



Release Notes for Cisco UCS C-Series Software, Release 2.0(7)

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This document describes the new features, system requirements, open caveats and known behaviors for C-series software release 2.0(7) 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 17.



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**

Revision	Date	Description
A0	September 17, 2015	Created release notes for Release 2.0(7d).
B0	January 8, 2016	Following changes were made: <ul style="list-style-type: none">• Added the Resolved Caveats section.• Updated the HUU versions to 2.0(7e).

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Introduction

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Overview of Cisco UCS C3260 Rack Servers

The Cisco UCS C3260 is a modular, dense storage rack server with dual server nodes, optimized for large datasets used in environments such as big data, cloud, object storage, and content delivery.

The UCS C3260 chassis is a modular architecture consisting of the following modules:

- **Base Chassis:** contains four power supplies, eight fans, and a rail kit.
- **Server Node:** one or two server nodes, each with two CPUs, 128, 256, or 512 GB of DIMM memory, and a RAID card in pass-through mode or a RAID card with a 1 GB or 4 GB cache.
- **System I/O Controller (SIOC):** one or two System I/O Controllers, each of which includes a 1300-series VIC.
- **Optional Drive Expansion Node:** choice of either 4 x 4 TB drives (total capacity: 16TB) or 4 x 6 TB drives (total capacity: 24 TB).
- **Solid-State Boot Drives:** up to two SSDs per server node.
- The enterprise-class UCS C3260 server extends the capabilities of Cisco's Unified Computing System portfolio in a 4U form factor that delivers the best combination of performance, flexibility, and efficiency gains.

Differences Between Cisco UCS C3160 and C3260 Systems

[Table 1-2](#) lists the differences between Cisco UCS C3160 and Cisco UCS 3260 systems.

Table 1-2 Differences Between Cisco UCS C3160 and Cisco UCS C3260

System	Cisco IMC Firmware Minimum	Supported SIOC	Number of Server Nodes Supported	UCSM-Managed or Standalone	Label on Right-Front Handle	Rear-Panel SSD Drives Supported
C3160	2.0(3)	UCSC-C3160-SIOC ¹ Intel i350 VIC 1227 VIC 1227-T	1	Standalone	C3160	2
C3260	2.0(7)	UCSC-C3260-SIOC ² Integrated VIC 1300 Series chip	2 (two SIOCs required; one for each server)	Standalone	C3260	4 (two server nodes required)

1. This SIOC and supported VIC cards are not forward-compatible with the Cisco UCS C3260 system.
2. This SIOC is not backward-compatible with the Cisco UCS C3160 system.

For details on migration from C3160 to C3260 servers see, [Cisco UCS C3260 Server Installation and Service Guide](#)

Hardware and Software Interoperability

For complete list of hardware and software interdependencies and 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 3](#) and [Table 4](#) details the controllers and the supported transceivers.

Table 3 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 Virtual Interface Cards	x	x	x	x	x

Table 4 *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 Virtual Interface Cards	NA	NA	x

Firmware Files

The C-Series software release 2.0(7) includes the following software files:

Table 5 *Files in this release*

CCO Software Type	File name(s)	Comment
Unified Computing System (UCS) Server Firmware	ucs-c3260-huu-2.0.7e.iso	Host Upgrade Utility
Unified Computing System (UCS) Drivers	ucs-cxxx-drivers.2.0.7.iso	Drivers
Unified Computing System (UCS) Utilities	ucs-cxxx-utils-efi.2.0.7.iso ucs-cxxx-utils-linux.2.0.7.iso ucs-cxxx-utils-vmware.2.0.7.iso ucs-cxxx-utils-windows.2.0.7.iso	Utilities



Note

Always upgrade the BIOS, the BMC and CMC from the HUU ISO. Do not upgrade individual components (only BIOS or only BMC or CMC), since this could lead to unexpected behavior. If you choose to upgrade BIOS, the BMC and the CMC individually and not from the HUU ISO, make sure to upgrade both BMC, BIOS and CMC to the same container release. If the BIOS, CMC and the BMC versions are from different container releases, it could result in unexpected behavior. Cisco recommends that you use the **Update All** option from the Host Upgrade Utility to update the firmware versions of BMC, BIOS, CMC and all other server components (VIC, RAID Controllers, PCI devices, and LOM) together.

