Release Notes for Cisco C9610 Series Smart Switches, Release Cisco IOS XE 17.18.x

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Cisco C9610 Series Smart Switches, Release Cisco IOS XE 17.18.x

Cisco C9610 Series Smart Switches are the next-generation hardware designed to redefine campus switching with high port density and exceptional bandwidth capabilities. Designed to power the AI Enterprise, these switches support 25G, 100G, and 400G uplinks and are ready for 50G, future-proofing your workplace.

Look up Cisco Feature Navigator for the complete list of supported features.

New software features

This section provides a brief description of the new software features introduced in Cisco IOS XE 17.18.x releases.

Software Features in Cisco IOS XE 17.18.4

There are no new software features introduced in this release.

Software Features in Cisco IOS XE 17.18.3a

There are no new software features introduced in this release.

Software Features in Cisco IOS XE 17.18.2

Table 1. New software features for Cisco C9610 Series Smart Switches, Release Cisco IOS XE 17.18.2

Product impact	Feature	Description
Software Reliability	Audit commands	The **platform security audit monitor** and **show platform software audit** commands have been introduced. These commands provide enhanced visibility into software operational integrity by allowing you to configure and monitor audit rules across network devices.
Software Reliability	DHCP snooping	DHCP snooping acts like a firewall between untrusted hosts and trusted DHCP servers.
Software Reliability	Flexible NetFlow	Flexible NetFlow is a network traffic monitoring and analysis tool that provides detailed statistics for accounting, network monitoring, and network planning.
Software Reliability	IPv6 multicast key	Introduces full key support for IPv6 multicast.
Software Reliability	L3VPN MPLS	Introduces MPLS L3VPN services with full MPLS baseline features, LDP enhancements, static label support, VRF routing (including 6VPE), MPLS diagnostics, and MPLS PE-CE routing using multiple protocols.
Software Reliability	MPLS QoS	MPLS QoS feature allows you to classify, mark, and queue network traffic by modifying the MPLS experimental bits field.
Software Reliability	PBR enhancements	Adds Policy-Based Routing (PBR) support for IPv6 and enables VRF-aware PBR.
Software Reliability	Cisco StackWise Virtual	Cisco StackWise Virtual is a network system virtualization technology that pairs two switches into one virtual switch to simplify operational efficiency with a single control and management plane. Key features introduced alongside Cisco

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Product impact	Feature	Description
		StackWise Virtual include support for Secure StackWise Virtual which is FIPS 140-2 compliant and encrypts control packets. Quad supervisor module configuration with StackWise Virtual is not supported on Cisco C9610 Series Smart Switches Supervisor 3 Module (C9610R SUP-3 and SUP-3-XL).

New hardware features

This section provides a brief description of the new hardware features introduced in Cisco IOS XE 17.18.x releases.

Hardware Features in Cisco IOS XE 17.18.4

There are no new hardware features introduced in this release.

Hardware Features in Cisco IOS XE 17.18.3a

There are no new hardware features introduced in this release.

Hardware Features in Cisco IOS XE 17.18.2

Table 2. New hardware features for Cisco C9610 Series Smart Switches, Release Cisco IOS XE 17.18.2

Product impact	Feature	Description
Hardware Reliability	1-Gigabit and 50-Gigabit transceivers	1-Gigabit and 50-Gigabit transceivers support has been introduced on the Cisco C9610 Series Smart Switches. Compatible line cards: C9600-LC-40YL4CD, C9610-LC-40YL4CD and C9600X-LC-56YL4C.

Changes in behavior

This section provides a brief description of the behavior changes introduced in Cisco IOS XE 17.18.x releases.

Hardware and Software Behavior Changes in Cisco IOS XE 17.18.4

There are no new behavior changes introduced in this release.

Hardware and Software Behavior Changes in Cisco IOS XE 17.18.3a

There are no new behavior changes introduced in this release.

Hardware and Software Behavior Changes in Cisco IOS XE 17.18.2

Table 3. Behavior changes for Cisco C9610 Series Smart Switches, Release Cisco IOS XE 17.18.2

Description	Behavior changes
Incorrect warning message for AUTO-LC-SHUTDOWN	On Cisco C9610 Series Smart Switches with SVL mode enabled, an incorrect warning message for AUTO-LC-SHUTDOWN is displayed. This is fixed.
Optimized thermal protection	Thermal protection behaviors for fan failure scenarios have been optimized to enhance the overall overheating safeguards integrity of the system.

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Description	Behavior changes
Physical slot number option	On Cisco C9610 Series Smart Switches with SVL mode enabled, the physical slot number option of the **power supply switch autoLC priority** command is now a mandatory option.

Resolved issues

Resolved Caveats in Cisco IOS XE 17.18.4

There are no resolved caveats in this release.

Resolved Caveats in Cisco IOS XE 17.18.3a

There are no resolved caveats in this release.

