Release Notes for for Cisco Catalyst IE9300 Rugged Series Switches, Release 17.18.x

Cisco Catalyst IE9300 Rugged Series Switches, Release 17.18.x

This document provides release information for the following Cisco Catalyst IE switches.
- Cisco Catalyst IE9320 GE Fiber switch
- Cisco Catalyst IE9320 Fiber switch with 10 GE uplinks
- Cisco Catalyst IE9320 10 GE Copper Data switch
- Cisco Catalyst IE9320 10 GE PoE switch
- Cisco Catalyst IE9320 10 G mGig 4PPoE switch
- Cisco Catalyst IE9320 GE PoE switch

Cisco Catalyst IE9300 Rugged Series Switch

Cisco Catalyst IE9300 Rugged Series Switches provide rugged and secure switching infrastructure for harsh environments. It is suitable for industrial Ethernet applications, including manufacturing, utility substations, intelligent transportation systems (ITSs), rail transportation, and other similar deployments.

The switch fulfills the need for a high-density SFP, RJ-45, and Power over Ethernet (PoE) rack-, or wall-mount switch that can function as a software-defined (SD)-Access fabric edge. It provides end-to-end architectural uniformity in the Cisco Catalyst Center for Internet of Things (IoT) connected communities and extended enterprises.

In industrial environments, the switch can be connected to any Ethernet-enabled industrial communication devices. These devices include programmable logic controllers (PLCs), human-machine interfaces (HMIs), drives, sensors, and input and output (I/O) devices.

All Cisco Catalyst IE9300 Rugged Series Switches have 4 GB of DRAM, four alarm inputs, and one alarm output. Other I/O include the following:

- SD-cards socket
- Power input
- RJ-45 (RS-232) console
- Micro-USB console
- USB-A host port

New software features

This section provides a brief description of the new software features introduced in this release.

Table 1. New software features for Cisco Catalyst IE9300 Rugged Series Switches, Release 17.18.1

Product Impact	Feature	Description
Ease of Use	PTP over MRP	This feature achieves precise time synchronization with hardware timestamping, while MRP ensures fast network recovery—enabling reliable and consistent operations.
	VLAN 0 priority tagging	This feature enables prioritization of critical traffic using 802.1Q frames with a VLAN ID of zero, ensuring higher processing priority without VLAN assignment.

Product Impact	Feature	Description
	Product Analytics	Cisco IOS XE Product Analytics collects device Systems Information for the purposes of understanding product usage, enabling product improvements and product development, and assisting in product adoption and sales support. Only summarized data of feature usage and statistical counters of configuration are collected. No personal identifiable information, such as MAC/IP addresses, usernames, custom configuration names, or user provided strings, are collected as part of Cisco IOS XE Product Analytics. Cisco processes this data following the General Terms, the Cisco Privacy Statement, and any other applicable agreement with Cisco. See Cisco Enterprise Networking Product Analytics Frequently Asked Questions.
	BGP-EVPN over VxLAN	This feature allows you to simplify network management and scale easily with VXLAN overlays on your existing infrastructure. BGP EVPN as the control plane ensures efficient MAC and IP distribution.

Changes in behavior

There are no behavior changes in this release.

Resolved issues

This table lists the resolved issues for this release.

Table 2. Known issues for Cisco Catalyst IE9300 Rugged Series Switches, Release 17.18.1

Bug ID	Description
CSCwo36285	IE9K Unexpected Reload due to Memory Exhaustion in timingd when Grandmaster flaps Occur.
CSCwo25497	Two GM Follow_Up messages is not sending properly from IE9300.

Open issues

This table lists the open issues in this specific software release.

Note: This software release may contain open bugs first identified in other releases. To see additional information, click the bug ID to access the Cisco Bug Search Tool.

Table 3. Open issues for Cisco Catalyst IE9300 Rugged Series Switches, Release 17.18.1

Bug ID	Description
CSCwp65194	Incomplete SNMPWALK of entSensorValue data retrieval for SFP modules on IE-9320-26S2C-A switches

Known issues

There are no known issues captured in this release.

Compatibility

Refer to Cisco IOS XE Migration Guide for IIoT Switches for the latest information about upgrading and downgrading switch software for Cisco Catalyst IE9300 Series Switches, Release 17.18.1.

