



Release Notes for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.x

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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.x. Use this document in conjunction with the documents in the [“Related Documentation”](#) section on page 11.



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 3.0.1.

Table 1 *New and Changed Information for Software Release 3.0.1*

Feature	Description	Software Release	Where Documented
NIM E-Series Network Compute Engine	Support added to install and configure the NIM E-Series Network Compute Engine (NIM E-Series NCE) into the Cisco ISR 4000 series.	3.0.1	<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.x</i>
Faults and Logs	In the CIMC GUI, Fault Sensors in the Navigation pane is changed to Faults and Logs .	3.0.1	<i>GUI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.x</i>
Network Analysis Module (NAM) and Network Time Protocol (NTP) Settings	Support added to enable the NAM capability and NTP service.	3.0.1	<ul style="list-style-type: none"> • <i>GUI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.x</i> • <i>CLI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.x</i>
Login Banner File	The CIMC login page contains a banner. You can change the contents of the banner file from the Utilities page in the CIMC GUI.	3.0.1	<i>GUI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.x</i>
Host Upgrade Utility Guide Merged into the Getting Started Guide	Since CIMC release 3.0.1, a separate <i>Host Upgrade Utility User Guide</i> is not supported. All the information that was present in the <i>Host Upgrade Utility User Guide</i> is merged into the <i>Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine</i> .	3.0.1	<i>Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.x</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.

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



Note

The M1 and M2 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 and M2 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 5](#)
- [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
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

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 3.0.1

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 3.0.1.

Table 4 Open Bugs in Release 3.0.1

Bug ID	Summary
CSCuu03858	Internal error occurs when activating or deactivating the account using the CLI
CSCuu04102	Cannot configure the NTP server domain name using the CIMC GUI
CSCuq04838	No CIMC console output on serial port after numerous power cycles
CSCut06619	UCSE takes more than nine minutes to be in an “OK” state in Cisco IOS XE
CSCuu26023	Power Policies page displays in 17e.bin
CSCuv22790	UCSE CIMC drop bear SSH vulnerability
CSCuu31552	CIMC AD authentication optimization

Open Bugs from Release 2.x

Table 5 lists the open bugs from release 2.x.

Table 5 Open Bugs from Release 2.x

Bug ID	Summary	Additional Information
CSCun54441	Cannot update the BIOS/firmware using the HUU.	<p>Symptom When trying to update the BIOS/firmware using the HUU, the following error message displays:</p> <pre style="margin-left: 40px;">This ISO is for target platform [E100] but the current platform is [CXXX]. Press OK to reboot.</pre> <p>Conditions This problem occurs when the BIOS is first installed and the CIMC version that is reported is not correct due to a misread or communication issue.</p> <p>Workaround To resolve this problem, first update the BIOS firmware using the CIMC GUI and then update the BIOS/firmware using the HUU.</p>
CSCuq27432	Slot ID column displays UNKNOWN for PCI adapters.	<p>Symptom In the CIMC GUI, the Slot ID column under Server > Inventory > PCI Adapters tab, displays UNKNOWN.</p> <p>Conditions This problem occurs on all UCS-E140DP-M1 and UCS-E160DP-M1 double-wide E-Series Servers with the PCI adapter card.</p> <p>Workaround There is no actual issue with the PCI card, so you can safely ignore this problem.</p>

Table 5 Open Bugs from Release 2.x (continued)