Resolved Caveats in Cisco IOS XE 17.18.2

There are no resolved caveats in this release.

Open issues

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

Table 4. Open issues for Cisco C9610 Series Smart Switches, Release Cisco IOS XE 17.18.x

Bug ID	Description
CSCwu03804	C9000: Randomly during operation - Interface VLAN / SVI go missing from " show run" but remain up. Configs are lost upon reload.
CSCwh20488	Multicast control packets are not Filtered by ACL
CSCwk25048	C9610R-HA: Fan tray beacon status is not retained after SSO
CSCwm41077	C9610R: Adaptor card is not listed in 'show inventory raw' and 'show inventory oid'
CSCwn38550	Multicast counter shows the value as 0 bytes in interface controller output
CSCwp10110	'FED3_L3_ERRMSG-3-L3_PORT_OUT_OF_RESOURCE' & incorrect TCAM Util seen on ACL modification with SVI shut
CSCwp11930	Apply ACL when PO down - 'FMFP-3-OBJ_DWNLD_TO_DP_FAILED' error and incorrect TCAM entries seen
CSCwp29019	PIM/IGMP packets not filtered by PACL/VACL
CSCwr82612	C9610: " fabman: serviceability init: test thread failed thread limit reached" error logs during bootup as well as SSOs

Known issues

This section lists the limitations for this release.

- 1G transceivers are not supported on SFP+ management interfaces. Only 10G transceivers are supported on SFP+ management interfaces.

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- In a chassis, do not configure a C9610-SUP-3 Supervisor Module with an existing C9610-SUP-3XL Supervisor Module or vice versa. If you do so, the supervisor module inserted later will be kept in ROMMON mode and will not be allowed to boot up.
- On Cisco C9610 Smart Switch with C9610-SUP-3/3-XL Supervisor Modules, only 10G transceiver is supported with CVR/QSA. Transceivers lower than 10G speed are not supported with CVR/QSA.
- On Cisco C9610 Smart Switch, SFP-10G-T-X module cannot operate in 1G mode.
- Hardware Limitations (Power Supply Modules):
  - Input voltage for AC power supply modules: All AC-input power supply modules in the chassis must have the same AC-input voltage level.
  - Using power supply modules of different types: When mixing AC-input and DC-input power supplies, the AC-input voltage level must be 220 VAC.
  - The switch is not designed to operate with a combination of 2000W and 3000W PSUs together in a chassis.

Compatibility

To view the software compatibility information between Cisco C9610 Series Smart Switches, Cisco Identity Services Engine, and Cisco Prime Infrastructure, go to Cisco C9000 Series Smart Switches Software Version Compatibility Matrix.

Supported hardware

This section lists the hardware support information.

Supported Cisco C9610 Series Smart Switches model numbers

The following table lists the supported switch models.

Table 5. Cisco C9610 Series Smart Switches model numbers

Switch model	Default license level	Description	Introductory release
C9610R	Network Advantage	Cisco C9610 Smart Switch • Two redundant supervisor module capability • Eight linecard slots • Eight power supply module slots • Four fan tray modules	Cisco IOS XE 17.18.1

Supported hardware on Cisco C9610 Series Smart Switches

Table 6. Supported hardware

Product ID	Description	Introductory release
Supervisor Modules		
C9610-SUP-3	Cisco C9610 series Supervisor 3 Module This supervisor module is supported on the C9610 chassis.	Cisco IOS XE 17.18.1

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Product ID	Description	Introductory release
C9610-SUP-3XL	Cisco C9610 series Supervisor 3XL Module This supervisor module is supported on the C9610 chassis.	Cisco IOS XE 17.18.1
Line Cards		
C9610-LC-32CD	30 QSFP28 ports that support 100G/40G and two QSFP-DD ports that support 400G/100G/40G.	Cisco IOS XE 17.18.1
C9610-LC-40YL4CD	40 SFP56 ports of 50G/25G/10G, two QSFP56 ports of 200G/100G/40G, and two QSFP-DD ports of 400G/200G/100G/40G.	Cisco IOS XE 17.18.1
C9600-LC-48TX	48 Multigigabit Ethernet RJ45 copper ports that support 10G.	Cisco IOS XE 17.18.1
C9600-LC-40YL4CD	40 SFP56 ports of 50G/25G/10G, two QSFP56 ports of 200G/100G/40G, and two QSFP-DD ports of 400G/200G/100G/40G.	Cisco IOS XE 17.18.1
C9600X-LC-32CD	30 QSFP28 ports that support 100G/40G and two QSFP-DD ports that support 400G/200G/100G/40G.	Cisco IOS XE 17.18.1
C9600X-LC-56YL4C	56 SFP ports of 25G/10G and four QSFP28 ports of 100G/40G.	Cisco IOS XE 17.18.1

Supported optics modules

Cisco Catalyst Series Switches support a wide range of optics and the list of supported optics is updated on a regular basis. Use the Transceiver Module Group (TMG) Compatibility Matrix tool, or consult the tables at this URL for the latest transceiver module compatibility information: https://www.cisco.com/en/US/products/hw/modules/ps5455/products_device_support_tables_list.html

Supported software packages

This section provides information about the release packages associated with Cisco C9610 Series Smart Switches.