Supported hardware

This section lists the hardware support information.

This table lists the supported Cisco Catalyst IE9300 Rugged Series Switches hardware models and the default license levels that they are delivered with.

Model Number	Default License Level	Stacking Support	Description
IE-9310-26S2C-A	Network Advantage	No	- Total ports: 28 - SFP uplinks: 4x 1 Gb SFP - SFP downlinks: 22x 100M/1000M SFP, 2x 100M/1000M dual-media - Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9310-26S2C-E	Network Essentials	No	- Total ports: 28 - SFP uplinks: 4x 1 Gb SFP - SFP downlinks: 22x 100M/1000M SFP, 2x 100M/1000M dual-media - Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-26S2C-A	Network Advantage	Yes	- Total ports: 28 - SFP uplinks: 4x 1 Gb SFP - SFP downlinks: 22x 100M/1000M SFP, 2x 100M/1000M dual-media - Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-26S2C-E	Network Essentials	Yes	- Total ports: 28 - SFP uplinks: 4x 1 Gb SFP - SFP downlinks: 22x 100M/1000M SFP, 2x 100M/1000M dual-media

Model Number	Default License Level	Stacking Support	Description
			• Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-22S2C4X-A	Network Advantage	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP+ • SFP downlinks: • 22x 1 Gb SFP, 2x 1-Gb Dual-media ports • Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-22S2C4X-E	Network Essentials	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP+ • SFP downlinks: • 22x 1 Gb SFP, 2x 1-Gb Dual-media ports • Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-24T4X-A	Network Advantage	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP+ • Copper downlinks: 24x 1 Gb RJ45 • Power supplies: Support for field-replaceable, redundant AC or DC power supplies.
IE-9320-24T4X-E	Network Essentials	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP+ • Copper downlinks: 24x 1 Gb RJ45 • Power supplies: Support for field-replaceable, redundant AC or DC power supplies.
IE-9320-24P4X-A	Network Advantage	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP+ • Copper downlinks: 24x 1 Gb RJ45 PoE+ • Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-24P4X-E	Network Essentials	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP+ • Copper downlinks: 24x 1 Gb RJ45 PoE+ • Power supplies:

Model Number	Default License Level	Stacking Support	Description
			Support for field-replaceable, redundant AC or DC power supplies
IE-9320-16P8U4X-A	Network Advantage	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP • Copper downlinks: 16 ports 1 Gb RJ45 PoE+, 8 ports 2.5 Gb RJ45 4PPoE (90W/port) • Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-16P8U4X-E	Network Essentials	Yes	• Total ports: 28 • SFP uplinks: 4x 10 Gb SFP • Copper downlinks: 16 ports 1 Gb RJ45 PoE+, 8 ports 2.5 Gb RJ45 4PPoE (90W/port) • Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-24P4S-A	Network Advantage	Yes	• Total ports: 28 • SFP uplinks: 4x 1Gb SFP • Copper downlinks: 24 ports 1 Gb RJ45 PoE+ • Power supplies: Support for field-replaceable, redundant AC or DC power supplies
IE-9320-24P4S-E	Network Essentials	Yes	• Total ports: 28 • SFP uplinks: 4x 1Gb SFP • Copper downlinks: 24 ports 1 Gb RJ45 PoE+ • Power supplies: Support for field-replaceable, redundant AC or DC power supplies

Note: Documentation sometimes uses these terms:

- IE9310 GE Fiber switch when referring to both IE-9310-26S2C-A and IE-9310-26S2C-E switches

- IE9320 GE Fiber switch when referring to both IE-9320-26S2C-A and IE-9320-26S2C-E switches

- IE9320 Fiber switch with 10 GE uplinks when referring to both IE-9320-22S2C4X-A and IE-9320-22S2C4X-E switches

- IE9320 10 GE Copper Data switch when referring to both IE-9320-24T4X-A and IE-9320-24T4X-E switches

- IE9320 10 GE PoE switch when referring to both IE-9320-24P4X-A and IE-9320-24P4X-E

- IE9320 10 G mGig 4PPoE switch when referring to both IE-9320-16P8U4X-A and IE-9320-16P8U4X-E

- IE9320 GE PoE switch when referring to both IE-9320-24P4S-A and IE-9320-24P4S-E

Network Essentials and Network Advantage licenses are available for Cisco Catalyst IE9300 Rugged Series Switch starting with release 17.10.1. The features available in the two licenses follow the IE9300 series, except for MACsec-256.

