CANONICAL UBUNTU 22.04 LTS
SECURITY TECHNICAL IMPLEMENTATION GUIDE
(STIG) OVERVIEW

Version 2, Release 3

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Developed by Canonical Ltd. and DISA for the DOD

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1. INTRODUCTION

1.1 Executive Summary

The Canonical Ubuntu 22.04 LTS Security Technical Implementation Guide (STIG) is published as a tool to improve the security of Department of Defense (DOD) information systems. The requirements were developed from the General Purpose Operating System Security Requirements Guide (GPOS SRG).

The vulnerabilities discussed in this document are applicable to Ubuntu 22.04 LTS Desktop and Server installations. This document is meant for use in conjunction with the Enclave, Network Infrastructure, Secure Remote Computing, and appropriate application STIGs.

1.2 Authority

Department of Defense Instruction (DODI) 8500.01 requires that "all IT [information technology] that receives, processes, stores, displays, or transmits DOD information will be […] configured […] consistent with applicable DOD cybersecurity policies, standards, and architectures." The instruction tasks that 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 [National Security Agency/Central Security Service], 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 must be applied to all systems and architectures based on the Committee on National Security Systems (CNSS) Instruction (CNSSI) 1253.

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

Category	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   STIG Distribution

Parties within the DOD and federal government's computing environments can obtain the applicable STIG from the DOD 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   SRG Compliance Reporting

All technical NIST SP 800-53 requirements were considered while developing this STIG. Requirements that are applicable and configurable will be included in the final STIG. A report marked Controlled Unclassified Information (CUI) will be available for items that did not meet requirements. This report will be available to component authorizing official (AO) personnel for risk assessment purposes by request via email to: disa.stig_spt@mail.mil.

1.6   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.

1.7   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 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.

1.8   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). Department of Defense 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.
- DODIN Approved Products List (APL) (https://aplits.disa.mil/processAPList.action) IAW DODI 8100.04.

2. CONCEPTS AND TERMINOLOGY CONVENTIONS

2.1 STIG ID Legend

UBTU-22-{XXX}{XXX} – The first three digits define the general, intermediary, and specific area of the requirement. The last three digits place the requirement in a numerical sequence in five-digit increments.

Table 2-1: STIG ID Category Legend

STIG ID Category Legend	
2XX – System Configuration	
21X – Core	211 – Compliance
	212 – Bootloader
	213 – Kernel
	214 – APT
	215 – Packages
23X – Storage	231 – File systems
	232 – File/directory ownership/permissions
25X – Network	251 – Firewall
	252 – Services
	253 – IPv4
	255 – SSH
27X – Graphical User Interface	271 – Gnome desktop
29X – Hardware	291 – Hardware
4XX – User Configuration	
41X – User Configuration	411 – Account
	412 – Session
43X – Privilege escalation	431 – AppArmor
	432 – SUDO
6XX – Authentication, Authorization, and Accounting	
61X – Authentication	611 – Password
	612 – Multifactor
63X – Authorization	631 – Authorization
65X – Accounting	651 – AIDE
	652 – rsyslog
	653 – auditd
	654 – audit.rules
67X – Cryptography	671 – FIPS