



Host Upgrade Utility User Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine

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Preface

This preface includes the following sections:

- [Audience, page v](#)
- [Conventions, page v](#)
- [Related Documentation, page vii](#)
- [Documentation Feedback, page vii](#)

Audience

This guide is intended primarily for data center administrators with responsibilities and expertise in one or more of the following:

- Server administration
- Storage administration
- Network administration
- Network security

Conventions

Text Type	Indication
GUI elements	GUI elements such as tab titles, area names, and field labels appear in this font . Main titles such as window, dialog box, and wizard titles appear in this font .
User input	Text the user should enter exactly as shown or keys that a user should press appear in this font.
Document titles	Document titles appear in <i>this font</i> .

Text Type	Indication
System output	Terminal sessions and information that the system displays appear in <i>this font</i> .
CLI commands	CLI command keywords appear in this font . Arguments in a CLI command appear in <i>this font</i> .
[]	Elements in square brackets are optional.
{x y z}	Required alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
<>	Nonprinting characters such as passwords are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.



Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the document.



Tip Means *the following information will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information, similar to a Timesaver.



Caution Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.



Timesaver Means *the described action saves time*. You can save time by performing the action described in the paragraph.

**Warning**

IMPORTANT SAFETY INSTRUCTIONS

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device.

SAVE THESE INSTRUCTIONS

Related Documentation

The [Documentation Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine](#) provides links to all product documentation.

Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, send an email to ucse_docfeedback@cisco.com. We appreciate your feedback.



CHAPTER

1

Overview of Cisco Host Upgrade Utility



Important

For the most updated information about the Host Upgrade Utility (HUU), see the "Upgrading Firmware" chapter in the *Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*.

Since CIMC release 3.0.1, a separate *Host Upgrade Utility User Guide* is not supported. All the information that is present in this guide is merged into the *Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine* in the "Upgrading Firmware" chapter.

This chapter contains the following topics:

- [Cisco Host Upgrade Utility Overview, page 1](#)
- [Minimum CIMC and BIOS Firmware Releases Required to Use HUU, page 2](#)
- [CIMC and BIOS Firmware Releases Available With HUU ISO Images, page 2](#)
- [Understanding the HUU User Interface, page 4](#)

Cisco Host Upgrade Utility Overview

The Cisco Host Upgrade Utility (HUU) is a tool that you can use to upgrade the firmware on the Cisco UCS E-Series Servers (E-Series Servers) and the Cisco UCS E-Series Network Compute Engine (NCE). The HUU provides a web-based GUI where you can choose all or specific firmware components to upgrade.

The following firmware components are available for upgrade:

- Cisco Integrated Management Controller (CIMC)
- System BIOS
- LAN on motherboard (LOM)
- RAID controllers
- Broadcom PCI adapters:
 - 5709 Dual and Quad port adapters

- 57712 Dual port adapter
- LSI
- LSI MegaRAID SAS 9240-4i

You cannot use the HUU to upgrade the Programmable Logic Devices (PLD) firmware. You must use the Cisco IOS CLI to upgrade the PLD firmware. For details, see the "Upgrading Programmable Logic Devices Firmware on the E-Series EHWIC NCE" section in the *CLI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*.

Minimum CIMC and BIOS Firmware Releases Required to Use HUU

The HUU is supported on CIMC, release 2.1.0 and later releases. To use HUU, make sure that you upgrade both the CIMC and BIOS firmware to the release specified in the table below.



Note

The HUU is *not* supported on CIMC, releases 1.0 and 1.0(2). If you try to use the HUU on a server that has an older release of CIMC, you will get an error message asking you to upgrade the firmware.

The following table provides information about the minimum CIMC and BIOS releases required to use the HUU.

Table 1: Minimum CIMC and BIOS Firmware Releases Required to Use HUU

Minimum Compatible CIMC Release	Minimum Compatible BIOS Release
2.1.0	1.5.0.2

CIMC and BIOS Firmware Releases Available With HUU ISO Images

The following table provided the CIMC and BIOS firmware releases that are available for upgrade when you install a specific HUU ISO image.



