

# Release Notes for Cisco UCS E-Series Servers and the Cisco UCS E-Series Network Compute Engine, Release 3.2.12.2

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

Table 3: 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 4: 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		CIMC
4400 Series	XE 3.12S	XE 3.12S	_	2.2.2 and later releases
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
4300 Series	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*.

## **Resolved and Open Bugs**

The resolved and open 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 Bugs in Release 3.2.12.2**

The table below lists the bugs that are resolved in release 3.2.12.2:

Caveat ID Number	Description
CSCvv85494	If Tacacs is enabled, then only password is asking two times in console
CSCvu64000	nfvis reboot again after cimc upgrade
CSCvw35086	Local user displayed in CIMC page when user logged in with TACACS login
CSCvw35290	TACACS+ secret key length support for 32 characters
CSCvw87313	Implementation of secure erase operation in virtual drive
CSCvw35140	TACACS+ authentication support for CIMC XML API for BIOS password change
CSCvw35238	ENCS-W: CIMC TACACS+ configuration should support 3 TACACS+ servers (minimum of 2 )
CSCvw32813	ENCS-W: Syslog for successful RAID rebuild in CIMC
CSCvv95114	Cisco Integrated Management Controller Authorization Bypass Vulnerability
CSCvx56033	Addressing memory leak on SUDI code

### Open Bugs in Release 3.2.12.2

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

Caveat ID Number	Description
CSCvw69695	UCSE/ENCS 5400: Remote SCP/SFTP access password supports only restricted list of special characters
CSCvx52079	Tacacs server1 and key1 are displaying data without entering any values
CSCvw70071	X.509 Certificate Subject CN Does Not Match the Entity Name
CSCvx30395	CIMC is not launching in latest Chrome version
CSCvx62801	Import configuration is not fully completed when TACACS details is configured in CIMC
CSCvt45046	CIMC SNMP Trap is not working for ENCS devices
CSCvw32845	ENCS-W: CIMC - IP Access filter configuration limit count should be more than 4
CSCvw35470	ENCS-W: CIMC TACACS+ feature need Authorization and Accounting support
CSCvw35502	ENCS-W : Shared LOM feature Redundency support

#### **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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