Release Notes for Cisco UCS C-Series Software, Release 1.4(5g)

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This document describes the new features, system requirements, open caveats and known behaviors for C- series software release 1.4(5e) including Cisco Integrated Management Controller software and any related BIOS, firmware, or drivers. Use this document in conjunction with the documents listed in the "Related Documentation" section on page 16.

Note We sometimes update the documentation after original publication. Therefore, you should also review the documentation on Cisco.com for any updates.

Table 1 shows the online change history for this document.

Table 1 Online History Change

Part Number	Revision	Date	Description
OL-27563-01	A0	July 23, 2012	Created release notes for Release 1.4(5e)
	B0	August 15, 2013	Revised Host Upgrade Utility (HUU) version to 1.4(5g) for C22 and C24 servers.

Contents

This document includes the following sections:

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Introduction

This section includes the following sections:

Overview of the Server Models

The Cisco UCS C22 M3 Rack Server is a low cost UCS server designed for both performance and density over a wide range of business workloads, including enterprise web/file/print server and HPC. The enterprise-class Cisco UCS C22 M3 server extends the capabilities of the Cisco UCS portfolio in a 1RU form factor with the addition of the Intel Xeon E5-2400 product family. In addition, the Cisco UCS C22 M3 server offers up to two Intel® Xeon® processor E5-2400 processors, 12 DIMM slots, 8 disk drives, and two 1 Gigabit Ethernet LAN-on-motherboard (LOM) ports.

The Cisco UCS C24 M3 Rack Server is designed for both performance and expandability over a wide range of storage-intensive infrastructure workloads, from big data to collaboration. The enterprise-class Cisco UCS C24 M3 server further extends the capabilities of the Cisco UCS portfolio in a 2RU form factor with the addition of the Intel® Xeon® processor Intel Xeon E5-2400 product family. The Cisco UCS C24 M3 offers up to two Intel® Xeon® E5-2400 processors, 12 DIMM slots, 24 disk drives, and two 1 Gigabit Ethernet LAN-on-motherboard (LOM) ports.

The Cisco UCS C22 M3 and the Cisco UCS C24 M3 interfaces with Cisco UCS using the Cisco UCS P81E Virtual Interface Card (VIC). The Cisco UCS P81E VIC is a virtualization-optimized Fibre Channel over Ethernet (FCoE) PCI Express (PCIe) 2.0 x8 10-Gbps adapter designed for use with Cisco UCS C-Series servers. The VIC is a dual-port 10 Gigabit Ethernet PCIe adapter that can support up to 18 PCIe standards-compliant virtual interfaces, which can be dynamically configured so that both their interface types-network interface card (NIC) or host bus adapter (HBA) and identity (MAC address and worldwide name (WWN))-are established using just-in-time provisioning. In addition, the Cisco UCS P81E can support network interface virtualization and Cisco® Data Center Virtual Machine Fabric Extender (VM-FEX) technology.

Hardware and Software Interoperability

For detailed information about storage switch, operating system, adapter, adapter utility, and storage array interoperability, see the Hardware and Software Interoperability Matrix for your release located at:

http://www.cisco.com/en/US/products/ps10477/prod_technical_reference_list.html

Transceivers Specifications

The Cisco UCS C-Series servers supports a wide variety of 10 Gigabit Ethernet connectivity options using Cisco 10GBASE SFP+ modules.

Table 2 and Table 3 details the controllers and the supported transceivers.

Table 2 Controllers and SFP+ Twinax Transceivers Support Matrix

Controllers (LOM and PCIe)	10GBASE-CU SFP+ Cable 1 Meter, passive	10GBASE-CU SFP+ Cable 3 Meter, passive	10GBASE-CU SFP+ Cable 5 Meter, passive	10GBASE-CU SFP+ Cable 7 Meter, active	10GBASE-CU SFP+ Cable 10 Meter, active
	SFP-H10GB-CU1M	SFP-H10GB-CU3M	SFP-H10GB-CU5M	SFP-H10GB-ACU7M	SFP-H10GB-ACU10M
Cisco UCS P81E VIC	x	x	x	x	x
Intel x520	x	x	x	x	x
Broadcom 57712	x	x	x	x	x

