Release Notes for Cisco NCS 5500 Series Routers, IOS XR Release 25.4.2

Contents

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Cisco IOS XR Release 25.4.2 is an extended maintenance release of [Cisco IOS XR Release 25.4.1](#) for Cisco NCS 5500 Series routers. There are no new software features or hardware introduced in this release.

For more details on the Cisco IOS XR release model and associated support, see [Software Lifecycle Support Statement – IOS XR](#).

New software features

There are no new software features introduced in this release.

New hardware

There are no new hardware introduced in this release.

Changes in behavior

- **Deprecation and phasing out features with insecure capabilities and its secure alternatives**
  From Release 25.4.1, Cisco IOS XR software displays warning messages when you configure features or protocols that lack sufficient security, such as those that transmit sensitive data without encryption or use outdated encryption mechanisms. The software also shows warnings when you do not follow security best practices, and it provides suggestions for secure alternatives.

  This list may change, but Cisco plans to generate warnings for the following features and protocols from Release 25.4.1. Each Release Notes will describe the exact changes for that version. These documents list all features planned for removal, including insecure commands, and provide recommended secure alternatives to help you maintain network security and compliance.

  - [**Feature deprecation phasing out insecure capabilities**](#)
  - [**Feature deprecation and removal details**](#)
  - [**Feature removal and suggested alternatives**](#)

Table 1.   Deprecation and phasing out features with insecure capabilities and its secure alternatives

If you are using the following insecure features...	Then follow these secure alternatives...
HTTP	Use HTTPS.
FTP client install FTP install TFTP	Use SFTP.
IPV4 source route	There is no alternative. Do not enable IPv4 source routing.
Telnet client Telnet dscp	There is no alternative. Do not use Telnet client.
Telnet server	Use SSH.
TFTP client	Use SFTP.

If you are using the following insecure features...	Then follow these secure alternatives...
TFTP server	Use SSH.
copy ftp copy ftp running-config copy running-config ftp copy running-config tftp copy tftp copy tftp running-config copy xml-schema tftp	Use SFTP or SCP.
install FTP install TFTP	Use SFTP.
TCP or UDP small_servers	There is no alternative. Do not use TCP or UDP small_servers.
SSHv1	Use ssh server v2.
SSH host-key DSA algorithm	Use ECDSA, ED25519, or RSA and so on.
Syslog TLS Version 1.1 (server1)	Configure TLS Version 1.2 or higher.
TLS 1.0 TLS 1.1	Use TLS 1.2 or TLS 1.3.
utility mv ftp utility mv tftp	There is no alternative. Do not use utility mv ftp and utility mv tftp.
load ftp load tftp load script ftp load script tftp load diff ftp load diff tftp load diff reverse ftp load diff reverse tftp	Use scp or sftp.
tacacs and radius server with type-7 shared secret	Use type 6 secret.
NTPv2 NTPv3	Use NTPv4.

Open issues

There are no open issues in this release.

Known issues

- The Cisco NCS 5500 series modular routers with Cisco NCS 5700 line cards no longer support new features in compatibility mode. All Cisco IOS XR releases will continue to support features that were already enabled in compatibility mode until release 25.1.1. However, no new features will be added to compatibility mode. To take advantage of new features in current and subsequent releases, enable native mode by using the hw-module profile npu native-mode-enable command.

- During a software upgrade to IOS XR Release 25.4.2, the system may not complete the Auto-FPD upgrade as expected. After the upgrade, the FPD status shows 'RLOAD REQ', indicating that you must perform an additional reload to activate the updated FPD.

Compatibility

Compatibility matrix for EPNM and Crosswork with Cisco IOS XR software

The compatibility matrix lists the version of EPNM and Crosswork that are supported with Cisco IOS XR Release in this release.

Table 2. Compatibility Matrix for EPNM and Crosswork with Cisco IOS XR Software

Cisco IOS XR	Crosswork	EPNM
Release 25.4.2	Crosswork Optimization Engine 6.0	Evolved Programmable Network Manager 8.1.1

System requirements

Use the **show hw-module fpd** command in EXEC and Admin mode to view the hardware components with their current FPD version and status. The status of the hardware must be CURRENT; Running and Programed version must be the same. You can also use the **show fpd package** command in Admin mode to check the fpd versions.