Host Upgrade Utility

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

- Baseboard Management Controller (BMC)
- System BIOS
- Chassis Management Controller (CMC1 and CMC2)
- SAS Expander
- UCSC-C3260-SIOC
- LSI controllers:
 - RAID controller for UCS C3X60 Storage Servers

- UCS C3X60 12G SAS Pass through Controller
- HDD
 - ST4000NM0023
 - MG03SCA400
 - PX02SMF040
 - ST6000NM0014

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 specific version of the:

[Cisco Host Upgrade Utility User Guide](#)

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

The Cisco Host Upgrade Utility contains the following files:

Table 6 Files in `ucs-c3260-huu-2.0.7e.iso`

Server(s)	Type	Component	Version
C3260		BMC	2.0(7e)
		BIOS	2.0.7c.0
		Chassis Management Controller (CMC1 and CMC 2)	2.0.7e
		SAS-EXPANDER	B058
		UCSC-C3260-SIOC	4.0(7b)-uboot-4.0(7b)
	LSI		
		RAID controller for UCS C3X60 Storage Servers	24.7.3-0007-0
		UCS C3X60 12G SAS Pass through Controller	08.00.03.00-07.01.00.0A-08.17.01.00-09.00.00.00

HDD Firmware

Following table lists the supported HDD models and the firmware versions that can be updated using Host Upgrade Utility (HUU).

Table 7 Supported HDD models and firmware versions

HDD Model	Firmware version
ST4000NM0023	0004
MG03SCA400	5702
PX02SMF040	0205
ST6000NM0014	K0B1

System Requirements

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

- Sun JRE 1.8.0_45 to Sun JRE 1.8.0_60
- Microsoft Internet Explorer 10 and 11, Mozilla Firefox 30 or higher, Chrome 40 or higher, Safari 7 or higher

**Note**

You may face some issues with Chrome 41 or 43. We recommend you avoid using these versions.

- 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
- Baseboard Management Controller (BMC)
- Chassis Management Controllers (CMC1 and CMC 2)
- SAS Expander
- LSI Adapters
- System I/O Controller (SIOC)
- HDD firmware

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

**Note**

Cisco recommends that you use the **Update All** option from the Host Upgrade Utility to update the firmware versions of BMC, BIOS, CMC and all other server components (VIC, RAID Controllers, and LOM) together.

For information on upgrade, refer, [Cisco Host Upgrade Utility User Guide](#).

Recommended Best Practices

Best Practices to Configure Cisco UCS 3X60 RAID Controllers

Choosing Between RAID0 and JBOD

The Cisco C3X60 RAID controller supports JBOD mode on the drives where the physical drives are in pass-thru mode and the physical drive is directly exposed to the OS. We recommended you use JBOD mode instead of individual RAID0 volumes when possible.

RAID5/6 Volume Creation

The Cisco C3X60 allows you to create of large RAID5/RAID6 volume by including all the drives in the system with a spanned array configuration (RAID50/RAID60). Where possible, we recommended you to create multiple, smaller RAID 5/6 volumes with fewer drives per RAID array. This provides redundancy and reduces the operations time for initialization, RAID rebuilds and other operations.

Choosing I/O Policy

The I/O policy applies to reads on a specific virtual drive. It does not affect the read ahead cache. RAID volume can be configured in two types of I/O policies. These are:

- **Cached I/O** - In this mode, all reads are buffered in cache memory. Cached I/O provides faster processing.
- **Direct I/O** - In this mode, reads are not buffered in cache memory. Data is transferred to the cache and the host concurrently. If the same data block is read again, it comes from cache memory. Direct I/O makes sure that the cache and the host contains the same data.

