



Getting Started

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Is this Guide for You?

This guide explains how to use a **Firepower Management Center** running **Version 7.1** to prepare for and successfully complete:

- Upgrade of currently managed FTD devices *as far as* Version 7.1.
- Upgrade of the FMC to releases *after* Version 7.1.

Additional Resources

If you are upgrading a different platform/component, upgrading to/from a different version, or are using a cloud-based manager, see one of these resources.

Table 1: Upgrading FMC

Current FMC Version	Guide
Cloud-delivered management center (no version)	None. We take care of updates.
7.2+	Cisco Secure Firewall Threat Defense Upgrade Guide for Management Center for your version.
7.1	Cisco Firepower Threat Defense Upgrade Guide for Firepower Management Center, Version 7.1.
7.0 or earlier	Cisco Firepower Management Center Upgrade Guide, Version 6.0–7.0.

Table 2: Upgrading FTD with FMC

Current FMC Version	Guide
Cloud-delivered management center (no version)	The latest released version of the Cisco Secure Firewall Threat Defense Upgrade Guide for Management Center .
7.2+	Cisco Secure Firewall Threat Defense Upgrade Guide for Management Center for your version.
7.1	Cisco Firepower Threat Defense Upgrade Guide for Firepower Management Center, Version 7.1 .
7.0 or earlier	Cisco Firepower Management Center Upgrade Guide, Version 6.0–7.0 .

Table 3: Upgrading FTD with FDM

Current FTD Version	Guide
7.2+	Cisco Secure Firewall Threat Defense Upgrade Guide for Device Manager for your version.
7.1	Cisco Firepower Threat Defense Upgrade Guide for Firepower Device Manager, Version 7.1 .
7.0 or earlier	<i>System Management</i> in the Cisco Firepower Threat Defense Configuration Guide for Firepower Device Manager for your version. For the Firepower 4100/9300, also see the FXOS upgrade instructions in the Cisco Firepower 4100/9300 Upgrade Guide, FTD 6.0.1–7.0.x or ASA 9.4(1)–9.16(x) with FXOS 1.1.1–2.10.1 .
Version 6.4+, with CDO	<i>Onboard Devices and Services</i> in Managing FDM Devices with Cisco Defense Orchestrator .

Table 4: Upgrading NGIPS Devices

Current Manager Version	Platform	Guide
Any	Firepower 7000/8000 series	Cisco Firepower Management Center Upgrade Guide, Version 6.0–7.0 .
Any	ASA FirePOWER with FMC	Cisco Firepower Management Center Upgrade Guide, Version 6.0–7.0 .
Any	ASA FirePOWER with ASDM	Cisco Secure Firewall ASA Upgrade Guide .

Table 5: Upgrading Other Components

Version	Component	Guide
Any	ASA logical devices on the Firepower 4100/9300	Cisco Secure Firewall ASA Upgrade Guide.
Latest	BIOS and firmware for FMC	Cisco Secure Firewall Threat Defense/Firepower Hotfix Release Notes.
Latest	Firmware for the Firepower 4100/9300	Cisco Firepower 4100/9300 FXOS Firmware Upgrade Guide
Latest	ROMMON image for the ISA 3000	Cisco Secure Firewall ASA and Secure Firewall Threat Defense Reimage Guide.

Planning Your Upgrade

Careful planning and preparation can help you avoid missteps. This table summarizes the upgrade planning process. For detailed checklists and procedures, see the upgrade chapters.

Table 6: Upgrade Planning Phases

Planning Phase	Includes
Planning and Feasibility	<ul style="list-style-type: none"> Assess your deployment. Plan your upgrade path. Read <i>all</i> upgrade guidelines and plan configuration changes. Check appliance access. Check bandwidth. Schedule maintenance windows.
Backups	<ul style="list-style-type: none"> Back up the software. Back up FXOS on the Firepower 4100/9300.
Upgrade Packages	<ul style="list-style-type: none"> Download upgrade packages from Cisco. Upload upgrade packages to the system.
Associated Upgrades	<ul style="list-style-type: none"> Upgrade virtual hosting in virtual deployments. Upgrade firmware on the Firepower 4100/9300. Upgrade FXOS on the Firepower 4100/9300.