Finding the software version

The package files for the Cisco IOS XE software are stored on the system board flash device (flash:).

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 directory names of other software images that you might have stored in flash memory.

Finding the software Images

Table 7. Software images

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Release	Image type	File name
Cisco IOS XE 17.18.4	CISCO9K_IOSXE	cisco9k_iosxe.17.18.04.SPA.bin
	No Payload Encryption (NPE)	cisco9k_iosxe_npe.17.18.04.SPA.bin
Cisco IOS XE 17.18.3a	CISCO9K_IOSXE	cisco9k_iosxe.17.18.03a.SPA.bin
	No Payload Encryption (NPE)	cisco9k_iosxe_npe.17.18.03a.SPA.bin
Cisco IOS XE 17.18.2	CISCO9K_IOSXE	cisco9k_iosxe.17.18.02.SPA.bin
	No Payload Encryption (NPE)	cisco9k_iosxe_npe.17.18.02.SPA.bin
Cisco IOS XE 17.18.1	CISCO9K_IOSXE	cisco9k_iosxe.17.18.01.SPA.bin
	No Payload Encryption (NPE)	cisco9k_iosxe_npe.17.18.01.SPA.bin

To download software images, visit the software downloads page: Cisco C9610 Series Smart Switches.

Note: StackWise Virtual feature is not supported on an NPE image.

ROMMON versions

ROMMON, also known as the boot loader, is firmware that runs when the device is powered up or reset. It initializes the processor hardware and boots the operating system software (Cisco IOS XE software image). The ROMMON is stored on the following Serial Peripheral Interface (SPI) flash devices on your switch:

- Primary: The ROMMON stored here is the one the system boots every time the device is powered-on or reset.
- Golden: The ROMMON stored here is a backup copy. If the one in the primary is corrupted, the system automatically boots the ROMMON in the golden SPI flash device.

ROMMON upgrades may be required to resolve firmware defects, or to support new features, but there may not be new versions with every release.

Table 8. ROMMON versions

Release	ROMMON Version
17.18.4	17.18.2r
17.18.3a	17.18.2r
17.18.2	17.18.2r
17.18.1	17.18.1r

Field-programmable gate array version upgrade

A field-programmable gate array (FPGA) is a type of programmable memory device that exists on Cisco switches. They are re-configurable logic circuits that enable the creation of specific and dedicated functions.

To check the current FPGA version for all the components on the C9610 switch, use the **show firmware version all** command.

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Notes:

- Not every software release has a change in the FPGA version.
- The version change occurs as part of the regular software upgrade, and you do not have to perform any other additional steps.

Related resources

This section provides troubleshooting information, links to the product documentation, and licensing information.

Troubleshooting

For the most up-to-date, detailed troubleshooting information, see the Cisco TAC website at Support & Downloads.

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.

Accessing hidden commands

Hidden commands have always been present in Cisco IOS XE but were not equipped with CLI help. That is, entering a question mark (?) at the system prompt did not display the list of available commands. These commands were only meant to assist Cisco TAC in advanced troubleshooting and were not documented either.

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. Enter enter a question mark (?) at the system prompt to display 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 a hidden 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.

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Related documentation

For all support documentation of Cisco C9610 Series Smart Switches, visit Cisco C9610 Series Smart Switches.

For information about Cisco IOS XE, visit Cisco IOS XE.

For information about Cisco IOS XE releases, visit Networking Software (IOS & NX-OS).

For Cisco Validated Designs documents, visit Cisco Validated Design Zone.

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at Cisco Feature Navigator.

Communications, services, and additional information

- To receive timely, relevant information from Cisco, sign up at Cisco Profile Manager.
- To get the business results you're looking for with the technologies that matter, visit Cisco Services.
- To submit a service request, visit Cisco Support.
- To discover and browse secure, validated enterprise-class apps, products, solutions and services, visit Cisco DevNet.
- To obtain general networking, training, and certification titles, visit Cisco Press.
- To find warranty information for a specific product or product family, access Cisco Warranty Finder.

Licensing

For information about licenses required for the features available on Cisco 9000 Series Smart Switches, see Cisco Networking Subscription for Cisco C9000 Series Smart Switches.

Cisco bug search tool

Cisco Bug Search Tool (BST) 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.

Documentation feedback

To provide technical feedback on this document, or to report an error or omission, send your comments to cisco9k-docfeedback@cisco.com.

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