Security Certifications Compliance

The following topics describe how to configure your system to comply with security certifications standards:

Security Certifications Compliance Modes

Your organization might be required to use only equipment and software complying with security standards established by the U.S. Department of Defense and global certification organizations. The following security certifications standards are supported:

- Common Criteria (CC): a global standard established by the international Common Criteria Recognition Arrangement, defining properties for security products
- Unified Capabilities Approved Products List (UCAPL): a list of products meeting security requirements established by the U.S. Defense Information Systems Agency (DISA)

Note The U.S. Government has changed the name of the Unified Capabilities Approved Products List (UCAPL) to the Department of Defense Information Network Approved Products List (DODIN APL). References to UCAPL in this documentation and the FMC web interface can be interpreted as references to DODIN APL.

- Federal Information Processing Standards (FIPS) 140: a requirements specification for encryption modules

You can enable security certifications compliance in CC mode or UCAPL mode. Enabling security certifications compliance does not guarantee strict compliance with all requirements of the security mode selected. For more information on hardening procedures, refer to the guidelines for this product provided by the certifying entity.

Caution After you enable this setting, you cannot disable it. If you need to take an appliance out of CC or UCAPL mode, you must reimage.

Security Certifications Compliance Characteristics

The following table describes behavior changes when you enable CC or UCAPL mode. (Restrictions on login accounts refers to command line or shell access, not web interface access.)

System Change	Firepower Management Center		Classic Managed Devices		Firepower Threat Defense	
	CC Mode	UCAPL Mode	CC Mode	UCAPL Mode	CC Mode	UCAPL Mode
FIPS compliance is enabled.	Yes	Yes	Yes	Yes	Yes	Yes
The system does not allow remote storage for backups or reports.	Yes	Yes	—	—	—	—
The system supports exporting event data using eStreamer only for Version 6.2.2.1 and subsequent 6.2.2.x patches.	Yes	Yes	Yes	Yes	—	—
The system starts an additional system audit daemon.	No	Yes	No	Yes	No	No
The system boot loader is secured.	No	Yes	No	Yes	No	No
The system applies additional security to login accounts.	No	Yes	No	Yes	No	No
The system disables the reboot key sequence Ctrl+Alt+Del.	No	Yes	No	Yes	No	No
The system enforces a maximum of ten simultaneous login sessions.	No	Yes	No	Yes	No	No
Passwords must be at least 15 characters long, and must consist of alphanumeric characters of mixed case and must include at least one numeric character.	No	Yes	No	Yes	No	No
The minimum required password length for the local `admin` user can be configured using the local device CLI.	—	—	No	No	Yes	Yes
Passwords cannot be a word that appears in a dictionary or include consecutive repeating characters.	No	Yes	No	Yes	No	No
The system locks out users other than `admin` after three failed login attempts in a row. In this case, the password must be reset by an administrator.	No	Yes	No	Yes	No	No
The system stores password history.	No	Yes	No	Yes	No	No

System Change	Firepower Management Center		Classic Managed Devices		Firepower Threat Defense	
	CC Mode	UCAPL Mode	CC Mode	UCAPL Mode	CC Mode	UCAPL Mode
The `admin` user can be locked out after a maximum number of failed login attempts configurable through the web interface.	Yes	Yes	Yes	Yes	—	—
The `admin` user can be locked out after a maximum number of failed login attempts configurable through the local appliance CLI.	—	—	Yes, regardless of security certifications compliance enablement.	Yes, regardless of security certifications compliance enablement.	Yes	Yes
The system automtically rekeys an SSH session with an appliance: • After a key has been in use for one hour of session activity • After a key has been used to transmit 1 GB of data over the connection	Yes	Yes	Yes	Yes	Yes	Yes
The system performs a file system integrity check (FSIC) at boot-time. If the FSIC fails, Firepower software does not start, remote SSH access is disabled, and you can access the appliance only via local console. If this happens, contact Cisco TAC.	Yes	Yes	Yes	Yes	Yes	Yes

Security Certifications Compliance Recommendations

Cisco recommends that you observe the following best practices when using a system with security certifications compliance enabled:

- To enable security certifications compliance in your deployment, enable it first on the Firepower Management Center, then enable it in the same mode on all managed devices.

Caution The Firepower Management Center will not receive event data from a managed device unless both are operating in the same security certifications compliance mode.

- For all users, enable password strength checking and set the minimum password length to the value required by the certifying agency.
- If you are using Firepower Management Centers in a high-availability configuration, configure them both to use the same security certifications compliance mode.

