



Release Notes for Cisco IE3500 Series Switches, Release 17.17.x



Contents

- Cisco IE3500 Series Switches, Release 17.17.x..... 3
- New hardware features..... 3
- Changes in behavior 4
- Resolved issues 4
- Open issues..... 4
- Known issues..... 4
- Supported hardware 5
- Supported software packages 6
- Related resources..... 8
- Legal information 8

Cisco IE3500 Series Switches, Release 17.17.x

This document provides release information for the Cisco Industrial Ethernet (IE) switches.

Cisco IE3500/IE3505 Series Switches

These are ruggedized switching platforms and provides superior bandwidth and high-PoE power with proven Cisco IOS XE Software for industrial environments. The IE3500 switch is designed to cater deployments where hardened products are required, including factory automation, smart cities, energy and process control, Intelligent Transportation Systems (ITS), energy production sites, smart city programs, and mining. They bring improved scale performance, built-in security feature set, and simplified management options for the switch. For more information, refer to the [Datasheet](#).

Cisco IE3500H/IE3505H Series Switches

These are the next-generation managed IP67 PoE switches powered by Cisco IOS XE and are ideal for deployment in the harshest environments. They are IP67-rated for water and dust resistance and are hardened to withstand temperatures ranging from freezing cold to extreme heat (-40 to 85°C), as well as severe shock and vibration.

These switches are available with up to 24 ports. Fast ethernet support is available by using 100M SFPs. For a list of supported SFPs, refer the Datasheet. These switches can be wall-mounted and deployed without a housing cabinet. They offer a power budget of 240W, and supports Power over Ethernet (PoE), PoE+, and Universal Power over Ethernet (UPOE) at 60W.

These switches are equipped with advanced network-based security, segmentation, and visibility features for the most demanding industrial environments. They extend the power of intent-based networking to the harshest Internet of Things (IoT) edge, with use cases in industries such as mining, railways, and manufacturing. The switches can be wall mounted and deployed without a housing cabinet. For more information, refer to the Datasheet.

New hardware features

Table 1. New hardware features

| Product Impact | Feature | License Level | Description |
|--------------------|-------------------------------------|--|---|
| Base Functionality | Cisco IE3500 Rugged Series Switches | Network Essentials and Network Advantage | <p>These are ruggedized switching platforms and provides superior high-bandwidth switching and are suitable for industrial environments.</p> <p>This release supports the following SKUs:</p> <ul style="list-style-type: none">IE-3500-8T3SIE-3500-8P3SIE-3500-8T3XIE-3500-8U3X |
| Base Functionality | Cisco IE3505 Rugged Series Switches | Network Essentials and Network Advantage | <p>These are ruggedized switching platforms that provide superior high-bandwidth switching, incorporate FPGA technology for enhanced programmability, and are suitable for industrial environments.</p> |

| Product Impact | Feature | License Level | Description |
|--------------------|---|--|--|
| | | | <p>This release supports the following SKUs:</p> <ul style="list-style-type: none"> IE-3505-8T3S IE-3505-8P3S |
| Base Functionality | Cisco IE3500 Heavy Duty Series Switches | Network Essentials and Network Advantage | <p>These switches are the next-generation managed IP67 PoE switches and are ideal for deployment in the harshest environments. This release supports the following SKUs:</p> <ul style="list-style-type: none"> IE-3500H-8T IE-3500H-16T IE-3500H-24T IE-3500H-12FT4T IE-3500H-20FT4T IE-3500H-14P2T E-3500H-12P2MU2X |
| Base functionality | Cisco IE3505 Heavy Duty Series Switches | Network Essentials and Network Advantage | <p>These switches are the next-generation managed IP67 PoE switches and are ideal for deployment in the harshest environments. This release supports the following SKUs:</p> <ul style="list-style-type: none"> IE-3505H-16T |
| Base Functionality | IEM-IE3500-8S Module Support | Network Essentials and Network Advantage | <p>On the Cisco IE3500 Rugged Series Switches, the pure fiber expansion module (IEM-3500-8S) is supported with One-Gigabit (1G) Ethernet speed.</p> |
| Base Functionality | Expansion modules | | <p>Common expansion modules inherit the feature set of the base switch*</p> |

*HSR, PRP, DLR don't work with IEM-3500-4MU= expansion module.

Changes in behavior

There are no behavior changes in 17.17.1 release.

Resolved issues

There are no resolved issues in 17.17.1 release.

Open issues

There are no open issues in 17.17.1 release.

Known issues

There are no known issues in 17.17.1 release.

