# Release Notes for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.2.10

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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 3.2.8. Use this document in conjunction with the documents in the Related Documentation, on page 8.

Note

Documentation is sometimes updated after original publication; therefore, for updated content, review the documentation on Cisco.com.

#### **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, UCS-E1120D-M3/K9, and UCS-E180D-M3/K9 servers are supported on the Cisco ISR 4000 series only.

# **System Requirements**

#### **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 NCEs are not supported from CIMC release 3.2.x.
- 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, 1.9 -GHz clock speed
- UCS-E180D-M3—Double-wide E-Series Server, 8-cores CPU, 2.0 -GHz clock speed
- UCS-E1120D-M3—Double-wide E-Series Server, 12-cores CPU, 1.5 -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 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

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.



Note

Table below lists the minimum BIOS versions required to use with CIMC 3.2.x and later releases.

**Table 1: Minimum BIOS Versions Required** 

Server Name	BIOS Version
UCS-EN120S-M2	1.5.0.6
UCS-E140S M2	
UCS-E160D-M2	2.5.0.4
UCS-E180D-M2	
UCS-E160S-M3	2.x
UCS-E180D-M3	2.x
UCS-E1120D-M3	
UCS-EN140N-M2	1.5.0.4
UCS-EN120E	1.5.0.4



Note

The following M1 modules do not support the latest firmware for CIMC, BIOS, and HUU:

- UCS-E140S-M1
- UCS-E140D-M1
- UCS-E160D-M1
- UCS-E140DP-M1
- UCS-E160DP-M1

#### **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 TM

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

## **Cisco SD-WAN and SD-WAN IOS XE Support on UCS-E Series**

Table 2: Cisco SD-WAN and SD-WAN IOS XE Release Compatibility

Cisco	SD-WAN IOS XE   ISR4000	UCS-E Series using External	UCS-E Series using Internal Backplane Interfaces**
SD-WAN		Interfaces in SD-WAN mode	in SD-WAN mode
19.2.x	16.12.1b and later releases	Supported	Not supported

Cisco	SD-WAN IOS XE   ISR4000	UCS-E Series using External	UCS-E Series using Internal Backplane Interfaces**
SD-WAN		Interfaces in SD-WAN mode	in SD-WAN mode
20.1.1	17.2.1r	Supported	Limited feature support configurable using only Cisco vManage CLI templates



Note

\*\* Interfaces - ucse x/y/0 and ucse x/y/1

For related information on Cisco SD-WAN and SD-WAN IOS XE support, refer to the Compatibility Matrix section in the Release Notes for Cisco IOS XE SD-WAN Devices, Cisco IOS XE Release Amsterdam 17.2.x

# **Cisco ISR G2, E-Series Server, NCE, and Cisco IOS Software 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

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		CIMC
4400 Series	XE 3.12S	XE 3.128		2.2.2 and later releases
501105	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 Saria	XE 3.13S and later releases	XE 3.13S and later releases	_	2.3.1 and later releases
Series		—	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<sup>™</sup> 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.

#### **Resolved and Closed Bugs**

The table below lists the bugs that are resolved or closed in release 3.2.10:

Caveat ID Number	Description
CSCvh58476	Web application potentially vulnerable to clickjacking
CSCvn08867	ENCS CIMC SNMP - missing information about device serial number
CSCvn10917	UCS-E module out of service due to CIMC Memory Leak
CSCvq11886	pnp rediret fails due to sudi_sign_cmd.c:72:session init failed error - TAM_LIB_ERR_SESSION_IS_OPEN
CSCvq19503	Evaluation of ucse for TCP_SACK
CSCvr30226	Login with LDAP taking longer than expected.
CSCvr43857	After installing a new CIMC ssl certificate, status remains in progress
CSCvr46307	TACACS :Show detail not working
CSCvr90598	TACACS : Combination of Special character \$ is not working in shared-secret key
CSCvs28413	Not able to preform pnp on ENCS running 3.12.3 RC4 to MSX 3.71
CSCvs32124	Incorrect power display in ENCS CIMC Inventory
CSCvs38637	Export CIMC configuration via http not working
CSCvs38770	After saving the tacacs enable option is not showing proper description
CSCvs38783	After saving the tacacs key is not showing in encrypted format
CSCvs38792	In GUI, after saving IPV6 IP in tacacs is not showing proper error message
CSCvs40181	LDAP and TACACS: Text box field save changes are not working
CSCvs96384	IPSEC:Timer and Tunnel status to be added in CIMC
CSCvt07798	E series firmware completes and reverts back to previous version with IMCS 2.2.0.6

#### **Open Bugs in Release 3.2.10**

Access the Bug Search tool at Bug Search Tool. Enter the bug identifier in the Search For field, and then press Enter.

Bug ID	Summary
CSCvu04187	To handle Frame Errors better, change ZNR/ZPR to 0xFDCB
CSCvs10024	Login User ID Wrongly Displayed in CIMC GUI
CSCvt25241	UEFI image-map should appear in GUI without rebooting server
CSCvt25420	BIOS password change should be implemented in GUI and CLI

Bug ID	Summary
CSCvs40225	Export Tech support username & password retained even the process complete
CSCvt65059	Firmware upgrade triggers from postreboot currently causing extra reboots and longer time
CSCvt45046	SNMP Trap is not working for ENCS devices
CSCvt76176	add 3.2.10 CIMC and 2.11 bios image into NFVIS
CSCvr77478	UCS-E M3 CIMC/encs show detail returns func failed -3
CSCvt59520	ios should have the ipv6 address support for CIMC
CSCvt75837	VTP-FUZZ-TCPSIC6- Port 22,80 and 443 is not opened after attack
CSCvt27071	IPSEC feature to be implemented in GUI
CSCvt71839	IP filtering- Download and export functionality
CSCvt76851	Disable http feature to be implemented in help page
CSCvt75805	Nikto reported vulnerabilities found on port 80 and 443
CSCvt25445	Help page to be implemented for TACACS
CSCvt25241	UEFI image-map should appear in GUI without rebooting server
CSCvt25420	BIOS password change should be implemented in GUI and CLI
CSCvs40225	Export Tech support username & password retained even the process complete
CSCvt65059	Firmware upgrade triggers from postreboot currently causing extra reboots and longer time

# **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 :

- Getting Started Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute
  Engine
- 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
- CLI Configuration Guide for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine Integrated Management Controller
- 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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