Release Notes for Cisco Catalyst IE3x00 Rugged, IE3400 Heavy Duty, and ESS3300 Series Switches, Cisco IOS XE Cupertino 17.9.x

First Published: 2022-08-03

Last Modified: 2025-09-23

Introduction

This document provides release information for the following Catalyst IE and Cisco ESS switches:

- Cisco Catalyst Rugged Series Switches (IE3200 and IE3300)
- Cisco Catalyst IE3400 Rugged Series (IE3400)
- Cisco Catalyst IE3400 Heavy-Duty Series (IE3400H)
- Cisco Embedded Services 3300 Series (ESS3300)

Cisco Catalyst IE3x00 Rugged Series Switches feature advanced, full Gigabit Ethernet speed for rich real-time data - and a modular, optimized design. These Cisco rugged switches bring simplicity, flexibility and security to the network edge, and are optimized for size, power, and performance.

From their end-to-end security architecture to delivering centralized automation and scale with Cisco intent-based networking, the Cisco Catalyst IE3x00 family is the perfect solution to your switching needs in almost any use case.

Cisco Embedded Services 3300 Series Switches (ESS3300) revolutionize Cisco's embedded networking portfolio with 1G/10G capabilities. ESS3300 switches are optimized to meet specialized form-factor, ruggedization, port density, and power needs of many applications requiring customization. They complement Cisco's off-the-shelf Industrial Ethernet switching portfolio.

On ESS3300, the small form factor, board configuration options, and optimized power consumption provide Cisco partners and integrators the flexibility to design custom solutions for defense, oil and gas, transportation, mining, and other verticals. The ESS3300 runs the trusted and feature-rich Cisco IOS XE Software, allowing Cisco partners and integrators to offer their customers the familiar Cisco IOS CLI and management experience on their ESS3300 solutions.

New Features for Cisco Catalyst IE and ESS Switches in Cisco IOS XE 17.9.x

There are no new features in the Cisco IOS XE 17.9.8 release. It is a maintenance only release.

There are no new features in the Cisco IOS XE 17.9.7 release. It is a maintenance only release.

There are no new features in the Cisco IOS XE 17.9.6a release. It is a maintenance only release.

There are no new features in the Cisco IOS XE 17.9.5 release. It is a maintenance only release.

There are no new features in the Cisco IOS XE 17.9.4 release. It is a maintenance only release.

There are no new features in the Cisco IOS XE 17.9.3 release. It is a maintenance only release.

There are no new features in the Cisco IOS XE 17.9.2 release. It is a maintenance only release.

The following features in 17.9.x apply to both the IE3x00 and ESS3300 switches unless mentioned.

Feature Name	License Level	Description	Supported Platforms
MRP: 30ms Profile Support	Network Essentials	Support for the 30 ms MRP profile is added in this release. The default maximum recovery time on the Cisco IE switch is 200 ms for a ring composed of up to 50 nodes. You can configure the switch to use the 30 ms or the 500 ms recovery time profile. The 10 ms recovery time profile is not supported.	• IE3200/IE3300 • IE3400/IE3400H

Feature Name	License Level	Description	Supported Platforms
Persistence checks on PROFINET configurations	Network Essentials	The PROFINET feature enhances the functionality of Cisco switches by enabling specific checks to ensure proper configuration for PROFINET networks. When this feature is active, the PROFINET subsystem verifies the configuration to meet technical requirements and ensure seamless operation. To prevent the removal of the default gateway and Cisco Discovery Protocol (CDP), it is essential to comply with the specified technical evaluation conditions outlined in the provided documentation. If the PROFINET feature is not required for your network, you can choose to disable it. Even when disabled, PROFINET traffic can still pass through the switch without interruption, ensuring continued connectivity for PROFINET devices.	• IE3100 • IE3200 • IE3300 • ESS3300 • IE3400H
10G Industrial SFP Support	Network Essentials	SFP-10G-T-X is supported for IE3300 and ESS3300.	• IE3300 (10G only) • ESS3300