Table 3 Controllers and SFP+Optical Transceivers Support Matrix

Controllers (LOM and PCIe)	Intel SR Optics	JDSU (PLRXPL-SC-S43-22-N) SFP+	Cisco SFP-10G-SR
Cisco UCS P81E VIC	NA	NA	x
Intel x520	x	NA	Not supported
Broadcom 57712	NA	x	x

Firmware Files

The C-Series software release 1.4(5g) includes the following software files:

Table 4 Files in this release

CCO Software Type	File name(s)	Comment
Unified Computing System (UCS) Server Firmware	ucs-c2x-huu-1.4.5g.iso	Host Upgrade Utility
Unified Computing System (UCS) Drivers	ucs-cxx-drivers.1.4.5.iso	Drivers
Unified Computing System (UCS) Utilities	ucs-c2x-utils-linux.1.4.5.iso ucs-c2x-utils-vmware.1.4.5.iso ucs-c2x-utils-windows.1.4.5.iso	Utilities
Unified Computing System (UCS) Adapter Firmware	ucs-cxx-fw.1.4.5.iso	Third-Party Firmware

Note Always upgrade both the BIOS and the CIMC from the HUU ISO. Do not upgrade individual components (only BIOS or only CIMC), since this could lead to unexpected behavior.

Note If you choose to upgrade BIOS and the CIMC individually and not from the HUU ISO, make sure to upgrade both CIMC and BIOS to the same container release. If the BIOS and the CIMC versions are from different container releases, it could result in unexpected behavior.

Host Upgrade Utility

The Cisco Host Upgrade Utility (HUU) is a tool that upgrades the following firmware:

- Cisco Integrated Management Controller (CIMC)
- System BIOS
- LAN on motherboard (LOM)
  - Intel Ethernet i350 PCI Server Adapter
- LSI
  - LSI SAS2008
  - LSI MegaRAID SAS 9240-8i
  - LSI MegaRAID SAS 9220-4i
  - LSI MegaRAID SAS 9220-8i
  - LSI MegaRAID SAS 9265-8i
- Cisco UCS P81E Virtual Interface Card (VIC)
- Broadcom PCI adapters
  - 5709 Dual and Quad port adapters
  - 57712 Dual port adapter
  - 57712 10GBaseT
- Intel i350 Quad port adapter

The image file for the firmware is embedded in the ISO. The utility displays a menu that allows you to choose which firmware components to upgrade. For more information on this utility see:

http://www.cisco.com/en/US/products/ps10493/products_user_guide_list.html

Starting with this 1.4 release, separate ISO images of Host Upgrade Utility are available for different server platforms.

The ISO image is now named as ucs-<*server_platform*>-huu-<*version_number*>.iso.

The Cisco Host Upgrade Utility contains the following files:

Table 5 Files in ucs-c22-huu-1.4.5g.iso

Server(s)	Component	Version
C22	CIMC	1.4(5g)
	BIOS	1.4.5g.0
	UCS P81E	2.0(5S7) - uboot - 2.0(5S7)
	LOM	
	Intel-i350	1.5 - 02.10 - 2.7.105 - 1.3.82 - 5.0.05 - 2.7.105
	EEPROM VERSION	1.5
	CISCO VERSION	02.10
	iSCSI VERSION	2.7.105
	PXE VERSION	1.3.82
	UEFI VERSION	5.0.05
	CLP VERSION	2.7.105
	LSI	
	LSI-2008	2.120.274-1543
	LSI-9240-8i	2.120.274-1543
	LSI-9220-4i	2.120.274-1543
	LSI-9220-8i	2.120.274-1543
	LSI-9265-8i	3.151.05-1458
	PCI	
	BCM-5709-Dual-Port	6.0.0
	BCM-5709-Quad-Port	6.0.0
	BCM-57712-Dual-Port	A1213GT6444.0
	BCM-57712-10G-BaseT	A1202GT6441.0
	INTEL-I350	1.5 - 02.01 - 2.7.105 - 1.3.82 - 5.0.05 - 2.7.105

