture. Each security policy specified in this document is assigned a Severity Category Code of CAT I, II, or III.

Table 1-1: Vulnerability Severity Category Code Definitions

	DISA Category Code Guidelines
CAT I	Any vulnerability, the exploitation of which will directly and immediately result in loss of Confidentiality, Availability, or Integrity.
CAT II	Any vulnerability, the exploitation of which has a potential to result in loss of Confidentiality, Availability, or Integrity.
CAT III	Any vulnerability, the existence of which degrades measures to protect against loss of Confidentiality, Availability, or Integrity.

1.4 SRG and STIG Distribution

Parties within the DOD and federal government’s computing environments can obtain the applicable STIG from the Cyber Exchange website at <https://cyber.mil/>. This site contains the latest copies of STIGs, SRGs, and other related security information. Those without a Common Access Card (CAC) that has DOD Certificates can obtain the STIG from <https://public.cyber.mil/>.

1.5 Document Revisions

Comments or proposed revisions to this document should be sent via email to the following address: disa.stig_spt@mail.mil. DISA will coordinate all change requests with the relevant DOD organizations before inclusion in this document. Approved changes will be made in accordance with the DISA maintenance release schedule.

1.6 Other Considerations

DISA accepts no liability for the consequences of applying specific configuration settings made on the basis of the SRGs/STIGs. It must be noted that the configuration settings specified should be evaluated in a local, representative test environment before implementation in a production environment, especially within large user populations. The extensive variety of environments makes it impossible to test these configuration settings for all potential software configurations.

For some production environments, failure to test before implementation may lead to a loss of required functionality. Evaluating the risks and benefits to a system's particular circumstances and requirements is the system owner's responsibility. The evaluated risks resulting from not applying specified configuration settings must be approved by the responsible Authorizing Official (AO). Furthermore, DISA implies no warranty that the application of all specified configurations will make a system 100 percent secure.

Security guidance is provided for the DOD. While other agencies and organizations are free to use it, care must be given to ensure that all applicable security guidance is applied at both the device-hardening level and the architectural level due to the fact that some settings may not be configurable in environments outside the DOD architecture.

1.7 Product Approval Disclaimer

The existence of a STIG does not equate to DOD approval for the procurement or use of a product.

STIGs provide configurable operational security guidance for products being used by the DOD. STIGs, along with vendor confidential documentation, also provide a basis for assessing compliance with Cybersecurity controls/control enhancements, which supports system Assessment and Authorization (A&A) under the DOD Risk Management Framework (RMF). DOD AOs may request available vendor confidential documentation for a product that has a STIG for product evaluation and RMF purposes from disa.stig_spt@mail.mil. This documentation is not published for general access to protect the vendor's proprietary information.

AOs have the purview to determine product use/approval in accordance with (IAW) DOD policy and through RMF risk acceptance. Inputs into acquisition or pre-acquisition product selection include such processes as:

- National Information Assurance Partnership (NIAP) evaluation for National Security Systems (NSS) (<https://www.niap-ccevs.org/>) IAW CNSSP #11.

- National Institute of Standards and Technology (NIST) Cryptographic Module Validation Program (CMVP) (<https://csrc.nist.gov/groups/STM/cmvp/>) IAW Federal/DOD mandated standards.
- DOD Unified Capabilities (UC) Approved Products List (APL) (<https://www.disa.mil/network-services/ucco>) IAW DODI 8100.04.

2 ASSESSMENT CONSIDERATIONS

2.1 NIST SP 800-53 Requirements

All applicable baseline technical NIST SP 800-53 requirements and security best practice requirements are included in the UEM Server and Agent SRGs. In addition, UEM/Mobile Device Management (MDM)-specific controls for servers and agents from the Protection Profile for Mobile Device Management (PP MDM) and the PP-Module for MDM Agents that are not found in SP 800-53 are also included in the UEM Server and Agent SRGs.

CNSSI 1253 defines the required controls for DOD systems, based on confidentiality, integrity, and availability (baseline) of the given information system. In all cases, CNSSI 1253, along with required baselines, will serve as the policy requirement for any given asset or information system.

2.2 General Procedures

The UEM SRG has procedures intended to provide appropriate evaluation and remediation functions for a typically configured system. These procedures are not product-specific and are intended for use when a product-specific STIG is not available.

2.3 Using Common Criteria Evaluation Information

The results of a current Common Criteria evaluation should be used to the maximum extent possible to validate compliance of a UEM product to UEM SRG requirements during the STIG Simulation phase of STIG development. If a UEM SRG requirement is also included in either the PP MDM or the PP-Module for MDM Agents, the PP-based Security Functional Requirement (SFR) ID is listed in the UEM SRG requirement to assist in matching Common Criteria evaluation results to the corresponding UEM SRG requirement.