



# CIMC Firmware Management

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## Overview of CIMC Firmware

E-Series Servers use firmware downloaded from [cisco.com](http://cisco.com). This firmware is certified by Cisco to upgrade on a E-Series Server.

The CIMC firmware you download is packaged in a .zip file. After you have downloaded a firmware .zip from Cisco, you can use it to update the firmware on your server. Cisco also provides release notes with each image, which you can obtain from the same website from which you obtained the image.



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**Caution**

Do not use the .zip file to update your server.

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You use a .bin file to reimage. You must extract the proper .bin upgrade file from this .zip file. You can extract this .bin to a TFTP server or your local machine. You can update using a TFTP server.

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**Note**

When you update the firmware, you can either upgrade an older firmware version to a newer one, or downgrade a newer firmware version to an older one.

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The CIMC separates the firmware update process into stages to ensure that you can install the firmware to a component while the server is running without affecting its uptime. Because you do not need to reboot the server until after you activate, you can perform that task overnight or during other maintenance periods. When you update firmware, the following stages occur:

**Install**

During this stage, the CIMC transfers the selected firmware version to the server. The install process always overwrites the firmware in the non-active slot on the server. You can install the firmware using either of the following methods:

- Through a browser client—This method allows you to browse for a firmware image on your computer and install it on the server.
- From a TFTP server—This method allows you to install a firmware image residing on a TFTP server.

**Activate**

During this stage, the CIMC sets the non-active firmware version as active and reboots the server. When the server reboots, the non-active slot becomes the active slot, and the active slot becomes the non-active slot. The firmware in the new active slot becomes the running version.

## Obtaining Software from Cisco Systems

Use this procedure to download drivers, BIOS and CIMC firmware, and the diagnostics image.

**Procedure**

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- Step 1** Navigate to <http://www.cisco.com/>.
- Step 2** If you are not already logged in, click **Log In** at the top right-hand edge of the page and log in using your Cisco.com credentials.
- Step 3** In the menu bar at the top, click **Support**.  
A roll-down menu appears.
- Step 4** From the Downloads (center) pane, click **All Downloads** (located at the bottom right corner).  
The **Download Software** page appears.
- Step 5** From the left pane, click **Products**.
- Step 6** From the center pane, click **Unified Computing and Servers**.
- Step 7** From the right pane, click **Cisco UCS E-Series Software**.
- Step 8** From the right pane, click the name of the server model for which you want to download the software.  
The **Download Software** page appears with the following list of software categories that you can download:
- **Unified Computing System (UCSE) Server Drivers**—Contains the following drivers:
    - On-Board Network Drivers for Windows 2008 R2
    - 10G PCIe Network Drivers for Windows 2008 R2 and Linux
    - LSI Drivers (On-Board Hardware RAID Controller) for Windows 2008 R2
    - Intel Drivers for Windows 2008 R2
  - **Unified Computing System (UCSE) Server Firmware**—Contains the following BIOS and CIMC firmware images:
    - Double-Wide BIOS

- Single-Wide BIOS
- BMC/CIMC Image
- **Unified Computing System (UCSE) Utilites**—Contains the following diagnostics image:
  - On-Board Diag Image

**Step 9** Click the appropriate software category link.

**Step 10** Click the **Download** button associated with software image that you want to download. The **End User License Agreement** dialog box appears.

**Step 11** (Optional) To download multiple software images, do the following:

- a) Click the **Add to cart** button associated with the software images that you want to download.
- b) Click the **Download Cart** button located on the top right .  
All the images that you added to the cart display.
- c) Click the **Download All** button located at the bottom right corner to download all the images. The **End User License Agreement** dialog box appears.

**Step 12** Click **Accept License Agreement**.

**Step 13** Do one of the following as appropriate:

- Save the software image file to a local drive.
- If you plan to install the software image from a TFTP server, copy the file to the TFTP server that you want to use.

The server must have read permission for the destination folder on the TFTP server.

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### What to Do Next

Install the software image.

## Installing CIMC Firmware from the TFTP Server

### Before You Begin

Obtain the CIMC firmware from Cisco Systems and store the file on a local TFTP server. See [Obtaining Software from Cisco Systems](#).



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**Note**

If you start an update while an update is already in process, both updates will fail.

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**Procedure**

	Command or Action	Purpose
<b>Step 1</b>	Server# <b>scope cimc</b>	Enters the CIMC command mode.
<b>Step 2</b>	Server /cimc # <b>update</b> <i>tftp-ip-address path-and-filename</i>	Starts the firmware update. The server will obtain the update firmware at the specified path and file name from the TFTP server at the specified IP address.
<b>Step 3</b>	(Optional) Server /cimc # <b>show detail</b>	Displays the progress of the firmware update.

This example updates the firmware:

```
Server# scope cimc
Server /cimc # update 10.20.34.56 //test/dnld-ucs-k9-bundle.1.0.2h.bin
<CR> Press Enter key
Firmware update has started.
Please check the status using "show detail"
Server /cimc #
```

**What to Do Next**

Activate the new firmware.

# Activating Installed CIMC Firmware

**Before You Begin**

Install the CIMC firmware on the server.

**Note**

If you start an activation while an update is in process, the activation will fail.

**Procedure**

	Command or Action	Purpose
<b>Step 1</b>	Server# <b>scope cimc</b>	Enters the CIMC command mode.
<b>Step 2</b>	Server /cimc # <b>show</b> [ <b>detail</b> ]	Displays the available firmware images and status.
<b>Step 3</b>	Server /cimc # <b>activate</b> [ <b>1</b>   <b>2</b> ]	Activates the selected image. If no image number is specified, the server activates the currently inactive image.

This example activates firmware image 1:

```
Server# scope cimc
Server /cimc # show detail
```

```

Firmware Image Information:
  Update Stage: NONE
  Update Progress: 100
  Current FW Version: 1.0(0.74)
  FW Image 1 Version: 1.0(0.66a)
  FW Image 1 State: BACKUP INACTIVATED
  FW Image 2 Version: 1.0(0.74)
  FW Image 2 State: RUNNING ACTIVATED

Server /cimc # activate 1

```

## Viewing CIMC Information

### Before You Begin

Install the CIMC firmware on the server.

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	Server# <b>scope cimc</b>	Enters the CIMC command mode.
<b>Step 2</b>	Server /cimc # <b>show [detail]</b>	Displays the CIMC firmware, current time, and boot loader version.

This example shows information about CIMC:

```

Server# scope cimc
Server /cimc # show detail
CIMC:
  Firmware Version: 1.0(1.20120417172632)
  Current Time: Thu Apr 26 12:11:44 2012
  Boot-loader Version: 1.0(1.20120417172632).16

```