Table 6 Files in ucs-c24-huu-1.4.5g.iso

Server(s)	Component	Version
C24	CIMC	1.4(5g)
	BIOS	1.4.5g.0
	UCS P81E	2.0(5S7) - uboot - 2.0(5S7)
	LOM	
	Intel-i350	1.5 - 02.10 - 2.7.105 - 1.3.82 - 5.0.05 - 2.7.105
	EEPROM VERSION	1.5

Table 6 Files in ucs-c24-huu-1.4.5g.iso (continued)

Server(s)	Component	Version
	CISCO VERSION	02.10
	iSCSI VERSION	2.7.105
	PXE VERSION	1.3.82
	UEFI VERSION	5.0.05
	CLP VERSION	2.7.105
	LSI	
	LSI-2008	2.120.274-1543
	LSI-9240-8i	2.120.274-1543
	LSI-9220-8i	2.120.274-1543
	LSI-9265-8i	3.151.05-1458
	PCI	
	BCM-5709-Dual-Port	6.0.0
	BCM-5709-Quad-Port	6.0.0
	BCM-57712-Dual-Port	A1213GT6444.0
	BCM-57712-10G-BaseT	A1202GT6441.0
	INTEL-I350	1.5 - 02.01 - 2.7.105 - 1.3.82 - 5.0.05 - 2.7.105

System Requirements

The management client must meet or exceed the following minimum system requirements:

- Sun JRE 1.6.0_14 or later
- Microsoft Internet Explorer 6.0 or higher, Mozilla Firefox 3.0 or higher
- Microsoft Windows 7, Microsoft Windows XP, Microsoft Windows Vista, Apple Mac OS X v10.6, Red Hat Enterprise Linux 5.0 or higher operating systems

Updating the Firmware

Use the Host Upgrade Utility to upgrade the C-Series firmware. Host Upgrade Utility can upgrade the following software components:

- BIOS
- CIMC
- LAN on Motherboard Settings
- PCIe adapter Firmware

All firmware should be upgraded together to ensure proper operation of your server.

Upgrading BIOS and CIMC Firmware

Caution When you upgrade the BIOS firmware, you must also upgrade the CIMC firmware from the same HUU ISO, or the server may not boot. Do not power off the server until the BIOS and CIMC firmware are updated.

Cisco provides the Cisco Host Upgrade Utility to assist you in upgrading the BIOS, CIMC, LOM, LSI storage controller, and Cisco UCS P81E Virtual Interface Card firmware to compatible levels.

The correct and compatible firmware levels for your server model are embedded in the utility ISO.

To use this utility, use the *Cisco Host Upgrade Utility User Guide* which includes the instructions for downloading and using the utility ISO. Select the guide from this URL:

http://www.cisco.com/en/US/products/ps10493/products_user_guide_list.html

Supported Features

This section includes the following topics:

Supported Hardware Features

The following hardware features are supported in the Release 1.4(5e):

- Increased number of disks and availability of the following inch options:
  - 8 HDD 2.5" SKU
  - 24 HDD 2.5" SKU
- Single power supply unit (PSU) support in Cisco UCS C22 M3
- Support for 450W Delta and 650 W Liteon power supplies in C22M3 and C24M3, depending on the selected configurations
- Support for light guided fan diagnostics.
- Optional support with all diagnostic tools integrated into the server using 16GB internal thumb drive.

Supported Software Features

Release 1.4(5g)

- BIOS Changes for Intel Errata on Intel Xeon Processors

  The BIOS image with this release contains the Microcode Update which fixes the Intel VT FlexPriority Errata which is documented in the Intel Public Spec Update for Aug 2013. This errata impacts all Cisco UCS C-series servers.

Release 1.4(5e)

The following software features are supported in the Release 1.4(5e):

- Support for the **update-all** and **show** CLI commands in the chassis/firmware scope to update basic server component firmware.

Note These commands should only be used under the direction of Cisco TAC.

  For more information about the commands, refer to the Cisco UCS C-Series Servers Integrated Management Controller CLI Command Reference, Release 1.4.

- Support added for toggling the LED on an installed hard disk drive. For more information, refer to the following guides:
  - Cisco UCS C-Series Servers Integrated Management Controller CLI Command Reference, Release 1.4
  - Cisco UCS C-Series Servers Integrated Management Controller GUI Configuration Guide, Release 1.4
- Support for software based RAID using LSI MegaSR and the Intel C600 SATA/SAS SCU.

