Release Notes for Cisco NCS 540 Series Routers, Cisco IOS XR Release 25.2.2

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Cisco NCS 540 Series Routers, Release 25.2.2

Cisco IOS XR Release 25.2.2 is a maintenance release for Cisco NCS 540 Series routers.

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 is no new hardware introduced in this release.

Changes in behavior

There are no changes in behavior in this release.

Open issues

Table 1. Open issues for NCS 540 Series Routers, Release 25.2.2

Bug ID	Description
CSCwq43705	**Show qos interface int** command guaranteed bandwidth values are not accurate

Known issues

- Autonegotiation is disabled by default on the fixed GigE - 0/0/0/0 - 0/0/0/3 copper ports of N540X-16Z4G8Q2C-A/D and N540X-12Z16G-SYS-A/D router variants. It is recommended to enable the Autonegotiation support. To enable autonegotiation, use the **negotiation auto** command.
- If you're migrating from previous XR versions, then you must enable autonegotiation for fixed copper ports using the **negotiation auto** command before performing the software upgrade to avoid any links going down.

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

Cisco IOS XR	Crosswork	EPNM
Release 25.2.2	Crosswork Optimization Engine 6.0	Evolved Programmable Network Manager 8.1.1

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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 Programmed 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
Mon Sep 22 07:56:00.024 EDT
Cisco IOS XR Software, Version 25.2.2 LNT
Copyright (c) 2013-2025 by Cisco Systems, Inc.

Build Information:
 Built By     : swtools
 Built On     : Sun Sep 21 04:09:42 UTC 2025
 Build Host   : iox-lnx-110
 Workspace    : /auto/srcarchive11/prod/25.2.2/ncs540l-aarch64/ws
 Version      : 25.2.2
 Label        : 25.2.2-iso

