Upgrade Scenarios

This section describes several upgrade scenarios and procedures.

Upgrade Scenario 1: UCSM-Managed Server

Note   This procedure requires server downtime.

This scenario assumes the following conditions:

- The M5 server is managed by Cisco UCS Manager.

- The Cisco UCS Manager software is earlier than 4.0(4).

- The M5 server is at a BIOS/Cisco IMC version earlier than 4.0(4).

- The M5 server is using processors earlier than Second Generation Intel Xeon Scalable processors.

Step 1   Upgrade the Cisco UCS Manager software to 4.0(4) or later.

Use the procedures in the Cisco UCS Manager upgrade guide for your current software version: Cisco UCS Manager Upgrade Guides .

Step 2   Use Cisco UCS Manager to upgrade and activate the server Cisco IMC firmware to 4.0(4) or later.

Use the procedures in the GUI or CLI Cisco UCS Manager Firmware Management Guide for your release.

Note   If you use a method other than Cisco UCS Manager to update the integrated server's Cisco IMC firmware, you must also manually initiate a low-level firmware upgrade before you upgrade the CPU hardware. See Low-Level Firmware Requirements, on page 4.

Step 3   Use Cisco UCS Manager to upgrade and activate the server BIOS to 4.0(4) or later.

Use the procedures in the GUI or CLI Cisco UCS Manager Firmware Management Guide for your release.

Step 4 Decommission and then power off the server.

Step 5 Replace the existing processors with the Second Generation Intel Xeon Scalable processors.

Use the CPU replacement procedures in the Installation and Service Guide for your server:

- Cisco UCS C240 M5

- Cisco UCS C220 M5

- Cisco UCS C480 M5

- Cisco UCS S3260 M5

Step 6 Power on the server.

Step 7 Wait for Cisco UCS Manager to automatically discover and associate the server.

Upgrade Scenario 2: Standalone Server

Note This procedure requires server downtime.

This scenario assumes the following conditions:

- The M5 server is in Standalone mode.

- The M5 server is at a BIOS/Cisco IMC version earlier than 4.0(4).

- The M5 server is using processors earlier than Second Generation Intel Xeon Scalable processors.

Step 1 Use the Cisco Host Upgrade Utility (HUU) to upgrade and activate the server Cisco IMC and BIOS to 4.0(4) or later.

Use the procedures in the Cisco Host Upgrade Utility User Guide for 4.0(4) or later to download and use the utility package.

Caution Be sure to update the Cisco IMC *and* BIOS when you select which components to update. The Cisco HUU ensures that the firmware is matched. The server will not boot if the Cisco IMC and BIOS become mismatched.

Note If you use a method other than HUU to update the integrated server's Cisco IMC firmware, you must also manually initiate a low-level firmware upgrade before you upgrade the CPU hardware. See Low-Level Firmware Requirements, on page 4.

Step 2 Power off the server.

Step 3 Replace the existing processors with the Second Generation Intel Xeon Scalable processors.

Use the CPU replacement procedures in the Installation and Service guide for your server:

- Cisco UCS C240 M5

- Cisco UCS C220 M5

- Cisco UCS C480 M5

- Cisco UCS S3260 M5

Step 4 Power on the server.

Upgrade Scenario 3: Standalone Server RMA; BIOS on Replacement Server Earlier Than the Minimum Version

This scenario is unique to a field-service situation in which an M5 server that is already running Second Generation Intel Xeon Scalable processors must be replaced with a returned materials authorization (RMA), but the only replacement server available is running a BIOS earlier than 4.0(4).

Note This procedure requires server downtime.

This scenario assumes the following conditions:

- The M5 server is in standalone mode.

- The replacement M5 server is using Second Generation Intel Xeon Scalable processors (after these processors are transferred from the defective M5 server).

- The replacement M5 server is using a BIOS/Cisco IMC version earlier than 4.0(4).

Step 1 Transfer the Second Generation Intel Xeon Scalable processors from the defective server to the replacement server.