Note

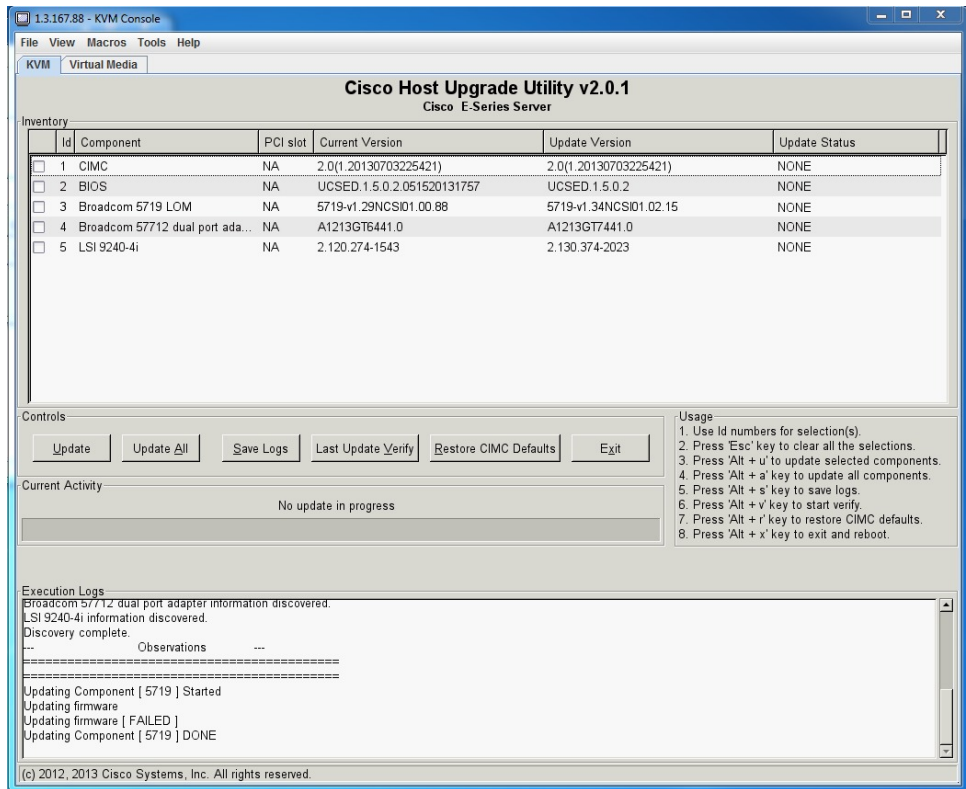
For latest information about the compatible CIMC, BIOS, and HUU releases, see the "Upgrading Firmware" chapter in the *Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*.

Table 2: CIMC and BIOS Firmware Releases Available With HUU ISO Images

HUU ISO Image	Contains CIMC Release	Contains BIOS Release
2.1.x	2.1.0	1.5.0.2
2.3.1	2.3.1	1.5.0.2 2.5.0.1—Applicable to the double-wide E-Series Servers (UCS-E160D-M2 and UCS-E180D-M2) only.
2.4.1	2.4.1	2.5.0.1
3.0.1	3.0.1	<ul style="list-style-type: none"> • 1.5.0.3—Applicable to the EHWIC E-Series NCE and the NIM E-Series NCE (UCS-EN120E and UCS-EN140N-M2) Build Date: 05/04/2015. • 1.5.0.2—Applicable to the SM E-Series NCE (UCS-EN120S-M2) Build Date: 10/22/2013. • 1.5.0.2—Applicable to the single-wide E-Series Server (UCS-E140S-M1) Build Date: 05/15/2013. • 1.5.0.3—Applicable to the single-wide E-Series Server (UCS-E140S-M2) Build Date: 04/22/2015. • 1.5.0.3—Applicable to all the double-wide E-Series Servers—Build Date: 04/10/2015.

Understanding the HUU User Interface

Figure 1: HUU User Interface



User Interface Name	Description
Id column	Displays the serial number of the component row.
Component column	Lists the firmware components that are available for upgrade.
PCI Slot column	Display the PCI slot information for the PCI adapter components.
Current Version column	Displays the current firmware version number that is installed for each of the listed components.
Update Version column	Displays the firmware version number that is available for upgrade for each of the listed components.
Update Status column	Displays the status of the update for each of the listed components while the update is in progress.

