



Release Notes for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.1.1

November 16, 2016

This document provides new features, system requirements, compatibility information, and open and resolved caveats for the Cisco UCS E-Series Server and the Cisco UCS E-Series Network Compute Engine (NCE) software release 3.1.1. Use this document in conjunction with the documents in the [“Related Documentation”](#) section on page 10.



Note

Documentation is sometimes updated after original publication; therefore, for updated content, review the documentation on [Cisco.com](#).

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New and Changed Information

Table 1 provides an overview of the significant changes that are introduced for the CIMC release 3.1.1.

Table 1 *New and Changed Information for Software Release 3.1.1*

Feature	Description	Software Release	Where Documented
Single-Wide E-Series Server Refresh	Support added to install the UCS-E160S-M3/K9 into the Cisco ISR 4000 series.	3.1.1	<ul style="list-style-type: none"> • <i>Hardware Installation Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine</i> • <i>Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.1.1</i> • <i>GUI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.1.1</i>
Configuring CIMC Access Using the TE2 or TE3 Interfaces.	Added procedures to configure CIMC access through the external TE2/TE3 interfaces.	3.1.1	<i>Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.1.1</i>

Overview

The Cisco UCS E-Series Servers (E-Series Servers) and the Cisco UCS E-Series Network Compute Engine (NCE) are a family of size-, weight-, and power-efficient blade servers that are housed within the Generation 2 Cisco Integrated Services Routers (Cisco ISR G2) and the Cisco ISR 4000 series. These servers provide a general-purpose compute platform for branch-office applications deployed either as bare-metal on operating systems, such as Microsoft Windows or Linux, or as virtual machines on hypervisors, such as VMware vSphere Hypervisor, Microsoft Hyper-V, or Citrix XenServer.

The E-Series Servers are purpose-built with powerful Intel Xeon processors for general-purpose compute. They come in the following form factors: single-wide and double-wide. The single-wide E-Series Server fits into one server module (SM) slot, and the double-wide E-Series Server fits into two SM slots.

The NCEs are price-to-power optimized modules that are built to host Cisco network applications and other lightweight general-purpose applications. They come in three form factors: SM, EHWIC, and NIM. The SM E-Series NCE fits into one SM slot, the NIM E-Series NCE fits into one NIM slot, and the EHWIC E-Series NCE fits into two EHWIC slots.



Note

- EHWIC E-Series NCE can be installed in the Cisco ISR G2 only.
- NIM E-Series NCE can be installed in the Cisco ISR 4000 series only.
- The Cisco ISR 4331 has one SM slot. The Cisco ISR 4321 and the Cisco ISR 4431 have no SM slots.
- Citrix XenServer is supported on the E-Series Servers only.
- Cisco UCS-E160S-M3/K9 server is supported on the Cisco ISR 4000 series only.

System Requirements

- [Hardware Requirements, page 3](#)
- [Software Requirements, page 4](#)
- [Minimum System Requirements, page 5](#)

Hardware Requirements



Note

- E-Series Servers and the SM E-Series NCE can be installed in the Cisco ISR G2 and the Cisco ISR 4000 series.
- The EHWIC E-Series NCE can be installed in the Cisco ISR G2 only.
- The NIM E-Series NCE can be installed in the Cisco ISR 4000 series only.

The following M1 E-Series Servers are supported:

- UCS-E140S-M1—Single-wide E-Series Server, 4-cores CPU, 1.0-GHz clock speed
- UCS-E140D-M1—Double-wide E-Series Server, 4-cores CPU, 2.0-GHz clock speed

- UCS-E160D-M1—Double-wide E-Series Server, 6-cores CPU, 1.8-GHz clock speed
- UCS-E140DP-M1—Double-wide E-Series Server, 4-cores CPU, with PCIe, 2.0-GHz clock speed
- UCS-E160DP-M1—Double-wide E-Series Server, 6-cores CPU, with PCIe, 1.8-GHz clock speed

The following M2 E-Series Servers and SM E-Series NCE are supported:

- UCS-EN120S-M2—SM E-Series NCE, 2-cores CPU, 2.0-GHz clock speed
- UCS-E140S-M2—Single-wide E-Series Server, 4-cores CPU, 1.8-GHz clock speed
- UCS-E160D-M2—Double-wide E-Series Server, 6-cores CPU, 2.0-GHz clock speed
- UCS-E180D-M2—Double-wide E-Series Server, 8-cores CPU, 1.8-GHz clock speed

The following M3 E-Series Servers are supported:

- UCS-E160S-M3—Single-wide E-Series Server, 6-cores CPU, 2.0-GHz clock speed


Note

The M1, M2, and M3 E-Series Servers naming terminology indicates different generations of Intel processors within the respective servers.

