



Cisco UCS C-Series Servers Upgrade Guide for Intel E5-2600 v2/E5-2400 v2 Series CPUs



Caution

You must follow the procedures in this guide when upgrading an existing server to use Intel E5-2600/E5-2400 v2 Series CPUs. Failure to follow these procedures might result in a non-bootable server.

This document describes the process for successfully upgrading a Cisco UCS C-Series server to use Intel E5-2600/E5-2400 v2 Series CPUs. Downgrade scenarios are also covered.

The procedures in this guide support the following servers:

- Cisco UCS C220 M3 rack server (using Intel E5-2600 v2 EP CPUs)
- Cisco UCS C240 M3 rack server (using Intel E5-2600 v2 EP CPUs)
- Cisco UCS C22 M3 rack server (using Intel E5-2400 v2 EN CPUs)
- Cisco UCS C24 M3 rack server (using Intel E5-2400 v2 EN CPUs)

This document contains the following sections:

- [Minimum Software and Firmware Requirements, page 2](#)
- [Upgrading Cisco UCS C-Series Servers to Intel E5-2600/E5-2400 v2 Series CPUs, page 3](#)
- [Downgrading Cisco UCS C-Series Servers From Intel E5-2600/E5-2400 v2 Series CPUs, page 7](#)



Minimum Software and Firmware Requirements

This section contains the following topics:

- [Cisco UCS C220/C240 Minimum Software and Firmware Requirements, page 2](#)
- [Cisco UCS C22/C24 Minimum Software and Firmware Requirements, page 2](#)

Cisco UCS C220/C240 Minimum Software and Firmware Requirements

The minimum software and firmware versions required for the Cisco UCS C220/C240 server to support Intel E5-2600 v2 Series EP CPUs are as follows:

Table 1 Cisco UCS C220/C240 Minimum Software and Firmware Requirements

Software or Firmware	Minimum Version
Cisco UCS Manager (UCSM-managed system only)	2.1(3)
Server CIMC	1.5(3)
Server BIOS	1.5(3)

Cisco UCS C22/C24 Minimum Software and Firmware Requirements

The minimum software and firmware versions required for the Cisco UCS C22/C24 server to support Intel E5-2400 v2 Series EN CPUs are as follows:

Table 2 Cisco UCS C22/C24 Minimum Software and Firmware Requirements

Software or Firmware	Minimum Version
Cisco UCS Manager (UCSM-managed system only)	Not supported at this time.
Server CIMC	1.5(5)
Server BIOS	1.5(5)



Note

Cisco UCS C22/C24 servers only: Do not upgrade your Cisco UCS C22/C24 server to Intel E5-2400 v2 Series CPUs if you use the server integrated under Cisco UCS Manager control. Cisco UCS C22/C24 servers that have Intel E5-2400 v2 Series CPUs are not supported with Cisco UCS Manager integration at this time.

Upgrading Cisco UCS C-Series Servers to Intel E5-2600/E5-2400 v2 Series CPUs



Note These upgrade procedures require server downtime.

This section contains the following topics:

- [Upgrade Scenario 1: UCSM-Managed Server, page 3](#)
- [Upgrade Scenario 2: Standalone Server, page 4](#)
- [Upgrade Scenario 3: Standalone Server; BIOS on Spare Server is Earlier Than the Minimum Version, page 4](#)

Upgrade Scenario 1: UCSM-Managed Server



Note **Cisco UCS C22/C24 servers only:** Do not upgrade your Cisco UCS C22/C24 server to Intel E5-2400 v2 Series CPUs if you use the server integrated under Cisco UCS Manager control. Cisco UCS C22/C24 servers that have Intel E5-2400 v2 Series CPUs are not supported with Cisco UCS Manager integration at this time.

This scenario assumes the following conditions:

- The C-Series server is managed by Cisco UCS Manager.
- The Cisco UCS Manager software is earlier than the minimum (see [Minimum Software and Firmware Requirements, page 2](#)).
- The C-Series server is at a BIOS/CIMC version earlier than the minimum (see [Minimum Software and Firmware Requirements, page 2](#)).
- The C-Series server is using CPUs earlier than Intel E5-2600/E5-2400 v2 Series.

In this case, use the following procedure to upgrade the server and CPUs.

-
- Step 1** Upgrade the Cisco UCS Manager software to the minimum version for your server (or later).
Use the procedures in the appropriate Cisco UCS Manager upgrade guide (depending on your current software version): [Cisco UCS Manager Upgrade Guides](#).
- Step 2** Use Cisco UCS Manager to upgrade and activate the server CIMC to the minimum version for your server (or later).
Use the procedures in the Cisco GUI or CLI UCS Manager [Firmware Management Guide](#).
- Step 3** Use Cisco UCS Manager to upgrade and activate the server BIOS to the minimum version for your server (or later).
Use the procedures in the Cisco UCS Manager GUI or CLI [Firmware Management Guide](#).
- Step 4** Power off the server.
- Step 5** Replace the CPUs with the Intel E5-2600/E5-2400 v2 Series CPUs.
Use the CPU replacement procedures in the Installation and Service guide for your server: [Cisco UCS C-Series Installation and Upgrade Guides](#).
- 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

This scenario assumes the following conditions:

- The C-Series server is in standalone mode.
- The C-Series server is at a BIOS/CIMC version earlier than the minimum (see [Minimum Software and Firmware Requirements, page 2](#)).
- The C-Series server is using CPUs earlier than Intel E5-2600/E5-2400 v2 Series.

In this case, use the following procedure to upgrade the server and CPUs.

- Step 1** Use the Cisco Host Upgrade Utility (HUU) to upgrade and activate the server CIMC and BIOS to the minimum version for your server (or later).

