



# Release Notes for Cisco NCS 560 Series Routers, Cisco IOS XR Release 25.2.2

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## Cisco NCS 560 Series Routers, Release 25.2.2

Cisco IOS XR Release 25.2.2 is a maintenance release for Cisco NCS 560 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

- [Type6 server output enhancements](#): The show type6 server command now includes two new outputs that provides additional details for enhanced server management and troubleshooting:
  - Masterkey Length
  - Masterkey Hash
- [gRPC remote-connection disable command](#): A new command, **grpc remote-connection disable**, has been introduced. This command allows users to disable TCP connections on the router, providing greater control over network configurations.
- The **Cisco-IOS-XR-pmengine-oper.yang** data model has been updated to ensure consistency. The naming convention has been standardized by renaming elements such as **hour24fec** to **hour24-fec**, **minute15pcs** to **minute15-pcs**, and **second30pcs** to **second30-pcs** across all layers, including OTN, OTNSEC, PCS, FEC, PRBS, Ether, and GFP. For more details on the sensor paths or the updated 25.2.2 YANG models, refer to the [GitHub](#) repository.

### Open issues

**Table 1.** Open issues for NCS 560 Series Routers, Release 25.2.2

| Bug ID                     | Description                                                                 |
|----------------------------|-----------------------------------------------------------------------------|
| <a href="#">CSCwg43705</a> | Show qos interface int command guaranteed bandwidth values are not accurate |

### Known Issues

- Telemetry data collection may timeout due to CPU overload during route churn. In such scenarios, telemetry will resume when the CPU becomes available after the route churn is complete.
- The standby RP may get into 'NOT READY' state intermittently due to some network churn, though the corresponding VM is up and running. But this is a transient state and shows that some data aren't in sync between active and standby due to the network churn. After both active and standby are in sync with respect to all the parameters, then the standby RP comes into 'READY' state.

# 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 Cisco NCS 560 Series Routers, Release 25.2.2

| Cisco IOS XR   | Crosswork                         | EPNM                                       |
|----------------|-----------------------------------|--------------------------------------------|
| Release 25.2.2 | Crosswork Optimization Engine 6.0 | Evolved Programmable Network Manager 7.1.1 |

## 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
Mon Sep 22 07:55:30.688 EDT
Cisco IOS XR Software, Version 25.2.2
Copyright (c) 2013-2025 by Cisco Systems, Inc.
```

```
Build Information:
Built By      : swtools
Built On     : Sat Sep 20 15:44:25 PDT 2025
Built Host   : iox-lnx-054
Workspace    : /auto/srcarchive11/prod/25.2.2/ncs560/ws
Version      : 25.2.2
Location     : /opt/cisco/XR/packages/
Label       : 25.2.2-iso
```

```
cisco NCS-560 () processor
System uptime is 5 hours 20 minutes
```

## Supported software packages

This table 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.

| Feature Set                                 | Filename                                                                             | Description                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cisco IOS XR IP Unicast Routing Core Bundle | ncs560-mini-x-25.2.2.iso                                                             | Contains base image contents that includes:<br>Host operating system<br>System Admin boot image<br>IOS XR boot image<br>BGP packages<br>OS<br>Admin<br>Base<br>Forwarding<br>Modular Services Card<br>Routing<br>SNMP Agent<br>Alarm Correlation                                                                                                                                           |
| Cisco IOS XR Manageability Package          | ncs560-mgbl-1.0.0.0-r2522.x86_64.rpm                                                 | Telemetry, Extensible Markup Language (XML), Parser, and HTTP server packages, NETCONF, YANG Models, gRPC.                                                                                                                                                                                                                                                                                 |
| Cisco IOS XR OSPF package                   | ncs560-ospf-1.0.0.0-r2522.x86_64.rpm                                                 | Supports OSPF                                                                                                                                                                                                                                                                                                                                                                              |
| Cisco IOS XR Security Package               | ncs560-k9sec-1.0.0.0-r2522.x86_64.rpm                                                | k9sec is needed for IPsec or MACsec and Dot1x and for basic crypto services such as Decryption, Secure Shell (SSH), Secure Socket Layer (SSL), and Public-key infrastructure (PKI).                                                                                                                                                                                                        |
| Multicast Package                           | ncs560-mcast-1.0.0.0-r2522.x86_64.rpm                                                | Supports Multicast<br><br>Supports Automatic Multicast Tunneling (AMT), IGMP Multicast Listener Discovery (MLD), Multicast Label Distribution Protocol (MLDP), Multicast Source Discovery Protocol (MSDP) and PIM.                                                                                                                                                                         |
| Cisco IOS XR ISIS package                   | ncs560-isis-1.0.0.0-r2522.x86_64.rpm                                                 | Supports Intermediate System to Intermediate System (IS-IS).                                                                                                                                                                                                                                                                                                                               |
| Cisco IOS XR USB Boot Package               | ncs560-usb_boot-25.2.2.zip                                                           | Supports Cisco IOS XR USB Boot Package                                                                                                                                                                                                                                                                                                                                                     |
| Cisco IOS XR MPLS Package                   | ncs560-mpls-1.0.0.0-r2522.x86_64.rpm<br>ncs560-mpls-te-rsvp-1.0.0.0-r2522.x86_64.rpm | Supports MPLS and MPLS Traffic Engineering (MPLS-TE) RPM. Label Distribution Protocol (LDP), MPLS Forwarding, MPLS Operations, Administration, and Maintenance (OAM), Link Manager Protocol (LMP), Optical User Network Interface (OUNI) and Layer-3 VPN.<br><br>Cisco IOS XR MPLS-TE and RSVP Package<br><br>MPLS Traffic Engineering (MPLS-TE) and Resource Reservation Protocol (RSVP). |
| Cisco IOS XR LI Package                     | ncs560-li-1.0.0.0-r2522.x86_64.rpm                                                   | Lawful Intercept                                                                                                                                                                                                                                                                                                                                                                           |
| Cisco IOS XR EIGRP Package                  | ncs560-eigrp-1.0.0.0-r2522.x86_64.rpm                                                | (Optional) Includes EIGRP protocol support software                                                                                                                                                                                                                                                                                                                                        |

## Related resources

**Table 3.** Related resources

| Document                                                            | Description                                                                                                                                           |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Cisco feature finder</a>                                | An interactive tool that assists in locating features introduced across Cisco IOS XR releases and platforms.                                          |
| <a href="#">Smart licensing</a>                                     | Information about Smart Licensing Using Policy solutions and their deployment on IOS XR Routers.                                                      |
| <a href="#">Cisco NCS 560 documentation</a>                         | CCO Documentation for Cisco NCS 560 Series Routers                                                                                                    |
| <a href="#">Transceiver Module Group (TMG) compatibility matrix</a> | Search by product family, product ID, data rate, reach, cable type, or form factor to determine the transceivers that Cisco hardware device supports. |
| <a href="#">Cisco IOS XR error messages</a>                         | Search by release number, error strings, or compare release numbers to view a detailed repository of error messages and descriptions.                 |
| <a href="#">Cisco IOS XR MIBs</a>                                   | Select the MIB of your choice from a drop-down to explore an extensive repository of MIB information.                                                 |
| <a href="#">YANG data models</a>                                    | A user-friendly reference designed to easily explore and understand the various data models supported in Cisco IOS XR platforms and releases.         |
| <a href="#">Yang data models in Github</a>                          | Repository containing the folders with yang data models introduced and enhanced in every IOS XR release.                                              |

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