Feature Name	License Level	Description	Supported Platforms
REP Segment-ID Auto-Discovery	Network Essentials	REP configuration is enhanced to support an auto-discovery feature, which allows a REP node to learn the REP Segment-ID on the wire. The auto-discovery option is added to the **rep segment** command. This allows for continued static configuration as well as auto-configuration. The REP segment must be started with a static REP Segment-ID configuration from the edge, but the rest of the REP ring can then benefit from the auto-discovery, making deployment and automation easier. Port pairing is done for uplinks. For example, Gi1/1 and Gi1/2 are the port pairs. If you configure **rep segment auto** on one of the uplinks, the same configuration will be reflected on the other uplink.	• IE3200/IE3300 • IE3400/IE3400H • ESS3300

Feature Name	License Level	Description	Supported Platforms
Smart Licensing Using Policy—RUM Report Throttling	Network Essentials		• IE3200/IE3300 • IE3400/IE3400H • ESS3300

Feature Name	License Level	Description	Supported Platforms
		For all topologies where the product instance initiates communication, the minimum reporting frequency is throttled to one day. This means the product instance does not send more than one RUM report a day. The affected topologies are: *Connected Directly to CSSM*, *Connected to CSSM Through CSLU* (product instance-initiated communication), *CSLU Disconnected from CSSM* (product instance-initiated communication), and *SSM On-Prem Deployment* (product instance-initiated communication). This resolves the problem of too many RUM reports being generated and sent for certain licenses. It also resolves the memory-related issues and system slow-down that was caused by an excessive generation of RUM reports. You can override the reporting frequency throttling, by entering the **license smart sync** command in privileged EXEC mode. This triggers an on-demand synchronization with CSSM or CSLU, or SSM On-Prem, to send and receive any pending data. RUM report throttling also applies to the Cisco IOS XE Amsterdam 17.3.6 and later releases of the 17.3.x train, and	

Feature Name	License Level	Description	Supported Platforms
		Cisco IOS XE Bengaluru 17.6.4 and later releases of the 17.6.x train. From Cisco IOS XE Cupertino 17.9.1, RUM report throttling is applicable to *all* subsequent releases.	
TLS 1.3 Support	Network Essentials	HTTPS supports secure TLS version TLSv1.3 in Cisco IOS XE 17.9.1 and later.	• IE3200/IE3300 • IE3400/IE3400H • ESS3300

Important Notes

SMU Installation: Boot in Install Mode

Software Maintainance Upgrade (SMU) installation has been supported in both bundle boot and install mode. However, beginning in Cisco IOS XE 17.9.1, the switch must be booted up in install mode to support SMU installation.

SMU installation stops if the device is booted up in bundle mode. If the device is booted up in install mode, SMU installation continues to work as before.

IE3400: Hardware Changes may Require Action

Some hardware components on the Cisco Catalyst IE3400 Rugged Series and Cisco Catalyst IE3400 Heavy Duty Series switches have changed. The changes, which are automatically handled by the IOS-XE software, do not affect switch functionality or the ordering process. New units shipped after May 31, 2022 have the hardware change.

However, you may need to upgrade the software, depending on which base switch and expansions module you have, as shown in the following table.

Note For detailed information about affected hardware versions, supported software releases, and instructions for different scenarios, see *Field Notice Title* on Cisco.com.

If you have...	Then...
Older versions (shipped before May 31, 2022) of the base switch and expansion module	No action is required.

If you have...	Then...
Newer versions (shipped after May 31, 2022) of the base switch and expansion module	Deploy one of the supported releases of IOS-XE. Refer to *Field Notice Title* on Cisco.com for details that are appropriate to your deployment.
Newer version of the base switch with an older version of the expansion module	
Older version of the base switch with a newer version of the expansion module	

FPGA Profile

FPGA Profile is supported in Cisco IOS XE release 17.8 and later. In a Cisco IOS XE upgrade from an earlier release that does not support FPGA Profile, for example, an upgrade from Cisco IOS XE 17.7.1 to 17.8.1, the default FPGA Profile is installed. Any features controlled by FPGA Profile that are configured in the switch running the earlier release and that are not included in the default profile will be rejected.

