Release Notes for Cisco UCS Manager, Release 2.5, for Cisco UCS M-Series Servers

First Published: April 07, 2015
Last Updated: November 12, 2015

This document describes system requirements, new features, resolved caveats, known caveats and workarounds for Cisco UCS Manager software Release 2.5. This document also includes the following:

- Current information that became available after the technical documentation was published
- Related firmware and BIOSes on modular servers and other Cisco Unified Computing System (UCS) components associated with the release

Warning **Cisco UCS Manager Release 2.5 supports only Cisco UCS M-Series Servers. It does not support Cisco UCS B-Series Servers and Cisco C-Series Servers.**

Use this release note as a supplement with the other documents listed in documentation roadmaps:

http://www.cisco.com/go/unifiedcomputing/m-series-doc

Contents of the various bundles for this release are described in:

Release Bundle Contents for Cisco UCS Software, Release 2.5

Make sure to review other available documentation on Cisco.com to obtain current information on Cisco UCS Manager.

Contents

This document includes the following sections:

- Revision History, page 2
- Introduction, page 2
- System Requirements, page 2
- Hardware and Software Interoperability, page 4
- Internal Dependencies, page 4

Cisco Systems, Inc.
www.cisco.com

- New Hardware Features in Release 2.5, page 5
- New Software Features in Release 2.5, page 6
- Resolved Caveats, page 6
- Open Caveats, page 7
- Known Limitations, page 10
- Related Documentation, page 10

Revision History

Table 1 shows the revision history:

Table 1 Online Change History

Date	Release	Description
April 07, 2015	2.5(1a)	Created release notes for Cisco UCS Manager, Release 2.5(1a).
May 29, 2015	2.5(1b)	Updated release notes for Cisco UCS Manager, Release 2.5(1b).
August 24, 2015	2.5(2a)	Updated release notes for Cisco UCS Manager, Release 2.5(2a).
November 12, 2015	2.5(2b)	Updated release notes for Cisco UCS Manager, Release 2.5(2b).

Introduction

Cisco UCS™ Manager provides unified, embedded management of all software and hardware components of the Cisco Unified Computing System™ (Cisco UCS) across multiple chassis, servers, and thousands of virtual machines. Cisco UCS Manager manages Cisco UCS as a single entity through an intuitive GUI, a command-line interface (CLI), or an XML API for comprehensive access to all Cisco UCS Manager functions.

This introductory information is provided in the following sections:

- System Requirements, page 2
- Hardware and Software Interoperability, page 4
- Hardware and Software Interoperability, page 4

System Requirements

To use Cisco UCS Manager, your computer must meet or exceed the following minimum system requirements:

- The Cisco UCS Manager GUI is a Java-based application which requires Java Runtime Environment 1.6 or later.
- Cisco UCS Manager uses web start and supports the following web browsers:
  - Microsoft Internet Explorer 9.0 or later versions
  - Mozilla Firefox 7.0 or later versions
  - Google Chrome 14.0 or later versions

- Adobe Flash Player 10 or a later versions is required for some features
- Cisco UCS Manager is supported on the following operating systems:
  - Microsoft Windows 7 with minimum 4.0 GB memory
  - Red Hat Enterprise Linux 5.0 or later versions with minimum 4.0 GB memory
- Cisco UCS Central integration:
  - Cisco UCS Manager Releases 2.5(1a) and 2.5(1b) can only be registered with Cisco UCS Central, Release 1.3(1a) or later releases.
  - Cisco UCS Manager Release 2.5(2a) and later releases can only be registered with Cisco UCS Central, Release 1.3(1b) or later releases.

Note For more information, see the Feature Support Matrix section of the Cisco UCS Central Installation and Upgrade Guides.

Updating Cisco UCS Releases

The Cisco UCS Manager A bundle software (Cisco UCS Manager, Cisco NX-OS, shared adapter firmware) can be mixed with previous M bundle releases on the servers (host firmware (FW), BIOS, CIMC, and drivers).

