



Cisco Nexus 9000 Series NX-OS Release Notes, Release 7.0(3)I7(6)

This document describes the features, caveats, and limitations of Cisco NX-OS Release 7.0(3)I7(6) software for use on the following switches:

- Cisco Nexus 9000 Series
- Cisco Nexus 31128PQ
- Cisco Nexus 3164Q
- Cisco Nexus 3232C
- Cisco Nexus 3264Q

Use this document with documents listed in *Related Documentation*.

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

Table 1 Online History Change

Date	Description
September 29, 2020	Upgrade and Downgrade section revised.
January 24, 2020	Added CSCvc95008 to Known Behaviors .
November 15, 2019	Updated Limitations section for breakout issue.
September 23, 2019	Added N9K-C9516-FM-E2 to Table 2 . Added N9K-X9732C-FX in Table 4 .
September 16, 2019	Removed N9K-C9516-FM-E2 from Table 4 .
July 21, 2019	Updated Limitations and Table 3 .
April 26, 2019	Added Note to CSCvo86286 in Open Caveats .
April 23, 2019	Updated Transceiver Module Group URL.
April 17, 2019	Added CSCvo86286 to Open Caveats .
March 4, 2019	Created the release notes for Release 7.0(3)I7(6).

Introduction

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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.

System Requirements

This section includes the following sections:

- Supported Device Hardware
- Supported Optics
- Supported FEX Modules

Supported Device Hardware

The following tables list the Cisco Nexus 9000 Series hardware that Cisco NX-OS Release 7.0(3)I7(6) supports. For additional information about the supported hardware, see the *Hardware Installation Guide* for your Cisco Nexus 9000 Series device.

- [Table 2](#) lists the Cisco Nexus 9000 Series fabric modules
- [Table 3](#) lists the Cisco Nexus 9000 Series fans and fan trays
- [Table 4](#) lists the Cisco Nexus 9500 Series line cards
- [Table 5](#) lists the Cisco Nexus 9000 Series power supplies
- [Table 6](#) lists the Cisco Nexus 9500 Series supervisor modules
- [Table 7](#) lists the Cisco Nexus 9000 Series switches
- [Table 8](#) lists the Cisco Nexus 9000 Series uplink modules
- [Table 9](#) lists the Cisco Nexus 9500 Series System Controller
- [Table 10](#) lists the 3232C and 3264Q switch hardware
- [Table 11](#) lists the Cisco Nexus 3164Q switch hardware
- [Table 12](#) lists the Cisco Nexus 31128PQ switch hardware

Table 2 Cisco Nexus 9000 Series Fabric Modules

Product ID	Hardware	Quantity for Maximum Bandwidth
N9K-C9504-FM	Cisco Nexus 9504 40-Gigabit fabric module	3 to 6 depending on line cards

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N9K-C9504-FM-E	100-Gigabit -E fabric module (for the Cisco Nexus 9504 chassis) that supports the 100-Gigabit (-EX) line cards. When used, there must be 4 of these fabric modules installed in fabric slots 22, 23, 24, and 26.	4 5 when using the N9K-X9736C-FX line card.
N9K-C9504-FM-S	100-Gb -S fabric module (for the Cisco Nexus 9504 chassis) that supports the 100-Gigabit (-S) line cards. When used, there must be 4 of these fabric modules installed in fabric slots 22, 23, 24, and 26.	4
N9K-C9508-FM	Cisco Nexus 9508 Series 40-Gigabit fabric module	3-6 depending on the line cards
N9K-C9508-FM-E	100-Gigabit -E fabric module (for the Cisco Nexus 9508 chassis) that supports the 100-Gigabit (-EX) line cards. When used, there must be 4 of these fabric modules installed in fabric slots 22, 23, 24, and 26.	4 5 when using the N9K-X9736C-FX line card.
N9K-C9508-FM-S	100-Gigabit -S fabric module (for the Cisco Nexus 9508 chassis) that supports the 100-Gigabit (-S) line cards. When used, there must be 4 of these fabric modules installed in fabric slots 22, 23, 24, and 26.	4
N9K-C9508-FM-Z	Fabric blank with Fan Tray Power Connector module used in place of a fabric module that has been removed from fabric slots 22, 24, or 26 during lab verification test.	1
N9K-C9516-FM	Cisco Nexus 9500 Series 40-Gigabit fabric module	3-6 depending on the line cards
N9K-C9516-FM-E	100-Gb -E fabric module (for the Cisco Nexus 9516 chassis that supports the 100-Gb (-EX) line cards. When used, there must be four of these fabric modules installed in fabric slots 22, 23, 24, and 26.	4 5 when using the N9K-X9736C-FX line card.
N9K-C9516-FM-E2	16-slot fabric module for -E line cards.	4 - N9K-X97160YC-EX 4 - N9K-X9732C-EX 4 - (plus 1 for redundancy) - N9K-X9732C-FX 4 - N9K-X9736C-EX 5 - N9K-X9736C-FX 5 - N9K-X9736Q-FX 4 - N9K-X9788TC-FX
N9K-C9516-FM-Z	Fabric blank with Fan Tray Power Connector module used in place of a fabric module that has been removed from fabric slots 22, 24, or 26 during lab verification test.	1

Table 3 Cisco Nexus 9000 Series Fans and Fan Trays

Product ID	Description	Quantity	Cisco Nexus Switches
N9K-C9300-FAN1	Fan 1 module with port-side intake airflow	3	9396PX (early versions)

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	(burgundy coloring)			
N9K-C9300-FAN1-B	Fan 1 module with port-side exhaust airflow (blue coloring)	3	9396PX (early versions)	
N9K-C9300-FAN2	Fan 2 module with port-side intake airflow (burgundy coloring)	3	93128TX	9396PX 9396TX
N9K-C9300-FAN2-B	Fan 2 module with port-side exhaust airflow (blue coloring)	3	93128TX	9396PX 9396TX
N9K-C9300-FAN3	Fan 3 module with port-side intake airflow (burgundy coloring)	3	92304QC 9272Q ¹	93120TX
N9K-C9300-FAN3-B	Fan 3 module with port-side exhaust airflow (blue coloring)	3	92304QC 9272Q ¹	93120TX
N9K-C9504-FAN	Fan tray for 4-slot modular chassis	3	9504	
N9K-C9508-FAN	Fan tray for 8-slot modular chassis	3	9508	
N9K-C9516-FAN	Fan tray for 16-slot modular chassis	3	9516	
NXA-FAN-160CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	9364C	
NXA-FAN-160CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	3	9364C	
NXA-FAN-30CFM-B	Fan module with port-side intake airflow (burgundy coloring)	3	92160YC-X 9236C ¹ 93108TC-EX 93108TC-FX ¹ 93180LC-EX ¹ 93180YC-EX 93180YC-FX ¹	9332PQ 9348GC-FXP 9372PX 9372PX-E 9372TX 9372TX-E
NXA-FAN-30CFM-F	Fan module with port-side exhaust airflow (blue coloring)	3	92160YC-X 9236C ¹ 93108TC-EX 93108TC-FX ¹ 93180LC-EX ¹ 93180YC-EX 93180YC-FX ¹	9332PQ 9348GC-FXP 9372PX 9372PX-E 9372TX 9372TX-E
NXA-FAN-35CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	4	92300YC ¹	
NXA-FAN-35CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	4	92300YC ¹	
NXA-FAN-65CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	93240YC-FX2 ¹	9336C-FX2 ¹

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NXA-FAN-65CFM-PI	Fan module with port-side exhaust airflow (burgundy coloring)	3	93240YC-FX2 ¹	9336C-FX2 ¹
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¹For specific fan speeds see the Overview section of the Hardware Installation Guide.

