Upgrade Guidelines

This document provides critical and release-specific upgrade guidelines for Version 6.2.3.

Minimum Version to Upgrade

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You can upgrade directly to Version 6.2.3 as follows.

Table 1: Minimum Version to Upgrade to Version 6.2.3

Platform	Minimum Version
FMC	6.1
FTD	6.1 with FMC
	6.2 with FDM
	FXOS 2.3.1.73 is required for the Firepower 4100/9300. In most cases, we recommend you use the latest FXOS build in each major version. To help you decide, see the Cisco Firepower 4100/9300 FXOS Release Notes, 2.3(1).
	Note Firepower 6.2.3.16+ requires FXOS 2.3.1.157+.
Firepower 7000/8000 series	6.1

Platform	Minimum Version
ASA with FirePOWER Services	6.1 with FMC 6.2 with ASDM See Device Platforms for ASA requirements for your model. Although there is wide compatibility between ASA and ASA FirePOWER versions, upgrading allows you to take advantage of new features and resolved issues. To help you decide, see the Cisco Secure Firewall ASA Release Notes.
NGIPSv	6.1

Minimum Version to Patch

Patches change the fourth digit *only*. You cannot upgrade directly to a patch from a previous major or maintenance release.

Unresponsive Upgrades

Do not make or deploy configuration changes during upgrade. Even if the system appears inactive, do not manually reboot or shut down during upgrade. You could place the system in an unusable state and require a reimage. If you encounter issues with the upgrade, including a failed upgrade or unresponsive appliance, contact Cisco TAC.

Time and Disk Space

Time to Upgrade

We recommend you track and record your own upgrade times so you can use them as future benchmarks. The following table lists some things that can affect upgrade time.

> ⚠️
> **Caution**　Do not make or deploy configuration changes during upgrade. Even if the system appears inactive, do not manually reboot or shut down. In most cases, do not restart an upgrade in progress. You could place the system in an unusable state and require a reimage. If you encounter issues with the upgrade, including a failed upgrade or unresponsive appliance,.

Table 2: Upgrade Time Considerations

Consideration	Details
Versions	Upgrade time usually increases if your upgrade skips versions.
Models	Upgrade time usually increases with lower-end models.
Virtual appliances	Upgrade time in virtual deployments is highly hardware dependent.

Consideration	Details
High availability and clustering	In a high availability or clustered configuration, devices upgrade one at a time to preserve continuity of operations, with each device operating in maintenance mode while it upgrades. Upgrading a device pair or entire cluster, therefore, takes longer than upgrading a standalone device.
Configurations	Upgrade time can increase with the complexity of your configurations, size of event databases, and whether/how they are affected by the upgrade. For example, if you use a lot of access control rules and the upgrade needs to make a backend change to how those rules are stored, the upgrade can take longer.
Components	You may need additional time to perform operating system or virtual hosting upgrades, upgrade package transfers, readiness checks, VDB and intrusion rule (SRU/LSP) updates, configuration deployment, and other related tasks.

Disk Space to Upgrade

To upgrade, the upgrade package must be on the appliance. For device upgrades with management center, you must also have enough space on the management center (in either /Volume or /var) for the device upgrade package. Or, you can use an internal server to store them. Readiness checks should indicate whether you have enough disk space to perform the upgrade. Without enough free disk space, the upgrade fails.

Table 3: Checking Disk Space

Platform	Command
Management center	Choose **System** (⚙) > **Monitoring** > **Statistics** and select the FMC. Under Disk Usage, expand the By Partition details.
Threat defense	Choose **System** (⚙) > **Monitoring** > **Statistics** and select the device you want to check. Under Disk Usage, expand the By Partition details.