Step 2 Power on the replacement server.

Note The replacement server does not boot because the BIOS is at an earlier version than 4.0(4).

The Cisco Host Upgrade Utility (HUU) that is normally recommended for upgrading the Cisco IMC and BIOS cannot be used when the processors are non-bootable. However, the HUU ISO image contains a Zip file that has the images required for updating the server through a browser. Continue with the following steps to upgrade the server BIOS to 4.0(4) by using a browser.

Step 3 Download the HUU ISO file for 4.0(4) or later from Cisco.com and save it on a laptop or other computer.

Use the instructions in the Cisco Host Upgrade Utility User Guide.

Step 4 Mount the HUU ISO image.

Step 5 Extract the Zip file that is contained within the ISO image.

Note To determine the IP address of the target server so that you can log in to its Cisco IMC, you must connect the server to a DHCP-enabled network, as described in the next step.

Step 6 Determine the IP address of the target server that you are upgrading:

a) Look at the physical MAC address label for the dedicated management port or the LOM1 port, depending on which port is enabled by default in the target server.

b) Connect an Ethernet cable for your DHCP-enabled network to the dedicated management port or the LOM 1 port.

Your DHCP server assigns an IP address to the port.

c) Query your DHCP server based on the MAC address of the port that you connected. The IP address of the port that corresponds to the MAC address is listed.

Step 7   Use the Cisco IMC GUI in a browser to log in as administrator on the IP address of the target server

Step 8   Use the Cisco IMC GUI to install and activate 4.0(4) or later.

Use the procedures in the Cisco UCS C-Series Integrated Management Controller GUI Configuration Guide for your release.

Note   If you use a method other than the Cisco Host Upgrade Utility to update the server's Cisco IMC firmware, you must also manually initiate a low-level firmware upgrade. See Low-Level Firmware Requirements, on page 4.

Low-Level Firmware Requirements

Note   You are directed to this section from the upgrade procedures only for cases in which you are *not* using the Cisco Host Upgrade Utility (HUU) or Cisco UCS Manager to upgrade the server firmware.

Low-level server firmware controls server components such as the power sequencer, field-programmable gate arrays (FPGAs), and power supply units.

Note   The low-level firmware must be up-to-date *before* you upgrade the processor hardware.

If you update the server BIOS and Cisco IMC management firmware by using the Cisco Host Upgrade Utility (HUU) or the Cisco UCS Manager as directed in this document, the low-level firmware is updated automatically. If you use any other method such as the Cisco IMC interface, you must manually initiate the low-level firmware update.

Initiating a Low-Level Firmware Update Using the Cisco IMC GUI

Step 1   If not already powered on, power on the server by using the GUI Interface.

Step 2   Log in to the Cisco IMC GUI interface for the server by using a browser and the IP address that was assigned to the server.

Step 3   Power off the server by using the GUI interface.

• If the server's low-level firmware is *not* up-to-date, a dialog appears with the following message:

```
There is an update available for Chassis Firmware, would you like to continue?
```

- If you do not see this dialog, all components are up-to-date and no further update is required.

Step 4 Click OK to initiate the low-level firmware update.

When the low-level firmware update is finished, you can continue with replacing the hardware.

Initiating a Low-Level Firmware Update Using the Cisco IMC CLI

Step 1 Log in to the Cisco IMC CLI interface for the server.

Step 2 Enter the following commands and observe the message that is returned.

```
# scope chassis/firmware
/chassis/firmware # show detail
```

- If the return is

  ```
  Firmware update not required, all components are up to date
  ```

  skip to step 4.

- If the return is

  ```
  Firmware update required on some components, please run update-all
  ```

  continue with the following step.

Step 3 Enter the following command:

```
/chassis/firmware # update-all
Starting firmware update process, this will take a while. Check status using show command.
```

Step 4 When the update is done, enter the following commands:

```
/chassis/firmware # exit
/chassis # exit
```