



Cisco Nexus 9000 Series NX-OS Release Notes

Release 10.3(5)M

Introduction

This document describes the features, issues, and exceptions of Cisco NX-OS Release 10.3(5)M software for use on Cisco Nexus 9000 Series switches.

The [Cisco NX-OS Software Strategy and Lifecycle Guide](#) provides details about the new Cisco NX-OS Software Release and Image-naming Convention.

Note: The documentation set for this product strives to use bias-free language. For the purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

The following table lists the changes to this document:

Date	Description
August 5, 2024	Added CSCwi60493 to Resolved Issues.
May 09, 2024	Cisco NX-OS Release 10.3(5)M became available

New and Enhanced Software Features

There are no new software features introduced in Cisco NX-OS Release 10.3(5)M.

Hardware Features

There are no new hardware features introduced in Cisco NX-OS Release 10.3(5)M.

For details about transceivers and cables that are supported on a switch, see the [Transceiver Module \(TMG\) Compatibility Matrix](#).

Release Image

In Cisco NX-OS Release 10.3(5)M, the following two 64-bit images are supported:

- The 64-bit Cisco NX-OS image filename with "nxos64-cs" as the prefix (for example, nxos64-cs.10.3.4a.M.bin) is supported on all Cisco Nexus 9000 series switches except Cisco Nexus 9500 -R and -R2 switches and cards.
- The 64-bit Cisco NX-OS image filename with "nxos64-msll" as the prefix (for example, nxos64-msll.10.3.4a.M.bin) is supported on Cisco Nexus 9000 -R and -R2 series modular switches.

The 32-bit image is no longer supported.

Open Issues

Identifier	Headline
CSCwj28749	All traffic stops when a port with speed 2.5G/5G is oversubscribed.
CSCwj69012	DHCP Discover is dropped with custom COPP policy on L2 only n9k without SVI nor DHCP feature enabled.
CSCwj62619	Disable "spanning-tree fcoe" in Nexus 9000 device.

Identifier	Headline
CSCwj82922	Policer idx mismatches seen on Cisco Nexus 9300-FX3, GX, GX2 after the ND ISSU sequence - Release 10.2x to 10.2x to 10.3(5).

Resolved Issues

Identifier	Headline
CSCvc85027	"bfd-app" should not be spawned in production nodes
CSCvr01780	N9K-SNMP: snmp use-ipv4acl cmd accepted even though the associated snmp-user is not configured.
CSCwa56982	NPM fails to detect an ACLQOS programming failure
CSCwa86549	[NXOS] Nexus 9000 with M1100 goes into Read Only condition
CSCwd15870	%NPACL-2-IPT_WARNING: npacl - ACL with REMARK not supported on mgmt interface, wrong Seq #
CSCwd20728	N9K: Feature "Hardware-Telemetry" can be enabled on FX when it is not supported
CSCwe25969	Nexus 93180YC-FX missing vsan database config after vxlan overlay profile is configured
CSCwe31011	Changing VPC Domain ID prompts the "[no]" default action twice
CSCwe37379	N3548: Spanning tree is not working in pvlan configured ports
CSCwe52879	Syslog %LICMGR-6-LOG_LICAPP_SMART_GLOBAL_CHANGE removal
CSCwf10110	Seeing error logs on upgrade: invalid group file entry delete line 'aaa-db-operator:508:?' No
CSCwf37269	Nexus 9000 Cloud Scale switches with mix of static and dynamic queue-limit drops low-rate traffic
CSCwf51439	VXLAN: BUM Traffic Loop when PIM BiDir and Fabric Peering are used together
CSCwf58035	N9k VXLAN ARP Suppression Cache stuck with Stale entries for End points
CSCwf61686	Nexus 9500: Configuring "feature nv overlay" breaks non-VXLAN VLAN Multicast across FM-G modules
CSCwf94125	Throw warning syslog if route-policy/list is removed when it is referenced by routing clients
CSCwf94981	PBR hits CoPP I3uc/glean class
CSCwf95517	continuous xbc check_oor_r4, r5, r7 interrupts seen on FX platform
CSCwh26840	Nexus 3548: Configuring "link loopback" leads to vsh.bin core and crash
CSCwh28589	Copy http more slowly from a remote server when the latency to the server is high
CSCwh30858	Executing Control Plane Policy stats takes longer than expected on 93360YC-FX2
CSCwh50754	Show tech multicast missing "show ip pim internal event-history data-register-receive" command
CSCwh54194	N9K MPLS VPN traffic dropped after changing L3 port to L2 and back to L3
CSCwh55496	GX2 devices - Control plane/Stats gets struck intermittently
CSCwh60049	SVI Counter stopped incrementing.
CSCwh60519	Exported flow-record Duration is negative, StartTime more than EndTime
CSCwh60944	SNMP sysDescr value is incorrect following a factory-reset on end-of-rack switches
CSCwh67158	Memory hold up in LC causing LC kernel Panic
CSCwh69301	udld neighbor mismatch on span source port-channels
CSCwh69328	MTC-XL - Optimize the internal handling of wideflow keyword for show commands.
CSCwh69800	N3500 "hardware profile buffer span-threshold xx" gets reset after egress link flap
CSCwh72222	ARP request dropped by ARP Suppression in traditional VLAN
CSCwh73615	Active connector status shows RJ 45 even when SFP is inserted and link is down
CSCwh76275	Nexus 9364GX2A - Slice 0 discards Multicast traffic after RTP Flow Monitor is enabled
CSCwh79977	Mem leak seen in ospf with Opaque Area LSA
CSCwh80419	ospf authentication-key <string> shows incorrect max-length error
CSCwh82828	SFP mgmt0 interoperability issue with NCS platform
CSCwh83393	N9k: Packet tracer shows hits for non-existing flows