Use the procedures in the [Cisco Host Upgrade Utility User Guide](#) for your minimum release (or later) to download and use the utility package.



Caution

Be sure to update the CIMC 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 CIMC and BIOS become mismatched.

- Step 2** Power off the server.

- Step 3** Replace the CPUs with the Intel E5-2600/E5-2400 v2 Series CPUs.

Use the CPU replacement procedures in the Installation and Service guide for your server: [Cisco UCS C-Series Installation and Upgrade Guides](#).

- Step 4** Power on the server.
-

Upgrade Scenario 3: Standalone Server; BIOS on Spare Server is Earlier Than the Minimum Version

This scenario is unique to a field-service situation in which a server that is already running Intel E5-2600/E5-2400 v2 Series CPUs must be replaced, but the only replacement server available is running a BIOS earlier than the minimum version.

This scenario assumes the following conditions:

- The C-Series server is in standalone mode.
- The replacement C-Series server is using Intel E5-2600/E5-2400 v2 Series CPUs (after the CPUs are transferred from the old server).

- The replacement C-Series server is using BIOS/CIMC version earlier than the minimum version for your server (see [Minimum Software and Firmware Requirements, page 2](#)).

Use the following procedure to upgrade the replacement server BIOS to the required version:

- Step 1** After you transfer the Intel E5-2600/E5-2400 v2 Series CPUs (and other components) to the replacement server, power on the replacement server.



Note The server does not boot because the BIOS is an earlier version than that required for the new CPUs.

The Cisco Host Upgrade Utility (HUU) that is normally recommended for upgrading the CIMC and BIOS cannot be used when the CPUs 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 the minimum version for your server (or later) by using a browser.

- Step 2** Download the HUU ISO file for your minimum release (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](#) for your release.

- Step 3** Mount the ISO image.

- Step 4** 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 CIMC, you must connect the server to a DHCP-enabled network, as described in the next step.

- Step 5** 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 6** Use the CIMC GUI in a browser to log in as administrator on the IP address of the target server.

- Step 7** Use the CIMC GUI to install and activate the CIMC minimum version for your server (or later).

Use the procedures in the [Cisco UCS C-Series Integrated Management Controller GUI Configuration Guide](#) for your release.



Caution

When you install new BIOS firmware, it must be from the same software release as the CIMC firmware running on the server. Do not install new BIOS firmware until after you have activated the matching CIMC firmware or the server will not boot.

- Step 8** While logged in as administrator, use the CIMC GUI to install the BIOS minimum version for your server (or later).

Use the procedures in the [Cisco UCS C-Series Integrated Management Controller GUI Configuration Guide](#) for your release.

The server and CPUs will now boot.

Downgrading Cisco UCS C-Series Servers From Intel E5-2600/E5-2400 v2 Series CPUs



Note

This downgrade procedure requires server downtime.

This section contains the following topics:

- [Downgrade Scenario 1: UCSM-Managed Server, page 7](#)
- [Downgrade Scenario 2: Standalone Server, page 9](#)

Downgrade Scenario 1: UCSM-Managed Server

This scenario assumes the following conditions:

- The C-Series server is managed by Cisco UCS Manager.
- The Cisco UCS Manager software is already at the minimum version or later (see [Minimum Software and Firmware Requirements, page 2](#)).
- The C-Series server is already at the BIOS/CIMC minimum version or later.
- The C-Series server is using the Intel E5-2600/E5-2400 v2 Series CPUs.

Use the following procedure to downgrade to earlier supported CPUs.

Step 1 Power off the server.

Step 2 Replace the Intel E5-2600/E5-2400 v2 Series CPUs with the earlier supported CPUs.

Use the CPU replacement procedures in the Installation and Service guide for your server: [Cisco UCS C-Series Installation and Upgrade Guides](#).

Step 3 Power on the server.

Step 4 Wait for Cisco UCS Manager to automatically discover and associate the server.



Note

The CIMC bundle, including the server CIMC and BIOS, is backward-compatible with earlier supported CPUs, so the following firmware downgrade steps are optional.

Step 5 **Optional:** Downgrade your server CIMC.

Use the CIMC firmware management procedures in the GUI or CLI [Integrated Management Controller Configuration Guide](#) for your release.

Step 6 **Optional:** Downgrade your server BIOS.

Use the CIMC firmware management procedures in the GUI or CLI [Integrated Management Controller Configuration Guide](#) for your release.

Downgrade Scenario 2: Standalone Server

This scenario assumes the following conditions:

- The C-Series server is in standalone mode.
- The Cisco UCS Manager software is at the minimum version or later (see [Minimum Software and Firmware Requirements, page 2](#)).
- The C-Series server is using the BIOS/CIMC minimum version or later (see [Minimum Software and Firmware Requirements, page 2](#)).
- The C-Series server is using the Intel E5-2600/E5-2400 v2 Series CPUs.

Use the following procedure to downgrade to earlier supported CPUs.

Step 1 Power off the server.

Step 2 Replace the Intel E5-2600/E5-2400 v2 Series CPUs with the earlier supported CPUs.

Use the CPU replacement procedures in the Installation and Service guide for your server: [Cisco UCS C-Series Installation and Upgrade Guides](#).

Step 3 Power on the server.



Note The CIMC bundle, including the server CIMC and BIOS, is backward-compatible with earlier supported CPUs, so the following firmware downgrade steps are optional.

Step 4 **Optional:** Downgrade your server CIMC.

Use the CIMC firmware management procedures in the GUI or CLI [Integrated Management Controller Configuration Guide](#) for your release.

Step 5 **Optional:** Downgrade your server BIOS.

Use the CIMC firmware management procedures in the GUI or CLI [Integrated Management Controller Configuration Guide](#) for your release.