- When you configure Firepower Threat Defense on a Firepower 4100/9300 Chassis to operate in CC or UCAPL mode, you should also configure the Firepower 4100/9300 Chassis to operate in CC mode. For more information, see the *Cisco FXOS Firepower Chassis Manager Configuration Guide*.
- Do not configure the system to use any of the following features:
  - Email reports, alerts, or data pruning notifications.
  - Nmap Scan, Cisco IOS Null Route, Set Attribute Value, or ISE EPS remediations.
  - Remote storage for backups or reports.
  - Third-party client access to the system database.
  - External notifications or alerts transmitted via email (SMTP), SNMP trap, or syslog.
  - Audit log messages transmitted to an HTTP server or to a syslog server without using SSL certificates to secure the channel between the appliance and the server.
- You may configure the system to export event data to an external client using eStreamer only for Version 6.2.2.1 and subsequent 6.2.2.x patches.
- Do not enable external authentication using LDAP or RADIUS in deployments using CC mode.
- Do not enable CACs in deployments using CC mode.
- Disable access to the Firepower Management Center and managed devices via the Firepower REST API in deployments using CC or UCAPL mode.
- Enable CACs in deployments using UCAPL mode.
- Do not configure Firepower Threat Defense devices into a high availability pair unless they are both using the same security certifications compliance mode.

Note The Firepower System does not support CC or UCAPL mode for:

- Classic devices in stacks or high availability pairs
- Firepower Threat Defense devices in clusters

Appliance Hardening

For information about features you can use to further harden your Firepower system, see the latest versions of the *Cisco Firepower Mangement Center Hardening Guide* and the *Cisco Firepower Threat Defense Hardening Guide*, as well as the following topics within this document:

- Licensing the Firepower System
- Firepower System User Authentication
- Logging into the Firepower System
- Audit Logs
- Audit Log Certificate

- Time and Time Synchronization
- Configure NTP Time Synchronization for Threat Defense
- Creating an Email Alert Response
- Configuring Email Alerting for Intrusion Events
- Configure SMTP
- About SNMP for the Firepower 2100 Series
- Configure SNMP for Threat Defense
- Creating an SNMP Alert Response
- Configure Dynamic DNS
- DNS Cache
- Auditing the System
- Access List
- Security Certifications Compliance, on page 1
- Configuring SSH for Remote Storage
- Audit Log Certificate
- HTTPS Certificates
- User Roles
- User Accounts
- Session Timeouts
- About Configuring Syslog
- Scheduled Backups
- Site-to-Site VPNs for Firepower Threat Defense
- Remote Access VPNs for Firepower Threat Defense
- FlexConfig Policies for FTD

Protecting Your Network

See the following topics to learn about Firepower System features you can configure to protect your network:

- Access Control Policies
- Blocking Traffic with Security Intelligence
- Getting Started with Intrusion Policies
- Tuning Intrusion Policies Using Rules
- The Intrusion Rules Editor

- Update Intrusion Rules
- Globally Limiting Intrusion Event Logging
- Transport & Network Layer Preprocessors
- Detecting Specific Threats
- Application Layer Preprocessors
- IPS Device Deployments and Configuration
- Auditing the System
- Working with Intrusion Events
- Searching for Events
- Workflows
- Device Management Basics
- Login Banners
- System Updates

Enable Security Certifications Compliance

This configuration applies to either a Firepower Management Center or managed device:

- For the Firepower Management Center, this configuration is part of the system configuration.
- For a managed device, you apply this configuration from the FMC as part of a platform settings policy.

In either case, the configuration does not take effect until you save your system configuration changes or deploy the shared platform settings policy.

Caution After you enable this setting, you cannot disable it. If you need to take the appliance out of CC or UCAPL mode, you must reimage.

Before you begin

- We recommend you register all devices that you plan to be part of your deployment to the FMC before enabling security certifications compliance on any appliances.
- Firepower Threat Defense devices cannot use an evaluation license; your Cisco Smart Software Manager account must be enabled for export-controlled features.
- Firepower Threat Defense devices must be deployed in routed mode.
- You must be an Admin user to perform this task.

Procedure

Step 1 Depending on whether you are configuring an FMC or a managed device:

- FMC: Choose **System** > **Configuration**.
- Classic device: Choose **Devices** > **Platform Settings** and create or edit a Firepower policy.
- FTD device: Choose **Devices** > **Platform Settings** and create or edit a Firepower Threat Defense policy.

Step 2 Click **UCAPL/CC Compliance**.

Note Appliances reboot when you enable UCAPL or CC compliance. The FMC reboots when you save the system configuration; managed devices reboot when you deploy configuration changes.

Step 3 To *permanently* enable security certifications compliance on the appliance, you have two choices:

- To enable security certifications compliance in Common Criteria mode, choose **CC** from the drop-down list.
- To enable security certifications compliance in Unified Capabilities Approved Products List mode, choose **UCAPL** from the drop-down list.

Step 4 Click **Save**.

What to do next

- If you have not already, apply Control and Protection licenses to all Classic devices in your deployment.
- Establish additional configuration changes as described in the guidelines for this product provided by the certifying entity.
- Deploy configuration changes; see Deploy Configuration Changes.