Identifier	Headline
CSCwh84282	After reload of 93108TC-FX3P/N9K-C93108TC-FX3H random copper/RJ45 interfaces might not come up
CSCwh85012	Interface down reason not set correctly when down due to missing FKA
CSCwh85639	N9K EOR N9K-X9736C-FX module is up online even when the link is down
CSCwh85899	N3500 service-reflect fails to forward mcast traffic with *G1 to S2G2 translation configuration
CSCwh87484	PTP delay request message not being forwarded by N9K-X9636C-R
CSCwh88559	Unable to delete a Vlan access-map even though access map is not used in any filter.
CSCwh88614	Evaluation of n9k-standalone-sw for HTTP/2 Rapid Reset Attack vulnerability
CSCwh90806	When SPAN filter TCAM region is carved from default 512 to 256, SPAN is not functioning
CSCwh93115	N9K-C93600CD-GX: OIR of 2nd, 3rd or 4th port in quad with QSA28 causes all ports in the quad to flap
CSCwh94275	Nexus 3600 Stale MPLS Labels after a Route Change
CSCwh94461	Address json lib usage to avoid infinite loop
CSCwh96478	Cisco NX-OS Software External Border Gateway Protocol Denial of Service Vulnerability
CSCwh99225	Nexus 93108TC-FX3P : 'Unicast Routing ECMP-0 for size 2 creation failed INVALID PARAM(0)' seen
CSCwh99809	On 92348GC-X, see one or both power supply shutdown, even when the system is up
CSCwi01086	N9K-NETCONF edit-config RPC modifies Startup-config
CSCwi02308	Deleting ACEs with " No Remark <argument>" command become error.
CSCwi05076	ERROR: " symbol lookup error: /isan/lib/libsflow.so: undefined symbol: ipv6_is_zero_addr"
CSCwi05437	N3500 SPAN buffer threshold cli inconsistency
CSCwi06810	MAC address table doesn't change via GARP during MAC move
CSCwi07291	N9K snmp-server enable traps lldp lldpRemTablesChange duplicated after upgrade
CSCwi10164	Unable login sandbox when generate password will expire message on N9K but not yet expire.
CSCwi12093	Nexus switches violate RFC2236 by not ignoring out of subnet igmp report
CSCwi12684	Egress RACL stats per-entry showing doubled counter when SPAN source also configured
CSCwi16943	Nexus 9k Interfaces go down (Link failure) after connecting SFP to Switch.
CSCwi20720	NX-OS removes or will not apply `fec rs-ieee` command to port-channel member interfaces
CSCwi20813	CSUSD Hap Reset on Nexus 9k When Adding Interface Breakout Config w/ N9K-X9400-16W Linecard
CSCwi21420	dot1x radius-accounting did not works with ISE due to unknown Acct-Status-Type
CSCwi21719	Unicast traffic broken as broadcast/ARP being blackholed in FEX fabric ports
CSCwi21929	IPv6 ND NA packet dropped due to strict uRPF/UC_RPF_FAILLUR
CSCwi24154	N9k with feature netconf enable opening backdoor
CSCwi24874	Crash "aclqos hap reset" is occurred in Nexus 3500
CSCwi27923	Route-target representation of ASN4:NN in as-dot notation is not correct
CSCwi28699	N9K dhcpv6 config is missing on SVI after reload.
CSCwi30677	N9K-C9332C: BootupPortLoopback failing on Ethernet1/1 after reload
CSCwi32905	SPAN To CPU: causing some of the traffic to hit the wrong queue
CSCwi36501	N3500 per-link BFD may not work when configured in specific order
CSCwi37242	Remove the port speed capabilities 100,2500 and 5000 in FX3P FEX, fix deletion of speed
CSCwi37259	CDP core at cdpd_obj_delete_intf_addr_runtime_data
CSCwi37453	When configuring secondary IP on interface, 'no ip redirects' is not programmed correctly on ELTM
CSCwi42400	While Changing the IP of an interface using Netconf , it error's out
CSCwi42809	EPBR session ACL refresh fails if ACL name length greater of equal to 32 characters
CSCwi42882	N9K crashes after an upgrade due to aclqos process
CSCwi42957	NX-OS IPv6 PTP Destination Multicast Uses Node-Local but should use Link-Local Scope