For example, CTS IPv6 is not supported in the default profile, so CTS IPv6 configurations are rejected during bootup after the upgrade. Similarly, after a Cisco IOS XE upgrade where the cts-ipv6 profile is loaded, existing PRP and DLR configurations are rejected upon bootup.

To keep the existing profile and feature configurations after an upgrade:

1. After booting the switch, selected the required FPGA Profile as described in "Changing the FPGA Profile", in System Management Configuration Guide, Cisco Catalyst IE3x00 Rugged, IE3400 Heavy Duty, and ESS3300 Series Switches, chapter "Configuring FPGA Profile".

   Do not copy running-config to startup-config or write memory.

2. Reload the switch.

   The required feature configurations will not be discarded because they are supported by the selected profile.

Accessing Hidden Commands

Hidden commands have always been present in Cisco IOS XE, but were not equipped with CLI help. This means that entering enter a question mark (?) at the system prompt did not display the list of available commands. Such hidden commands are only meant to assist Cisco TAC in advanced troubleshooting and are therefore not documented. For more information about CLI help, see the *Using the Command-Line Interface → Understanding the Help System* chapter of the Command Reference document.

This section provides information about hidden commands in Cisco IOS XE and the security measures in place, when they are accessed. Hidden commands are meant to assist Cisco TAC in advanced troubleshooting and are therefore not documented. For more information about CLI help, see the *Using the Command-Line Interface → Understanding the Help System* chapter of the Command Reference document.

Hidden commands are available under:

- Category 1—Hidden commands in privileged or User EXEC mode. Begin by entering the **service internal** command to access these commands.
- Category 2—Hidden commands in one of the configuration modes (global, interface and so on). These commands do not require the **service internal** command.

Further, the following applies to hidden commands under Category 1 and 2:

- The commands have CLI help. Entering enter a question mark (?) at the system prompt displays the list of available commands.

Note For Category 1, enter the **service internal** command before you enter the question mark; you do not have to do this for Category 2.

- The system generates a %PARSER-5-HIDDEN syslog message when the command is used. For example:

```
*Feb 14 10:44:37.917: %PARSER-5-HIDDEN: Warning!!! 'show processes memory old-header '
 is a hidden command.
Use of this command is not recommended/supported and will be removed in future.
```

Apart from category 1 and 2, there remain internal commands displayed on the CLI, for which the system does NOT generate the %PARSER-5-HIDDEN syslog message.

Important We recommend that you use any hidden command only under TAC supervision. If you find that you are using a hidden command, open a TAC case for help with finding another way of collecting the same information as the hidden command (for a hidden EXEC mode command), or to configure the same functionality (for a hidden configuration mode command) using non-hidden commands.

PoE Limitation on IE3x00

Even when using power supplies that can provide up to a supported maximum (for example, 170W, 240W, or 480W) for the PoE budget, the PoE budget for the IE3x00 defaults to 125W regardless of the power supplies used. You can configure the power budget to use the maximum.

Note Before changing the power budget, the minimum power requirements for the switch need to be considered as well. Please refer to the datasheet for your switch for more details.

To use the power supply's maximum supported wattage for the PoE budget, configure the power supply max wattage in global configuration mode as follows:

1. Verify the maximum amount that the power supplies support for the PoE budget.
2. Enter **power inline max** *max-wattage* to increase the PoE budget based on the power supplies used.

   max-wattage is the maximum available PoE power.

IE3200 and IE 3300 with 10Mbps or 100Mbps speed in Half-Duplex Mode

CRC errors were observed on the IE 3200 and IE3300 platforms when the switch is configured with 10Mbps or 100Mbps speed in half-duplex mode.

As a workaround, configure **no ptp enable** on the half-duplex interface. This improves ingress and egress latencies considerably and ensures that there are no late collisions (and therefore, no CRC errors).

The issue and workaround apply to Cisco IOS XE releases 17.3.5 and later.

Cisco Catalyst IE and ESS Switches: Model Numbers (17.9.x)

The following table lists the supported hardware models and the default license levels they are delivered with. For information about the available license levels, see section *License Levels*.