Software Utilities

The following standard utilities are available:

- Host Update Utility (HUU)
- Server Config Utility (SCU) including Interactive Offline Diagnostics (IOD)
- BIOS and CIMC Firmware Update utilities

The utilities features are as follows:

- Support for Intel Romley EN Server Platform
- Availability of HUU, SCU on the USB as bootable images. The USB also contains driver ISO, and can be accessed from the host operating system.

Supported Platforms

The following platforms are supported in Release 1.4(5e):

- UCS-C22
- UCS-C24

SNMP

The supported MIB definition for release 1.4(5e) can be found at the following link: ftp://ftp.cisco.com/pub/mibs/supportlists/ucs/ucs-C-supportlist.html

Note The above link is incompatible with IE 9.0.

Supported Storage Controllers

SNMP supports the following storage controllers:

- SAS 9265CV-8i
- SAS 9265-8i

Known Behaviors

This section lists the known behaviors in Release 1.4(5e):

CIMC

Symptom During high or medium Serial Over LAN (SOL) traffic, the Intelligent Platform Management Interface (IPMI) LAN interfaces becomes unresponsive.

Workaround Do not use IPMI queries during high SOL traffic.

Symptom The Boot Loader version displays extra characters after the CIMC version.

Workaround This is a new feature and displays the U-Boot version.

Symptom The system hangs at preboot disk detection screen if only SAS drives are present and the system has no SKUROM.

Workaround Remove SAS drives and replace with SATA drives and reboot system.

Symptom When KVM is launched, a "Login Failed" error displays and KVM closes.

Workaround Wait for 2-3 minutes and relaunch KVM.

Symptom The Network mode cannot be set to cisco_card mode even though the option is available.

Workaround Install the Cisco UCS P81E card to move into the cisco_card network mode.

Symptom In Power Restore Policy, a delay value displays when the delay type is set to random.

Workaround Ignore the displayed value.

Symptom When you create a image of file or folder size bigger than 4 GB using vMedia Create image feature, the following message displays:

```
Create Image Failed.  An error occurred in the Image library.
```

Workaround Use files or folders with smaller sizes.

Symptom If you try to use vMedia to map both an .img file and a physical USB stick (pen/thumb drive) simultaneously, the following message (or a similar one) displays:

```
Either Virtual media is detached or virtual media redirection for the selected virtual
disk drive is already is in use by another user
```

Workaround Map one drive at a time.

Symptom KVM and vMedia do not work with mismatched IE and JRE executables.

Workaround Ensure JRE matches the IE version.

Symptom The mouse does not work or track in the LSI Web BIOS tool.

Workaround Use one of the following workarounds:

- Set the mouse to relative motion, no acceleration. When running the WebBIOS as a legacy OptionROM, absolute mouse positioning is not supported, and no acceleration gives the best behavior of the two relative positioning modes.
- Move the cursor to single cursor mode by using **KVM windows > Tools > single cursor**. The single cursor mode eliminates the discrepancy between the local cursor movement and the remote cursor movement.

Symptom BIOS update fails if KVM is launched while BIOS is uploading.

Workaround Use one of the following workarounds:

- Launch the KVM in another browser or session.
- Do not launch the KVM if the BIOS upload is in the Uploading stage.

Symptom When you launch KVM in IE, the following message displays:

```
Internet Explorer was not able to open this Internet site. The requested site is either
unavailable or cannot be found.
```

Workaround Perform the following steps:

Step 1 In the IE, select **Tools > Internet Options.**

The Internet Options dialog will pop up.

Step 2 Click the Advanced tab.

Step 3 Uncheck the Do not save encrypted pages to disk option.

Step 4 Click **OK**.

Symptom If you disable both SSH and HTTP, connectivity to CIMC is lost.

Workaround If disabled, reset CIMC to factory default using the F8 utility during POST.

Symptom CIMC Web GUI does not display after the certificate import process and the browser displays the following message:

```
Error :
Invalid Server Certificate
A request failed because the server's certificate was invalid.
```

Workaround During the certificate import process, provide different values for the Subject Information and Issuer Information fields.

