



Release Notes for Cisco NCS 5000 Series Routers, IOS XR Release 6.4.1

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Network Convergence System 5000 Series Routers



Note This software release has reached end-of-life status. For more information, see the [End-of-Life and End-of-Sale Notices](#).



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Release 6.4.1 Packages

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

Table 1: Release 6.4.1 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: <ul style="list-style-type: none">• 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-r641.x86_64.rpm	XML, Parser, HTTP Server, Telemetry, and gRPC.

Cisco IOS XR MPLS Package	ncs5k-mpls-3.1.0.0-r641.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-r641.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-r641.x86_64.rpm	Support for Encryption, Decryption, and Secure Shell (SSH),
Cisco IOS XR Multicast Package	ncs5k-mcast-2.2.0.0-r641.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-r641.x86_64.rpm	Supports ISIS
Cisco IOS XR OSPF package	ncs5k-ospf-2.0.0.0-r641.x86_64.rpm	Supports OSPF

Supported Packages and System Requirement

Supported Hardware

For a complete list of supported optics, hardware and ordering information for NCS 5001 and NCS 5002 series router, see the [Cisco NCS 5000 Series Data Sheet](#)

For a complete list of supported optics, hardware and ordering information for NCS 5011 router, see the [Cisco NCS 5011 Series Data Sheet](#)

To install the Cisco NCS 5000 series routers, see [Hardware Installation Guide for Cisco NCS 5000 Series Routers](#).

Caveats

Caveats describe unexpected behavior in Cisco IOS XR Software releases. Severity-1 caveats are the most critical caveats; severity-2 caveats are less critical.

Caveats Specific to the NCS 5000 Routers

There are no caveats in this release.

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).

Related Documentation

The most current Cisco Network Convergence System 5000 Series documentation is located at this URL:

<http://www.cisco.com/c/en/us/support/routers/network-convergence-system-5000-series/tsd-products-support-series-home.html>

The document containing Cisco IOS XR System Error Messages (SEM) is located at this URL:

https://www.cisco.com/c/en/us/td/docs/ios_xr_sw/error/message/ios-xr-sem-guide.html

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.

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- To find warranty information for a specific product or product family, access [Cisco Warranty Finder](#).

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.

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