



Cisco Nexus 9000 Series NX-OS Release Notes, Release 7.0(3)F1(1)

This document describes the features, caveats, and limitations for Cisco NX-OS Release 7.0(3)F1(1) software for use on the Cisco Nexus 9508 switch with N9K-X9636C-R and N9K-X9636Q-R line cards, and N9K-C9508-FM-R fabric modules. Use this document in combination with documents listed in [Related Documentation](#).

Note: Cisco NX-OS Release 7.0(3)F1(1) cannot be used with other Cisco Nexus 9000 Series switches or with a Cisco Nexus 9508 switch that does not contain N9K-X9636C-R or N9K-X9636Q-R line cards or N9K-C9508-FM-R fabric modules.

[Table 1](#) shows the online change history for this document.

Table 1. Online History Change

Date	Description
April 27, 2017	Removed Telemetry from the Programmability list under Supported Features.
December 15, 2016	Created the release notes for Release 7.0(3)F1(1).

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Introduction

Cisco NX-OS software is a data center-class operating system designed for performance, resiliency, scalability, manageability, and programmability at its foundation. The Cisco NX-OS software provides a robust and comprehensive feature set that meets the requirements of virtualization and automation in mission-critical data center environments. The modular design of the Cisco NX-OS operating system makes zero-impact operations a reality and enables exceptional operational flexibility.

The Cisco NX-OS 7.0(3)F1(1) image is specifically designed to support and bring up the N9K-X9636C-R and N9K-X9636Q-R line cards and the N9K-C9508-FM-R fabric modules of the Cisco Nexus 9508 switch.

System Requirements

This section includes the following sections:

- Supported Device Hardware
- Supported Optics

Supported Device Hardware

Table 2 lists the Cisco Nexus 9508 switch hardware that Cisco NX-OS Release 7.0(3)F1(1) supports. For additional information about the supported hardware, see the [Cisco Nexus 9508 NX-OS Mode Switch Hardware Installation Guide](#).

Table 2. Cisco Nexus 9508 Switch Hardware

Product ID	Hardware	Quantity
N9K-C9508	Cisco Nexus 9508 8-slot chassis The N95-LAN-XL1K9 licensing agreement is required.	1
N9K-X9636C-R	36-port 100-Gigabit Ethernet QSFP28 line card supporting 1 x 100 and 1 x 40 Gigabit Ethernet	Up to 8 (can mix with N9K-X9636Q-R)
N9K-X9636Q-R	36-port 40-Gigabit Ethernet QSFP+ line card supporting 1 x 40 Gigabit Ethernet	Up to 8 (can mix with N9K-X9636C-R)
N9K-C9508-FM-R	Cisco Nexus 9508 Series fabric module	6 (5 plus 1 for redundancy)
N9K-C9508-FAN	Cisco Nexus 9508 fan trays	3
N9K-SC-A	Cisco Nexus 9500 Series System Controller Module	2
N9K-SUP-B	Cisco Nexus 9500 Series supervisor B module	2
N9K-PAC-3000W-B	Cisco Nexus 9500 Series 3000 W AC power supply	Up to 8

Supported Optics

See the [Cisco Transceiver Modules Compatibility Information](#) for a list of supported optical components.

New and Changed Information

This section lists the following topics:

- New Hardware Features in Cisco NX-OS Release 7.0(3)F1(1)
- Supported Software Features in Cisco NX-OS Release 7.0(3)F1(1)
- New Software Features in Cisco NX-OS Release 7.0(3)F1(1)

New Hardware Features in Cisco NX-OS Release 7.0(3)F1(1)

Cisco NX-OS Release 7.0(3)F1(1) supports the following new hardware:

- N9K-X9636C-R (36-port 100-Gigabit Ethernet QSFP28 line card)
- N9K-X9636Q-R (36-port 40-Gigabit Ethernet QSFP+ line card)
- N9K-C9508-FM-R (Fabric module)

Supported Software Features in Cisco NX-OS Release 7.0(3)F1(1)

Cisco NX-OS Release 7.0(3)F1(1) is based on Cisco NX-OS Release 7.0(3)I2(4). The following software features are supported in both releases. Any other features are not supported in Cisco NX-OS Release 7.0(3)F1(1).

- IPv6
 - BGP
 - Static
- Layer 2
 - Port channels
 - STP, RSTP, MSTP, VLAN trunks, LACP, Storm control
 - vPC Unicast
- Layer 3
 - BFD v4/v6
 - BGP v4/v6
 - ECMP
 - HSRP
 - IPinIP Tunneling (RFC2003)
 - Multicast (PIM-ASM)

New and Changed Information

- OSPF v2/v3
- Port channels
- Segment routing (BGP control plane, Prefix-SID, supported on Layer 3 physical and Layer 3 port channels).
- Static routing
- Sub-Interface support
- SVI
- VRF-lite
- VRRP
- VXLAN / EVPN control plane (L3GW, unicast underlay)
- Management
 - CDP
 - Configure checkpoint and rollback
 - DCBX
 - iPXE, POAP
 - LLDP
 - Maintenance mode (GIR)
- Monitoring
 - ACL-counters
 - SNMP v2/v3
 - SPAN, ERSPAN
- Programmability
 - BASH access
 - Enhanced RPM support and patching
 - Kernel stack (kstack)
 - Model driven/Object based NX-API REST
 - Native support of Chef and Puppet
 - Python scripting support
- QoS
 - Policy