Network advantage license	Description
Security	MACsec-256
Routing	Layer 3 routing support.

Supported software packages

This section provides information about the release packages associated with <product>

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.

This table provides the filename for the IOS XE 17.18.x software image for Cisco Catalyst IE9300 Rugged Series Switches.

Table 4.   Software packages for Cisco Catalyst IE9300 Rugged Series Switches, Release 17.18.1

Release	Image type	Filename	Switch Models
Cisco IOS XE.17.18.1	Universal	ie9k_iosxe.17.18.01.SPA.bin	Cisco Catalyst IE9300 Rugged Series Switches

Software Installation Options

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

This table lists the options for the **install** command for the Cisco Catalyst IE9300 Rugged Series Switches.

Table 5. Summary of software installation commands for install mode

Option	Description
abort	Abort the current install operation.
activate	Activate an installed package.
add	Install a package file to the system.
auto-abort-timer	Install auto-abort-timer.
autoupgrade	Initiate software auto-upgrade on all incompatible switches.
commit	Commit the changes to the load path.
deactivate	Deactivate an install package.
label	Add a label name to any installation point.
remove	Remove installed packages.
rollback	Rollback to a previous installation point.

Related resources

Table 6. Additional content for Cisco Catalyst ESS Embedded Series Switch, Release 17.18.1

Document	Description
Cisco IOS XE	Provides information about Cisco IOS XE.
Cisco Catalyst ESS-9300-8X16T of the CURTISS-WRIGHT VPX3-623 Embedded Series Switches	Provides information about Cisco Catalyst ESS-9300-8X16T of the CURTISS-WRIGHT VPX3-623 Embedded Series Switches.
Cisco Validated Design documents	Provides Cisco validated designs
Cisco MIB Locator	Provides locating and downloading MIBs.
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 Warranty Finder	Provides warranty information for a specific product or product family.
Cisco support community	You can ask and answer questions, share suggestions, and collaborate with your peers.

Document	Description
Cisco TAC	Provides most up-to-date detailed troubleshooting information.
Cisco Feature Navigator	Provides platform support details and license level information for features.
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.
Documentation Feedback	To provide feedback about Cisco technical documentation, use the feedback form available in the right pane of every online document.

Licensing

This section provides information about the licensing packages for features available on the Cisco Catalyst IE9300 Rugged Series Switch.

License levels

The software features available on Cisco Catalyst IE9300 Rugged Series
switches fall under these base or add-on license levels.

Base licenses

- Network Essentials
- Network Advantage: Includes features available with the Network Essentials license and more.

Add-on licenses

Add-on licenses require a Network Essentials or Network Advantage as a prerequisite. The features available with add-on license levels provide Cisco innovations on the switch, and on the Cisco Catalyst Center.

- Catalyst Center DNA Essentials
- Catalyst Center DNA Advantage: Includes features available with the Catalyst Center DNA Essentials license and more.

Smart licensing using policy

Smart Licensing Using Policy, which is an enhanced version of Smart Licensing, is the default and the only supported method to manage licenses.

Smart Licensing using Policy provides a licensing solution that does not interrupt the operations of your network. Instead, it enables a compliance relationship to account for the hardware and software licenses you purchase and use.

With this licensing model, you do not have to complete any licensing-specific operations, such as registering or generating keys before you start using the software and the licenses that are tied to it. Only export-controlled and enforced licenses require Cisco authorization *before* use. License usage is recorded on your device with timestamps, and the required workflows can be completed later.

Multiple options are available for license usage reporting – this depends on the topology you implement. You can use the Cisco Smart Licensing Utility (CSLU) Windows application, or report usage information directly to Cisco Smart Software Manager (CSSM). A provision for offline reporting for air-gapped networks, where you download usage information and upload to CSSM, is also available.

Starting with this release, Smart Licensing Using Policy is automatically enabled on the device. This is also the case when you upgrade to this release.

By default, your Smart Account and Virtual Account in CSSM is enabled for Smart Licensing Using Policy.

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