Identifier	Headline
CSCwi43121	N9K sflow - fix errors seen when using incorrect sampler rate values
CSCwi44385	ssh -p 830 without subsystem accesses vsh
CSCwi44597	N9K - ACL-Based & SPAN - Traffic Not Hitting Matching Entry
CSCwi44887	After upgrade from 9.3 to 10.2.6M "remove-private-as all" BGP configuration does not work
CSCwi50982	N3500 NAT TS miss aclqos NAT related output
CSCwi51292	N3500XL may send untranslated traffic via NAT outside interface w/ static NAT outside configuration
CSCwi52205	No error logs issued when using 1G speed on 10G interface
CSCwi56953	Crash with ufdm process due mts buffer errors
CSCwi58944	Race condition between PMN, MRIB and PIM
CSCwi59207	N9K 10.3(3) - Unexpected reloads due to BGP process crashing with route dampening active
CSCwi59305	MAC address stays unlearned across Interfaces after Causing a Port-Security on another interface
CSCwi59405	N9k: Syslog %PLATFORM-2-PS_CAPACITY_CHANGE seen with NXA-PDC-2KW-PE
CSCwi60320	After running command 'tac-pac' the 'feature bash-shell' will be enabled
CSCwi60493	Confirm if CVE-2023-48795 impacts Nexus 9000
CSCwi60990	N3500 NAT tcp syn timer continuously expires while tcp flow is active
CSCwi63392	BUM traffic drops after the DCI link on BGW has flapped
CSCwi63762	BGP metric in `show ip bgp` abnormally changed after upgrade
CSCwi64676	MTS pile up for Multiple process(L2FM/FIB/ARP) due to slow SDB writes
CSCwi65177	N9K: FEX HIF TX_FRM_ERROR do not relate to "output error" under "show interface"
CSCwi66795	Inconsistency between show interface int-id counters details all and NXAPI-REST output
CSCwi67586	Nexus 93108TC-FX3P in fex mode is dropping the traffic when a port-channel lacp interface goes down
CSCwi68095	Incorrect behavior seen when configuring jumbo MTU on FEX PO
CSCwi70210	Netflow config is causing a crash if it is entered on a high number of vlans at the same time
CSCwi70747	Incorrect airflow and fan direction in PSU on N9K-C93360YC-FX2
CSCwi73309	Glean traffic not punt to CPU
CSCwi73964	N3500 logs endlessly misleading mcast NAT related error msg without mcast NAT configuration
CSCwi74242	More vlans are being consumed on outer_bd on 10.2(x) versions
CSCwi75282	NX-OS Does not process LLDP frames with VLAN-NAME TLV
CSCwi78467	CCTRL cored because of CDR Interrupts
CSCwi78813	'no link dfe adaptive-tuning' doesn't take effect on DAC ports
CSCwi78912	Wrong trap value is being sent while performing FRU of PSU
CSCwi79275	NFM Core Crash When Adding Netflow Configuration to Nexus 9k
CSCwi80784	BFD went down after removing Vrf/Vlan config
CSCwi84148	Failed to restore macsec policy from PSS after upgrade from 9.2.1 to 9.3.13 to 10.3.4a
CSCwi85825	VSH.bin process crashing due to bulk prefix-list config push with out sequence number defined.
CSCwi87220	show system internal acces-list globals displays negative value for remaining free size
CSCwi87506	Multicast (S,G) traffic dropped (hitting sg-rpf-failure exception)
CSCwi89071	Unable to see RBAC policy regex configuration in the running config.
CSCwi89747	VPC port-channel experiences extra flap and packet loss during LACP change
CSCwi90274	N9K FX3/GX Multicast MAC ACL hardware programming mistake, causes drop all ip traffic
CSCwi90883	Fabric Module reload due to ipfib process
CSCwi91043	Remove 'test forwarding inconsistency' on nexus 3548 switches
CSCwi92006	All interfaces show the input/output rate as 0pps on N9K FX2 platform