Although Cached I/O provides faster processing, it is only useful when the RAID volume has a small number of slower drives. With the C3X60 4TB SAS drives, Cached I/O has not shown any significant advantage over Direct I/O. Instead, Direct I/O has shown better results over Cached I/O in a majority of I/O patterns. We recommended you to use Direct I/O (Default Policy) in all cases and to use Cached I/O cautiously.

Background Operations (BGOPS)

Cisco C3X60 RAID Controller conduct different background operations like Consistency Check (CC), Background Initialization (BGI), Rebuild (RBLD), Volume Expansion & Reconstruction (RLM) and Patrol Real (PR).

While these BGOPS are expected to limit their impact to I/O operations, there have been cases of higher impact during some of the operations like Format or similar I/O operations. In these cases, both the I/O operation and the BGOPS may take more time to complete. In such cases, we recommend you to limit where possible concurrent BGOPS and other intensive I/O operations.

BGOPS on large volumes can take an extended period of time to complete, presenting a situation where operations complete and begin with limited time between operations. Since BGOPS are intended to have a very low impact in most I/O operations, the system should function without any issues. If there are any issues that arise while running concurrent BGOPS and I/O operations, we recommend you to stop either activity to let the other complete before reusing and/or schedule the BGOPS at a later time when the I/O operations are low.

Upgrading BIOS and BMC Firmware



Caution

When you upgrade the BIOS, BMC or the CMC firmware, you must also upgrade all the three firmwares from the same HUU ISO, or the server may not boot. Do not power off the server until the BIOS, BMC and CMC firmware are updated.

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

**Note**

When upgrading the CMC and BMC firmware for the servers, ensure that you update using the full image (for example upd-pkg-c3260-cimc.full.2.0.7d.bin or C3260-CMC.2.0.7d.img).

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:

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- [Supported Platforms, page 9](#)
- [SNMP, page 9](#)

Supported Features

Supported Features in Release 2.0(7d)

The following software features were added in Release 2.0(7d):

- Web user interface is developed using HTML5 with the eXtensible Widget Framework (XWT).
- Chassis level functionality in the standalone mode- shared components such as storage adapters, fans and power supply units are configured at the chassis level.
- Support for up to two server modules.
- Management IP or Hostname that can be used to configure setting on both the servers.
- Chassis Management Controllers (CMC1 and CMC2) for redundancy. When one of the CMCs is active the other acts as a backup.
- Dynamic storage:
 - SAS Expanders that allow you to maximize the storage capability of an SAS controller card
 - Zoning - support for assigning individual Hard Disk Drives (HDD) to either server in the dedicated or shared modes.
- 40 Gigabit Ethernet System IO Controllers (SIOC).
- Data Center Ethernet connectivity to a server host through a shared dual virtual interface card (VIC).
- Exporting or importing configurations for individual components.
- New BIOS parameters.

Software Utilities

The following standard utilities are available in Release 2.0(7):

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

The utilities features are as follows:

- 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 2.0(7):

- UCS-C3260

SNMP

The supported MIB definition for Release 2.0(7) and later releases 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 RAID controller for UCS C3X60 Storage on C3260 servers.

Resolved Caveats

The following defect was resolved in release 2.0(7e)

Hardware

Defect ID	Symptom	First Affected Release	Resolved in Release
CSCux36351	PIDs not supported for the following hardware: <ul style="list-style-type: none"> • HGST_Helium_8T_A7JX • SS1635 400G/800G • SanDisk Lighting SSD 400G/1.6T 	2.0(7d)	2.0(7e)

Open Caveats

The following section lists the open caveats:

Cisco IMC

Defect ID	Symptom	Workaround	First Affected Release
CSCuv18970	On the C3260 server, low level firmware update does not start automatically after the HUU update.	<p>Power off both the server nodes and manually update Low level firmware using the CLI:</p> <pre> Step 1 Server # scope chassis Step 2 Server /chassis # scope firmware Step 3 Server /chassis/firmware # update-all </pre>	2.0.7(d)
CSCuv51153	On the C3260 server, you may get logged out of WebUI and get prompted to logout indicating that a session is already progress. This happens when browser cookies are not cleared.	<p>Clear cookies from the browser.</p> <p>You can clear all the cookies by selecting the Clear Cookies options in the browser or you can delete the server specific Cookies by following the below steps:</p> <p>For Firefox:</p> <pre> Step 1 Navigate to Preferences > Privacy and in the privacy window, select Remove individual cookies. Step 2 Select the web UI IP Address and click Remove Selected. </pre>	2.0.7(d)

Defect ID	Symptom	Workaround	First Affected Release
		<p>For Chrome:</p> <hr/> <p>Step 1 Navigate to Setting > Show Advanced Settings and select Content Settings in the Privacy section.</p> <p>Step 2 Select All Cookies and Site Data in the Cookies section.</p> <p>Step 3 Select the webUI IP Address in the dialog box and click on close at the right top corner of the selected element.</p> <p>For Internet Explorer:</p> <hr/> <p>Step 1 Navigate to Tools > Internet Options.</p> <p>Step 2 Under the Browsing History section on the General tab, click Settings.</p> <p>Step 3 In the Temporary Internet Files and History Settings pop-up window click View Files.</p> <p>Step 4 Select the webUI IP Address and delete the cookie.</p>	
CSCuv63296	On the C3260 server, the server properties information, such as, Serial Number, Model is incorrect in the XML API responses.	View this server details using Web UI or CLI.	2.0.7(d)

Defect ID	Symptom	Workaround	First Affected Release
CSCuv70538	On the C3260 server, when a self-signed certificate is uploaded and the user logs in again, an error is displayed stating the server is not responding.	Wait for two to three minutes for the web application to update all the plug-ins, and then log in.	2.0.7(d)
CSCuv39688	On the C3260, the IPMI get SEL entry command fails on the CMC when run manually.	None.	2.0.7(d)
CSCuw27217	On the C3260 server, when a static IP is configured, BMC1 and BMC2 management IP is not reachable.	<p>Step 1 Login to CLI by connecting to ssh using the C3260 Management IP.</p> <p>Step 2 Scope chassis/server <instance>/bmc.</p> <p>Step 3 Send "ping <gateway IP>". This will update BMC mac address in the gateway.</p>	2.0.7(d)
CSCuw10190	On the C3260 server, the CMC may remain unresponsive after a reboot. This may occur after an action that initiates a CMC reboot, for example, activating new CMC firmware or resetting to factory default.	Physically remove and then replace the corresponding SIOC, or AC power cycle the chassis.	2.0.7(d)

External LSI Controllers

Defect ID	Symptom	Workaround	First Affected Release
CSCuu56166	On the C3260 server, after you perform expansion or raid-level migration operations Virtual Drives (VD) do not display the updated size.	<p>Step 1 Unclaim the disk from usage: esxcli storage core claiming unclaim ?t device ?d naa.xxx</p> <p>Step 2 Check to ensure naa.xxx disk is no longer present under <i>/vmfs/devices/disks</i></p> <p>Step 3 Reclaim the disk: ~ esxcli storage core adapter rescan ?A vmhbaX</p> <p>Step 4 Check whether the disk is added back with the updated size.</p>	2.0.7(d)
CSCut93836	On the C3260 server, when you launch the preboot utility for SAS HBA, the server refreshes every eight or nine seconds. This happens when the user enters Control + C utility to view the SAS HBA/drives.	None.	2.0.7(d)

XML API

Defect ID	Symptom	Workaround	First Affected Release
CSCuv95856	On the C3260 server, the XML API configResolveClass for adaptorUnit returns incorrect values. It returns four values instead of two; the two extra values returned show association of SIOC-1 with server node 2 and SIOC-2 with server node 1 which are incorrect.	None.	2.0.7(d)