- Shaping
- Security
 - AAA, RADIUS/TACACS+
 - ACL
 - ASLR
 - CoPP
 - SSH

New Software Features in Cisco NX-OS Release 7.0(3)F1(1)

The following software features are supported in Cisco NX-OS Release 7.0(3)F1(1), but are not supported in Cisco NX-OS Release 7.0(3)I2(4):

The following features are supported only for the N9K-X9636C-R and N9K-X9636Q-R line cards and the N9K-C9508-FM-R fabric modules in a Cisco Nexus 9508 switch running Cisco NX-OS Release 7.0(3)F1(1) or later:

- Ingress Queuing – This feature, which is used to configure ingress buffer thresholds, is supported on the N9K-X9636C-R and N9K-X9636Q-R line cards and the N9K-C9508-FM-R fabric modules. For more information, see the *Cisco Nexus 9000 Series NX-OS Quality of Service Configuration Guide*
- Multicast Queuing – This feature, which is enabled automatically for the N9K-X9636C-R and N9K-X9636Q-R line cards and the N9K-C9508-FM-R fabric modules, prioritizes multiple streams of multicast traffic in order to achieve better throughput. For more information, see the *Cisco Nexus 9000 Series NX-OS Multicast Routing Configuration Guide*.

Caveats

This section includes the following topics:

- Resolved Caveats – Cisco NX-OS Release 7.0(3)F1(1)
- Open Caveats – Cisco NX-OS Release 7.0(3)F1(1)

Resolved Caveats – Cisco NX-OS Release 7.0(3)F1(1)

There are no resolved caveats for this initial release.

Open Caveats – Cisco NX-OS Release 7.0(3)F1(1)

Table 3 lists the open caveats in Cisco NX-OS Release 7.0(3)F1(1). Click the bug ID to access the Bug Search tool and see additional information about the bug.

Table 3 Open Caveats in Cisco NX-OS Release 7.0(3)F1(1)

Bug ID	Description

Limitations

Bug ID	Description
CSCuy64960	31k (S,G) are taking around 1 hour to populate all the routes.
CSCuz05719	Traffic drop seen upon shutting one of the receiver.
CSCuz63650	Duplicated packets were seen during (*,G) to (s, g) converge.
CSCva00700	Traffic is flowing when source IP address is removed.
CSCva22452	QoS policy support on L2 int for routed packet.
CSCvc04860	vPC : Post L3, L2 flood is not happening.
CSCvc08951	Scale ACL on sub-interface does not work as expected after update ACE.
CSCvc16800	Sometimes, System Controller gets rebooted twice during bootup on write erase reload.
CSCvc18748	Traffic drops with BFD flap when OSPF is cleared.
CSCvc22177	ARP storm to be contained at port level for the SVIs.
CSCvc32357	Incorrect port-channel member add behaviour when the number of members greater than 32.
CSCvc34392	P40-snake : mac-aging of 62k macs takes more than 4 times of configured value.
CSCvc37758	Unable to default range of 3-4 interfaces if any interface has ACL configured.
CSCvc39667	BGP:Both addr family 'ipv4 unicast' and 'ipv4 labeled-unicast' retained in same template config.
CSCvc39782	Hardware rate-limiter exception. CLI not getting applied on SOC 0 ports.
CSCvc43443	(* G) not created after doing the VRFs shut/ no shut.

Limitations

This section lists limitations related to Cisco NX-OS Release 7.0(3)F1(1).

- For the Cisco NX-OS 7.0(3)F1(1) release, the VXLAN network identifier (VNID) 16777215 is reserved and should not be configured explicitly.
- CoPP (Control Plane Policing) cannot be disabled. If you attempt to disable it, an error message appears.
- The skip CoPP policy option has been removed from the Cisco NX-OS initial setup utility because using it can impact the control plane of the network.

Related Documentation

The entire Cisco Nexus 9000 Series NX-OS documentation set is available at the following URL:

<http://www.cisco.com/c/en/us/support/switches/nexus-9000-series-switches/tsd-products-support-series-home.html>

The *Cisco Nexus 9000 Series NX-OS Release Notes, Release 7.0(3)I2(4)* is available at the following URL:

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/release/notes/70324_nxos_rn.html

The *Cisco Nexus 9508 NX-OS Mode Switch Hardware Installation Guide* is available at the following URL:

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/hw/n9508_hig/guide/b_n9508_nxos-mode_hardware_install_guide.html

New Documentation

The *Cisco Nexus 9000 Series NX-OS Verified Scalability Guide, Release 7.0(3)F1(1)* is available at the following URL:

http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/scalability/guide_703F11/b_Cisco_Nexus_9000_Series_NX-OS_Verified_Scalability_Guide_703F11.html

Documentation Feedback

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<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

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