Identifier	Headline
CSCwi92703	N9K-C93180YC-FX3: GNSS LED is red when GPS/GNSS antenna not connected and SyncE not enabled
CSCwi92756	NXOS - RFC5424 timestamp hour is shifted by local zone offset
CSCwi95405	VPC attached multicast receivers cannot subscribe to some multicast groups
CSCwi95861	mNAT/SR interfaces lose Multicast Traffic while OIFs are added or deleted in an NBM Passive setup
CSCwi96031	Multicast load-balancing may not work with 'ip multicast multipath s-g-hash next-hop-based' config
CSCwi96154	Fragmented ping6 is incrementing reasmok + reasmfail for working ping6
CSCwj01605	Wrong dot1q private-vlan tag after LACP update
CSCwj01675	Special character "\" used as switch username cause nxapi calls to fail
CSCwj05355	Need warning message when upgrading EPLD on N9500 that vPC can go down
CSCwj08246	NFP process reloaded unexpectedly after processing a config flow
CSCwj10938	N9K: Deleting interface vlan might cause MTU mis-programming on interfaces configured with high MTU
CSCwj16298	Restart SMU install operation will fail - " failed because could not get affected services" .
CSCwj18977	USB port cannot be disabled
CSCwj24274	N9K BGP route metric in RIB does not update after MED change when using Multipath
CSCwj33002	N9K - Memory leak in tahusd process after EVPN uplink flap on FX3/GX/GX2/HX switch
CSCwj34504	" link debounce link-up time xx" config disappear after performing conf replace
CSCwj34531	Nexus 9k Switch Reloads Due To TAHUSD process
CSCwj34709	N3548: One Adjacency of ip routing not working in some failover scenario
CSCwj37244	VXLAN - Traffic to IP x.x.137.2 is wrongly intercepted by OAM Sup ACL
CSCwj40629	N9K - ePBR/PBR - Traffic sent to Incorrect NH
CSCwj43054	BFD packet not hit the ACL entry as expected.
CSCwj45146	SSH login triggers TACACS " temporary failure in name resolution" after reload/upgrade
CSCwj49714	N9K: Traffic redirected to Ethernet1/1 if PACL has redirect option to a port missing XCVR
CSCwj50611	N9k SR mNAT traffic may leave interface without NAT during an OIF change
CSCwj53632	feature hardware-telemetry causing Mac Moves: L2FM-4-L2FM_MAC_MOVE
CSCwj56653	N3548 'show running' does not include complete SR configuration
CSCwj57371	N9K VXLAN: A short loop occurs at the moment the peer-link is up after VPC peer restart
CSCwj59760	Yang Model get_diff " source" and " target" have Incorrect Information
CSCwj65063	Login with " admin" user with incorrect password allowed when " none" aaa authentication is configured
CSCwj68588	9332-GX2B: DoM not supported error with 3rd party 100G AOC
CSCwj84211	N9K-C9348GC-FXP - Front Port - No Traffic Received in RX Direction

Device Hardware

The following tables list the Cisco Nexus 9000 Series hardware that Cisco NX-OS Release 10.3(5)M supports. For additional information about the supported hardware, see the Hardware Installation Guide for your Cisco Nexus 9000 Series device.

Table 1. Cisco Nexus 9400 Switches

Product ID	Description
N9K-C9408	4-rack unit (RU) 8-slot LEM-based modular chassis switch, which is configurable with up to 128 200-Gigabit QSFP56 (256 100-Gigabit by breakout) ports or 64 400-Gigabit ports.
N9K-C9400-SUP-A	Cisco Nexus 9400 Supervisor Card
N9K-C9400-SW-GX2A	Cisco Nexus 9400 25.6Tbps Switch Card
N9K-X9400-8D	Cisco Nexus 9400 8p 400G QSFP-DD LEM

Product ID	Description
N9K-X9400-16W	Cisco Nexus 9400 16p 200G QSFP56 LEM

Note: N9K-C9400-SW-GX2A Sup card ports 2xSFP Eth10/1-2 are not supported in Cisco NX-OS Release 10.3(x).

Table 2. Cisco Nexus 9800 Switches

Product ID	Description
N9K-C9808	16-RU modular switch with slots for up to 8 Line Cards in addition to two supervisors, 8 fabric modules, 4 fan trays, and 3 power trays.

Table 3. Cisco Nexus 9800 Series Line Cards

Product ID	Description
N9K-X9836DM-A	Cisco Nexus 9800 36-port 400G QSFP-DD Line Card with MACsec.

Table 4. Cisco Nexus 9800 Series Fabric Modules

Product ID	Description
N9K-C9808-FM-A	Cisco Nexus 9800 Fabric Module with for 8-slot Chassis

Table 5. Cisco Nexus 9800 Supervisor Module

Product ID	Description	Quantity
N9K-C9800-SUP-A	Cisco Nexus 9800 Platform Supervisor Module	*

Table 6. Cisco Nexus 9800 Fans and Fan Trays

Product ID	Description	Quantity
N9K-C9808-FAN-A	Cisco Nexus 9800 8-slot chassis fan tray (1 st Generation)	4

Table 7. Cisco Nexus 9800 Power Supplies

Product ID	Description	Quantity	Cisco Nexus Switches
NXK-HV6.3KW20A-A	Cisco Nexus 9800 6,300W 20A AC and HV Power Supply	9 (3 per tray)	Cisco Nexus 9808

Table 8. Cisco Nexus 9500 Switches

Product ID	Description
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 9. Cisco Nexus 9500 Cloud Scale Line Cards

Product ID	Description	Maximum Quantity		
		Cisco Nexus 9504	Cisco Nexus 9508	Cisco Nexus 9516
N9K-X9716D-GX	Cisco Nexus 9500 16-port 400G QSFP-DD Line Card	4	8	N/A
N9K-X9736C-FX	Cisco Nexus 9500 36-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8	16
N9K-X9788TC-FX	Cisco Nexus 9500 48-port 1/10-G BASE-T Ethernet	4	8	16