User Interface Name	Description
Update button	Initiates the firmware update for a selected component.
Update All button	Initiates the firmware update for all available components.
Save Logs button	Saves the log files. If an error occurs while updating the firmware, you are prompted to save the error log. Click the Save Logs button to save the error logs to an externally connected USB. This log can be used to identify the cause of the error and for troubleshooting.
Last Update Verify button	Verifies if the update was successful. Note You must first reboot HUU by clicking the Exit button, and then click the Last Update Verify button to verify the last update.
Restore CIMC Defaults button	Restores the CIMC settings to factory default settings.
Exit button	Exits the HUU. Click Yes at the confirmation prompt to exit. <ul style="list-style-type: none"> • If you update the CIMC and not the BIOS, when you click the Exit button, the CIMC will get activated but you will lose connectivity to the CIMC and KVM. • If you select LOM for update and you are in shared LOM mode, when you click the Exit button, you will lose connectivity to the CIMC and KVM.
Usage area	Lists keyboard shortcuts that you can use to perform specific tasks.
Current Activity area	Provides the status of an update.
Execution Logs area	Provides a log of activities and their status while an update is in progress.



Upgrading the Firmware on Cisco UCS E-Series Servers

This chapter includes the following topics:

- [Basic Workflow for Using the HUU, page 7](#)
- [Upgrading the Firmware Using the HUU, page 7](#)

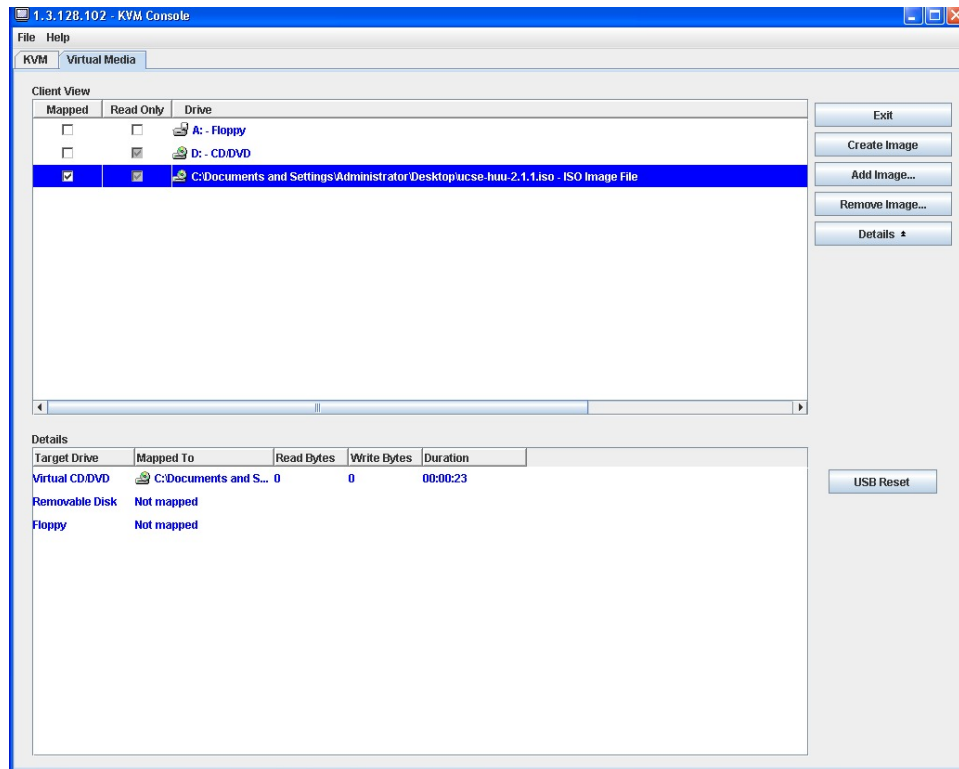
Basic Workflow for Using the HUU

- 1 Download the HUU ISO image from Cisco.com.
- 2 Use the KVM console or the CIMC CLI to map the HUU ISO image.
- 3 Set the boot order to make the virtual CD/DVD drive as the boot device.
- 4 From the HUU GUI, select all or specific firmware components to update.
- 5 After the firmware updates, click **Exit** to reboot the HUU.
- 6 Unmap the HUU ISO image.
- 7 Reboot the server.

