cisco.



Cisco Host Upgrade Utility 1.5(1) User Guide

First Published: March 04, 2013

Americas Headquarters

Cisco Systems, Inc. 170 West Tasman Drive San Jose, CA 95134-1706 USA http://www.cisco.com Tel: 408 526-4000 800 553-NETS (6387) Fax: 408 527-0883

Text Part Number: OL-28997-01

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: http:// WWW.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© Cisco Systems, Inc. All rights reserved.



CONTENTS

Preface	Preface v
	Audience v
	Conventions v
	Related Cisco UCS Documentation vii
CHAPTER 1	
	About the Cisco Host Upgrade Utility 1
	License Agreement 3
	Understanding the HUU User Interface 4
CHAPTER 2	Requirements and Support 7
	Requirements 7
	Support 8
CHAPTER 3	Updating the Firmware on Cisco UCS C-Series Servers 9
	Upgrading the Firmware on a Cisco UCS C-Series Server Using the HUU 9
CHAPTER 4	Troubleshooting 13
	Troubleshooting 13

I



Preface

- Audience, page v
- Conventions, page v
- Related Cisco UCS Documentation, 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 .
Document titles	Document titles appear in <i>this font</i> .
TUI elements	In a Text-based User Interface, text the system displays appears in this font.
System output	Terminal sessions and information that the system displays appear in this font.
CLI commands	CLI command keywords appear in this font . Variables in a CLI command appear in <i>this font</i> .

Text Type	Indication	
[]	Elements in square brackets are optional.	
$\{x \mid y \mid z\}$	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.

 \mathcal{O} 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.



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 Cisco UCS Documentation

Documentation Roadmaps

For a complete list of all B-Series documentation, see the *Cisco UCS B-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/b-series-doc.

For a complete list of all C-Series documentation, see the *Cisco UCS C-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/c-series-doc.

Other Documentation Resources

An ISO file containing all B and C-Series documents is available at the following URL: http://www.cisco.com/ cisco/software/type.html?mdfid=283853163&flowid=25821. From this page, click **Unified Computing System (UCS) Documentation Roadmap Bundle**.

The ISO file is updated after every major documentation release.

Follow Cisco UCS Docs on Twitter to receive document update notifications.



CHAPTER

Overview of Cisco Host Upgrade Utility

This chapter contains the following topics:

- About the Cisco Host Upgrade Utility, page 1
- License Agreement, page 3
- Understanding the HUU User Interface, page 4

About the Cisco Host Upgrade Utility

The Cisco Host Upgrade Utility (hereafter referred to as the "HUU") is a tool that you can use to upgrade the firmware on one or multiple Cisco UCS C-Series servers. The HUU includes an option that enables you to download container for a selected platform on a Windows operating system. You can download the container from the HUU ISO by burning the ISO on a physical media and inserting the physical media will auto-run to launch a Index.html on your browser. The index.html provides access to the location to download the container . You also can download the container from the ISO using the standard ISO extraction utilities. HUU provides a user interface where you can choose the firmware components to upgrade. In the previous releases (1.4(x)), HUU provided text menu to choose the components for upgrade and initiate the upgrade, this release (1.5(x)) onwards HUU provides a graphical user interface to accomplish this task.

You can upgrade the firmware on the following components using the HUU:

- Cisco Integrated Management Controller (CIMC)
- System BIOS
- LAN on motherboard (LOM)
- RAID controllers
- Cisco UCS P81E Virtual Interface Card (VIC)
- Cisco UCS VIC 1225
- Cisco UCS VIC 1225-T
- Broadcom PCI adapters:
 - 5709 Dual and Quad port adapters
 - 57712 Dual port adapter

- 57712 10GBASE-T adapter
- 57810 Dual Port adapter
- Intel PCI adapters:
 - ° 82576 quad port adapter
 - ° i350 Quad port adapter
 - ° X520 adapter
 - ° X540 adapter
- QLogic PCI adapters:
 - ° 2462 dual port adapter
 - ° 2562 dual port adapter
 - ° 8152 dual port 10 Gbps adapter
 - ° 8242 dual port 10 Gbps adapter
- Emulex PCI adapters:
 - LightPulse LPe11002 adapter
 - ° LightPulse LPe12002 adapter
 - ° OneConnect® OCe11102 dual-port adapter
 - ° OneConnect® OCe10102 adapter

• LSI

- LSI SAS2008
- LSI MegaRAID SAS 9220-4i
- LSI MegaRAID SAS 9220-8i
- LSI MegaRAID SAS 9240-8i
- LSI MegaRAID SAS 9260-8i
- LSI MegaRAID SAS 9261-8i
- LSI MegaRAID SAS 9266-8i
- LSI MegaRAID SAS 9266CV-8i
- LSI MegaRAID External SAS 9285-8e
- LSI MegaRAID SAS 9285CV-8e
- LSI MegaRAID SAS 9286CV-8e
- LSI MegaRAID SAS 9271CV-8i



This is a complete list of all the components supported by various servers. While upgrading firmware for a particular server, HUU discovers and displays only the components supported by that server.