Table 2 lists the mixed A, and M bundle versions that are supported:

Table 2 Mixed Cisco UCS Releases Supported

	Infrastructure Versions (A Bundles)	
Host FW Versions (M Bundles)	**2.5(1)**	**2.5(2)**
2.5(1)	Yes	Yes
2.5(2)	—	Yes

Note

- A mix of servers running different M-bundles may be run with a single A-bundle. However, any given server must be running the entire M-bundles (with associated drivers). Example: mixing the 2.5(1)M BIOS with the 2.5(2)M CIMC on a server is not supported.
- The OS hardware and software interoperability is relative to the M-bundle on any given server. To see what OS is supported, see the Hardware and Software Interoperability documentation associated with the M-bundle version.
- The A-bundle version must be at or above the same version(s) of any M-bundles running on the servers (see Table 2). This applies for patch levels as well, even though they are not displayed on the table. For example, you can mix 2.1(1b)A with 2.1(1a)M, but you cannot mix 2.1(1a)A with 2.1(1b)M.

Hardware and Software Interoperability

For a complete list of hardware and software interdependencies, see the *Hardware and Software Interoperability for UCSM Managed Servers* for a specific Cisco UCS Manager release, here:

http://www.cisco.com/c/en/us/support/servers-unified-computing/unified-computing-system/products-technical-reference-list.html.

Internal Dependencies

Table 3 shows interdependencies between the hardware and versions of Cisco UCS Manager. Server FRU items such as DIMMs are dependent on their server type, and chassis items such as fans and power supplies work with all versions of Cisco UCS Manager.

Table 3 Internal Dependencies

Component	Recommended Minimum Software Version[1]	Recommended Software Version
Cartridges[2]		
UCSME-142-M4	2.5(1a)	2.5(2b)
UCSME-2814	2.5(2b)	2.5(2b)
UCSME-1414	2.5(2b)	2.5(2b)
Chassis[3]		
UCSME-4308	2.5(1a)	2.5(2b)
Fabric Interconnect		
UCS 6248UP	2.5(1a)	2.5(2b)
UCS 6296UP	2.5(1a)	2.5(2b)
Power Supplies		
UCSC-PSU2-1400W	2.5(1a)	2.5(2b)
UCSC-PSU2V2-1400W	2.5(2b)	2.5(2b)

1. This is the minimum server bundle recommended for this hardware in a mixed firmware configuration, assuming the infrastructure is at the recommended software version.
2. To use a specific cartridge, Cisco UCS Manager, CMC, and the shared adapter must be upgraded to the recommended minimum software version for that cartridge.
3. Recommended minimum software versions do not take into account mixed environments; to determine the minimum software version for your mixed environment, refer to "Mixed Cisco UCS Releases Supported", Table 2 on page 3.

Capability Catalog

The Cisco UCS Manager uses the catalog to update the display and configurability of server components such as newly qualified DIMMs and disk drives. The Cisco UCS Manager Capability Catalog is a single image, but it is also embedded in Cisco UCS Manager. Cisco UCS Manager 2.5(x) releases work with any 2.5(x) catalog file, but not the 1.x, 2.0, 2.1, or 2.2 catalog versions. If a server component is not dependent on a specific BIOS version, using it and having it recognized by Cisco UCS Manager is primarily a function of the catalog version. The catalog is released as a single image in some cases for convenience purposes in addition to being bundled with UCS infrastructure releases.