Upgrading the Firmware Using the HUU

- Step 1** Navigate to <http://www.cisco.com/>.
- Step 2** If you are not already logged in, click **Log In** at the top-right 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 **Servers—Unified Computing**.
- 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.
- Step 9** Click **Unified Computing System (UCSE) Server Firmware**.
- Step 10** Click the **Download** button associated with the **Cisco UCS Host Upgrade Utility** ISO image to download the image onto your PC. The **End User License Agreement** dialog box appears.
- Step 11** Click **Accept License Agreement**.
- Step 12** The **Opening *ucse-server-platform-huu.iso*** dialog box appears. Either open the file or browse to the location where you want to save the HUU ISO image, and then click **OK**.
- Step 13** You can use either the KVM Console or the CIMC CLI to map the HUU ISO image:
- To use the KVM Console, do the following:
 - 1 Use a browser to connect to the CIMC GUI on the server that you are upgrading.
 - 2 In the address field of the browser, enter the CIMC IP address for that server, and then enter your username and password to log in to the CIMC GUI.
 - 3 Click the **Launch KVM Console** icon on the toolbar. The KVM Console opens in a separate window.
 - 4 From the KVM Console, click the **Virtual Media** tab.
 - 5 Click **Add Image**, navigate to and select the Host Upgrade Utility ISO image, and then click **Open** to mount the image.
 - 6 In the **Client View** area, in the Mapped column, check the check box for the mounted ISO image.



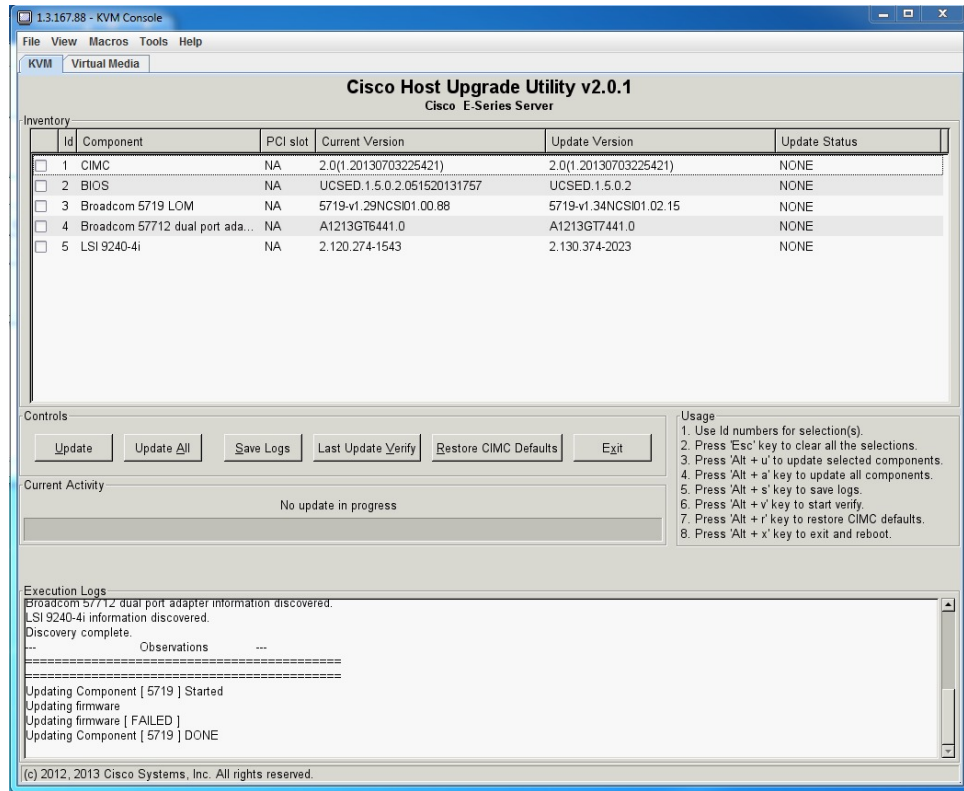
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- To use the CIMC CLI, download the ISO image on to an FTP or TFTP server, and then use the following commands:

- 1 Server# **scope host-image-mapping**.
- 2 Server/host-image-mapping # **download-image protocol server-ip-address huu-ISO-filename**
- 3 Server/host-image-mapping # **map-image huu-ISO-filename**.

```
Server# scope host-image-mapping
Server/host-image-mapping # download-image ftp 10.20.34.56 2.1.1.iso
Username: anonymous
Password:
Image download has started.
Please check the status using "show detail".
Server/host-image-mapping # map-image 2.1.1.iso
```

- Step 14** After the image is mapped, set the boot order to make the virtual CD/DVD drive as the boot device.
- Step 15** Reboot the server.
- Step 16** From the CIMC GUI, click the **Launch KVM Console** icon on the toolbar. The HUU and the **Cisco Software License Agreement** page appears.
- Step 17** Click **I Agree** to accept the licensing terms and conditions. The **Cisco Host Upgrade Utility** GUI appears with a list of components that are available for update.



Step 18 Do one of the following:

- To update all the listed components, click **Update all**.
- To update specific components, select the components, and then click **Update**.

The status of the update is displayed in the **Update Status** column. To view details about the update status, see the **Execution Logs** area.

Note We recommend that you always update the BIOS and the CIMC firmware at the same time.

Step 19 After the firmware is updated, click **Exit**, and then click **Ok** at the confirmation prompt. The HUU reboots.

- Important**
- If the BIOS firmware is selected for update, it will be the last one to update because it requires the host to be powered off. You can check the progress of the BIOS update from the CIMC GUI or CIMC CLI. After the BIOS update completes, you must use the CIMC GUI or the CIMC CLI to manually power on the host.
 - If the CIMC firmware is selected for update—after you click the **Exit** button from the HUU GUI—the new CIMC firmware gets automatically activated. However, if both the BIOS and CIMC firmwares are selected for update, the CIMC firmware does not get automatically activated. You must use the CIMC GUI or the CIMC CLI to manually activate the new CIMC firmware.
 - When the new CIMC firmware gets activated, you will lose network connectivity to the CIMC GUI, CIMC CLI, and virtual KVM. Also, the mapped HUU ISO image gets unmapped. To run the HUU, you must map the HUU ISO image again.
 - When the LOM firmware is updated, you might lose network connectivity to the CIMC GUI and virtual KVM.

Step 20 Unmap the HUU ISO image. Do one of the following:

- From the CIMC GUI, click the **Launch KVM Console** icon on the toolbar, from the Mapped column, check the check box for the mounted HUU ISO image, and then click **Remove Image**.
- From the CIMC CLI, use the **unmap-image** command:
 - `Server/host-image-mapping # unmap-image`

Step 21 Reboot the server.



Troubleshooting

This chapter contains the following topics:

- [Troubleshooting, page 13](#)

Troubleshooting

Problem	Solution
Connection to the CIMC is lost after an update and reboot, and the KVM session ends.	This is expected behavior after a firmware update. Log back in to the CIMC, and then re-establish your KVM session.
<p>Error Message:</p> <p><i>PID, Board-Part-Number, Product-Part-Number</i> is not supported by this HUU image. HUU will not boot on this machine. Press any key to reboot the server.</p>	This error message displays when the HUU ISO image is not supported by the server. To resolve this problem, use the HUU ISO image that is supported by the server. See Minimum CIMC and BIOS Firmware Releases Required to Use HUU, on page 2 .
After using the HUU to update the Broadcom NCSI firmware, the warning prompt to update the Broadcom firmware still displays in the CIMC GUI and the CIMC CLI.	To resolve this problem, power cycle the E-Series Server to allow the new Broadcom NCSI firmware to take effect.