For more information on the components supported by various servers, see the *Release Notes for Cisco UCS C-Series Software, Release 1.5(x)* available at the following location:

http://www.cisco.com/en/US/products/ps10739/prod_release_notes_list.html

Fro information about upgrading the firmware on C-Series servers using non-interactive HUU, see the *Cisco UCS Rack-Mount Servers CIMC XML API Programmer's Guide* available at the following location:

http://www.cisco.com/en/US/docs/unified_computing/ucs/c/sw/api/b_cimc_api_book.html

License Agreement

After the HUU boots, the first interface that appears is the End User License Agreement. Choose I Agree to agree to this license.

Understanding the HUU User Interface

This section provides a brief introduction to the UI elements in the various sections of the HUU user interface.

Figure 1: HUU User Interface

			Cisco Host Upgrade Uti Cisco C220 Rack Ser		
Inven					1
	Id Component	PCI slot	Current Version	Update Version	Update Status
	1 CIMC	NA	1.5(0.41)	1.5(0.64)	NONE
	2 BIOS	NA	C220M3.1.5.0.11.121020121450	C220M3.1.5.1a.0.010720131706	NONE
	3 Intel I350 quad port adapter	2	1.61-02.03-2.7.111-1.3.98-5.1.01-2.7.111	1.61-02.03-2.7.111-1.3.98-5.1.01-2.7.111	NONE
	4 UCSC 2008M-8i(R5) 5 Cisco UCS VIC P81E adapter	М	2.130.364-1944	2.130.364-2185	NONE
Contr	rols			Usage	
		ive Logs No Up	Last Update ⊻erifyRestore CIMC Defa	L Use Id numbe 2. Press Esc'ke 3. Press 'Alt + u' 4. Press 'Alt + a' 5. Press 'Alt + a' 6. Press 'Alt + v'	rs for selection(s). ey to clear all the selections. 'to update selected component 'key to update all components. 'key to sate logs. key to sater club?
Curre	Update Update <u>All</u>			1. Use Id numbe 2. Press Esc'ke 3. Press Nat + u' 4. Press Yalt + a' 5. Press Yalt + a' 6. Press Yalt + u' 7. Press Yalt + u'	ey to clear all the selections. 'to update selected component 'key to update all components. 'key to save logs.

UI element	Description
1. Inventory section	
Id	Displays the serial number of the rows of the components.
Component	Displays the list of components of a server.
PCI Slot	Display the PCI slot information for the PCI adapter components.
Current Version	Displays the current version of the firmware for each of the listed components.

UI element	Description		
Update Version	Displays the version of the firmware that is available for upgrade.		
Update Status	Displays the status of the update for each element in the list while an update is in progress.		
2. Usage section	This section provides a list of the available keyboard shortcuts that can be used to perform specific tasks.		
3. Controls section			
Update	This button is used to initiate the firmware update for the selected components.		
Update All	This button is used to initiate the firmware update of all the available components for a server.		
Save Logs	This button is used to save the log files that contain a detailed status of the update to an external USB device connected to the server physically or through the KVM vMedia. When an error occurs during an update, you are prompted to save the logs. The Save Logs feature is useful for troubleshooting.		
Verify Last Update	This button is used to compare the previously updated firmware version for each component that was updated using the HUU with the current version of the firmware on the components.		
Restore CIMC Defaults	This button is used to restore the CIMC settings to factory defaults.		
4. Current Activity section	This section indicates the status of an update.		
5. Execution Logs section	This section provides a detailed log of the various activities and their status while an update is in progress.		



Requirements and Support

This chapter contains the following topics:

- Requirements, page 7
- Support, page 8

Requirements

.

Important

Separate ISO containers are released for each server platform. Be sure to download the correct ISO container for the server.

Server	Container	Minimum CIMC and BIOS Version Requirements
C22	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1c.0
C24	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1c.0
C220	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1c.0
C240	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1c.0
C260	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1.0
C420	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1b.0

Server	Container	Minimum CIMC and BIOS Version Requirements
C460	1.5.1b	CIMC version: 1.5(1b)
		BIOS version: 1.5.1.0

Support

The Cisco Host Upgrade Utility checks for and then updates the firmware for LOM and LSI controller devices on Cisco UCS C-series servers. For a complete list of supported LOM and LSI controller devices on the supported servers, see the *Release Notes for Cisco UCS C-Series Software, Release 1.5(x)* available at the following location:

http://www.cisco.com/en/US/products/ps10739/prod_release_notes_list.html



Updating the Firmware on Cisco UCS C-Series Servers

This chapter includes the following topics:

• Upgrading the Firmware on a Cisco UCS C-Series Server Using the HUU, page 9

Upgrading the Firmware on a Cisco UCS C-Series Server Using the HUU

You can use the HUU ISO to upgrade components of the server from the host locally with a writable disk (DVD or CD), or remotely by mounting the HUU ISO as a virtual device. This following procedure explains how to upgrade the firmware using the HUU:

Step 1 Download the HUU ISO file:

- a) Navigate to the following URL: http://www.cisco.com/cisco/software/navigator.html.
- b) In the middle column, click Servers Unified Computing.
- c) In the right-hand column, click Cisco UCS C-Series Rack-Mount Standalone Server Software.
- d) Choose the name of your model of server in the right column.
- e) Click Unified Computing System (UCS) Server Firmware.
- f) Choose the release number.
- g) Click Download Now to download the ucs-server platform-huu-version number.iso file.
- h) Verify the information on the next page, and click Proceed With Download.
- i) Continue through the subsequent screens to accept the license agreement and browse to a location where you want to save the file.
- **Step 2** If you want to prepare the ISO for a local upgrade, complete this step; Otherwise, go to Step 3.
 - a) Burn the ISO image onto a writable disk (DVD, USB flash drive, or CD).
 - b) Connect a VGA monitor and USB keyboard to the Cisco C-Series server.
 - c) Insert the disk into the DVD drive of the Cisco C-Series server.

- d) Go to Step 4.
- **Step 3** Prepare the ISO for a remote upgrade using the **KVM Console**.
 - a) Use a browser to connect to the CIMC GUI software on the server that you are upgrading.
 - b) in the address field of the browser, enter the CIMC IP address for that server, and then enter your username and password.
 - c) Click Launch KVM Console on the toolbar to launch the KVM Console.
 - d) In the KVM Console, click the Virtual Media.
 - e) Click Add Image and click the ucs-server-name-huu-version_number.iso file.
 - f) In the **Client View** area, in the **Mapped** column, check the check box for the ISO file that you added and then wait for mapping to complete.
 - g) After the ISO file appears as a mapped remote device, go to Step 4.
- **Step 4** Boot the server and press F6 when prompted to open the **Boot Menu** screen.
- **Step 5** In the **Boot Menu** screen, choose the prepared ISO:
 - For a local upgrade, choose the physical CD/DVD device and then press Enter.
 - For a remote upgrade, choose Cisco vKVM-Mapped vDVD1.22, and press Enter.

The server boots from the selected device.

- **Step 6** After the HUU boots, Cisco End User License Agreement (EULA) appears, read the EULA and click:
 - I Agree to agree with the license agreement and proceed with the update.
 - I Disagree to cancel.

After you accept the EULA, when the Cisco Host Upgrade Utility window appears with a list of all the components that are available for update.

- **Step 7** If you want to update all the listed components, click **Update all**.
- **Step 8** If you want update specific components from the list, choose the components that you want to update.
- Step 9 Click Update.
 - We recommend that you update the BIOS each time that you update the CIMC firmware. We also recommend that you update the CIMC each time that you update the BIOS firmware.
 - If you update the CIMC firmware, after successfully completing the update, reboot the server to activate the new firmware.

This initiates the update and the status of the update is displayed in the **Update Status** column. You can also view a more detailed log of a series of activities and statuses that are involved while updating the firmware in the **Execution Logs** section.

- **Step 10** Reboot the server.
- Step 11Rebbot the server, and click Verify Last Update to verify if the update was successfully completed.
This action compares the previously updated firmware version for each component that was updated using the HUU
with the current version of the firmware on the components and provides the status of the update.
- Step 12If you want to save the log files of the update status for later use, click Save Logs.
Log files that contain a detailed status of the update are saved to an external USB device that is connected to the server
physically or through the KVM vMedia.

Note If an error occurs while updating the firmware, you are prompted to save the error log. Click **Save Logs** to save the log to an externally connected USB. This log can be used for identifying the cause of the error and troubleshooting.

Step 13 Click **Exit** to exit from the HUU.

Note

- If you have updated the CIMC and not the BIOS, when you click Exit, CIMC gets activated and you lose connectivity to the CIMC and KVM.
 - If you have selected LOM for update and you are on shared LOM mode, when you click Exit, you lose connectivity to the CIMC and KVM.



Troubleshooting

This chapter contains the following topics:

• Troubleshooting, page 13

Troubleshooting

The following table describes troubleshooting suggestions for issues that you might encounter.

Issue	Suggested Solution
Connection to 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 reestablish your KVM session.
The following error message is observed: PID, Board Part Number, Product Part Number <pid, board="" number="" number,="" part="" product=""> is not supported by this HUU image. HUU will not boot on this machine. Press any key to reboot the server.</pid,>	This error message is displayed when the HUU ISO is not supported by the server. Use the HUU ISO that is supported by the server.