Table 4 Version Mapping

UCS Release	Catalog File	Adds Support for PID
2.5(2b)A	ucs-catalog.2.5.2b.T.bin	**Additional Cisco UCSME-2814 Memory** • HMA42GR7AFR4N-TF TD • HMA42GR7AFR4N-TF TI
2.5(2a)A	ucs-catalog.2.5.2a.T.bin	**UCSME-1414** • **CPU**: UCS-CPU-E31231D, UCS-CPU-E31241D, UCS-CPU-E31271D, UCS-CPU-E31281D • **Memory**: UCS-MU-1X082RY-F **UCSME-2814** • **CPU**: UCS-CPU-E52630D, UCS-CPU-E52640D, UCS-CPU-E52650D, UCS-CPU-E52660D • **Memory**: UCS-MR-1X162RU-A **TPM for UCSME-2814** • UCSX-TPM2-001
2.5(1b)A	ucs-catalog.2.5.1a.T.bin	—
2.5(1a)A	ucs-catalog.2.5.1a.T.bin	**UCSME-142-M4** • **CPU**: UCS-CPU-E31275LD, UCS-CPU-E31240LD, UCS-CPU-E31220LD • **Memory**: UCS-MU-1X082RY-F, UCS-MU-1X162RY-F **RAID Controller** • UCSC-MRAID12G • UCSC-MRAID12G-2GB **Drives** • UCS-SD480G0KS2-EV • UCS-SD400G0KS2-EP • UCS-SD800G0KS2-EP • UCS-SD16T12S2-EP

Further details are in the Cisco UCS Manager Configuration Guides.

New Hardware Features in Release 2.5

Release 2.5(2a) adds support for the following:

- Cisco UCSME-2814 compute cartridge
- Cisco UCSME-1414 compute cartridge
- Cisco UCSX-TPM2-001 Trusted Platform Module (TPM)[1]

Release 2.5(1a) adds support for the following:

- Cisco UCSME-4308 chassis
- Cisco UCSME-142 compute cartridge

New Software Features in Release 2.5

Release 2.5(2a) adds support for the following:

- **TPM and TXT Configuration through UCSM**—The Trusted Platform Module (TPM) is a component that can securely store artifacts, such as passwords, certificates, or encryption keys, which are used to authenticate the server. A TPM can also be used to store platform measurements that help ensure that the platform remains trustworthy. Intel Trusted Execution Technology (TXT) provides greater protection for information that is used and stored on the server.

  This release supports TPM and TXT configuration on Cisco UCSME-2814 compute cartridges through Cisco UCS Manager. TPM is enabled by default and TXT is disabled by default.

- **vNIC Placement on Host Ports**—A vNIC can be placed on one of the two host ports of the shared adapter. You can either explicitly specify the host port for placement, or allow Cisco UCS Manager to automatically assign vNICs to host ports. The host port placement of the vNIC determines the order of the vNIC on the adapter. The vNICs placed on the first host port will be enumerated first followed by the vNICs on the second host port.

  In this release, vNIC placement on host ports is applicable only to Cisco UCSME-1414 compute cartridges.

- **4 LUN Support**—The modular servers in Cisco UCSME-2814 compute cartridges include support for up to 4 LUNs per server, of which up to 2 LUNs are bootable. The modular servers in Cisco UCSME-1414 and UCSME-142 compute cartridges support up to 2 LUNs per server.

Release 2.5(1a) adds support for the following:

- **Storage Profiles**—In the Cisco UCSME-4308 chassis, storage is centralized and shared by all servers in the chassis. To allow flexibility in defining the number of storage disks, roles and usage of these disks, and other storage parameters, you can create and use storage profiles. A storage profile encapsulates the storage requirements for one or more service profiles.

Note If you want to refer to a list of supported OS in this release, check the Hardware and Software Interoperability Matrix for this release here:
http://www.cisco.com/c/en/us/support/servers-unified-computing/unified-computing-system/products-technical-reference-list.html.