Model Number	Default License Level	Description
ESS-3300-NCP-E	Network Essentials	Main Board without a cooling plate. 2 ports of 10 GE fiber, 8 ports of GE copper. 4 of the 8 GE copper ports can also be combo ports. Terminal Power: 16W
ESS-3300-NCP-A	Network Advantage	Main Board without a cooling plate. 2 ports of 10 GE fiber, 8 ports of GE copper. 4 of the 8 GE copper ports can also be combo ports. Terminal Power: 16W
ESS-3300-CON-E	Network Essentials	Main Board conduction cooled 2 ports of 10 GE fiber, 8 ports of GE copper. 4 of the 8 GE copper ports can also be combo ports Terminal Power: 16W
ESS-3300-CON-A	Network Advantage	Main Board conduction cooled 2 ports of 10 GE fiber, 8 ports of GE copper. 4 of the 8 GE copper ports can also be combo ports Terminal Power: 16W
ESS-3300-24T-NCP-E	Network Essentials	Main Board with a 16p Expansion Board without a cooling plate 2 ports of 10 GE fiber, 24 ports of GE copper 4 of 8 GE ports can be combo ports on mainboard 4 of 16 GE ports can be combo ports on expansion board Terminal Power: 24W
ESS-3300-24T-NCP-A	Network Advantage	Main Board with a 16p Expansion Board without a cooling plate 2 ports of 10 GE fiber, 24 ports of GE copper 4 of 8 GE ports can be combo ports on mainboard 4 of 16 GE ports can be combo ports on expansion board Terminal Power: 24W

Model Number	Default License Level	Description
ESS-3300-24T-CON-E	Network Essentials	Main Board with a 16p Expansion Board conduction cooled 2 ports of 10 GE fiber, 24 ports of GE copper 4 of 8 GE ports can be combo ports on mainboard 4 of 16 GE ports can be combo ports on expansion board Terminal Power: 24W
ESS-3300-24T-CON-A	Network Advantage	Main Board with a 16p Expansion Board conduction cooled 2 ports of 10 GE fiber, 24 ports of GE copper 4 of 8 GE ports can be combo ports on mainboard 4 of 16 GE ports can be combo ports on expansion board Terminal Power: 24W
IE-3200-8T2S-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports, non-PoE
IE-3200-8P2S-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 PoE/PoE+ ports, 2 fiber 100/1000 SFP-based ports; PoE power budget of 240W
IE-3300-8T2S-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports, non-PoE
IE-3300-8P2S-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 PoE/PoE+ ports, 2 fiber 100/1000 SFP-based ports; PoE power budget of 360W (including expansion module)
IE-3300-8T2S-A	Network Advantage	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports, non-PoE
IE-3300-8P2S-A	Network Advantage	8 Gigabit Ethernet 10/100/1000 PoE/PoE+ ports, 2 fiber 100/1000 SFP-based ports; PoE power budget of 360W (including expansion module)
IE-3300-8T2X-A	Network Advantage	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 1/10 Gigabit Ethernet SFP-based ports, non-PoE
IE-3300-8T2X-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 1/10 Gigabit Ethernet SFP-based ports, non-PoE
IE-3300-8U2X-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 4PPoE (802.3bt type 3) ports, 2 fiber 1/10 Gigabit Ethernet SFP-based ports; PoE power budget of 480W

Model Number	Default License Level	Description
IE-3300-8U2X-A	Network Advantage	8 Gigabit Ethernet 10/100/1000 4PPoE (802.3bt type 3) ports, 2 fiber 1/10 Gigabit Ethernet SFP-based ports; PoE power budget of 480W
IE-3400-8T2S-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports, non-PoE
IE-3400-8T2S-A	Network Advantage	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports, non-PoE
IE-3400-8P2S-E	Network Essentials	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports with PoE
IE-3400-8P2S-A	Network Advantage	8 Gigabit Ethernet 10/100/1000 RJ45 ports, 2 fiber 100/1000 SFP-based ports with PoE
IE-3400H-8T-E	Network Essentials	8x1-Gbps X-Coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, mini-change input for Single power source
IE-3400H-8T-A	Network Advantage	8x1-Gbps X-Coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, mini-change input for Single power source
IE-3400H-8FT-E	Network Essentials	8 100-Mbps D-coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, Mini-change input for Single Power Source .
IE-3400H-8FT-A	Network Advantage	8 100-Mbps D-coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, Mini-change input for Single Power Source .
IE-3400H-16T-E	Network Essentials	16x1-Gbps X-Coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, mini-change input for Single power source
IE-3400H-16T-A	Network Advantage	16x1-Gbps X-Coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, mini-change input for Single power source
IE-3400H-16FT-E	Network Essentials	16 100-Mbps D-coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, Mini-change input for Single Power Source .
IE-3400H-16FT-A	Network Advantage	16 100-Mbps D-coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, Mini-change input for Single Power Source .