Supported hardware

Table 2. Supported SKUs

| PID | Uplink Ports | | | Downlink Ports | | |
|------------------|----------------|-------|-----------------------------|----------------|-------|--|
| | Type | Ports | Interface name | Type | Ports | Interface name |
| IE-3500-8T3S | SFP/ SFP+ | 3 | Gigabit Ethernet 1/1-3 | Copper | 8 | Gigabit Ethernet 1/4-11 |
| IE-3500-8P3S | | | | | | |
| IE-3505-8T3S | | | | | | |
| IE-3505-8P3S | | | | | | |
| IE-3500-8U3X | | | | | | |
| IE-3500-8T3X | | | | | | |
| IE-3500H-8T | Copper RJ45 | 3 | Gigabit Ethernet 1/1-3 | Copper RJ45 | 5 | Gigabit Ethernet 1/4-8 |
| IE-3500H-16T | | | | | 13 | Gigabit Ethernet 1/4-16 |
| IE-3505H-16T | | | | | 13 | Gigabit Ethernet 1/4-16 |
| IE-3500H-24T | | | | | 21 | Gigabit Ethernet 1/4-24 |
| IE-3500H-12FT4T | | 4 | Gigabit Ethernet 1/1-4 | | 12 | Gigabit Ethernet 1/5-16 |
| IE-3500H-20FT4T | | | | | 20 | Gigabit Ethernet 1/5-24 |
| IE-3500H-14P2T | | 2 | Gigabit Ethernet 1/1-2 | | 14 | Gigabit Ethernet 1/3-16 |
| IE-3500H12P2MU2X | SFP/ SFP+ | 2 | TenGigabit Ethernet 1/15-16 | | 14 | Gigabit Ethernet 1/1-12 TwoGigabit Ethernet 1/13-14 |

Supported expansion modules

Table 3. Supported expansion modules

| PID | Downlink Ports | | |
|--------------|----------------|-------|-------------------------|
| | Type | Ports | Interface name |
| IEM-3500-16P | Copper RJ45 | 16 | Gigabit Ethernet 2/1-16 |
| IEM-3500-16T | | 16 | Gigabit Ethernet 2/1-16 |
| IEM-3500-8P | | 8 | Gigabit Ethernet 2/1-8 |
| IEM-3500-8T | | 8 | Gigabit Ethernet 2/1-8 |
| IEM-3500-4MU | | 4 | Gigabit Ethernet 2/1-4 |

| PID | Downlink Ports | | |
|----------------|--------------------------|---------------------------|-------------------------|
| | Type | Ports | Interface name |
| IEM-3500-8S | SFP/ SFP+ | 8 | Gigabit Ethernet 2/1-8 |
| IEM-3500-14T2S | Copper RJ45/ SFP/SFP+ | Copper RJ45: 14 SFP: 2 | Gigabit Ethernet 2/1-16 |
| IEM-3500-6T2S | | Copper RJ45: 6 SFP: 2 | Gigabit Ethernet 2/1-8 |

Web UI 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

Table 4. Minimum hardware requirements

| Processor Speed | DRAM | Number of colors | Resolution |
|---------------------------------------|----------------------------------|------------------|----------------------|
| 233 MHz minimum We recommend 1 GHz | 512 MB We recommend 1 GB DRAM | 256 | 1280 x 800 or higher |

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)

Supported software packages

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's 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 for Cisco IOS XE 17.17.x

The following table provides the file names for the IOS XE 17.17.x software images for Cisco Catalyst IE3500 Series Switches.

Table 5. Software package for Cisco Catalyst ESS-9300-8X16T of the CURTISS-WRIGHT VPX3-623 Embedded Series Switches, release 17.17.x

| Release | Image Type | Platform | File Name |
|--------------------------------------|------------|-------------------|-------------------------------------|
| Cisco IOS XE.17.17.1 | Universal | IE3500 and IE3505 | ie35xx-universalk9.17.17.01.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.

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.

To install and activate the specified file, and to commit changes to be persistent across reloads—**install add file filename [activate commit]**

Table 6. Summary of software installation commands for install mode

| Command | Description |
|--------------------------------|--|
| add file tftp: <i>filename</i> | 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. |
| remove | Deletes all unused and inactive software installation files. |

Related resources

Table 7. Additional content for Cisco IE3500 Rugged Series Switch

| Document | Description |
|---|---|
| Cisco Warranty Finder | Provides warranty information for a specific product or product family. |
| Cisco Validated Designs | Provides Cisco validated designs |
| Cisco Profile Manager | To receive timely, relevant information from Cisco, sign up here. |
| Cisco Services | Provides the business impact you're looking for with the technologies |
| Cisco Support | You can submit a service request here. |
| Cisco DevNet | To discover and browse secure, validated enterprise-class apps, products, solutions, and services. |
| Cisco Press | To obtain general networking, training, and certification titles visit here. |
| Cisco support community | You can ask and answer questions, share suggestions, and collaborate with your peers. |
| Cisco TAC | Provides most up-to-date, detailed troubleshooting information. 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. |
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