Resolved Caveats

Resolved caveats are provided in the following release-specific tables:

1. Supported on Cisco UCSME-2814 compute cartridges only.

- Resolved Caveats in Release 2.5(2a)
- Resolved Caveats in Release 2.5(1b)

The following caveats are resolved in Release 2.5(2a):

Table 5 Resolved Caveats in Release 2.5(2a)

Defect ID	Description	First Bundle Affected	Resolved in Release
CSCus75171	Service profile association to a server no longer fails in a chassis with 64 allocated LUNs, including orphaned LUNs.	2.5(1a)A	2.5(2a)A
CSCur32840	If a drive is removed and then re-inserted, either in the same slot or in a different slot, within 4 seconds or less, the drive inventory now shows the drives correctly.	2.5(1a)A	2.5(2a)A
CSCus96267	If the system boots into Windows 2012 (R2), and SEL is logged for this system in BMC, the system no longer freezes because of an NMI interrupt. It now displays a blue screen with an NMI_Hardware_Failure message, and resets the system.	2.5(1a)M	2.5(2a)M
CSCut05600	Running sNIC LUNs provisioned with RAID 5 virtual disks in write through mode no longer results in sNIC I/O timeouts.	2.5(1a)A	2.5(2a)A
CSCut33433	During bootup or shutdown, a Linux host no longer becomes unresponsive.	2.5(1a)M	2.5(2a)M

The following caveats are resolved in Release 2.5(1b):

Table 6 Resolved Caveats in Release 2.5(1b)

Defect ID	Description	First Bundle Affected	Resolved in Release
CSCus83447	Cisco UCS Fabric Interconnect reload or switchover due to a leap second update no longer occurs.	2.2(1b)A	2.5(1b)A

Open Caveats

Open caveats are provided in the following release-specific tables:

Open caveats may be listed in association with the release in which they were first noticed or in the release identified as the first affected. Users should review open caveats in all releases to avoid overlooking a defect that may impact their release.

- Open Caveats in Release 2.5(2a)
- Open Caveats in Release 2.5(1a)

The following caveats are open in Release 2.5(2a):

Table 7 Open Caveats in Release 2.5(2a)

Defect ID	Symptom	Workaround	First Bundle Affected
CSCuv12526	When sNIC storage is provisioned with write back enabled on RAID 5 or RAID 1 volumes, and there are ungraceful host reboots, the sNIC device may go offline.	When this issue occurs, disable write back on RAID 5 and RAID 1 volumes.	2.5(2a)M
CSCuv24245	When the disk cache policy for SSDs is not set to default in the Disk Group Policy, Service Profile association fails with the following error: `Remote Error Description: SSD cannot change disk_cache_policy`	When this issue occurs, set the disk cache policy to default for SSDs.	2.5(2a)A

The following caveats are open in Release 2.5(1a):

Table 8 Open Caveats in Release 2.5(1a)

Defect ID	Symptom	Workaround	First Bundle Affected
CSCus75171	When the chassis in which the server is located has a total of 64 LUNs, including orphaned LUNs, service profile association fails, and the following message appears: VD limit exceeded.	Back up and delete two orphaned or unused LUNs. This will reduce the total number of LUNs to 62, and the service profile association will succeed.	2.5(1a)A Resolved in 2.5(2a)A
CSCuq27890	Occasionally, when the system is rebooted, the following error message is found in the Syslog: Bus[20].Dev[9c]!ErrorStatus[21]	This error message can be safely ignored.	2.5(1a)A
CSCut17453	The chassis may experience network accessibility issues when a server is ungracefully powered off during a TSO send operation of a large packet.	As a best practice, adhere to the usage of soft shutdown (OS informed shutdown) to power off a server. Further, for those environments where an ungraceful power off is necessary, you should avoid enabling TSO for those OSes that are configured with larger TCP segment sizes (> 64K).	2.5(1a)A
CSCuq33402	When 15 users are added to the IPMI service profile, only 14 users are synced with the CIMC, and one user is reserved as admin.	If the admin is added to the list of IPMI profile users, BMC can support up to 15 users.	2.5(1a)A
CSCus51568	Moving drives from one chassis to another may result in failure to import the RAID volume completely in certain RAID configurations. Rebuild may start with a spare volume instead.	Import volume again after rebuild is completed.	2.5(1a)A