Model Number	Default License Level	Description
IE-3400H-24T-E	Network Essentials	24x1-Gbps X-Coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, mini-change input for Single power source
IE-3400H-24T-A	Network Advantage	24x1-Gbps X-Coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, mini-change input for Single power source
IE-3400H-24FT-E	Network Essentials	24 100-Mbps D-coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, Mini-change input for Single Power Source .
IE-3400H-24FT-A	Network Advantage	24 100-Mbps D-coded ports, 1 Alarm input and 1 Alarm output, 1 Console port, Mini-change input for Single Power Source .

WebUI System Requirements

The WebUI is a web browser-based switch management tool that runs on the switch. The following subsections list the hardware and software required to access the WebUI.

Minimum Hardware Requirements

Processor Speed	DRAM	Number of Colors	Resolution
233 MHz minimum[1]	512 MB[2]	256	1280 x 800 or higher

1 We recommend 1 GHz
2 We recommend 1 GB DRAM

Software Requirements

Operating Systems

- Windows 10 or later
- Mac OS X 10.9.5 or later

Browsers

- Google Chrome: Version 59 or later (On Windows and Mac)
- Microsoft Edge
- Mozilla Firefox: Version 54 or later (On Windows and Mac)
- Safari: Version 10 or later (On Mac)

Upgrading the Switch Software

This section covers the various aspects of upgrading or downgrading the device software.

Note See the Cisco IOS XE Migration Guide for IIoT Switches for the latest information about upgrading and downgrading switch software.

SSH Algorithms for Common Criteria Certification Limitation

Starting from Cisco IOS XE Release 17.10, the following Key Exchange and MAC algorithms are removed from the default list:

- Key Exchange algorithm:
  - diffie-hellman-group14-sha1
- MAC algorithms:
  - hmac-sha1
  - hmac-sha2-256
  - hmac-sha2-512

Note You can use the **ip ssh server algorithm kex** command to configure the Key Exchange algorithm and the **ip ssh server algorithm mac** command to configure the MAC algorithms.

Finding the Software Version

The package files for Cisco IOS XE software can be found on the system board's internal flash memory device (flash:) or an external USB, depending on the device configuration.

You can use the **show version** privileged EXEC command to see the software version that is running on your switch.

Note Although the **show version** output always shows the software image running on the switch, the model name shown at the end of this display is the factory configuration and does not change if you upgrade the software license.

You can also use the **dir** *filesystem:* privileged EXEC command to see the names and versions of other software images that you might have stored in flash memory.

Software Images 17.9.x

The following table provides the filenames for the IOS XE 17.9.x software image for Cisco Catalyst IE3x00 Rugged, IE3400 Heavy Duty, and ESS3300 Series Switches.