Symptom In IE, when network mode is changed to cisco_card mode, a “Unable to parse xml” message displays.

Workaround Use one of the following workarounds:

- Update IE browser version to version 8.0.6001.18702 and above.
- Use other browser clients like Firefox, Chrome etc.

LSI

Symptom The server hangs during BIOS POST in the LSI SWRAID drive scan due to mismatch in configuration and you need to hard reset the server and follow the workaround to recover.

Workaround The system should be switched off and all the drives should be removed except one. Switch on the systems and enter Cntrl+M during LSI SWRAID OPROM during BIOS POST and hot-plug each drive to resolve this issue.

Symptom The 9220-8i card in LSI Web BIOS shows the Drive enclosure information incorrectly as UCS-C200 instead of C22 for 1U systems and C24 for 2U systems.

Workaround None.

Open Caveats

This section lists the open caveats for Release 1.4(5e):

CIMC

Symptom piddump shows generic PID for LSI 9265 card without Battery Backup Unit (BBU) and Broadcom 5709 Dual Port Ethernet Adapter card. The following details are observed:

- UCS-RAID-9265 instead of UCS-RAID-9265-NB
- N2XX-ABPCI01 instead of N2XX-ABPCI01-M3

Workaround None. CIMC cannot detect the absence of BBU in LSI and Broadcom firmware revision details.(CSCua38415)

Symptom The PXUx_VOUT reading displays 1V with a 450W power supply but the actual reading is about 11V.

Workaround None. (CSCua06141)

Symptom CIMC recognizes only the SuperCap and all other information like the charge and charging state is not available.

Workaround None. (CSCtz92792)

Symptom The CIMC Web GUI displays the battery status as "unknown" when LSI 9265CV-8i with supercap battery is used.

Workaround Use MegaCLI or LSI Web BIOS to read the battery status. (CSCty64241)

Symptom The HDD presence cannot be viewed through SNMP.

Workaround Use either alternate interfaces or do SNMP query again for the HDD inventory after the action. (CSCty60975)

Symptom The Web GUI and CLI are not consistent in displaying the PSU redundancy status in Cisco C22.

Workaround None. (CSCty57554)

Symptom CIMC Web GUI does not reflect the "Reconstruction" virtual disk state after expanding the virtual disk.

Workaround Use the same interface that you used for configuring the virtual disk to view the “Reconstruction” state. The interface can either be Web GUI or MegaCLI.(CSCtx96912)

Symptom When using two PSUs, the host does not reboot or shut down but PSU redundancy events would be seen. But, if both PSUs are faulty, the host will reboot continuously or shutdown.

Workaround None.(CSCtx88937)

Symptom SEL displays SPD Unknown error.

Workaround These errors are OEM events and can be decoded through web GUI and CLI. (CSCtx82569)

Symptom The system hangs when you type Exit in the EFI shell.

Workaround Hard reset the server to recover from the system hang. (CSCtx64756)

Symptom The SNMP Hard Disk Inventory starts numbering with 0 while the CIMC HDD sensor starts with 1.

Workaround None. This symptom occurs because the SNMP Hard disk inventory matches with the storage inventory and both starts with index 0. The hard disk sensor numbering starts with 1 because it matches with the label in the SKU. You need to be aware of the difference and map it accordingly while browsing for a specific HDD detail across sensors and storage inventory. (CSCty58229)

Symptom The connection to the Virtual Media tab gets disconnected and OS iso that was mapped over the Virtual Media tab disappears as a result of the disconnection.

Workaround Reboot the server and restart the operating system installation. (CSCtz07699)

Symptom Duplicate SNMP traps are obtained when you insert Fan 2,4 and 5 in Cisco C22.

Workaround None. This issue will be fixed in the future release. (CSCua11831)

Symptom Broadcom adaptors with PID N2XX-ABPCI03-M3 displays the PID as N2XX-ABPCI01.

Workaround None. (CSCua14401)

Symptom RAID 10 support on LSI Embedded MegaRAID controller having more than 2 HDD per span fails.