Table 4 Cisco Nexus 9500 Series Line Cards

Product ID	Description	Maximum Quantity			Supporting Fabric Modules
		Cisco Nexus 9504	Cisco Nexus 9508	Cisco Nexus 9516	
N9K-X9408PC-CFP2	Line card with 8 100-Gigabit CFP2 ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9432C-S	Line card with 32 100-Gigabit QSFP28 ports	4	8	16	N9K-C9504-FM-S N9K-C9508-FM-S --
N9K-X9432PQ	Line card with 32 40-Gigabit QSFP+ ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9464PX	Line card with 48 1/10-Gigabit SFP+ ports and 4 40-Gigabit QSFP+ uplink ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9464TX	Line card with 48 10GBASE-T (copper) ports and 4 40-Gigabit QSFP+ ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9464TX2	Line card with 48 10GBASE-T (copper) ports and 4 40-Gigabit QSFP+ ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9536PQ	Line card with 36 40-Gigabit ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9564PX	Line card with 48 1-/10-Gigabit SFP+ ports and 4 40-Gigabit QSFP+ ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9564TX	Line card with 48 1-/10GBASE-T (copper) ports and 4 40-Gigabit QSFP+ ports	4	8	16	N9K-C9504-FM N9K-C9508-FM N9K-C9516-FM
N9K-X9636PQ	Line card with 36 40-Gigabit QSFP+ ports	4	8	16	N9K-C9504-FM N9K-C9508-FM --
N9K-X9732C-EX	Line card with 32 40-/100-Gigabit QSFP28 ports	4	8	16	N9K-C9504-FM-E N9K-C9508-FM-E N9K-C9516-FM-E
N9K-X9732C-FX	Line card with 32 100 Gigabit Ethernet. Each QSFP28 supports 1x100-, 2x50-, 1x40-, 4x25-, 4x10-, and 1x1/10-Gigabit Ethernet. .	4	8	16	N9K-C9504-FM-E N9K-C9508-FM-E N9K-C9516-FM-E N9K-C9516-FM-E2
N9K-X9736C-EX	Line card with 36 40-/100-Gigabit QSFP28 ports	4	8	16	N9K-C9504-FM-E N9K-C9508-FM-E N9K-C9516-FM-E
N9K-X9736C-FX	Line card with 36 1-/10-/40-/50-/100-	4	8	16	N9K-C9504-FM-E

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	Gigabit QSFP28 ports				N9K-C9508-FM-E N9K-C9516-FM-E
N9K-X9736Q-FX	Line card with 36 1-/10-/40-Gigabit QSFP28 ports	4	8	16	N9K-C9504-FM-E N9K-C9508-FM-E N9K-C9516-FM-E
N9K-X9788TC-FX	Line card with 48 1-/10-G BASE-T (copper) and 4 100-Gigabit QSFP28 ports	4	8	16	N9K-C9504-FM-E N9K-C9508-FM-E N9K-C9516-FM-E
N9K-X97160YC-EX	Line card with 48 10-/25-Gigabit SFP28 ports and 4 40-/100-Gigabit QSFP28 ports	4	8	16	N9K-C9504-FM-E N9K-C9508-FM-E N9K-C9516-FM-E

Table 5 Cisco Nexus 9000 Series Power Supplies

Product ID	Description	Quantity	Cisco Nexus Switches	
N9K-PAC-650W	650-W AC power supply with port-side intake (burgundy coloring)	2	9332PQ 9372PX 9372PX-E 9372TX	9372TX-E 9396PX 9396TX
N9K-PAC-650W-B	650-W AC power supply with port-side exhaust (blue coloring)	2	9332PQ 9372PX 9372PX-E 9372TX	9372TX-E 9396PX 9396TX
N9K-PAC-1200W	1200-W AC power supply with port-side intake airflow (burgundy coloring)	2	93120TX	
N9K-PAC-1200W-B	1200-W AC power supply with port-side exhaust airflow (blue coloring)	2	93120TX	
N9K-PAC-3000W-B	3000-W AC power supply	Up to 4 Up to 8 Up to 10	9504 9508 9516	
N9K-PDC-3000W-B	3000-W DC power supply	Up to 4 Up to 8 Up to 10	9504 9508 9516	
N9K-PUV-1200W	3000-W Universal AC/DC power supply with bidirectional airflow (white coloring)	2	92160YC-X 9236C 92300YC 92304QC 9272Q 93108TC-EX 93108TC-FX	93120TX 93128TX 93180LC-EX 93180YC-EX 93180YC-FX 9364C
N9K-PUV-3000W-B	3000-W Universal AC/DC power supply	Up to 4 Up to 8 Up to 10	9504 9508 9516	
NXA-PAC-350W-PE	350-W AC power supply with port-side exhaust airflow (blue coloring)	2	9348GC-FXP	
NXA-PAC-350W-PI	350-W AC power supply with port-side intake airflow (burgundy coloring)	2	9348GC-FXP	
NXA-PAC-500W-PE	500-W AC power supply with port-side exhaust airflow (blue coloring)	2	93108TC-EX 93180LC-EX	93180YC-EX