Release	Image Type	Filename
Cisco IOS XE.17.9.8	Universal	ie3x00-universalk9.17.09.08.SPA.bin
		ess3x00-universalk9.17.09.08.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.08.SPA.bin
Cisco IOS XE.17.9.7	Universal	ie3x00-universalk9.17.09.07.SPA.bin
		ess3x00-universalk9.17.09.07.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.07.SPA.bin
Cisco IOS XE.17.9.6a	Universal	ie3x00-universalk9.17.09.06a.SPA.bin
		ess3x00-universalk9.17.09.06a.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.06a.SPA.bin
Cisco IOS XE.17.9.5	Universal	ie3x00-universalk9.17.09.05.SPA.bin
		ess3x00-universalk9.17.09.05.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.05.SPA.bin
Cisco IOS XE.17.9.4a	Universal	ie3x00-universalk9.17.09.04a.SPA.bin
		ess3x00-universalk9.17.09.04a.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.04a.SPA.bin
Cisco IOS XE.17.9.4	Universal	ie3x00-universalk9.17.09.04.SPA.bin
		ess3x00-universalk9.17.09.04.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.04.SPA.bin
Cisco IOS XE.17.9.3	Universal	ie3x00-universalk9.17.09.03.SPA.bin
		ess3x00-universalk9.17.09.03.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.03.SPA.bin
Cisco IOS XE.17.9.2	Universal	ie3x00-universalk9.17.09.02.SPA.bin
		ess3x00-universalk9.17.09.02.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.02.SPA.bin

Release	Image Type	Filename
Cisco IOS XE.17.9.1	Universal	ie3x00-universalk9.17.09.01.SPA.bin
		ess3x00-universalk9.17.09.01.SPA.bin
	NPE	ie3x00-universalk9_npe.17.09.01.SPA.bin

Automatic Boot Loader Upgrade

When you upgrade from the existing release on your switch to a later or newer release for the first time, the boot loader may be automatically upgraded, based on the hardware version of the switch. If the boot loader is automatically upgraded, it will take effect on the next reload.

For subsequent Cisco IOS XE releases, if there is a new bootloader in that release, it may be automatically upgraded based on the hardware version of the switch when you boot up your switch with the new image for the first time.



Caution Do not power cycle your switch during the upgrade.

Scenario	Automatic Boot Loader Response

If you boot Cisco IOS XE the first time	Boot loader may be upgraded to version "8.1.2" for IE3x00 and ESS-3300.
	`Checking Bootloader upgrade...`
	`…`
	`Bootloader upgrade successful`

Software Installation Commands



Note For the **install** command to be successful, it is recommended to have a minimum of free space that is twice the size of the image in flash. If there is not enough space available in flash, you are advised to free up space in flash either by issuing the **install remove inactive** command or to manually clean up the flash by removing unwanted core files or any other files that occupy a large amount of space in flash.

Summary of Software Installation Commands for Install Mode	
To install and activate the specified file, and to commit changes to be persistent across reloads—**install add file** *filename* [**activate commit**]	
add file tftp: *filename*	Copies the install file package from a remote location to the device and performs a compatibility check for the platform and image versions.
activate [**auto-abort-timer**]	Activates the file, and reloads the device. The **auto-abort-timer** keyword automatically rolls back image activation.
commit	Makes changes persistent over reloads.

Summary of Software Installation Commands for Install Mode	
remove	Deletes all unused and inactive software installation files.

Licensing

The information about the licensing packages for features available on Cisco Catalyst IE3x00 Rugged, IE3400 Heavy Duty, and ESS3300 Series Switches and Cisco Catalyst IE3100 Rugged Series Switches are available at: https://www.cisco.com/c/en/us/td/docs/iot/collections/cisco-iiot-licensing.html.

Caveats

Caveats describe unexpected behavior in Cisco IOS XE releases. Caveats listed as open in a prior release are carried forward to the next release as either open or resolved.

Cisco Bug Search Tool

Cisco Bug Search Tool is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.

Click the link for the caveat in the sections below to view details for the caveat in Bug Search Tool.

Open Caveats for Release 17.9.x

Identifier	Description
CSCwi77102	RSPAN causing control plane information shared to peer
CSCwi69364	NETCONF get config returns <add-vlans> <add> and <remove> after changing allowed trunk VLANs via CLI
CSCwi79160	IE3300-8U2X: link flap happening randomly on base module connected with UPoE APs
CSCwj97078	IE3400: Traffic is not forwarded over mrouter ports.
CSCwm36038	ESS-3300 forwards unicast traffic to all promiscuous ports.

Resolved Caveats in Cisco IOS XE Cupertino 17.9.8

There are no resolved caveats n Cisco IOS XE Cupertino 17.9.8

Resolved Caveats in Cisco IOS XE Cupertino 17.9.7

Identifier	Description
CSCwm85265	REP ZTP functioning incoherent.

