Release Notes for Cisco NCS 5000 Series Routers, IOS XR Release 7.5.2

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Network Convergence System 5000 Series Routers

The Network Convergence System 5000 Series offers a high-density, small-form-factor MPLS aggregation router for metro aggregation. It is designed to economically scale large enterprise, over-the-top (OTT), and service provider Data Center networking architectures.

The Cisco NCS 5000 Series is an extension to Cisco's routing platform portfolio enabling Service Providers and MPLS enabled data center architectures to offer elastic networks with improved business agility and simplified operations to deliver high-bandwidth mobile, video, and cloud services.

It can also operate as an extension shelf of Cisco ASR 9000 Series Aggregation Services Routers using Network Virtualization (nV) technology, consolidating multiple layers in the network and dramatically reducing operational costs.

The Cisco NCS 5000 series routers are small form factor dense aggregation systems. Powered by industry leading routing operation system, IOS-XR, the system also offers rich functions such as third party application hosting, machine-to-machine interface, telemetry and flexible package delivery.

> **Note**   Cisco IOS XR Release 7.5.2 is an Extended Maintenance Release of Cisco IOS XR Release 7.5.1 for Cisco NCS 5000 Series routers. For more details on the Cisco IOS XR release model and associated support, see Guidelines for Cisco IOS XR Software.

What's New in Cisco IOS XR Release 7.5.2

Software Features Introduced and Enhanced

To learn about features introduced in other Cisco IOS XR releases, select the release from the Documentation Landing Page.

Feature	Description
BGP	
Replace AS Path in BGP	You can now configure route policies to replace the Autonomous System (AS) Path in BGP with custom values to control the best path selection process.
	This feature introduces the following command:
	replace as-path all

Release 7.5.2 Packages

This table lists the Cisco IOS XR Software feature set matrix (packages) with associated filenames.

Table 1: Release 7.5.2 Packages for Cisco NCS 5000 Series Router

Composite Package		
Feature Set	**Filename**	**Description**

Cisco IOS XR IP Unicast Routing Core Bundle	ncs5k-mini-x.iso	Contains base image contents that includes:
		• Host operating system
		• System Admin boot image
		• IOS XR boot image
		• Alarm co-relation

Individually-Installable Optional Packages

Feature Set	Filename	Description
Cisco IOS XR Manageability Package	ncs5k-mgbl-3.0.0.0-r752.x86_64..rpm	XML, Parser, HTTP Server, Telemetry, and gRPC.
Cisco IOS XR MPLS Package	ncs5k-mpls-3.1.0.0-r752.x86_64.rpm	Label Distribution Protocol (LDP), MPLS forwarding , MPLS operations , Administration and maintenance (OAM), Layer3-vpn , layer-2 vpn.
Cisco IOS XR MPLS RSVP TE package	ncs5k-mpls-te-rsvp-1.1.0.0-r752.x86_64.rpm	Supports MPLS RSVP-TE (Resource Reservation Protocol with Traffic Engineering extensions)
Cisco IOS XR Security Package	ncs5k-k9sec-3.2.0.0-r752.x86_64.rpm	Support for Encryption, Decryption, and Secure Shell (SSH),
Cisco IOS XR Multicast Package	ncs5k-mcast-2.2.0.0-r752.x86_64.rpm	Multicast routing protocols (PIM, IGMP, Auto-rp, BSR) and infrastructure (Multicast routing information Base) , Multicast forwarding (mfwd)
Cisco IOS XR ISIS package	ncs5k-isis-2.2.0.0-r752.x86_64.rpm	Supports ISIS
Cisco IOS XR OSPF package	ncs5k-ospf-2.0.0.0-r752.x86_64.rpm	Supports OSPF

Caveats

There are no caveats in this release.

Other Important Notes

Upgrading Cisco IOS XR Software

Cisco IOS XR Software is installed and activated from modular packages, allowing specific features or software patches to be installed, upgraded, or downgraded without affecting unrelated processes. Software packages can be upgraded or downgraded on all supported card types, or on a single card (node).

Before starting the software upgrade, use the **show install health** command in the admin mode. This command validates if the statuses of all relevant parameters of the system are ready for the software upgrade without interrupting the system.

✎

Note If you use a TAR package to upgrade from a Cisco IOS XR release prior to 7.x, the output of the **show install health** command in admin mode displays the following error messages:

```
sysadmin-vm:0_RSP0# show install health
. . .
ERROR /install_repo/gl/xr -rw-r--r--. 1 8413 floppy 3230320 Mar 14 05:45 <platform>-isis-2.2.0.0-r702.x86_64
ERROR /install_repo/gl/xr -rwxr-x---. 1 8413 165 1485781 Mar 14 06:02 <platform>-k9sec-3.1.0.0-r702.x86_64
ERROR /install_repo/gl/xr -rw-r--r--. 1 8413 floppy 345144 Mar 14 05:45 <platform>-li-1.0.0.0-r702.x86_64
```

You can ignore these messages and proceed with the installation operation.

Production Software Maintenance Updates (SMUs)

A production SMU is a SMU that is formally requested, developed, tested, and released. Production SMUs are intended for use in a live network environment and are formally supported by the Cisco TAC and the relevant development teams. Software bugs identified through software recommendations or Bug Search Tools are not a basis for production SMU requests.

For information on production SMU types, refer the Production SMU Types section of the *IOS XR Software Maintenance Updates (SMUs)* guide.

Cisco IOS XR Error messages

To view, search, compare, and download Cisco IOS XR Error Messages, refer to the Cisco IOS XR Error messages tool.

Cisco IOS XR MIBs

To determine the MIBs supported by platform and release, refer to the Cisco IOS XR MIBs tool.

Related Documentation

The most current Cisco router documentation is located at the following URL:

https://www.cisco.com/c/en/us/td/docs/iosxr/ncs-5000-series-routers.html