The following EHWIC E-Series NCE is supported:

- UCS-EN120E—EHWIC E-Series NCE, 2-cores CPU, 1.7-GHz clock speed

The following NIM E-Series NCE is supported:

- UCS-EN140N-M2—NIM E-Series NCE, 4-cores CPU, 1.7-GHz clock speed


Note

For details about the M1, M2, and M3 E-Series Servers and the EHWIC E-Series NCE hardware, see the “Hardware Requirements” section in the *Hardware Installation Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*.

Software Requirements

E-Series Servers require three major software systems:

- [CIMC Firmware, page 4](#)
- [BIOS Firmware, page 4](#)
- [Operating System or Hypervisor, page 5](#)

CIMC Firmware

Cisco Integrated Management Controller (CIMC) is a management module, which is built into the motherboard. A dedicated ARM-based processor, separate from the main server CPU, runs the CIMC firmware. The system ships with a running version of the CIMC firmware. You can update the CIMC firmware, but no initial installation is needed.

CIMC is the management service for the E-Series Servers. CIMC runs within the server. You can use CIMC to access, configure, administer, and monitor the server.

BIOS Firmware

BIOS initializes the hardware in the system, discovers bootable devices, and boots them in the provided sequence. It boots the operating system and configures the hardware for the operating system to use. BIOS manageability features allow you to interact with the hardware and use it. In addition, BIOS

provides options to configure the system, manage firmware, and create BIOS error reports. The system ships with a running version of the BIOS firmware. You can update the BIOS firmware, but no initial installation is needed.

Operating System or Hypervisor

The main server CPU runs on an operating system such as Microsoft Windows, Linux, or Hypervisor. You can purchase an E-Series Server or NCE with a preinstalled operating system such as Microsoft Windows or VMware vSphere Hypervisor™, or you can install your own operating system.

The following operating systems are supported on the E-Series Servers:

- Microsoft Windows:
 - Windows Server 2012 Standard 64-bit
- Linux:
 - Red Hat Enterprise Linux 6.2
 - SUSE Linux Enterprise 11, service pack 2
 - Oracle Enterprise Linux 6.0, update 2
- Hypervisor:
 - VMware vSphere Hypervisor™ 5.1
 - VMware vSphere Hypervisor™ 5.5
 - VMware vSphere Hypervisor™ 6.0
 - Hyper-V (Windows 2012 R2)
 - Citrix XenServer 6.1

The following operating systems are supported on the NCEs:

- Microsoft Windows:
 - Windows Server 2012 Standard 64-bit
- Hypervisor:
 - VMware vSphere Hypervisor™ 5.1
 - VMware vSphere Hypervisor™ 5.5
 - VMware vSphere Hypervisor™ 6.0
 - Hyper-V (Windows 2012 R2)

Minimum 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

E-Series Server Options

E-Series Servers are available in the following options:

- Option 1—E-Series Server without preinstalled operating system or hypervisor
- Option 2—E-Series Server with preinstalled Microsoft Windows Server

At the time of purchase, you can choose the appropriate RAID option that you want enabled on the E-Series Server.



Note If you purchase this option, the Microsoft Windows Server license is preactivated.

- Option 3—E-Series Server with preinstalled VMware vSphere Hypervisor™

At the time of purchase, you can choose the appropriate RAID option that you want enabled on the E-Series Server.

Cisco ISR G2, E-Series Server, NCE, and Cisco IOS Software Release Compatibility

Table 2 Cisco ISR G2, E-Series Server, NCE, and Cisco IOS Release Compatibility

Cisco ISR G2	Cisco IOS Software Release for Single-Wide E-Series Servers and the SM E-Series NCE	Cisco IOS Software Release for Double-Wide E-Series Servers	Cisco IOS Software Release for the EHWIC E-Series NCE
1921	—	—	15.4(3)M and later releases
1941	—	—	15.4(3)M and later releases
2911	15.2(4)M and later releases	—	15.4(3)M and later releases
2921	15.2(4)M and later releases	15.2(4)M and later releases	15.4(3)M and later releases
2951	15.2(4)M and later releases	15.2(4)M and later releases	15.4(3)M and later releases
3925	15.2(4)M and later releases	15.2(4)M and later releases	15.4(3)M and later releases
3925e	15.2(4)M and later releases	15.2(4)M and later releases	15.4(3)M and later releases
3945	15.2(4)M and later releases	15.2(4)M and later releases	15.4(3)M and later releases
3945e	15.2(4)M and later releases	15.2(4)M and later releases	15.4(3)M and later releases