Product ID	Description	Maximum Quantity		
		Cisco Nexus 9504	Cisco Nexus 9508	Cisco Nexus 9516
	and 4-port 40/100 Gigabit Ethernet QSFP28 Line Card			
N9K-X97160YC-EX	Cisco Nexus 9500 48-port 10/25-Gigabit Ethernet SFP28 and 4-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8	16
N9K-X9732C-FX	Cisco Nexus 9500 32-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8	16
N9K-X9732C-EX	Cisco Nexus 9500 32-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8	16
N9K-X9736C-EX	Cisco Nexus 9500 36-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8	16

Table 10. Cisco Nexus 9500 R-Series Line Cards

Product ID	Description	Maximum Quantity	
		Cisco Nexus 9504	Cisco Nexus 9508
N9K-X9636C-R	Cisco Nexus 9500 36-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8
N9K-X9636C-RX	Cisco Nexus 9500 36-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8
N9K-X9636Q-R	Cisco Nexus 9500 36-port 40 Gigabit Ethernet QSFP Line Card	4	8
N9K-X96136YC-R	Cisco Nexus 9500 16-port 1/10 Gigabit, 32-port 10/25 Gigabit, and 4-port 40/100 Gigabit Ethernet Line Card	4	8
N9K-X9624D-R2	Cisco Nexus 9500 24-port 400 Gigabit QDD Line Card	Not supported	8

Table 11. Cisco Nexus 9500 Cloud Scale Fabric Modules

Product ID	Description	Minimum	Maximum
N9K-C9504-FM-E	Cisco Nexus 9504 100-Gigabit cloud scale fabric module	4	5
N9K-C9504-FM-G	Cisco Nexus 9500 4-slot 1.6Tbps cloud scale fabric module	4	5
N9K-C9508-FM-E	Cisco Nexus 9508 100-Gigabit cloud scale fabric module	4	5
N9K-C9508-FM-E2	Cisco Nexus 9508 100-Gigabit cloud scale fabric module	4	5
N9K-C9508-FM-G	Cisco Nexus 9500 8-slot 1.6Tbps cloud-scale fabric module	4	5
N9K-C9516-FM-E2	Cisco Nexus 9516 100-Gigabit cloud scale fabric module	4	5

Table 12. Cisco Nexus 9500 R-Series Fabric Modules

Product ID	Description	Minimum	Maximum
N9K-C9504-FM-R	Cisco Nexus 9504 100-Gigabit R-Series fabric module	4	6
N9K-C9508-FM-R	Cisco Nexus 9508 100-Gigabit R-Series fabric module	4	6
N9K-C9508-FM-R2	Cisco Nexus 9508 400-Gigabit R-Series fabric module	4	6

Table 13. Cisco Nexus 9500 Supervisor Modules

Supervisor	Description	Quantity
N9K-SUP-A	1.8-GHz supervisor module with 4 cores, 4 threads, and 16 GB of memory	2

Supervisor	Description	Quantity
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

Note: N9K-SUP-A and N9K-SUP-A+ are not supported on Cisco Nexus 9504 and 9508 switches with -R Line Cards.

Table 14. Cisco Nexus 9500 System Controller

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

Table 15. Cisco Nexus 9500 Fans and Fan Trays

Product ID	Description	Quantity
N9K-C9504-FAN	Fan tray for 4-slot modular chassis	3
N9K-C9504-FAN2	Fan tray that supports the Cisco N9K-C9504-FM-G fabric module	3
N9K-C9508-FAN	Fan tray for 8-slot modular chassis	3
N9K-C9508-FAN2	Fan tray that supports the Cisco N9K-C9508-FM-G fabric module	3
N9K-C9516-FAN	Fan tray for 16-slot modular chassis	3

Table 16. Cisco Nexus 9500 Fabric Module Blanks with Power Connector

Product ID	Description	Minimum	Maximum
N9K-C9504-FAN-PWR	Nexus 9500 4-slot chassis 400G cloud scale fan tray power connector	1	2
N9K-C9508-FAN-PWR	Nexus 9500 4-slot chassis 400G cloud scale fan tray power connector	1	2

Table 17. Cisco Nexus 9500 Power Supplies

Product ID	Description	Quantity	Cisco Nexus Switches
N9K-PAC-3000W-B	3 KW AC power supply	Up to 4 Up to 8 Up to 10	Cisco Nexus 9504 Cisco Nexus 9508 Cisco Nexus 9516
N9K-PDC-3000W-B	3 KW DC power supply	Up to 4 Up to 8 Up to 10	Cisco Nexus 9504 Cisco Nexus 9508 Cisco Nexus 9516
N9K-PUV-3000W-B	3 KW Universal AC/DC power supply	Up to 4 Up to 8 Up to 10	Cisco Nexus 9504 Cisco Nexus 9508 Cisco Nexus 9516
N9K-PUV2-3000W-B	3.15-KW Dual Input Universal AC/DC Power Supply	Up to 4 Up to 8 Up to 10	Cisco Nexus 9504 Cisco Nexus 9508 Cisco Nexus 9516