Identifier	Description
CSCwj68054	MAT event not working on EEM for IE3400 switches.
CSCwm33057	Slowness on ie-3100 when polling snmp OIDs.
CSCwm47470	Endpoints with 10Mbps speed in Half-Duplex Mode drops the connection.

Resolved Caveats in Cisco IOS XE Cupertino 17.9.6a

Identifier	Description
CSCwi64278	ESS3300 | Multicast Packets are dropped with Source Guard Feature Enabled.
CSCwj43321	VACL having echo-reply in ACE is working in only one direction(instead of egress and ingress both).
CSCwi66479	Intermittent packet drops and log "Error: LPM IPv6 100% capacity is reached."
CSCwi80954	IE3300 drops unicast DHCP Discover packet if DHCP Snooping is enabled globally on L3 interfaces.
CSCwj34960	IE3400 IPDT feature with vrf configuration causes arp learning failure.
CSCwj70605	IE3300 drops ARP packets for a VLAN, when DAI is configured globally on any VLAN.
CSCwk70287	Temperature error syslogs observed in IE3x00 platforms.
CSCwj91206	Profinet and LLDP configuration is not visible in startup config and is missing after reload.
CSCwi49051	IE3300 configuration issue for IP Source Guard.
CSCwi90435	ESS3300 stopping unknown unicast needs a toggle to work after reload.
CSCwb53922	Database memory leak detected in /tmp/rp/tdldb/0/IOS_PRIV_OPER_DB.
CSCwj23080	IE3400 crashes after clear cts due segmentation fault.
CSCwk27890	Fix for CSCwi69364 in 17.9, and 17.12 branches
CSCwi31665	IE3400 shows in inventory with incorrect Category Network Device error.
CSCwm40031	IE3x00 switch fails to boot IOS image when auto boot set with no BOOT path is setup in 17.09.5.

Resolved Caveats in Cisco IOS XE Cupertino 17.9.5

Identifier	Description
CSCwf74861	REP is not working correctly on Rugged IE-3x00 with MACSEC enabled on REP ports

Identifier	Description
CSCwf83475	IE3100:Moving port across vlan, MRP ring does not converge
CSCwh75542	IE3400 and IE3400H switches increasing the memory usage
CSCwh79813	All IE3x00 platforms and ESS3300: Etherchannel Mismatch Triggers Loop (mac-flap)
CSCwe44846	IOT switch reaches critical memory level when running Cyber Vision with 2GB of memory
CSCwf12599	IE3x00 - MRP ring status is CLOSED though ring is physically open via profinet mode
CSCwf98958	PEN hostname reverts to switch after reload
CSCwh38767	IE3x00: Interface input errors(ifInErrors) is getting reset on every read
CSCwf80202	REP Alt port does not return to the designated port after recovering from the malfunction
CSCwi01476	All IE3x00 platforms and ESS3300: Memory leak in "Pool manager", small buffers leaking memory due to PTP packets
CSCwi23741	EAP-TLS auth issue after updating IE3400 Switches from 17.1.x or 17.3.x releases to 17.7.x and above

Resolved Caveats in Cisco IOS XE Cupertino 17.9.4a

Identifier	Description
CSCwh87343	Cisco IOS XE Software Web UI Privilege Escalation Vulnerability

Resolved Caveats in Cisco IOS XE Cupertino 17.9.4

Identifier	Description
CSCwe18850	802.1x and MAB authentication fails against the RADIUS server over IPv6 transport
CSCwe36005	[SNMP] Traceback observed with get-bulk of LRE MIB's

Resolved Caveats in Cisco IOS XE Cupertino 17.9.3

Identifier	Description
CSCwd19424	PTPv1 is not working on Tengig ports when forward-mode is enabled on IE3x00 device
CSCwd40311	config: Logging buffered max returns no memory available