Cisco ISR 4000 Series, E-Series Server, NCE, CIMC, and Cisco IOS Software Release Compatibility

Table 3 Cisco ISR 4000 Series, E-Series Server, NCE, CIMC, and Cisco IOS Release Compatibility

Cisco ISR	Cisco IOS Software Release for Single-Wide E-Series Servers and the SM E-Series NCE	Cisco IOS Software Release for Double-Wide E-Series Servers	Cisco IOS Software Release for the NIM E-Series NCE	CIMC
4400 Series	XE 3.12S	XE 3.12S	—	2.2.2 and later releases
	XE 3.13S and later releases	XE 3.13S and later releases	—	2.3.1 and later releases
	—	—	XE 3.15S and later releases	3.0.1 and later releases
	XE 16.2.1	XE 16.2.1	XE 16.2.1	3.0.1 and later releases
4300 Series	XE 3.13S and later releases	XE 3.13S and later releases	—	2.3.1 and later releases
	—	—	XE 3.15S and later releases	3.0.1 and later releases
	XE 16.2.1	XE 16.2.1	XE 16.2.1	3.0.1 and later releases

Important Information About the VMware FL-SRE-V-HOST License

If you are using a VMware FL-SRE-V-HOST license (equivalent to VMware vSphere Hypervisor™ 5.X), make sure that you are using 32 GB or less of RAM. If more than 32 GB of RAM is used, you will get an error message, and you will not be able to apply the license. If you want to use 48 GB RAM, upgrade your license to FL-SRE-V-HOSTVC.

Important Information About the Host Upgrade Utility

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

Open and Resolved Bugs

The open and resolved bugs are accessible through the [Cisco Bug Search Tool](#). This web-based tool provides you with access to the Cisco bug tracking system, which maintains information about bugs and vulnerabilities in this product and other Cisco hardware and software products.



Note

You must have a Cisco.com account to log in and access the Cisco Bug Search Tool. If you do not have one, you can [register for an account](#).

For more information about the Cisco Bug Search Tool, see the [Bug Search Tool Help & FAQ](#).

Open Bugs in Release 3.1.1

Access the Bug Search tool at <https://www.cisco.com/cisco/psn/bssprt/bss>. Enter the bug identifier in the **Search For** field, and then press **Enter**.

Table 4 lists the open bugs in release 3.1.1.

Table 4 Open Bugs in Release 3.1.1

Bug ID	Summary	Additional Information
CSCuz78001	Cannot turn off Physical Drive Locator LED in JBOD mode.	<p>Symptom Cannot turn off Physical Drive Locator LED in JBOD mode.</p> <p>Conditions Configure JBOD mode and then turn on the locator LED of one of the disks, and then turn it off.</p> <p>Workaround Power cycle the module.</p>
CSCuz78167	CIMC CLI does not support IPv6 command.	<p>Symptom Cannot find any related IPv6 command under CIMC CLI console.</p> <p>Conditions Currently, IPv6 functionality is not supported.</p> <p>Workaround Currently, IPv6 functionality is not supported.</p>
CSCuz84813	Intel PHY resets when user successively power cycle the server.	<p>Symptom Intel PHY resets when user successively power cycle the server.</p> <p>Conditions Power cycle the server successively.</p> <p>Workaround Wait for 120 seconds before you do the second power cycle.</p>
CSCuz85441	Intel cannot power on when resetting default via CIMC configuration mode.	<p>Symptom Intel cannot power on when resetting default via CIMC configuration mode.</p> <p>Conditions Press F8 to go to CIMC configuration mode, and then check Reset to factory default, press F10 to save and take effect.</p> <p>Workaround Reboot CIMC.</p>

Table 4 Open Bugs in Release 3.1.1 (continued)