Table 18. Cisco Nexus 9200 and 9300 Switches

Cisco Nexus Switch	Description
N9K-C9316D-GX	1-RU switch with 16x400/100/40-Gbps ports.
N9K-C9364C-GX	2-RU fixed-port switch with 64 100-Gigabit SFP28 ports.
N9K-C93600CD-GX	1-RU fixed-port switch with 28 10/40/100-Gigabit QSFP28 ports (ports 1-28), 8 10/40/100/400-Gigabit QSFP-DD ports (ports 29-36)
N9K-C9364C	2-RU Top-of-Rack switch with 64 40-/100-Gigabit QSFP28 ports and 2 1-/10-Gigabit SFP+ ports. - Ports 1 to 64 support 40/100-Gigabit speeds. - Ports 49 to 64 support MACsec encryption.

Cisco Nexus Switch	Description
	Ports 65 and 66 support 1/10 Gigabit speeds.
N9K-C9332C	1-RU fixed switch with 32 40/100-Gigabit QSFP28 ports and 2 fixed 1/10-Gigabit SFP+ ports.
N9K-C9332D-GX2B	1-Rack-unit (1RU) spine switch with 32p 400/100-Gbps QSFP-DD ports and 2p 1/10 SFP+ ports.
N9K-C9348D-GX2A	48p 40/100/400-Gigabit QSFP-DD ports and 2p 1/10G/10G SFP+ ports
N9K-C9364D-GX2A	64p 400/100-Gigabit QSFP-DD ports and 2p 1/10 SFP+ ports
N9K-C93180YC-FX3	48 1/10/25 Gigabit Ethernet SFP28 ports (ports 1-48) 6 10/25/40/50/100-Gigabit QSFP28 ports (ports 49-54)
N9K-C93180YC-FX3S	48 1/10/25 Gigabit Ethernet SFP28 ports (ports 1-48) 6 10/25/40/50/100-Gigabit QSFP28 ports (ports 49-54)
N9K-C9336C-FX2-E	1- RU switch with 36 40-/100-Gb QSFP28 ports
N9K-C9336C-FX2	1-RU switch with 36 40-/100-Gb Ethernet QSFP28 ports
N9K-C93360YC-FX2	2-RU switch with 96 10-/25-Gigabit SFP28 ports and 12 40/100-Gigabit QSFP28 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-C93216TC-FX2	2-RU switch with 96 100M/1G/10G RJ45 ports, 12 40/100-Gigabit QSFP28 ports, 2 management ports (one RJ-45 and one SFP port), 1 console, port, and 1 USB port.
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-C93180YC-FX-24	1-RU 24 1/10/25-Gigabit Ethernet SFP28 front panel ports and 6 fixed 40/100-Gigabit Ethernet QSFP28 spine-facing ports. The SFP28 ports support 1-, 10-, and 25-Gigabit Ethernet connections and 8-, 16-, and 32-Gigabit Fibre Channel connections.
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-C93108TC-FX-24	1-RU 24 1/10GBASE-T (copper) front panel ports and 6 fixed 40/100-Gigabit Ethernet QSFP28 spine-facing ports.
N9K-C93108TC-FX3P	1-RU fixed-port switch with 48 100M/1/2.5/5/10GBASE-T ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C9348GC-FXP	Nexus 9300 with 48p 100M/1 G, 4p 10/25 G SFP+ and 2p 100 G QSFP
N9K-C92348GC-X	The Cisco Nexus 92348GC-X switch (N9K-C92348GC-X) is a 1RU switch that supports 696 Gbps of bandwidth and over 250 mpps. The 1GBASE-T downlink ports on the 92348GC-X can be configured to work as 100-Mbps, 1-Gbps ports. The 4 ports of SFP28 can be configured as 1/10/25-Gbps and the 2 ports of QSFP28 can be configured as 40- and 100-Gbps ports. The Cisco Nexus 92348GC-X is ideal for big data customers that require a Gigabit Ethernet ToR switch with local switching.
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-EX-24	1-RU 24 1/10/25-Gigabit front panel ports and 6-port 40/100 Gigabit QSFP28 spine-facing 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-EX-24	1-RU 24 1/10GBASE-T (copper) front panel ports and 6 40/100-Gigabit QSFP28 spine facing ports.

Table 19. Cisco Nexus 9200 and 9300 Fans and Fan Trays

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-FAN-160CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	9364C ^[1] 93360YC-FX2
NXA-FAN-160CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	3	9364C ^[1] 93360YC-FX2
NXA-FAN-160CFM2-PE	Fan module with port-side exhaust airflow (blue coloring)	4	9364C-GX
NXA-FAN-160CFM2-PI	Fan module with port-side intake airflow (burgundy coloring)	4	9364C-GX
NXA-FAN-30CFM-B	Fan module with port-side intake airflow (burgundy coloring)	3	93108TC-EX 93108TC-FX ^[1] 93180YC-EX

¹ For specific fan speeds see the Overview section of the Hardware Installation Guide.