Bug ID	Summary	Additional Information
CSCui27042	No power information displayed when the E-Series Server is installed into the Cisco ISR 4451-X.	<p>Symptom Power information is not displayed when the E-Series Server is installed into the Cisco ISR 4451-X.</p> <p>Conditions This problem occurs in the CIMC CLI and the CIMC GUI:</p> <ul style="list-style-type: none"> • CIMC CLI: <pre>Server# scope power-cap Server /power-cap # show detail Cur Consumption (W): Not available on this platform Max Consumption (W): Not available on this platform Min Consumption (W): Not available on this platform</pre> • CIMC GUI: <p>Server > Power Polices > Power Statistics area</p> <p>Workaround There is no workaround.</p>
CSCuh44522	The failover feature works inconsistently between the ISR G2 and the Cisco ISR 4451-X platforms.	<p>Symptom The failover feature works inconsistently between the ISR G2 and the Cisco ISR 4451-X platforms. In the ISR G2, the failover feature fails to execute.</p> <p>Conditions When the ISR-G2 reloads to ROMMON, there are times when the GE1-GE2, GE1-GE3, and GE1-GE2-GE3 failover does not execute.</p> <p>Workaround To resolve this problem, use the GE2-GE3 failover on the ISR G2. If the router is in ROMMON, boot the router.</p>
CSCub72754	Cisco IOS lock message is not received from the CIMC.	<p>Symptom The Cisco IOS EXEC or configurations commands are not going through to the CIMC.</p> <p>Conditions This problem occurs when in the CIMC, the IOS lockout is configured as locked:</p> <ul style="list-style-type: none"> • CIMC CLI: <pre>Server /chassis # set ios-lockout locked</pre> • CIMC GUI: <p>Server > Summary > Lock IOS Configuration Changes</p> <p>Workaround To resolve this problem, change the IOS Lockout configuration to unlocked, and then retry the Cisco IOS commands:</p> <ul style="list-style-type: none"> • From the CIMC CLI, enter the following command: <pre>Server /chassis # set ios-lockout unlocked</pre> • From the CIMC GUI, do the following: <p>Server > Summary > Unlock IOS Configuration Changes</p>

Table 5 Open Bugs from Release 2.x (continued)

Bug ID	Summary	Additional Information
CSCud44335	The imc config file command does not work.	<p>Symptom The imc config file command does not work.</p> <p>Conditions The imc config file command is not active.</p> <pre>imc config file? flash0: Module configuration IOS File name flash1: Module configuration IOS File name flash: Module configuration IOS File name</pre> <p>Workaround There is no workaround.</p>
CSCuf61866	Hardware failure displayed in technical logs.	<p>Symptom CIMC does not boot up. The following status displays:</p> <pre>Waiting BIOS POST</pre> <p>Conditions This problem could occur because of a failed hardware, such as a failed DIMM, which can cause the POST to not complete.</p> <p>Workaround To resolve this problem, remove the server from the router, and then try different DIMMs to determine which one is causing the problem.</p>
CSCug49179	KVM console display does not refresh.	<p>Symptom When the E-Series Server is power-cycled, the virtual KVM screen turns black, and then briefly flashes back to the old screenshot before it displays the BIOS pages.</p> <p>Conditions This problem occurs when the E-Series Server is power-cycled and the virtual KVM is used to monitor the console output.</p> <p>Workaround There is no workaround. This is a known problem. Besides the brief flashing back of the old screen, there is no effect on the server performance.</p>
CSCtz71108	Cannot create (secure) virtual drive from CIMC GUI using SED drives.	<p>Symptom The RAID arrays that were created from the CIMC GUI are not secured even if SED physical drives were used.</p> <p>Conditions Using the CIMC GUI to create RAID array on SED drives does not create secure drives.</p> <p>Workaround Use LSI WebBIOS to create the RAID array.</p>

Resolved and Closed Bugs

Table 6 lists the bugs from release 2.x that are resolved or closed in release 3.0.1.

Table 6 **Resolved or Closed Caveats**

Bug ID	Summary
CSCux64320	W2K12 does not see RAID volume > 2TB on UCS-E160D-M2.
CSCuu38648	Cannot boot the server into EFI Shell.
CSCur21974	When the E-Series Server is moved from one router to another, the ucse configuration that was on the new router does not propagate to the E-Series Server.
CSCur76819	Link State for external interfaces display “No Link Detected” status.
CSCun59910	Cannot power off the EHWIC E-Series NCE.
CSCup50049	vKVM connection drops when the EHWIC E-Series NCE power cycles.
CSCus08668	UCS-E140S-M1—The CIMC console is not displayed on the Cisco IOS XE when the module is in booting state.
CSCun54441	Cannot update the BIOS/firmware using the HUU.
CSCty86334	The VMware vSphere Hypervisor 5.0 installation crashes with a purple screen if the virtual drive stripe size is less than 64 KB.

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.x (this document)*
- *Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.x*
- *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.x*
- *CLI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller, Release 3.x*
- *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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