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NXA-PAC-500W-PI	500-W AC power supply with port-side intake airflow (burgundy coloring)	2	93108TC-EX 93180LC-EX	93180YC-EX
NXA-PAC-650W-PE	650-W power supply with port-side exhaust (blue coloring)	2	92160YC-X 9236C 92300YC	92304QC 93108TC-EX 93180YC-EX
NXA-PAC-650W-PI	650-W power supply with port-side intake (burgundy coloring)	2	92160YC-X 9236C 92300YC	92304QC 93108TC-EX 93180YC-EX
NXA-PAC-1100W-PE	1100-W AC power supply with port-side exhaust airflow (blue coloring)	2	9348GC-FXP	
NXA-PAC-1100W-PI	1100-W AC power supply with port-side intake airflow (burgundy coloring)	2	9348GC-FXP	
NXA-PAC-1100W-PE2	1100-W AC power supply with port-side exhaust airflow (blue coloring)	2	93240YC-FX2	9336C-FX2
NXA-PAC-1100W-PI2	1100-W AC power supply with port-side intake airflow (burgundy coloring)	2	93240YC-FX2	9336C-FX2
NXA-PHV-1100W-PE	1100-W AC power supply with port-side exhaust airflow (blue coloring)	2	93240YC-FX2	9336C-FX2
NXA-PHV-1100W-PI	1100-W AC power supply with port-side intake airflow (burgundy coloring)	2	93240YC-FX2	9336C-FX2
NXA-PAC-1200W-PE	1200-W AC power supply with port-side intake airflow (burgundy coloring)	2	9272Q	9364C
NXA-PAC-1200W-PI	1200-W AC power supply with port-side exhaust airflow (blue coloring)	2	9272Q	9364C
NXA-PDC-930W-PE	930-W DC power supply with port-side exhaust airflow (blue coloring)	2	93108TC-FX 93180LC-EX	93180YC-FX 9364C
NXA-PDC-930W-PI	930-W DC power supply with port-side intake airflow (burgundy coloring)	2	93108TC-FX 93180LC-EX	93180YC-FX 9364C
UCS-PSU-6332-DC	930-W DC power supply with port-side exhaust (gray coloring)	2	92160YC-X 9236C 92304QC 9272Q 93108TC-EX 93120TX 93128TX 93180YC-EX	9332PQ 9372PX 9372PX-E 9372TX 9372TX-E 9396PX 9396TX
UCSC-PSU-930WDC	930-W DC power supply with port-side intake (green coloring)	2	92160YC-X 9236C 92304QC 9272Q 93108TC-EX 93120TX 93128TX 93180YC-EX	9332PQ 9372PX 9372PX-E 9372TX 9372TX-E 9396PX 9396TX

System Requirements

Table 6 Cisco Nexus 9500 Series Supervisor Modules

Supervisor	Description	Quantity
N9K-SUP-A	1.8-GHz supervisor module with 4 cores, 4 threads, and 16 GB of memory	2
N9K-SUP-A+	1.8-GHz supervisor module with 4 cores, 8 threads, and 16 GB of memory	2
N9K-SUP-B	2.2-GHz supervisor module with 6 cores, 12 threads, and 24 GB of memory	2
N9K-SUP-B+	1.9-GHz supervisor module with 6 cores, 12 threads, and 32 GB of memory	2

Table 7 Cisco Nexus 9000 Series Switches

Cisco Nexus Switch	Description
N9K-C92160YC-X	1-RU Top-of-Rack switch with 48 10-/25-Gigabit SFP+ ports and 6 40-Gigabit QSFP+ ports (4 of these ports support 100-Gigabit QSFP28 optics).
N9K-C92300YC	1.5-RU Top-of-Rack switch with 48 10-/25-Gigabit SFP28 ports and 18 fixed 40-/100-Gigabit QSFP28 ports.
N9K-C92304QC	2-RU Top-of-Rack switch with 56 40-Gigabit Ethernet QSFP+ ports (16 of these ports support 4x10 breakout cables) and 8 100-Gigabit QSFP28 ports.
N9K-C9236C	1-RU Top-of-Rack switch with 36 40-/100-Gigabit QSFP28 ports (144 10-/25-Gigabit ports when using breakout cables)
N9K-C9272Q	2-RU Top-of-Rack switch with 72 40-Gigabit Ethernet QSFP+ ports (35 of these ports also support 4x10 breakout cables for 140 10-Gigabit ports)
N9K-C9336C-FX2	1-RU switch with 36 40-/100-Gb Ethernet QSFP28 ports.
N9K-C9364C	2-RU Top-of-Rack switch with 64 40-/100-Gigabit QSFP28 ports and 2 1-/10-Gigabit SFP+ ports.
N9K-C93108TC-EX	1-RU Top-of-Rack switch with 48 10GBASE-T (copper) ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C93108TC-FX	1-RU Top-of-Rack switch with 48 100M/1/10GBASE-T (copper) ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C93120TX	2-RU Top-of-Rack switch with 96 1/10GBASE-T (copper) ports and 6 40-Gigabit QSFP+ ports
N9K-C93128TX	3-RU Top-of-Rack switch with 96 1/10GBASE-T (copper) ports and an uplink module up to 8 40-Gigabit QSFP+ ports
N9K-C93180LC-EX	1-RU Top-of-Rack switch with 24 40-/50-Gigabit QSFP+ downlink ports and 6 40/100-Gigabit uplink ports. You can configure 18 downlink ports as 100-Gigabit QSFP28 ports or as 10-Gigabit SFP+ ports (using breakout cables)
N9K-C93180YC-EX	1-RU Top-of-Rack switch with 48 10-/25-Gigabit SFP28 fiber ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C93180YC-FX	1-RU Top-of-Rack switch with 10-/25-/32-Gigabit Ethernet/FC ports and 6 40-/100-Gigabit QSFP28 ports. You can configure the 48 ports as 1/10/25-Gigabit Ethernet ports or as FCoE ports or as 8-/16-/32-Gigabit Fibre Channel ports.
N9K-C93240YC-FX2	1.2-RU Top-of-Rack switch with 48 10-/25-Gigabit SFP28 fiber ports and 12 40-/100-Gigabit Ethernet QSFP28 ports.
N9K-C9332PQ	1-RU switch with 32 40-Gigabit Ethernet QSFP+ ports (26 ports support 4x10 breakout cables and 6 ports support QSFP-to-SFP adapters)
N9K-C9348GC-FXP	Nexus 9300 with 48p 100M/1 G, 4p 10/25 G SFP+ and 2p 100 G QSFP
N9K-C9372PX	1-RU Top-of-Rack switch with 48 1-/10-Gigabit SFP+ ports and 6 40-Gigabit QSFP+ ports
N9K-C9372PX-E	An enhanced version of the Cisco Nexus 9372PX-E switch.
N9K-C9372TX	1-RU Top-of-Rack switch with 48 1-/10GBASE-T (copper) ports and 6 40-Gigabit QSFP+ ports
N9K-C9372TX-E	An enhanced version of the Cisco Nexus 9372TX-E switch.

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N9K-C9396PX	2-RU Top-of-Rack switch with 48 1-/10-Gigabit Ethernet SFP+ ports and an uplink module with up to 12 40-Gigabit QSFP+ ports
N9K-C9396TX	2-RU Top-of-Rack switch with 48 1/10GBASE-T (copper) ports and an uplink module with up to 12 40-Gigabit QSFP+ ports
N9K-C9504	7.1-RU modular switch with slots for up to 4 line cards in addition to two supervisors, 2 system controllers, 3 to 6 fabric modules, 3 fan trays, and up to 4 power supplies.
N9K-C9508	13-RU modular switch with slots for up to 8 line cards in addition to two supervisors, 2 system controllers, 3 to 6 fabric modules, 3 fan trays, and up to 8 power supplies.
N9K-C9516	21-RU modular switch with slots for up to 16 line cards in addition to two supervisors, 2 system controllers, 3 to 6 fabric modules, 3 fan trays, and up to 10 power supplies.

