

Security Certifications Compliance

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

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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. Firepower supports compliance with the following security certifications standards:

- 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 Firepower Management Center 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 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 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 | 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 by default. | No | Yes | No | Yes | No | No |
| The admin user can be locked out after a maximum number of failed login attempts configurable through the web interface. | Yes | Yes | Yes | Yes | _ | _ |
| | 1 | 1 | 1 | 1 | | |

| 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 local appliance CLI. | 1 | No | Yes, regardless of security certifications compliance enablement. | compliance | 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 |
| 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.
- To use Firepower Management Centers in a high-availability configuration, configure them both to use the same security certifications compliance mode before forming the high availability pair.
- When you configure Firepower Threat Defense on a Firepower 4100/9300 to operate in CC or UCAPL mode, you should also configure the Firepower 4100/9300 to operate in CC mode. For more information, see the Cisco Firepower 4100/9300 FXOS 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.
- 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 SSO in deployments using CC mode.



Note

The system does not support CC or UCAPL mode for:

- Firepower Threat Defense devices in clusters
- Firepower Threat Defense container instances on the Firepower 4100/9300
- Exporting event data to an external client using eStreamer.

Appliance Hardening

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

- Licenses
- Users
- Logging into the Management Center
- Audit Log
- Audit Log Certificate
- Time Synchronization
- Configure NTP Time Synchronization for Threat Defense in the Firepower Management Center Device Configuration Guide

- Creating an Email Alert Response
- Configuring Email Alerting for Intrusion Events
- Configure SMTP in the Firepower Management Center Device Configuration Guide
- About SNMP for the Firepower 1000/2100 in the Firepower Management Center Device Configuration Guide
- Configure SNMP in the Firepower Management Center Device Configuration Guide
- Creating an SNMP Alert Response
- Configure Dynamic DNS in the Firepower Management Center Device Configuration Guide
- DNS Cache
- · Audit and Syslog
- Access List
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- Configure SSH for Remote Storage
- Audit Log Certificate
- HTTPS Certificates
- Customize User Roles for the Web Interface
- Add or Edit an Internal User
- Session Timeout
- About Configuring Syslog in the Firepower Management Center Device Configuration Guide
- Schedule FMC Backups
- Site-to-Site VPNs for FTD in the Firepower Management Center Device Configuration Guide
- Remote Access VPN in the Firepower Management Center Device Configuration Guide
- FlexConfig Policies in the Firepower Management Center Device Configuration Guide

Protecting Your Network

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

- Access Control Policies
- Security Intelligence in the Firepower Management Center Device Configuration Guide
- Getting Started with Intrusion Policies in the Firepower Management Center Device Configuration Guide
- Tuning Intrusion Policies Using Rules in the Firepower Management Center Device Configuration Guide
- Custom Intrusion Rules in the Firepower Management Center Device Configuration Guide
- Update Intrusion Rules

- Transport and Network Layer Preprocessors in the Firepower Management Center Device Configuration Guide
- Specific Threat Detection in the Firepower Management Center Device Configuration Guide
- Application Layer Preprocessors in the Firepower Management Center Device Configuration Guide
- Audit and Syslog
- Intrusion Events
- Event Search
- Workflows
- Device Management in the Firepower Management Center Device Configuration Guide
- Login Banner
- 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 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 a FMC or a managed device:

- FMC: Choose **System** (*) > **Configuration**.
- 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

- Establish additional configuration changes as described in the guidelines for this product provided by the certifying entity.
- Deploy configuration changes; see the Firepower Management Center Device Configuration Guide.

Enable Security Certifications Compliance