Table 8 Open Caveats in Release 2.5(1a) (continued)

Defect ID	Symptom	Workaround	First Bundle Affected
CSCur32840	If a drive is removed and then re-inserted, either in the same slot or in a different slot, within 4 seconds or less, the drive inventory does not show correctly.	After removing a drive, wait for at least 5 seconds before re-inserting the drive either in the same slot or in a different slot.	2.5(1a)A Resolved in 2.5(2a)A
CSCut34318	The inband interface takes about 10-15 minutes to failover from one FI to the standby FI.	When this issue occurs, wait for 10-15 minutes. Most of the time it will be restored in few seconds.	2.5(1a)M
CSCur74472	When custom kernel or init.rd is used, OS takes more time than normal to boot.	There is no workaround for this issue. The OS will boot successfully, although the size of the custom kernel and the inti.rd can lead to a longer boot time.	2.5(1a)A
CSCur85276	When the CMOS is cleared through Cisco UCS Manager, date and time are reset to their default values. This is the default behavior found in Intel Denlow (E3 based Servers/Workstations) platforms.	When this issue occurs, sync up the date and time once the server is booted to the operating system. As per the Intel external design specification, after the RTCRST# or CMOS battery is removed, do not rely on the contents of the CMOS.	2.5(1a)A
CSCus96267	If the system boots into Windows 2012 (R2), and SEL is logged for this system in BMC, the system freezes. This is because of an NMI interrupt.	When this issue occurs, power-cycle the system through KVM.	2.5(1a)M Resolved in 2.5(2a)M
CSCus61867	When the server is started by a warm boot, on a fully populated chassis, the system might get stuck at the "Configuring and testing memory" stage. During warm boot of the server, the current memory details may not be fully retrieved that results in the system to get stuck.	When this issue occurs, perform re-discovery of the server. This enables the system to collect memory data, and pass it via POST.	2.5(1a)A
CSCut05600	Running sNIC LUNs provisioned with RAID 5 virtual disks in write through mode results in sNIC I/O timeouts. These IO timeouts result in either the host becoming unresponsive, or the read-only file system or device going offline. A subsequent reboot may cause the host to become unresponsive.	When this issue occurs, enable write back on RAID 5 virtual drives while provisioning the local storage.	2.5(1a)A Resolved in 2.5(2a)A
CSCut33433	During bootup or shutdown, a Linux host becomes unresponsive with the following error message displayed in the console: Failed to Q w/ err -50	When this issue occurs, power cycle the host. Sometimes the host may require multiple power cycles.	2.5(1a)M Resolved in 2.5(2a)M
CSCus47120	Increased IO load on the boot file system results in hung task timeout messages and call traces on Linux hosts with sNIC LUNs.	There is no workaround for this issue.	2.5(1a)M

Known Limitations

Known Limitations and Behaviors

The following known limitations and behaviors are not otherwise documented:

Table 9 Known Limitations in Release 2.5

Defect ID	Symptom	Workaround	First Bundle Affected
CSCur34726	When a customized Ethernet Adapter Policy is used with more than 60 interrupts, and many vNICs are configured with that adapter policy, some of the vNICs that are configured will not be visible at the host.	Use the Ethernet Adapter Policies that are included in the bundle.	2.5(1a)M

Related Documentation

For more information, you can access related documents from the following links:

- *Cisco UCS Documentation Roadmap*
- *Release Bundle Contents for Cisco UCS Software, Release 2.5*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at: http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html.

Subscribe to *What's New in Cisco Product Documentation*, which lists all new and revised Cisco technical documentation as an RSS feed and delivers content directly to your desktop using a reader application. The RSS feeds are a free service.

This document is to be used in conjunction with the documents listed in the "Known Limitations" section.