Product ID	Description	Quantity	Cisco Nexus Switches
			93180YC-FX [1] 9348GC-FXP [1]
NXA-FAN-30CFM-F	Fan module with port-side exhaust airflow (blue coloring)	3	93108TC-EX 93108TC-FX [1] 93180YC-EX 93180YC-FX [1] 9348GC-FXP
NXA-FAN-35CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	4	92300YC [1] 9332C [1] 93180YC-FX3S [2] 93180YC-FX3 93108TC-FX3P
		6	9336C-FX2-E 9316D-GX 93600CD-GX
NXA-FAN-35CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	4	92300YC [1] 9332C [1] 93180YC-FX3S [2] 93180YC-FX3 93108TC-FX3P
		6	9316D-GX 93600CD-GX
	Fan module with port-side exhaust airflow (blue coloring)	6	9336C-FX2-E
NXA-FAN-65CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	93240YC-FX2 [1] 9336C-FX2 [1]
NXA-FAN-65CFM-PI	Fan module with port-side exhaust airflow (burgundy coloring)	3	93240YC-FX2 9336C-FX2 [1]

Table 20. Cisco Nexus 9200 and 9300 Power Supplies

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-PAC-500W-PE	500-W AC power supply with port-side exhaust airflow (blue coloring)	2	93108TC-EX 93180YC-EX 93180YC-FX
NXA-PAC-500W-PI	500-W AC power supply with port-side intake airflow (burgundy coloring)	2	93108TC-EX 93180YC-EX 93180YC-FX
NXA-PAC-650W-PE	650-W power supply with port-side exhaust (blue coloring)	2	92300YC 93180YC-FX3S 93108TC-EX 93180YC-EX 93180YC-FX3
NXA-PAC-650W-PI	650-W power supply with port-side intake (burgundy coloring)	2	92300YC 93180YC-FX3S 93108TC-EX 93180YC-EX 93180YC-FX3
NXA-PAC-750W-PE	750-W AC power supply with port-side exhaust airflow (blue coloring) 1	2	9336C-FX2 9336C-FX2-E 9332C 93240YC-FX2
NXA-PAC-750W-PI	750-W AC power supply with port-side intake airflow	2	9336C-FX2

² This switch runs with +1 redundancy mode so that if one fan fails, the switch can sustain operation. But if a second fan fails, this switch is not designed to sustain operation. Hence before waiting for the major threshold temperature to be hit, the switch will power down due to entering the fan policy trigger command.

Product ID	Description	Quantity	Cisco Nexus Switches
	(burgundy coloring) 1		9336C-FX2-E 9332C 93240YC-FX2
NXA-PAC-1100W-PE2	1100-W AC power supply with port-side exhaust airflow (blue coloring)	2	93240YC-FX2 9332C 9316D-GX 9336C-FX2 9336C-FX2-E 93600CD-GX
NXA-PAC-1100W-PI2	1100-W AC power supply with port-side intake airflow (burgundy coloring)	2	93240YC-FX2 9332C 9316D-GX 9336C-FX2 9336C-FX2-E 93600CD-GX
NXA-PAC-1100W-PI	Cisco Nexus 9000 PoE 1100W AC PS, port-side intake	2	93108TC-FX3P
NXA-PAC-1100W-PE	Cisco Nexus 9000 PoE 1100W AC PS, port-side exhaust	2	93108TC-FX3P
NXA-PAC-1900W-PI	Cisco Nexus 9000 PoE 1900W AC PS, port-side intake	2	93108TC-FX3P
NXA-PAC-1200W-PE	1200-W AC power supply with port-side exhaust airflow (blue coloring)	2	93360YC-FX2 9364C
NXA-PAC-1200W-PI	1200-W AC power supply with port-side intake airflow (burgundy coloring)	2	93360YC-FX2 9364C
N9K-PUV-1200W	1200-W Universal AC/DC power supply with bidirectional airflow (white coloring)	2	92300YC 93108TC-EX 93108TC-FX 93360YC-FX2 93180YC-FX3S 93180YC-EX 93180YC-FX 9364C
NXA-PDC-930W-PE	930-W DC power supply with port-side exhaust airflow (blue coloring)	2	93108TC-EX 93180YC-EX 93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C
NXA-PDC-930W-PI	930-W DC power supply with port-side intake airflow (burgundy coloring)	2	93108TC-EX 93180YC-EX 93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C
NXA-PDC-1100W-PE	1100-W DC power supply with port-side exhaust airflow (blue coloring)	2	93240YC-FX2 93600CD-GX 9316D-GX 9332C 9336C-FX2 9336C-FX2-E
NXA-PDC-1100W-PI	1100-W DC power supply with port-side intake airflow (burgundy coloring)	2	93240YC-FX2 93600CD-GX 9316D-GX 9332C 9336C-FX2 9336C-FX2-E
UCSC-PSU-930WDC	930-W DC power supply with port-side intake (green coloring)	2	93108TC-EX 93180YC-EX
UCS-PSU-6332-DC	930-W DC power supply with port-side exhaust (gray coloring)	2	93108TC-EX 93180YC-EX
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-2KW-PE	2000-W AC power supply with port-side exhaust	2	9364C-GX

