

Cisco IOS XR Software Release 5.2.3 for Cisco NCS 6000 Series Routers

PB733831

The Cisco[®] Network Convergence System 6000 Series Routers (NCS 6000) offer exceptional network agility, packet optical convergence, and petabit-per-second system scale. The Cisco NCS 6000 Series also facilitates the build-out of the next-generation core to support elastic capacity at a low total cost of ownership (TCO) and deliver high-bandwidth mobile, video, and cloud services.

Using the industry-leading Cisco IOS[®] XR Software operating system running in a virtualized environment, the Cisco NCS 6000 Series advances the concept of distributed routing and virtualization. Using virtualized Cisco IOS XR Software, the Cisco NCS 6000 Series brings new levels of programmability and virtualization to increase application service offerings, accelerate provisioning, and make the network more cost-effective.

The Cisco NCS 6000 Series is powered by the Cisco nPower Family of network processor units (NPUs). Cisco nPower devices are state-of-the-art programmable forwarding application-specific integrated circuits (ASICs), designed to deliver the industry's first zero-packet loss (ZPL) and zero-topology loss (ZTL) software upgrade capability.

The Cisco NCS 6000 Series is engineered for environmental efficiency by offering an adaptable power-consumption model for its ASICs, and the use of revolutionary complementary metal-oxide semiconductor (CMOS) photonics technology. With these technologies together, the Cisco NCS 6000 Series can offer the most power-efficient footprint in the service provider routing space.

New Software Features

Following are new software features in Cisco IOS XR Software Release 5.2.3 supported on Cisco NCS 6000 Series routers:

- **Multichassis configuration:** Multiple Cisco NCS 6008 single chassis can be connected using a Cisco NCS 6000 fabric-card chassis to form a multichassis system. This hardware was introduced in Cisco IOS XR Software Release 5.2.1. Release 5.2.3 increases the multichassis scale to 4 + 2. The NCS system running Cisco IOS XR Software Release 5.2.3 supports four line-card chassis and two fabric-card chassis connected in one logical system.
- **In-Service Software Upgrade (ISSU) with ZPL and ZTL:** The Cisco NCS system can now reload the software running on the route processor and line cards to a future Cisco IOS XR Software release without any effect on the forwarding plane and topology. This feature applies to Software Maintenance Upgrades (SMUs) and minor and major Cisco IOS XR Software upgrades and downgrades. The feature is limited to Cisco IOS XR Release 5.2.3 and future releases.
- **Inter-AS support:** The Cisco NCS 6000 Series offers full support of the inter-autonomous system.

- **6VPE:** The Cisco NCS 6000 Series offers full support for IPv6 traffic to be encapsulated under a Virtual Route Forwarding (VRF) interface. The NCS already supported IPv4 VPN in the previous release. With Release 5.2.3 this support completes the Layer 3 VPN (L3VPN) support.
- **Optical transport network (OTN) support:** OTN is supported on 100 GE interfaces.
- **IP service-level agreement (SLA):** SLA is supported in the Cisco NCS 6000 Series.
- **Optics support:** The Cisco NCS 6000 supports 10 Gigabit Ethernet Small Form-Factor Pluggable Plus (SFP+) tunable dense wavelength-division (DWDM) optics.
- **GTP load balancing:** The Cisco NCS 6000 supports GTP load balancing.
- **IEEE 802.1Q Tunneling (QinQ):** The Cisco NCS 6000 supports QinQ.
- **Multicast Label Distribution Protocol (MLDP):** The Cisco NCS 6000 supports MLDP.

Ordering Information

Table 1 lists ordering information for Cisco IOS XR Software Release 5.2.3 for Cisco NCS 6000 Series Routers. When future rebuilds of Cisco IOS XR Software Release 5.2.0 are available, the latest release is automatically shipped when this product is ordered.

Table 1. Ordering Information for Cisco IOS XR Software Release 5.2.3 for Cisco NCS 6000 Series Routers

Product Name	Part Number
XR-NC6-P-05.20	Cisco IOS-XR IP/MPLS Core Software
XR-NC6-PK9-05.20	Cisco IOS-XR IP/MPLS Core Software 3DES

Release 5.2.3 Lifecycle

The Cisco IOS XR Software release strategy is time-based, with a fixed release date and lifecycle, rather than being a feature-based release strategy with a variable release date. Table 2 lists the major milestones of Cisco IOS XR Software Release 5.2.3 and later.

Table 2. Major Milestones for Cisco IOS XR Software Release 5.2.3 and Later

Milestone	Definition	Date
Availability date	The date that the Cisco IOS XR Software Release 5.2.3 information is published on Cisco.com and becomes available to the general public.	January 29, 2015
End-of-life announcement date	The date that the official end-of-life document that announces the end of sale and end of life of Cisco IOS XR Software 5.2.3 is distributed to the general public.	July 29, 2015
End-of-sale date	The last date to order Cisco IOS XR Software 5.2.3 through Cisco point-of-sale mechanisms. The product is no longer for sale after this date.	July 29, 2016
Last ship date: OS software	The last-possible ship date that can be requested of Cisco and/or its contract manufacturers. Actual ship date is dependent on lead time.	October 29, 2016
End of software maintenance releases date: OS software	The last date that Cisco Engineering may release any final software maintenance releases or bug fixes. After this date, Cisco Engineering will no longer develop, repair, maintain, or test the product software.	January 29, 2018
End of vulnerability and security support: OS software	The last date that Cisco Engineering may release a planned maintenance release or scheduled software remedy for a security vulnerability problem.	January 29, 2019
Last date of support	The last date to receive applicable service and support for the product as entitled by active service contracts or by warranty terms and conditions. After this date, all support services for the product are unavailable and the product becomes obsolete.	July 29, 2021

For official end-of-life and end-of-sale announcements for Cisco IOS XR Software, please visit: http://www.cisco.com/en/US/products/ps5845/prod_eol_notices_list.html or contact your local Cisco account representative.

For More Information

For more information about the Cisco NCS 6000 Series or Cisco IOS XR Software, visit <http://www.cisco.com/> or contact your local Cisco account representative.



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