Table 8 Cisco Nexus 9000 Series Uplink Modules

Product ID	Hardware
N9K-M4PC-CFP2	Cisco Nexus 9300 uplink module with 4 100-Gigabit Ethernet CFP2 ports. For the Cisco Nexus 93128TX switch, only two of the ports are active. For the Cisco Nexus 9396PX and 9396TX switches, all four ports are active.
N9K-M6PQ	Cisco Nexus 9300 uplink module with 6 40-Gigabit Ethernet QSFP+ ports for the Cisco Nexus 9396PX, 9396TX, and 93128TX switches.
N9K-M6PQ-E	An enhanced version of the Cisco Nexus N9K-M6PQ uplink module.
N9K-M12PQ	Cisco Nexus 9300 uplink module with 12 40-Gigabit Ethernet QSPF+ ports.

Table 9 Cisco Nexus 9500 Series System Controller

Product ID	Hardware	Quantity
N9K-SC-A	Cisco Nexus 9500 Platform System Controller Module	2

Table 10 Cisco Nexus 3232C and 3264Q Switch Hardware

Product ID	Hardware	Quantity
N3K-C3232C	Cisco Nexus 3232C, 32 x 40-Gb/100-Gb 2 x 10-Gb SFP+, 1-RU switch	1
N3K-C3264Q	Cisco Nexus 3264Q, 64 x 40-Gb 2 x 10-Gb SFP+, 2-RU switch	1

Table 11 Cisco Nexus 3164Q Switch Hardware

Product ID	Hardware	Quantity
N3K-C3164Q-40GE	Cisco Nexus 3164Q, 64 x 40-Gb SFP+, 2-RU switch	1

Table 12 Cisco Nexus 31128PQ Switch Hardware

Product ID	Hardware	Quantity
N3K-C31128PQ-10GE	Nexus 31128PQ, 96 x 10 Gb-SFP+, 8 x 10-Gb QSFP+, 2-RU switch	1

Supported Optics

To determine which transceivers and cables are supported by this switch, see [Transceiver Module \(TMG\) Compatibility Matrix](#).

To see the transceiver specifications and installation information, see <https://www.cisco.com/c/en/us/support/interfaces-modules/transceiver-modules/products-installation-guides-list.html>.

Supported FEX Modules

For more information, see the [Cisco Nexus 9000 Series Switch FEX Support](#) page.

Note the following:

- Cisco Nexus 9300 platform switches do not support FEXs on uplink modules (ALE).
- Beginning with Cisco NX-OS Release 7.0(3)I7(3), the Cisco Nexus N9K-C93180YC-FX supports N2K-C2232PP and N2K-C2248TP FEX models in NX-OS mode. In this mode, the N9K-C93180YC-FX supports straight-through FEX, but it does not support dual-homed FEX. Active-Active FEX and straight-through FEX are not supported on Cisco N9K-C9348GC-FXP, N9K-C93180TC-FX, N9K-C9336C-FX2, and N9K-C93240YC-FX2 switches in Cisco NX-OS Release 7.0(3)I7(3).
- For FEX HIF port channels, enable the STP port type edge using the spanning tree port type edge [trunk] command.
- The Cisco Nexus 2248PQ, 2348TQ, and 2348UPQ FEXs support connections to the Cisco Nexus 9300 or 9500 platform switches by using supported breakout cables to connect a QSFP+ uplink on the FEX and an SFP+ link on the parent switch (4x10 G links).

Note: For Cisco Nexus 9500 platform switches, 4x10-Gb breakout for FEX connectivity is not supported.

New and Changed Information

This section lists the following topics:

- New Hardware Features in Cisco NX-OS Release 7.0(3)I7(6)
- New Software Features in Cisco NX-OS Release 7.0(3)I7(6)

New Hardware Features in Cisco NX-OS Release 7.0(3)I7(6)

Cisco NX-OS Release 7.0(3) I7(6) supports the following new hardware:

- The Cisco Nexus 9736Q-FX line card (N9K-X9736Q-FX) with 1-/10-/40-Gigabit QSFP28 ports.

New Software Features in Cisco NX-OS Release 7.0(3)I7(6)

Cisco NX-OS Release 7.0(3)I7(6) includes the following new software features:

Caveats

iCAM Features

- iCAM health monitoring and ITD: support added to provide the following health monitoring data: data on device health and data on ITD service.

For more information, see the [Cisco Nexus 9000 Series NX-OS iCAM Configuration Guide, Release 7.x](#).

Interfaces Features

- Link Debounce Link-Up: Added support for the link debounce link-up time command on 10G, 25G, 40G and 100G ports on the Cisco Nexus N9K-C9732C-FX, N9K-C9364C, N9K-C9336C-FX2 and N9K-C93240YC-FX2 platform switches and N9K-X97160YC-EX line card.

For more information, see the [Cisco Nexus 9000 Series NX-OS Interfaces Configuration Guide, Release 7.x](#).

Licensing Features

- Introduced the Following licenses for the Cisco Nexus 9364C platform switch:
 - NXOS-ES-XF2: NX-OS Essentials license package
 - NXOS-AD-XF2: NX-OS Advantage license package
 - NXOS-NDB: NX-OS NDB add-on license
 - N93-LAN1K9-FX2: Enterprise Services Package feature-based license

For more information, see the [Cisco NX-OS Licensing Guide](#).

Label Switching

- Local label allocation: Added support for IPv4 and IPv6 labeled and unlabeled unicast routes on a single BGP session. This behavior is the same irrespective of whether one or both SAFI-1 and SAFI-4 are enabled on the same session or not.

For more information, see the [Cisco Nexus 9000 Series NX-OS Label Switching Configuration Guide, Release 7.x](#).

Security Features

- MACsec Configuration: Added support to add, modify and delete the MACsec configuration directly on a port channel member.

For more information, see the [Cisco Nexus 9000 Series NX-OS Security Configuration Guide, Release 7.x](#).

Unicast Routing Features

- BGP community attribute for specific-routes in an aggregate-route: Supports **the ability to suppress certain “more-specific” routes from being advertised to its peers or to decide to advertise the more-specific routes** with some community attributes set on them, depending upon the suppress-map route-map configuration.
- BGP DSCP value - Supports the ability to specify a DSCP value for locally originated packets for IPv4 and IPv6 as part of configuring BGP.
- BGP routing: the optional keyword [all] was added for the next-hop-self argument. The keyword controls whether reflected routes have their next-hops changed.