Utilities

Defect ID	Symptom	Workaround	First Affected Release
CSCuv66222	On the C3260 server, the running CMC firmware version is not activated after a firmware update when the HUU firmware update is running on both server nodes.	Activate the firmware using WebUI or CLI.	2.0.7(d)

VIC firmware

Defect ID	Symptom	Workaround	First Affected Release
CSCuu40185	On the C3260 server, 40G and 4x10G port speed auto negotiation requires additional programming. It uses the cable PID information to negotiate the speed.	Configure the port speed manually using the F8 BIOS utility, command line, or the Web UI.	2.0.7(d)
CSCuv49700	On the C3260 server, when using RoCE on a Cisco VIC interface, to avoid a hardware resource conflict, the remaining features such as VMQ, NVGRE, VxLAN and usNIC must not be configured on the same VIC interface.	None.	2.0.7(d)
CSCuv68277	On the C3260 server, CRC errors are displayed on C3260 SOIC when connected to Nexus 5624Q switches.	None.	2.0.7(d)

BIOS

Defect ID	Symptom	Workaround	First Affected Release
CSCuv66192	On the C3260 server, the dedicated mode network port speed setting of 10Mbps is not available, thus affecting auto-negotiation of port speed. This happens when network switches are only capable of 10Mbps and not compatible with cards supporting 100/1000Mbps speeds.	Use the latest switch available. Older switches support 10 Mbps. However, recent switches support fast Ethernet (100Mbps) and Gigabit Ethernet (1000Mbps) speeds.	2.0.7(d)


Known Behavior

The following section lists the known behaviors:

Cisco IMC

Defect ID	Symptom	Workaround	First Affected Release
CSCuv34476	On the C3260 server, KVM fails to launch and displays the following message: <i>"Unable to Launch the application"</i> . This happens after swapping or changing a CMC and making it active or master.	Regenerate the certificate using the Web UI or CLI and reboot the CMC.	2.0.7(d)
CSCuv28734	On the C3260 server, boot or crash file download fails with a Network error, when you use the Chrome 43 version browser for downloading.	Use other browsers or use Chrome version 42.	2.0.7(d)
CSCuu50850	On the C3260 server, you cannot establish an IPMI session to a BMC when BMC is reset to factory default.	Reconfigure user using active CMC.	2.0.7(d)
CSCur77980	On the C3260 server, unable to configure users after resetting CMC to factory defaults. This issue occurs when you attempt to configure a user with a different index number after the reset.	Use the same index number that was used before the reset to configure a user.	2.0.7(d)
CSCuu43406	On the C3260 server, the server does not respond and displays an error message when the GUI is idle for a few minutes. This happens when you use Chrome Version 41.	Use other browsers or use Chrome version 42.	2.0.7(d)
CSCuu43330	On the C3260 server, unable to login to Web UI when the login screen is left idle for a few minutes. This happens when you use Chrome Version 41.	Use other browsers or use Chrome version 42.	2.0.7(d)
CSCur60690	On the C3260 server, configuring a user using the CLI or Web UI fails with the following message: "Error: User with same name <username> already exists." When a user is configured using the IPMI on BMC the local user, database may not sync with the active CMC. Hence when the same user is configured with a different index on active CMC this error occurs.	Check for the user index number on the local user database on BMC using IPMI and use the same index number to configure the user using the active CMC's CLI or Web UI.	2.0.7(d)

External LSI Controllers

Defect ID	Symptom	Workaround	First Affected Release
CSCuu36101	<p>On the C3260 server, MegaRAID card does not support raid level migration when the card has maximum allowed number of virtual drives created on it.</p> <p> Note This is a limitation of the MegaRAID software stack that requires a temporary or ghost VD to do the RLM operation.</p>	Do not create maximum number of allowed virtual drives.	2.0.7(d)

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 GUI Configuration Guide*

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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