Planning Phase	Includes
Final Checks	<p>Check configurations.</p> <p>Check NTP synchronization.</p> <p>Deploy configurations.</p> <p>Run readiness checks.</p> <p>Check disk space.</p> <p>Check running tasks.</p> <p>Check deployment health and communications.</p>

Feature History

Table 7: Version 7.1.0 Features

Feature	Description
Revert a successful device upgrade.	<p>You can now revert major and maintenance upgrades to FTD. Reverting returns the software to its state just before the last upgrade, also called a <i>snapshot</i>. If you revert an upgrade after installing a patch, you revert the patch as well as the major and/or maintenance upgrade.</p> <p>Important If you think you might need to revert, you must use System (⚙) > Updates to upgrade FTD. The System Updates page is the only place you can enable the Enable revert after successful upgrade option, which configures the system to save a revert snapshot when you initiate the upgrade. This is in contrast to our usual recommendation to use the wizard on the Devices > Device Upgrade page.</p> <p>This feature is not supported for container instances.</p> <p>Minimum threat defense, customer-deployed management center: 7.1</p> <p>Minimum threat defense, cloud-delivered Firewall Management Center: 7.2</p>

Feature	Description
Improvements to the upgrade workflow for clustered and high availability devices.	<p>We made the following improvements to the upgrade workflow for clustered and high availability devices:</p> <ul style="list-style-type: none"> • The upgrade wizard now correctly displays clustered and high availability units as groups, rather than as individual devices. The system can identify, report, and preemptively require fixes for group-related issues you might have. For example, you cannot upgrade a cluster on the Firepower 4100/9300 if you have made unsynced changes on Firepower Chassis Manager. • We improved the speed and efficiency of copying upgrade packages to clusters and high availability pairs. Previously, the FMC copied the package to each group member sequentially. Now, group members can get the package from each other as part of their normal sync process. • You can now specify the upgrade order of data units in a cluster. The control unit always upgrades last.

Table 8: Version 7.0.0 Features

Feature	Description
Improved FTD upgrade performance and status reporting.	FTD upgrades are now easier faster, more reliable, and take up less disk space. A new Upgrades tab in the Message Center provides further enhancements to upgrade status and error reporting.

Feature	Description
Easy-to-follow upgrade workflow for FTD devices.	<p>A new device upgrade page (Devices > Device Upgrade) on the FMC provides an easy-to-follow wizard for upgrading Version 6.4+ FTD devices. It walks you through important pre-upgrade stages, including selecting devices to upgrade, copying the upgrade package to the devices, and compatibility and readiness checks.</p> <p>To begin, use the new Upgrade Firepower Software action on the Device Management page (Devices > Device Management > Select Action).</p> <p>As you proceed, the system displays basic information about your selected devices, as well as the current upgrade-related status. This includes any reasons why you cannot upgrade. If a device does not "pass" a stage in the wizard, it does not appear in the next stage.</p> <p>If you navigate away from wizard, your progress is preserved, although other users with Administrator access can reset, modify, or continue the wizard.</p> <p>Note You must still use System (⚙) > Updates to upload or specify the location of FTD upgrade packages. You must also use the System Updates page to upgrade the FMC itself, as well as all non-FTD managed devices.</p> <p>Note In Version 7.0, the wizard does not correctly display devices in clusters or high availability pairs. Even though you must select and upgrade these devices as a unit, the wizard displays them as standalone devices. Device status and upgrade readiness are evaluated and reported on an individual basis. This means it is possible for one unit to appear to "pass" to the next stage while the other unit or units do not. However, these devices are still grouped. Running a readiness check on one, runs it on all. Starting the upgrade on one, starts it on all.</p> <p>To avoid possible time-consuming upgrade failures, <i>manually</i> ensure all group members are ready to move on to the next step of the wizard before you click Next.</p>

Feature	Description
Upgrade more FTD devices at once.	<p>The FTD upgrade wizard lifts the following restrictions:</p> <ul style="list-style-type: none">• Simultaneous device upgrades. The number of devices you can upgrade at once is now limited by your management network bandwidth—not the system's ability to manage simultaneous upgrades. Previously, we recommended against upgrading more than five devices at a time. <p>Important Only upgrades to FTD Version 6.7+ see this improvement. If you are upgrading devices to an older FTD release—even if you are using the new upgrade wizard—we still recommend you limit to five devices at a time.</p> <ul style="list-style-type: none">• Grouping upgrades by device model. You can now queue and invoke upgrades for all FTD models at the same time, as long as the system has access to the appropriate upgrade packages. Previously, you would choose an upgrade package, then choose the devices to upgrade using that package. That meant that you could upgrade multiple devices at the same time <i>only</i> if they shared an upgrade package. For example, you could upgrade two Firepower 2100 series devices at the same time, but not a Firepower 2100 series and a Firepower 1000 series.