For more information, see the [Cisco Nexus 9000 Series NX-OS Unicast Routing Configuration Guide, Release 7.x](#).

Caveats

This section includes the following topics:

Caveats

- Resolved Caveats—Cisco NX-OS Release 7.0(3)I7(6)
- Open Caveats—Cisco NX-OS Release 7.0(3)I7(6)
- Known Behaviors—Cisco NX-OS Release 7.0(3)I7(6)

NOTE: All caveats listed in this document are those that were reported against the Cisco Nexus 9000 Series switches.

Cisco Nexus 9000 Series, Cisco Nexus 3000 Series, and Cisco Nexus 3500 Series are platforms that run on the unified software and binary. Since some caveats listed against these platforms could be applicable to the Cisco Nexus 3000 series platform too, we recommend that you review the list of caveats in the Release Notes of the other platforms for this release, to see if those are applicable to your network configuration.

Resolved Caveats—Cisco NX-OS Release 7.0(3)I7(6)

The following table lists the Resolved Caveats in Cisco NX-OS Release 7.0(3)I7(6). Click the bug ID to access the Bug Search tool and see additional information about the bug.

Table 13 Resolved Caveats in Cisco NX-OS Release 7.0(3)I7(6)

Bug ID	Description
CSCvd82021	N9K-C9516-FM-E reported warning due to fatal error in device DEV_TAHOE (device error 0xc0c03203)
CSCve67821	Session manager does not work for egress ACL
CSCvf42015	"fragments" setting under ACL doesn't suppress fragment ACE under PBR
CSCvh04723	Unable to remove MAC ACE using sequence number in 7.0(3)I7(2)
CSCvh12873	OIF is stuck in the mroute table after removing IGMP join-group
CSCvh88245	Port-channel member ports in Error Disable state after Switch reload -%ETHPORT-5-IF_SEQ_ERROR: Error
CSCvh95282	Need to resolve of leak on trunk_member utilization/entries on Nexus 9000
CSCvi04656	Standby Sup reload due to EOBC heartbeat failure (kfu_mts-app-137)
CSCvi09472	aclmgr crashed several times in a L2 loop while moving a link from a 10GE L2 to a 20GE LAG
CSCvi18428	N9K: speed cmd not accepted after applying medium p2p
CSCvi23870	N9000 does not set vlan routable flag when igmp snooping is enabled on vlan SVI
CSCvi44781	VRF is stuck in "Delete Holddown" state
CSCvi45264	Show interface transceiver details cmd is slow and showing errors for fex interfaces.
CSCvi77567	Configuring "feature nv overlay" breaks sub-interface multicast forwarding across FM-E modules
CSCvj10705	Schemas validity error while validating xml in HSRP clis.
CSCvj19118	n9k/standalone: default gw not installed in URIB after nh move
CSCvj27056	ARP Frame May Be Sourced from BIA SVI MAC with Anycast GW configured
CSCvj52053	NGMVPN and MRIB entries not cleaned up if Data/IGMP Traffic stopped after triggers
CSCvj54485	Not able to apply Fabric Extender Host Interface Configuration post NX-OS and EPLD upgrade
CSCvj59136	Evaluation of n9k-standalone-sw for May CPU Side-Channel Information Disclosure Vulnerabilities
CSCvj77770	VxLAN Pseudo BGW Config for peer-type fabric-external Incorrectly Disables Split Horizon Check
CSCvk02234	"system module emon-enhanced" not displayed in config
CSCvk45371	after upgrade an interface is lost in a command " ip dhcp relay source-interface <interface>"
CSCvk48208	unable to delete entry from an object-group whose name contains a dot
CSCvk59418	Remote-as info is removed from the run-cfg after adding next msdp configs in def VRF
CSCvk71597	N3164 Fastboot behavior with ALL IPv6 BGP neighbors down
CSCvm01300	SG not programming the OIF from IGMPv3 SSM group after clear ip mroute data-created

Caveats

Bug ID	Description
CSCvm14263	Stale adjacency IPv6 packet loss
CSCvm14443	ARP Refresh Packets are not send out on vPC portchannels after a TCN
CSCvm15745	TRM L3:(*,G) entries dont age out on BL with External RP.
CSCvm16921	N9K reload due to sysmgr failed to re-register with heartbeat klm
CSCvm17090	Slave device PTP state flap when disconnecting uplink for GM
CSCvm20551	VXLAN PBR not working after upgrade to 7.0(3)I7(5)
CSCvm34595	N9300 NAT may break with DHCP relay configuration and black hole non NAT traffic
CSCvm37622	N9364 - Eth1/65 and Eth1/66 Not Dropping CRC Errors When Enabled w/ "switching-mode store-forward"
CSCvm41215	LACP don't handle out of sync PDU when local LACP is not down and in sync
CSCvm41550	N9K-FEX: 'flowcontrol send on' is set to po and HIFs are not associated to po after FEX replacement
CSCvm44958	Missing ACL in running config when applying via file or POAP to startup configurations and reloading
CSCvm44989	N9K Enhancement - Update reset reason due to power when switch is reset due to power failure
CSCvm47406	Flapping one port causes RDMA traffic drop on a different port on N9K-FX2 switches
CSCvm47909	N9K-C93180LC-EX // LACP PDU timeout on bottom/even port if link goes down on top/odd port
CSCvm48216	Update correct reload reason for kernel panic
CSCvm50912	Egress policy is getting pushed to other interfaces where it is not applied.
CSCvm51477	URI for Accounting Logs produce crash when server and authority are NULL
CSCvm52092	Creating L3 SVI caused control plane instability due to excessive ARP traffic between vpc peers
CSCvm52168	Ports may enter Internal-Fail errDisable when config/bringup and saving config
CSCvm53394	N9K C9372PX cannot read FEX N2KC2248TP-E-GE SFP after "show platform software princeton sfp"
CSCvm53432	Checkpoint Rollback fails to alter the running-config after an interrupted Rollback
CSCvm63307	Certain interfaces shown input/output rate as 0pps
CSCvm64057	Nexus 9000 - "no lacp suspend-individual" configured on NIF causes VNTAG to not be set
CSCvm65959	N9K-C93180YC-EX's E1/43-44 interface counters stop increasing
CSCvm70012	link debounce time 0 disables link debounce link-up feature
CSCvm70066	EEM script going into loop with matching log message with config change
CSCvm70086	Slow Memory leak observed in Aclmgr process with flapping erspan source interface
CSCvm70117	Fragmented UDP packets goes to CPU - BFDC v4 PACKET IETF
CSCvm71372	After changing pvlan isoated->comm->isolated host are still reachable
CSCvm73535	vPC peer-keepalive misconfiguration prevents correct reconfiguration, cannot save configuration
CSCvm73962	N9K may experience sporadic high PTP correction
CSCvm75607	Nexus9000/EX - Interface counters stop incrementing
CSCvm76982	Memory leak on lftmc & libbcm_sdk.so
CSCvm77778	Nexus N3K-C31108TC-V not able to relay Broadcast DHCP Offer in same vlan.
CSCvm78543	Internal CRC log also matches cut-through CRC errors
CSCvm80168	NX-API stops responding to HTTPS requests on N9K due to SSL malloc failure
CSCvm80466	40gig Link down on retimer ports after repeated link flaps on local or remote Palo Alto FW
CSCvm90522	N9000 prefers mBGP route over directly connected one causing mcast traffic black holing
CSCvm90606	Rotor failure results in incorrect FAN LED being turned amber
CSCvm93286	N9K: ACL not work on private vlan
CSCvm93838	Unable to delete remotely authenticated users when username contains period/dot ".."
CSCvm94379	N9K Micron M1100 SSD " Bootflash Read-Only State" ; Kernel I/O Errors Found
CSCvm95610	MPLS labeled traffic not forwarded out of a layer-2 interface on N9K-C9364C
CSCvm96774	Link down/failure logged in syslog but interface is up from show port-channel on N92160
CSCvm98698	GLC-T autonegotiation on Nexus 9000 connecting to a 100mb(FastEthernet port) does not work

