



Overview

This chapter includes the following sections:

- [Overview of Firmware, page 1](#)
- [Components That Support Firmware Upgrade, page 2](#)
- [Firmware Versions, page 2](#)

Overview of Firmware

Cisco UCS uses firmware obtained from and certified by Cisco to support the endpoints in a Cisco UCS domain. Each endpoint is a component in the Cisco UCS domain that requires firmware to function.

This document uses the following definitions for managing firmware:

Upgrade

Changes the firmware running on an endpoint to another image, such as a release or patch. Upgrade includes both update and activation.

Update

Copies the firmware image to the backup partition on an endpoint.

Activate

Sets the firmware in the backup partition as the active firmware version on the endpoint. Activation can require or cause the reboot of an endpoint.

For Management Extensions and Capability Catalog upgrades, update and activate occur simultaneously. You only need to update or activate those upgrades. You do not need to perform both steps.



Important

Cisco UCS Manager Release 2.5 supports only Cisco UCS M-Series Servers. It does not support Cisco UCS B-Series Servers and Cisco C-Series Servers.

Components That Support Firmware Upgrade

The following components support firmware upgrade:

- Chassis:
 - Chassis Management Controller (CMC)
 - Shared Adapter
 - Storage Controller
 - Board Controller
- Server:
 - Cisco Integrated Management Controller (CIMC)
 - BIOS
 - Board Controller

Firmware Versions

The firmware version terminology used depends upon the type of endpoint, as follows:

Firmware Versions in CIMC, BIOS, CMC and Shared Adapters

Each CIMC, BIOS, Shared Adapter, and CMC has two flashes for firmware. Each slot holds a version of firmware. One slot is active and the other is the backup slot. A component boots from whichever slot is designated as active.

The following firmware version terminology is used in Cisco UCS Manager:

Running Version

The running version is the firmware that is active and in use by the endpoint.

Startup Version

The startup version is the firmware that will be used when the endpoint next boots up. Cisco UCS Manager uses the activate operation to change the startup version.

Backup Version

The backup version is the firmware in the other slot and is not in use by the endpoint. This version can be firmware that you have updated to the endpoint but have not yet activated, or it can be an older firmware version that was replaced by a recently activated version. Cisco UCS Manager uses the update operation to replace the image in the backup slot.

If the endpoint cannot boot from the startup version, it boots from the backup version.

The board controller and the storage controller do not have backup versions. Therefore, you can only activate them.

Firmware Versions in the Fabric Interconnect and Cisco UCS Manager

You can only activate the fabric interconnect firmware and Cisco UCS Manager on the fabric interconnect. The fabric interconnect and Cisco UCS Manager firmware do not have backup versions, because all the images are stored on the fabric interconnect. As a result, the number of bootable fabric interconnect images is not limited to two, like the server CIMC and adapters. Instead, the number of bootable fabric interconnect images is limited by the available space in the memory of the fabric interconnect and the number of images stored there.

The fabric interconnect and Cisco UCS Manager firmware have running and startup versions of the kernel and system firmware. The kernel and system firmware must run the same versions of firmware.