Identifier	Description
CSCwd41453	Ingress feature configured on SPAN destination port stops working when port is bounced
CSCwd49796	IE3400H -- Express setup physical press is not working
CSCwd54449	IE3x00: Input errors are observed on Interface
CSCwd73631	IE3300 could not handle fragmented PIM bootstrap received in Trunk port
CSCwd74622	User in Isolated PVLAN is Unable to Ping Primary VLAN SVI
CSCwd97578	Log is generate after link flapping: Error: LPM IPv4 100% capacity is reached

Resolved Caveats in Cisco IOS XE Cupertino 17.9.2

Identifier	Description
CSCwc04550	Unable to Change PTP Profile via Web UI
CSCwc33322	IOX: Observing Disk space issue for CCV app installation through sensor extension.
CSCwc52194	ESS-3300-CON drops DHCP Discovery packets when ipv6 dhcp guard policy is enabled on an interface.
CSCwc58174	Loop Triggered when use wrong Portchannel member
CSCwc72101	IE3400 OSPFv3 neighbor stuck at EXSTART
CSCwd02557	IE3x00-without exp module shows error in topology
CSCwd07571	Crash: add netflow to existing template
CSCwd14921	lldp packets sent by Lenze and SEW devices are rejected by Profinet

Closed Caveats in Cisco IOS XE Cupertino 17.9.1

Identifier	Description
CSCwa65562	Vlan assignment fails with %PM-3-INTERNALERROR platform IE-3x00

Resolved Caveats in Cisco IOS XE Cupertino 17.9.1

Identifier	Description
CSCvz88804	QoS drops within IE3300 switch for Layer2 transit traffic below line rate
CSCwa30349	VACL affecting traffic on non-specified vlans on IE3x00
CSCwa62280	FHS IPv6 RAGUARD policy in IE3400 is not blocking RA traffic

Identifier	Description
CSCwb02945	IE3400H-FE—Unable to configure MTU other than 1500 in 3400 FE switch with Network Essentials
CSCwb08531	Autonegotiate to 10 Gbps instead of 1 Gbps with GLC-TE SFP
CSCwb30529	CRC errors observed with IE3xxx with 10Mbps speed in Half-Duplex Mode
CSCwb32319	EPC on IE3300 switches dropping packets of flows not allowed in the ACL filter
CSCwb41302	Interface Gi2/1 in expansion module IEM-3400-8S not working in 17.X releases
CSCwb46595	IE3300 16P expansion module granting POE to ports where power inline never was configured
CSCwb66011	Interface vlan with unassigned IP address generating ICMPv6 Router Solicitation (IE-3300)
CSCwc07172	When we have IOX/Cybervision enabled on the switch and attempt to soft reload it hangs

Troubleshooting

For the most up-to-date, detailed troubleshooting information, see the Cisco TAC website at this URL:

https://www.cisco.com/en/US/support/index.html

Go to **Product Support** and select your product from the list or enter the name of your product. Look under Troubleshoot and Alerts, to find information for the problem that you are experiencing.

Related Documentation

Information about Cisco IOS XE at this URL: https://www.cisco.com/c/en/us/products/ios-nx-os-software/ios-xe/index.html

All support documentation for Cisco Catalyst IE3100 Rugged Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/catalyst-ie3100-rugged-series/series.html

Allsupport documentation for Cisco Catalyst IE3100H Heavy Duty Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/catalyst-ie3100-heavy-duty-series/series.html

All support documentation for Cisco Catalyst IE3200 Rugged Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/catalyst-ie3200-rugged-series/tsd-products-support-series-home.html

All support documentation for Cisco Catalyst IE3300 Rugged Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/catalyst-ie3300-rugged-series/tsd-products-support-series-home.html

All support documentation for Cisco Catalyst IE3400 Rugged Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/catalyst-ie3400-rugged-series/tsd-products-support-series-home.html

All support documentation for Cisco Catalyst IE3400H Heavy Duty Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/catalyst-ie3400-heavy-duty-series/tsd-products-support-series-home.html

All support documentation for Cisco ESS3300 Series Switches is at this URL: https://www.cisco.com/c/en/us/support/switches/embedded-service-3000-series-switches/tsd-products-support-series-home.html

Cisco Validated Designs documents at this URL: https://www.cisco.com/go/designzone

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

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