Table 9: Version 6.7.0 Features

Feature	Description
Improved FTD upgrade status reporting and cancel/retry options.	<p>You can now view the status of FTD device upgrades and readiness checks in progress on the Device Management page, as well as a 7-day history of upgrade success/failures. The Message Center also provides enhanced status and error messages.</p> <p>A new Upgrade Status pop-up, accessible from both Device Management and the Message Center with a single click, shows detailed upgrade information, including percentage/time remaining, specific upgrade stage, success/failure data, upgrade logs, and so on.</p> <p>Also on this pop-up, you can manually cancel failed or in-progress upgrades (Cancel Upgrade), or retry failed upgrades (Retry Upgrade). Canceling an upgrade reverts the device to its pre-upgrade state.</p> <p>Note To be able to manually cancel or retry a failed upgrade, you must disable the new auto-cancel option, which appears when you upgrade: Automatically cancel on upgrade failure and roll back to the previous version. With the option enabled, the device automatically reverts to its pre-upgrade state upon upgrade failure.</p> <p>Auto-cancel is not supported for patches. In a high availability/scalability deployment, auto-cancel applies to each device individually. That is, if the upgrade fails on one device, only that device is reverted.</p> <p>New/modified screens:</p> <ul style="list-style-type: none"> • System > Update > Product Updates > Available Updates > Install icon for the FTD upgrade package • Devices > Device Management > Upgrade • Message Center > Tasks <p>New FTD CLI commands:</p> <ul style="list-style-type: none"> • show upgrade status detail • show upgrade status continuous • show upgrade status • upgrade cancel • upgrade retry
Upgrades remove PCAP files to save disk space.	Upgrades now remove locally stored PCAP files. To upgrade, you must have enough free disk space or the upgrade fails.

Table 10: Version 6.6.0 Features

Feature	Description
Get device upgrade packages from an internal web server.	<p>Devices can now get upgrade packages from your own internal web server, rather than from the FMC. This is especially useful if you have limited bandwidth between the FMC and its devices. It also saves space on the FMC.</p> <p>New/modified screens: System > Updates > Upload Update button > Specify software update source option</p>
Upgrades postpone scheduled tasks.	<p>The FMC upgrade process now postpones scheduled tasks. Any task scheduled to begin during the upgrade will begin five minutes after the post-upgrade reboot.</p> <p>Note Before you begin any upgrade, you must still make sure running tasks are complete. Tasks running when the upgrade begins are stopped, become failed tasks, and cannot be resumed.</p> <p>Note that this feature is supported for all upgrades <i>from</i> a supported version. This includes Version 6.4.0.10 and later patches, Version 6.6.3 and later maintenance releases, and Version 6.7.0+. This feature is not supported for upgrades <i>to</i> a supported version from an unsupported version.</p>

Table 11: Version 6.4.0 Features

Feature	Description
Upgrades postpone scheduled tasks.	<p>The FMC upgrade process now postpones scheduled tasks. Any task scheduled to begin during the upgrade will begin five minutes after the post-upgrade reboot.</p> <p>Note Before you begin any upgrade, you must still make sure running tasks are complete. Tasks running when the upgrade begins are stopped, become failed tasks, and cannot be resumed.</p> <p>Note that this feature is supported for all upgrades <i>from</i> a supported version. This includes Version 6.4.0.10 and later patches, Version 6.6.3 and later maintenance releases, and Version 6.7.0+. This feature is not supported for upgrades <i>to</i> a supported version from an unsupported version.</p>

Table 12: Version 6.2.3 Features

Feature	Description
Copy upgrade packages to managed devices before the upgrade.	<p>You can now copy (or push) an upgrade package from the FMC to a managed device before you run the actual upgrade. This is useful because you can push during times of low bandwidth use, outside of the upgrade maintenance window.</p> <p>When you push to high availability, clustered, or stacked devices, the system sends the upgrade package to the active/control/primary first, then to the standby/data/secondary.</p> <p>New/modified screens: System > Updates</p>

For Assistance

Online Resources

Cisco provides the following online resources to download documentation, software, and tools; to query bugs; and to open service requests. Use these resources to install and configure Cisco software and to troubleshoot and resolve technical issues.

- Documentation: <http://www.cisco.com/go/threatdefense-71-docs>
- Cisco Support & Download site: <https://www.cisco.com/c/en/us/support/index.html>
- Cisco Bug Search Tool: <https://tools.cisco.com/bugsearch/>
- Cisco Notification Service: <https://www.cisco.com/cisco/support/notifications.html>

Access to most tools on the Cisco Support & Download site requires a Cisco.com user ID and password.

Contact Cisco

If you cannot resolve an issue using the online resources listed above, contact Cisco TAC:

- Email Cisco TAC: tac@cisco.com
- Call Cisco TAC (North America): 1.408.526.7209 or 1.800.553.2447
- Call Cisco TAC (worldwide): [Cisco Worldwide Support Contacts](#)