Software version

To verify the software version running on the router, use **show version** command in the EXEC mode.

```
Router# show version
Cisco IOS XR Software, Version 25.4.2
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Build Information:
 Built By     : swtools
 Built On     : Sat Mar 28 20:39:05 PDT 2026
 Built Host   : iox-lnx-124
 Workspace    : /auto/srcarchive12/prod/25.4.2/ncs5500/ws
 Version      : 25.4.2
 Location     : /opt/cisco/XR/packages/
 Label        : 25.4.2-25_4_2_remun_3

cisco NCS-5500 () processor
System uptime is 2 hours 31 minutes
```

Supported software packages

The following tables lists the Cisco IOS XR Software feature set matrix (packages) with associated filenames. Visit the Cisco Software Download page to download the Cisco IOS XR software images.

Table 3. Supported software for NCS 5500 Series Routers, Release 25.4.2

Feature Set	Filename	Description
Composite Package		
Cisco IOS XR IP Unicast Routing Core Bundle	ncs5500-mini-x.iso	Contains base image contents that includes: Host operating system System Admin boot image IOS XR boot image BGP packages
Individually-Installable Optional Packages		
Cisco IOS XR Manageability Package	ncs5500-mgbl-3.0.0.0-r2542.x86_64.rpm	Extensible Markup Language (XML) Parser, Telemetry, Netconf, gRPC and HTTP server packages.
Cisco IOS XR MPLS Package	ncs5500-mpls-2.1.0.0-r2542.x86_64.rpm ncs5500-mpls-te-rsvp-2.2.0.0-r2542.x86_64.rpm	MPLS and MPLS Traffic Engineering (MPLS-TE) RPM.
Cisco IOS XR Security Package	ncs5500-k9sec-3.1.0.0-r2542.x86_64.rpm	Support for Encryption, Decryption, Secure Shell (SSH), Secure Socket Layer (SSL), and Public-key infrastructure (PKI)
Cisco IOS XR ISIS package	ncs5500-isis-1.2.0.0-r2542.x86_64.rpm	Support ISIS
Cisco IOS XR OSPF package	ncs5500-ospf-2.0.0.0-r2542.x86_64.rpm	Support OSPF
Lawful Intercept (LI) Package	ncs5500-li-1.0.0.0-r2542.x86_64.rpm	Includes LI software images
Multicast Package	ncs5500-mcast-1.0.0.0-r2542.x86_64rpm	Support Multicast
EIGRP	ncs5500-eigrp-1.0.0.0-r2542.x86_64.rpm	Supports Enhanced Interior Gateway Routing Protocol
Lawful Intercept Control	ncs5500-lictrl-1.0.0.0-r2542x86_64.rpm	Supports Lawful Intercept Control
Healthcheck	ncs5500-healthcheck-1.0.0.0-r2542.x86_64.rpm	Supports System Health Check

Table 4.   TAR files for Cisco NCS 5500 Series Router, Release 25.4.2

Feature Set	Filename
NCS 5500 IOS XR Software 3DES	NCS5500-iosxr-k9-25.4.2.tar
NCS 5500 IOS XR Software	NCS5500-iosxr-25.4.2.tar
NCS 5500 IOS XR Software	NCS5500-docs-25.4.2.tar

Feature Set	Filename
NCS 5500 IOS XR Software 3DES	NCS5500-iosxr-k9-25.4.2.tar
NCS 5500 IOS XR Software	NCS5500-iosxr-25.4.2.tar

Table 5.   Packages for Cisco NCS 5700 Series Router, Release 25.4.2

Feature Set	Filename
NCS 5700 IOS XR Software	ncs5700-x64-25.4.2.iso
NCS 5700 IOS XR Software (only k9 RPMs)	ncs5700-k9sec-rpms.25.4.2.tar
NCS 5700 IOS XR Software Optional Package	NCS5700-optional-rpms.25.4.2.tar This TAR file contains the following RPMS: optional-rpms/cdp/* optional-rpms/eigrp/* optional-rpms/telnet/*

Related resources

Table 6.   Related resources

Resource	Description
Cisco feature finder	Assists in locating features introduced across Cisco IOS XR releases and platforms.
Smart licensing	Provides information about Smart Licensing Using Policy solutions and their deployment on IOS XR routers.
Cisco NCS 5500 documentation	Provides CDC documentation for Cisco NCS 5500 series routers.
Transceiver Module Group (TMG) compatibility matrix	Allows searching by product family, product ID, data rate, reach, cable type, or form factor to determine the transceivers that Cisco hardware device supports.
Cisco IOS XR Error messages	Allows searching by release number, error strings, or comparing release numbers to view a detailed repository of error messages and descriptions.
Cisco IOS XR MIBs	Allows selecting the MIB of your choice from a drop-down to explore an extensive repository of MIB information.
Yang data models in GitHub	Provides yang data models introduced and enhanced in every IOS XR release.
Recommended release	Provides a general guide in case of upgrading IOS XR routers or new deployments that involve IOS XR routers.

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