Caveats

Bug ID	Description
CSCvm99035	Switch-profile import verify fails for "spanning-tree link-type point-to-point"
CSCvm99674	FEX configuration loss after EPLD upgrade
CSCvn05890	UC_DF_CHECK_FAILURE For Traffic on Infra Vlan on VPC Peer-link and advertise-pip
CSCvn05902	On 9200-EX , 9300- EX, 9700-EX, 9300 FX,9300 FX2 ing-sup region should not be first region in TCAM
CSCvn06267	Service "mfdm" (PID 26663) hasn't caught signal 6
CSCvn09460	PKA fails with Suspended(UNUSABLE VRF) when removing vrf with management prefix (not vrf management)
CSCvn10234	N9K-C93108TC-FX - SFP Management port doesnt link up - mgmt0
CSCvn10484	Tacacs: Under stress condition, few tacacs authentication/authorization transactions has failed
CSCvn13645	can not change AD for ISIS ipv6 routes using distance command under ipv6 address family
CSCvn13690	Tcam resource usage increase due to VXLAN VLAN stale ACL entries.
CSCvn14147	Interface management stays down on N9K-C93180YC-FX if it was recovered from loader>
CSCvn15038	vntag_mgr crash simultaneously
CSCvn15681	Monitor config triggers ARP-3-IP_INTERNAL_ERROR message
CSCvn18718	N9K-C9348GC-FXP:take about 4 sec to detect link down on rj45 port
CSCvn21081	Peer-gateway not working for some/all VLANs after a VLAN deletion.
CSCvn21120	"aaa bypass-user" option to bypass ACS authorization/accounting does not work
CSCvn21809	N3K: Nexus 31108PCV - tacacs-server key is not saved to config when using "< >" together
CSCvn25063	Netconf Connections abnormally terminating
CSCvn30363	COPP Crash after Modifying COPP when booted with POAP On N9000
CSCvn30699	Gold POST test failure alerts not reaching the remote syslog server.
CSCvn31901	Netflow cache and export not working on Nexus FX2 platform
CSCvn32653	N9K-C9516-FM-E: MAC is down but iETH link up
CSCvn33000	Regarding ISIS redistribute maximum-prefix less than static route number
CSCvn35293	Stuck PO lock can inadvertently lock other PO while using copy+R+S and create system wide lock
CSCvn36637	TACACS authentication with type 6 encryption fails after upgrade
CSCvn36645	Vlan not added to flood list, when new vlans are created in FL ingress-replication VXLAN
CSCvn36648	unable to use domain name as argument to ssh6 - ssh: Invalid Hostname
CSCvn36666	Vlan VNI in stale state if peer-vtep is used along with peer-ip in F&L ingress-replication VXLAN
CSCvn36816	Traceroute: 93180-EX/FX VTEP not reply ICMP TTL exceed message to host when receive TTL=1 message
CSCvn37878	Ping to N9k VXLAN VTEP Tenant IP address dropped in CoPP Class Default
CSCvn43362	N9k - During ISSU DME database Restore Failure
CSCvn47004	IPV4 adjacency down when change ISIS IPV6 MT to ST
CSCvn49397	Partial config sync after defaulting the interface in switch-profile// 9.2.2//N93180
CSCvn50769	N9k acl-mgr memory leak
CSCvn52620	PCM get locked permanently during FEX configs
CSCvn53007	IPv6 traffic with ip version 7 header is not dropped but forwarded on N9K
CSCvn57953	NVE failed to learn remote VTEP RMAC after ISSU terminated or canceled
CSCvn58564	N9K - Prevent "No lacp suspend-individual" From Being Configured on FEX Fabric Interfaces
CSCvn62162	no vn-segment failed to run
CSCvn63102	NVE failed to learn remote vtep RMAC after config change from DCNM/MW mode
CSCvn63483	Wrong Error message reported for ERSPAN destination on FEX HIF
CSCvn63957	Tunnel ECMP Index value triggers a crash, Software Driver failure
CSCvn67454	Spanning-tree BPDU Generated On Voice VLAN For MVAP Is Sent Untagged
CSCvn71860	Nginx crash while handling Bash request

Caveats

Bug ID	Description
CSCvn72588	CLI " show version" hangs - yum.log file swap failure
CSCvn72749	N9300 may experience high correction after cable/transceiver is plugged in
CSCvn74678	BDB / 'show tech details' includes commands with no output or syntax error or Cmd exec error
CSCvn74968	N9K/ AAA: local authentication cannot be used for console login when running LXC mode
CSCvn75206	N9K: 'power redundancy-mode insrc-redundant' missed after reload
CSCvn80451	N9k stale S,G entry seen in VXLAN TRM environment due to missing BGP withdraw
CSCvn82255	Packet drop if sfp of channel member port removed
CSCvn83200	Private-vlan host-associate command with range causes the process to hang
CSCvn94487	N9300-EX/N9200 may experience permanent PTP high correction
CSCvn97606	AS-SET value showing 0 for aggregated routes in EVPN route.
CSCvn99259	GET req on OID cefcFanTrayOperStatus.535 returns next fan entry status.
CSCvo02656	Non-disruptive ISSU failing on N9k with "I3vm Startup failure" error
CSCvo02663	N9K not learning mac address
CSCvo04427	Fix ETHPORT-5-IF_DOWN_ERROR_DISABLED: Interface Ethernetx/y is down (Error disabled. Reason:error)
CSCvo04435	2348UPO FEX port running FCoE goes into ErrDisabled(Pause Frame) without RX pause frames
CSCvo04778	MST reconfig will cause VLAN hardware programming to be missing on T2
CSCvo06469	Non encapsed bridged traffic don't egress on peer-link when vPC leg down when any tunnel intf is up
CSCvo08274	N9K:Could not find niv_idx <xxx> in vif_table
CSCvo10709	VXLAN: Seeing BGP-3-ASSERT error and traceback
CSCvo10976	N9K: Port link up suddenly w/ SFP-10G-SR-S but w/o connected cable
CSCvo11610	Fail to delete sub-if Port-Channel with certain BFD modes/flags enabled on parent interface
CSCvo12801	Decap stops working for one VRF after changing HIF's configuration
CSCvo15505	Egress packet loss from CPU when dest is recursive through EVPN
CSCvo19039	N9K: MTS leak from SAP 175 (Ethpm SAP) to SAP 153 (Pixm App VDC Local SAP)
CSCvo19594	Nexus 9000-FX QinQ VxLAN BGP EVPN. Multitag not functional after device is reloaded
CSCvo25061	I4op are cleared for slice 0 when last port on slice 1 goes down
CSCvo32242	No warning message when disabling LACP suspend-individual
CSCvo32844	"logging level confcheck" can't be loaded to running-config after device rebooted
CSCvo51445	N3164: USB1 mounted as USB2 and vice-versa