Bug ID	Summary	Additional Information
CSCuz95230	Incorrect configured boot order is shown on CIMC GUI.	<p>Symptom Incorrect configured boot order is shown on CIMC GUI: <i>double "EFI" devices ,double "Linux Virtual CD/DVD" devices, invalid FDD "null" device is present & double "Linux Virtual FDD/HDD" devices</i></p> <p>Conditions Reset CIMC to factory default, power on Intel to run into default EFI shell, and then power cycle the Intel server from CIMC GUI repeatedly.</p> <p>Workaround Reset to CIMC factory default.</p>
CSCva06961	User could enter CIMC configuration mode without any password.	<p>Symptom User could enter CIMC configuration mode without any password.</p> <p>Conditions Press F8 to enter CIMC configuration mode.</p> <p>Workaround None.</p>
CSCva08186	Undefined BIOS FW version shown on Activate Firmware page.	<p>Symptom Undefined BIOS FW version shown on Activate Firmware page.</p> <p>Conditions After upgrading to the latest BIOS FW, go to Activate Firmware page. A pop up window appears and it shows "N/A" (current running), "undefined" for the next activation version.</p> <p>Workaround None.</p>
CSCva17445	Need to set 2 nd boot-order twice to take effect.	<p>Symptom Need to set 2nd boot-order twice to take effect.</p> <p>Conditions Configure PXE 2nd boot-order (set boot-order pxe:TE3,pxe:GE0,pxe:GE1,pxe:TE2).</p> <p>Workaround Configure the 2nd boot-order once again by using the same command.</p>

Resolved and Closed Bugs

Table 5 lists the bugs from release 2.x that are resolved or closed in release 3.1.1.

Table 5 Resolved or Closed Caveats

Bug ID	Summary
CSCvc00694	vKVM Java blocked for CIMC 3.0.x and older version.
CSCux19468	CIMC GUI unresponsive after SNMP discovery with CSP Collector.

Table 5 Resolved or Closed Caveats (continued)

Bug ID	Summary
CSCun54441	Cannot update the BIOS/firmware using the HUU.
CSCuq27432	Slot ID column displays UNKNOWN for PCI adapters.
CSCui27042	No power information displayed when the E-Series Server is installed into the Cisco ISR 4451-X.
CSCuh44522	The failover feature works inconsistently between the ISR G2 and the Cisco ISR 4451-X platforms.
CSCub72754	Cisco IOS lock message is not received from the CIMC.
CSCud44335	The imc config file command does not work.
CSCuf61866	Hardware failure displayed in technical logs.
CSCug49179	KVM console display does not refresh.
CSCtz71108	Cannot create (secure) virtual drive from CIMC GUI using SED drives.
CSCuw66498	Cannot access CIMC GUI due to GDS error.
CSCuy41944	Returning the following message in logs: Pilot2FRU.c:80:canisGetAddr.
CSCuz41368	The snmpget command causes SNMP timeout for all other SNMP commands ran after it.
CSCut11013	UCS E Series M2 servers do not show Memory Summary information.
CSCuu31552	CIMC AD authentication optimization.
CSCut02864	ciscoNET.c:124:Error and doctor-bmc-app-mon restarting.
CSCuu99386	Duplicate UUIDs received on UCS-E Series modules.
CSCuv22790	UCS-E CIMC dropbear SSH vulnerability.
CSCut68163	Critical FRU_RAM messages in SEL.
CSCuu99413	UUID of UCS-E Module is all zeros.

Related Documentation

For links to the following Cisco UCS E-Series Servers and the NCE documents, see [Documentation Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine](#):

- *Release Notes for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.1.1 (this document)*
- *Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.1.1*
- *Hardware Installation Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*
- *Cisco Network Modules, Server Modules, and Interface Cards Regulatory Compliance and Safety Information*
- *GUI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.1.1*
- *CLI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.1.1*
- *CIMC XML API Programmer's Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*

- *Troubleshooting Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine*
- *Open Source Used in Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 2.x*
- Third-Party Tools Plug-In Documentation:
 - *Release Notes for Cisco IMC PowerTool, Release 1.x*
 - *Cisco UCS PowerTool, Release 1.1.1 User Guide*
 - *Cisco IMC Remote Action Service 1.1.1 User Guide for HP Operations Orchestration 9.00*
 - *Cisco IMC Smart Plugin 1.0 Installation Guide for HP Operations Manager—Windows*
 - *Cisco IMC Smart Plugin 1.0 Operations Guide for HP Operations Manager—Windows*
 - *Release Notes for Cisco IMC Management Pack, Release 1.1 for Microsoft System Center 2012, 2012 SP1 and 2012 R2, Operations Manager*
 - *Cisco IMC Management Pack User Guide, Release 1.1 for Microsoft System Center 2012, 2012 SP1 and 2012 R2, Operations Manager*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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