Workaround None. Currently, RAID 10 only supports up to 4 disks for LSI Embedded MegaRAID, that is, 2 disks per Data Group and only 2 Data Groups per RAID 10. (CSCua06467)

Symptom The drive Slot ID in LSI Web BIOS and LSI OPROM does not match.

Workaround Use the slot ID in the LSI Web BIOS as this information is correct. (CSCtz83223)

Symptom An HDD fault deassert event is logged in SEL when the Locate LED is ON

Workaround None. This behavior is expected since the same hardware circuit is used to identify HDD fault and to turn on the HDD Locate LED. It is recommended that you turn off the Locate LED and ignore the deassert and assert event caused by the Locate LED. (CSCtz53001)

Symptom A P1_LVC3_PWRGD event is logged in SEL.

Workaround None. This is not a critical issue and can be ignored. (CSCua52257)

Symptom SSH session remains active even after termination using the terminate command.

Workaround Avoid the terminate session command and always close the SSH connection when you exit. (CSCua67529)

LSI

Symptom When the I/O is running on two or more hard disks part of a RAID array, the Activity LED is seen blinking GREEN on the hard disks on which the I/O is running and part of the RAID array and also on the adjacent hard disk which is not part of the RAID group.

Workaround None. You can ignore the Activity LED running on the adjacent hard disk of the RAID array as there is no actual I/O running on this hard disk. (CSCtz10983)

Symptom The rebuild of drives fail if the RAID group contains both SAS and SATA hard disks.

Workaround Using both SAS and SATA drives together in the RAID group is not recommended. (CSCtz63094)

Symptom The system hangs when you type Exit in the EFI shell.

Workaround Hard reset the server to recover from system hang. (CSCtx64756)

Symptom The 9220-8i card in LSI Web BIOS shows the Drive Enclosure information incorrectly as UCS-C200 instead be C22 for 1U systems and C24 for 2U systems.

Workaround None. (CSCtz83273)

BIOS

Symptom When Broadcom 5709 Gigabit Ethernet adapter is plugged into one of the PCIE slots, the server gets stuck at the BIOS post screen during the booting process.

Workaround Upgrade the firmware on the Broadcom 5709 Gigabit Ethernet adapter to version 5.2.7 or later.(CSCtx92042)

Symptom Continuous beep sound is heard when the system is switched on.

Workaround Do not switch on the CIMC and the host simultaneously. Switch on the host 3 minutes after switching on the power supply.(CSCtz11862)

Symptom Sometimes "Unable to communicate with CIMC" or "Error in getting the CIMC IP" messages are displayed while booting the server. This results in the CIMC IP and MAC address from getting displayed.

Workaround Restart the server. (CSCtx96999)

Symptom When the rack server is managed by UCS Manager and it has a physical CD/DVD drive connected to it with a bootable media, Discovery and Association fails.

Workaround Use one of the following workarounds:

- Disconnect the physical CD/DVD drive
- Go to BIOS setup->USB Configuration->USB ports. Disable the USB which has a physical CD/DVD drive connected to it during the discovery and association phases of the UCSM managed rack servers. (CSCty17725)

Symptom The USB thumb drive mapped through vMedia does not get enumerated as FSx on EFI Shell on Mac vKVM client.

Workaround Use one of the following workarounds:

- Open the KVM client application from a Windows based system.
- Connect the USB thumb drive to one of the physical USB ports. (CSCua73451)

Symptom When an external graphics adapter is present on the system and VGA priority is set to Offboard VGA Primary, the KVM Video screen gets stuck with the following message:

```
Configuring Platform Hardware.
```

Workaround None. This is an expected behavior. (CSCua93109)

Related Documentation

For configuration information for this release, please refer to the following:

- *Cisco UCS C-Series Servers Integrated Management Controller CLI Configuration Guide*
- *Cisco UCS C-Series Servers Integrated Management Controller Configuration Guide*
- *Cisco UCS C-Series Servers Integrated Management Controller CLI Command Reference*

The following related documentation is available for the Cisco Unified Computing System:

- *Cisco UCS C-Series Servers Documentation Roadmap*
- *Cisco UCS Site Preparation Guide*
- *Regulatory Compliance and Safety Information for Cisco UCS*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html.

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