Open Caveats–Cisco NX-OS Release 7.0(3)I7(6)

The following table lists the open caveats in the Cisco NX-OS Release 7.0(3)I7(6). Click the bug ID to access the Bug Search tool and see additional information about the bug.

Table 14 Open Caveats in Cisco NX-OS Release 7.0(3)I7(6)

Bug ID	Description
CSCvg65669	After reload license is not checked out despite having " port-license acquire" cli under port.
CSCvn82572	N9K-X9736C-FX QINQ wrong vlan TAG after poweroff/on module
CSCvo47319	N9K-X9736C-FX's /35 and /36 ports not coming up with QSFP-100G-SR4-S
CSCvo86286	Kernel panic seen on Nexus 9500 1st Gen line cards. Note : A SMU patch is available here to download to fix the issue in 7.0(3)I7(6). The filename is nxos.CSCvo86286-n9k_ALL-1.0.0-7.0.3.I7.6.lib32_n9000.rpm.

Known Behaviors—Cisco NX-OS Release 7.0(3)I7(6)

Table 4 Known Behaviors in Cisco NX-OS Release 7.0(3)I7(6)

Bug ID	Description
CSCvc95008	On Cisco Nexus 9300-EX, 9348GC-FXP, 93108TC-FX, 93180YC-FX, 9336C-FX2, and 93240YC-FX2 switches, when 802.1q EtherType has changed on an interface, the EtherType of all interfaces on the same slice will be changed to the configured value. This change is not persistent after a reload of the switch and will revert to the EtherType value of the last port on the slice.

The following known behaviors are in this release.

- In the NX-API sandbox, whenever XML or JSON output is generated for the show run command or the show startup command, the output contains additional characters.

For example,

```
</nf:source>      <=====nf: is extra
```

```
<namespace> : extra characters are seen with XML and JSON from NX-API.
```

```
=====
```

Upgrade and Downgrade

To perform a software upgrade or downgrade, follow the instructions in the [Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide, Release 7.x](#).

For information about an In Service Software Upgrade (ISSU), see the [Cisco NX-OS ISSU Support](#) application.

Note: Upgrading from Cisco NX-OS 7.0(3)I1(2), 7.0(3)I1(3), or 7.0(3)I1(3a) requires installing a patch for Cisco Nexus 9500 platform switches only. For more information on the upgrade patch, see [Upgrade Patch Instructions](#).

Limitations

This section lists limitations related to Cisco NX-OS Release 7.0(3)I7(6).

- When you upgrade a Cisco Nexus 9000 device to Cisco NX-OS Release 7.0(3)I7(6), if a QSFP port is configured with the manual breakout command and is using a QSA, the configuration of the interface Ethernet 1/50/1 is no longer supported and will need to be removed. To restore the configuration, you must manually configure the interface Ethernet 1/50 on the device.
- Due to the design of airflow, back-to-front fans requires fan speed to be run at full speed all the time. You might also see fan speeds increase from 40% to 70% post-upgrade. This applies to the following PIDs: N9K-C9272Q, N9K-C9236C, N9K-C93180YC-FX, N9K-C93180TC-FX, N9K-C9364C, N3K-C36180YC-R, N9K-C9336C-FX2. This change is made as of cisco NX-OS Release 7.0(3)I7(3). If your PID is not listed, please contact Cisco TAC for additional verification.

Limitations

- The following features are not supported on the Cisco Nexus 9364C switch.
 - 100 G port cannot support breakout (HW limitation)
 - Line rate cannot be sustained across all 36 ports on the 9736C-EX line card.
 - The following switches support QSFP+ with the QSFP to SFP/SFP+ adapter (40 Gb to 10 Gb):
 - N9K-C93120TX
 - N9K-C93128TX
 - N9K-C9332PQ
 - N9K-C9372PX
 - N9K-C9372PX-E
 - N9K-C9372TX
 - N9K-C9396PX
 - N9K-C93108TC-EX
 - N9K-C93180YC-EX
 - N9K-C93180YC-FX
-
- **Note:** The Cisco Nexus 9300 platforms support for the QSFP+ breakout has the following limitations:
 - Only 10 Gb can be supported using the QSFP-to-SFP Adapter on 40-Gb uplink ports on Cisco Nexus 9300 platform switches in NX-OS.
 - 1 Gb with QSFP-to-SFP Adapter is not supported.
 - For the Cisco Nexus 9332PQ switch, all ports except 13-14 and 27-32 can support breakout.
 - All ports in the QSFP-to-SFP Adapter speed group must operate at the same speed (see the configuration guide).
-
- The following switches support the breakout cable (40 Gb ports to 4x10-Gb ports):
 - N9K-C9332PQ
 - N9K-X9436PQ
 - N9K-X9536PQ
 - N9K-C93180LC-EX—last four ports are breakout capable (10x4, 24x4, 50x2)
 - N9K-C93180YC-EX
 - N9K-C93108TC-EX
 - N9K-X9732C-EX line card
 - N9K-X9732C-FX line card

Unsupported Features

- N9K-X97160YC-EX
- Limitations for ALE (Application Link Engine) uplink ports are listed at the following URL:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/ale_ports/b_Limitations_for_ALE_Uplink_Ports_on_Cisco_Nexus_9000_Series_Switches.html

Unsupported Features

Notes regarding unsupported features:

- [Cisco Nexus 3232C and 3264Q Switches](#)
- [Cisco Nexus 9200, 9300-EX, and 9300-FX Platform Switches](#)
- [Cisco Nexus 9408 Line Card and 9300 Series Switches](#)
- [Cisco Nexus 9732C-EX Line Card](#)