Product ID	Description	Quantity	Cisco Nexus Switches
	airflow (blue coloring)		
NXA-PAC-2KW-PI	2000-W AC power supply with port-side intake airflow (burgundy coloring)	2	9364C-GX
NXA-PDC-2KW-PE	2000-W DC power supply with port-side exhaust airflow (blue coloring)	2	9364C-GX
NXA-PDC-2KW-PI	2000-W DC power supply with port-side intake airflow (burgundy coloring)	2	9364C-GX
N2200-PAC-400W	400-W AC power supply with port-side exhaust airflow (blue coloring)	2	92348GC-X
N2200-PAC-400W-B	400-W AC power supply with port-side intake airflow (burgundy coloring)	2	92348GC-X
N2200-PDC-350W-B	350-W DC power supply with port-side intake airflow	2	92348GC-X
N2200-PDC-400W	400-W DC power supply with port-side exhaust airflow (blue coloring)	2	92348GC-X

Compatibility Information

Fabric Module and Line Card compatibility details are listed below:

Table 21. Cisco Nexus 9500 Cloud Scale Line Cards

Product ID	N9K-C9504-FM-G	N9K-C9508-FM-G	N9K-C9504-FM-E	N9K-C9508-FM-E	N9K-C9508-FM-E2	N9K-C9516-FM-E2
N9K-X9716D-GX	4	4	No	No	No	No
N9K-X9736C-FX	5	5	5	5	5	5
N9K-X97160YC-EX	4	4	4	4	4	4
N9K-X9788TC-FX	4	4	4	4	4	4
N9K-X9732C-EX	4	4	4	4	4	4
N9K-X9736C-EX	4	4	4	4	4	4
N9K-X9732C-FX	4	4	4	4	4	4
	5 (n+1 redundancy)	5 (n+1 redundancy)	5 (n+1 redundancy)	5 (n+1 redundancy)	5 (n+1 redundancy)	5 (n+1 redundancy)

Table 22. Cisco Nexus 9500 R-Series Line Cards

Product ID	N9K-C9504-FM-R	N9K-C9508-FM-R
N9K-X9636C-RX	6	6
N9K-X9636Q-R	4	4
	6 (n+2 redundancy)	6 (n+2 redundancy)
N9K-X9636C-R	5	5
	6 (n+1 redundancy)	6 (n+1 redundancy)
N9K-X96136YC-R	6	6

Table 23. Cisco Nexus 9500 R2-Series Line Cards

Product ID	N9K-C9508-FM-R2
N9K-X9624D-R2	6

Optics

For information about transceivers and cables supported on a switch, see the [Transceiver Module \(TMG\) Compatibility Matrix](#). For the transceiver specifications and installation information, see the [Install and Upgrade Guides](#).

Cisco Nexus Dashboard Insights for Data Center

Cisco NX-OS Release 10.3(5)M supports the Nexus Dashboard Insights on Cisco Nexus 9200, 9300-EX, 9300-FX, 9300-FX2, 9300-FX3, 9400, and 9800 platform switches and 9500 platform switches with - EX/FX/GX Line Cards. See the [Cisco Nexus Insights documentation](#).

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

Related Content

Cisco Nexus 9000 Series documentation: [Cisco Nexus 9000 Series Switches](#)

Cisco NX-OS Software Release and Image-naming Convention: [Cisco NX-OS Software Strategy and Lifecycle Guide](#)

Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator: [Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator](#)

Cisco Nexus 9000 Series Software Upgrade and Downgrade Guide: Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.3(x).

Cisco Nexus 3000 and 9000 Series NX-API REST SDK User Guide and API Reference: [Cisco Nexus NX-API Reference](#)

Cisco NX-OS Supported MIBs:
<ftp://ftp.cisco.com/pub/mibs/supportlists/nexus9000/Nexus9000MIBSupportList.html>

Supported FEX modules: [Cisco Nexus 9000 Series Switch FEX Support Matrix](#)

Licensing Information: [Cisco NX-OS Licensing Guide](#) and [Cisco Nexus Smart Licensing Using Policy User Guide](#)

When you downgrade from Cisco NX-OS Release 10.3(5)M to an earlier release, the features that use the ACI+NX-OS Essentials, Advantage, and add-on licenses or the Hardware Streaming Telemetry license continue to work in honor mode in the downgraded version. In addition, the output of the show license usage command continues to include entries for these unsupported licenses.

See the [Cisco NX-OS Licensing Guide](#).

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