cisco NCS540L
cisco N540X-6Z18G-SYS-A processor with 8GB of memory
PE5_540L uptime is 1 hour, 49 minutes
Cisco NCS 540 Series Fixed Router 18x1G, 6x1/10G, AC
```

Supported software packages

The following tables list the supported base images and optional packages and their corresponding file names.

Visit the Cisco Software Download page to download the Cisco IOS XR software images.

Table 3. Release 25.2.2 software for N540-24Z8Q2C-SYS, N540-ACC-SYS, and N540X-ACC-SYS

Package	Filename	Description
Base image		
IOS XR Base Image	ncs540-mini-x-25.2.2.iso	IOS XR mandatory base image.
USB Boot Package	ncs540-usb_boot-25.2.2.zip	Package required to perform USB Boot. Includes the same packages as the base image.
Optional packages not included in the base image		

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Package	Filename	Description
IOS XR Manageability	ncs540-mgbl-1.0.0.0-r2522.x86_64.rpm	Supports Extensible Markup Language (XML) Parser, Telemetry, Netconf, gRPC and HTTP server
IOS XR MPLS	ncs540-mpls-1.0.0.0-r2522.x86_64.rpm ncs540-mpls-te-rsvp-1.0.0.0-r2522.x86_64.rpm	Supports MPLS and MPLS Traffic Engineering (MPLS-TE)
IOS XR Security	ncs540-k9sec-1.0.0.0-r2522.x86_64.rpm	Supports MACsec and 802.1X
IOS XR ISIS	ncs540-isis-1.0.0.0-r2522.x86_64.rpm	Supports ISIS
IOS XR OSPF	ncs540-ospf-1.0.0.0-r2522.x86_64.rpm	Supports OSPF
IOS XR Lawful Intercept	ncs540-li-1.0.0.0-r2522.x86_64.rpm	Supports Lawful Intercept (LI)
IOS XR Multicast	ncs540-mcast-1.0.0.0-r2522.x86_64.rpm	Supports Multicast
IOS XR EIGRP	ncs540-eigrp-1.0.0.0-r2522.x86_64.rpm	Supports EIGRP
IOS XR LI-CTRL	ncs540-lictrl-1.0.0.0-r2522.x86_64.rpm	Supports LI-CTRL

Table 4. Release 25.2.2 Software for N540-24Q8L2DD-SYS, N540-24Q2C2DD-SYS, N540X-16Z4G8Q2C-A/D, N540-28Z4C-SYS-A/D, N540X-12Z16G-SYS-A/D, N540-12Z20G-SYS-A/D, N540-FH-CSR-SYS, N540X-16Z8Q2C-D, and N540-FH-AGG-SYS

Package	Filename	Description
Base Image		

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Package	Filename	Description
IOS XR Base Image	ncs540l-x64-25.2.2.iso	IOS XR base image with mandatory packages. The base ISO image also includes the following optional packages: xr-bgp xr-cdp xr-eigrp xr-ipsla xr-is-is xr-k9sec xr-lictrl xr-lldp xr-mcast xr-mpls-oam xr-netflow xr-ospf xr-perf-meas xr-perfmgmt xr-rip xr-telnet xr-track These optional packages are also included in NCS540l-iosxr-25.2.2.tar.
USB Boot Package	ncs540l-usb_boot-25.2.2.zip	Package required to perform USB Boot. Includes the same packages as the base image.
Optional packages not included in the base image		
IOS XR Telnet (xr-telnet)	NCS540l-iosxr-25.2.2.tar	Supports Telnet
IOS XR EIGRP (xr-eigrp)	NCS540l-iosxr-25.2.2.tar	Supports EIGRP
IOS XR CDP (xr-cdp)	NCS540l-iosxr-25.2.2.tar	Supports CDP
IOS XR k9sec (xr-k9sec)	NCS540l-k9sec-rpms.25.2.2.tar	Supports 802.1X
IOS XR RIP (xr-rip)	NCS540l-iosxr-25.2.2.tar	Supports RIP

Table 5. Release 25.2.2 Software for N540X-4Z14G2Q-A/D, N540X-8Z16G-SYS-A/D, N540-6Z14S-SYS-D, N540-6Z18G-SYS-A/D, and N540X-6Z18G-SYS-A/D

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Package	Filename	Description
Base image		
IOS XR Base Image	ncs540l-aarch64-25.2.2.iso	IOS XR base image with mandatory packages. The ISO image also includes the following optional packages: xr-bgp xr-cdp xr-eigrp xr-ipsla xr-is-is xr-k9sec xr-lictrl xr-lldp xr-mcast xr-mpls-oam xr-ncs540l-mcast xr-ncs540l-netflow xr-netflow xr-ospf xr-perf-meas xr-perfmgmt xr-rip xr-telnet xr-track These optional packages are also included in NCS540l aarch64 iosxr optional rpms-25.2.2.tar.
USB Boot Package	ncs540l-aarch64-usb_boot-25.2.2.zip	Package required to perform USB Boot. Includes the same packages as the base image.
Optional packages not included in the base image		
Package	Filename	Description
IOS XR Telnet (xr-telnet)	NCS540l-aarch64-iosxr-optional-rpms-25.2.2.tar	Supports Telnet
IOS XR EIGRP (xr-eigrp)	NCS540l-aarch64-iosxr-optional-rpms-25.2.2.tar	Supports EIGRP

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Package	Filename	Description
IOS XR CDP (xr-cdp)	NCS540l-aarch64-iosxr-optional-rpms-25.2.2.tar	Supports CDP
IOS XR k9sec (xr-k9sec)	NCS540l-aarch64-k9sec-rpms. 25.2.2.tar	Supports 802.1X
IOS XR RIP (xr-rip)	NCS540l-aarch64-iosxr-optional-rpms-25.2.2.tar	Supports RIP

Related resources

Table 6. Related resources

Document	Description
Cisco feature finder	An interactive tool that assists in locating features introduced across Cisco IOS XR releases and platforms.
Smart licensing	Information about Smart Licensing Using Policy solutions and their deployment on IOS XR Routers.
Cisco NCS 540 documentation	CCO Documentation for Cisco NCS 540 Series Routers
Transceiver Module Group (TMG) compatibility matrix	Search 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	Search by release number, error strings, or compare release numbers to view a detailed repository of error messages and descriptions.
Cisco IOS XR MIBs	Select the MIB of your choice from a drop-down to explore an extensive repository of MIB information.
YANG data models	A user-friendly reference designed to easily explore and understand the various data models supported in Cisco IOS XR platforms and releases.
Yang data models in Github	Repository containing the folders with yang data models introduced and enhanced in every IOS XR release.

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