Cisco Nexus 3232C and 3264Q Switches

The following features are not supported for the Cisco Nexus 3232C and 3264Q switches:

- 3264Q and 3232C platforms do not support the PXE boot of the NX-OS image from the loader.
- Automatic negotiation support for 25-Gb and 50-Gb ports on the Cisco Nexus 3232C switch
- Cisco Nexus 2000 Series Fabric Extenders (FEX)
- Cisco NX-OS to ACI conversion (The Cisco Nexus 3232C and 3264Q switches operate only in Cisco NX-OS mode.)
- DCBXP
- Designated router delay
- DHCP subnet broadcast is not supported
- Due to a Poodle vulnerability, SSLv3 is no longer supported
- FCoE NPV
- Intelligent Traffic Director (ITD)
- Enhanced ISSU. NOTE: Check the appropriate guide to determine which platforms support Enhanced ISSU.
- MLD
- NetFlow
- PIM6
- Policy-based routing (PBR)
- Port loopback tests
- Resilient hashing

Unsupported Features

- SPAN on CPU as destination
- Virtual port channel (vPC) peering between Cisco Nexus 3232C or 3264Q switches and Cisco Nexus 9300 platform switches or between Cisco Nexus 3232C or 3264Q switches and Cisco Nexus 3100 Series switches
- VXLAN IGMP snooping

Cisco Nexus 9200, 9300-EX, and 9300-FX Platform Switches

The following features are not supported for the Cisco Nexus 9200 platform switches and the Cisco Nexus 93108TC-EX and 93180YC-EX switches:

- 64-bit ALPM routing mode
- Cisco Nexus 9272PQ and Cisco Nexus 92160YC platforms do not support the PXE boot of the NXOS image from the loader.
- ACL filters to span subinterface traffic on the parent interface
- Egress port ACLs
- Egress QoS policer is supported on the Cisco Nexus 9300-EX and 9300-FX platform switches. It is not supported on the Cisco Nexus 9200 platform switch. The only policer action supported is drop. Remark action is not supported on egress policer.
- FEX (supported for Cisco Nexus 9300-EX platform switches but not for Cisco Nexus 9200 platform switches.)
- GRE v4 payload over v6 tunnels
- IP length-based matches
- IP-in-IP on Cisco Nexus 92160 switch
- ISSU enhanced is not supported on the Cisco Nexus 9300-FX platform switch.
- Layer 2 Q-in-Q is supported only on Cisco Nexus 9300-EX platform switches (93108TC-EX and 93180YC-EX) and Cisco Nexus 9500 platform switches with the X9732C-EX line card.
- MTU (Multi Transmission Unit) checks for packets received with an MPLS header
- NetFlow is not supported on Cisco Nexus 9200 platform switches. It is supported on Cisco Nexus 9300-EX and 9300-FX platform switches.
- Packet-based statistics for traffic storm control (only byte-based statistics are supported)
- PVLANS (supported on Cisco Nexus 9300 and 9300-EX platform switches but not on Cisco Nexus 9200 platform switches)
- Q-in-VNI is not supported on Cisco Nexus 9200 platform switches. Beginning with Cisco NX-OS Release 7.0(3)I5(1), Q-in-VNI is supported on Cisco Nexus 9300-EX platform switches.
- Q-in-Q for VXLAN is not supported on Cisco Nexus 9200 and 9300-EX platform switches
- Q-in-VNI is not supported on Cisco Nexus 9200 platform switches (supported on Cisco Nexus 9300-EX platform switches)
- Resilient hashing for ECMP on the Cisco Nexus 9200 platform switches.

Unsupported Features

- Resilient hashing for port-channel
- Rx SPAN for multicast if the SPAN source and destination are on the same slice and no forwarding interface is on the slice
- SVI uplinks with Q-in-VNI are not supported with Cisco Nexus 9300-EX platform switches
- Traffic storm control for copy-to-CPU packets
- Traffic storm control with unknown multicast traffic
- Tx SPAN for multicast, unknown multicast, and broadcast traffic
- VACL redirects for TAP aggregation

Cisco Nexus 9500 Platform N9K-X9408PC-CFP2 Line Card and 9300 Platform Switches

The following features are not supported for the Cisco Nexus 9500 platform N9K-X9408PC-CFP2 line card and Cisco Nexus 9300 platform switches with generic expansion modules (N9K-M4PC-CFP2):

- 802.3x
- Breakout ports
- FEX (this applies to the N9K-X9408PC-CFP2 and -EX switches, not all Cisco Nexus 9300 platform switches)
- MCT (Multichassis EtherChannel Trunk)
- NetFlow
- Only support 40G flows
- Port-channel (No LACP)
- PFC/LLFC
- PTP (Precision Time Protocol)
- PVLAN (supported on Cisco Nexus 9300 platform switches)
- Shaping support on 100g port is limited
- SPAN destination/ERSPAN destination IP
- Storm Control
- vPC
- VXLAN access port.

N9K-X9732C-EX Line Card

The following features are not supported for Cisco Nexus 9508 switches with an N9K-X9732C-EX line card:

- FEX

Related Documentation

- IPv6 support for policy-based routing
- LPM dual-host mode
- SPAN port-channel destinations

Related Documentation

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

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

The Cisco Nexus 3164Q Switch - Read Me First is available at the following URL:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus3164/sw/6x/readme/b_Cisco_Nexus_3164Q_Switch_Read_Me_First.html

The Cisco Nexus 31128PQ Switch - Read Me First is available at the following URL:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus31128/sw/readme/b_Cisco_Nexus_31128PQ_Switch_Read_Me_First.html

The Cisco Nexus 3232C/3264Q Switch - Read Me First is available at the following URL:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus3232and3264/sw/7x/readme/b_Cisco_Nexus_3232C_and_3264Q_Switch_Read_Me_First.html

The Cisco Nexus 3000 and 9000 Series NX-API REST SDK User Guide and API Reference is available at the following URL:

<https://developer.cisco.com/site/nx-os/docs/n3k-n9k-api-ref/>

The Cisco NX-OS Supported MIBs URL:

<ftp://ftp.cisco.com/pub/mibs/supportlists/nexus9000/Nexus9000MIBSupportList.html>

The *Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes, Release 7.0(3)I7(3)* is available at the following URL:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/epld_rn/guide/nxos_n9K_epldRN_703i73.html

NOTE: This version applies to Release 7.0(3)I7(6).

New Documentation

The *Cisco Nexus 9000 Series NX-OS Verified Scalability Guide, Release 7.0(3)I7(6)* is available at the following URL:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/7-x/scalability/guide_703i75/b_Cisco_Nexus_9000_Series_NX-OS_Verified_Scalability_Guide_703i75.html

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For information on obtaining documentation and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

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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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