Cisco Nexus 9000 Series NX-OS Release Notes

Release 10.4(4)M

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Introduction

This document describes the features, issues, and limitations of Cisco NX-OS software Release 10.4(4)M for use on the Cisco Nexus 9000 Series switches.

Date	Description
October 19, 2024	Release 10.4(4)M became available.

Software Features

There are no new software features introduced in Cisco NX-OS Release 10.4(4)M.

Hardware Features

There are no new hardware features introduced in Cisco NX-OS Release 10.4(4)M.

Release Image

In Cisco NX-OS Release 10.4(4)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.10.4.4.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.10.4.4.M.bin) is supported on Cisco Nexus 9000 Series -R and -R2 modular switches.

Note: The 32-bit image is no longer supported.

Open Issues

Click the bug ID to access the Bug Search Tool and see additional information about the bug.

Bug ID	Headline
CSCwj58944	IPV6 RNH is not updated after ipv6 neighbors are cleared
CSCwk49611	Delayed linkup seen with 100G-SR4 on BV ports
CSCwk49982	NLB Source traffic failed to forward and gets flooded within nlb vlan
CSCwk76266	IGMP proxy reports not generated for L2TRM
CSCwm05315	reload of vPC peer causing transient loop of v6 traffic leading to incorrect Mac learn on VPC port

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Bug ID	Headline
CSCwm40478	N9K-X9636C-RX: Traffic Punt with default route + uRPF
CSCwm49373	EVPN prefix fails to advertise when dup paths with same GWIPs are shared between RR via iBGP
CSCwm53422	VSH crashes when running show tech port manager
CSCwm55263	queue-limit dynamic 0 drops packets with minimal traffic on interface
CSCwm59420	VLAN Tag on GRE tunneled traffic is changed to Native VLAN for broadcast traffic on N9K
CSCwm63977	Unable to ping SVI with forwarding mode set to Warp
CSCwm72527	N9K-C93216TC-FX2:Uplink ports not link up with QSFP-H40G-CU3M

Resolved Issues

Click the bug ID to access the Bug Search Tool and see additional information about the bug.

Bug ID	Headline
CSCvz47575	Traceback TACACS-3-L3VM_LIBINIT Seen After AAA Failures
CSCvz72834	Cisco NX-OS Software DHCPv6 Relay Agent Denial of Service Vulnerability
CSCwc19270	N93108TC-FX3P in FEX mode displays incomplete port speed capabilities
CSCwd27446	DME CC for interfaces is failing resulting in telemetry data collection errors
CSCwh18936	Add Syslog for Incorrect Partitioning Detected
CSCwh77779	Cisco NX-OS Software Python Parser Escape Vulnerability
CSCwh77780	Cisco NX-OS Software Python Parser Escape Vulnerability
CSCwh77783	Cisco NX-OS Bash Privilege Escalation Vulnerability
CSCwh90029	Error fetching entries from hardware -- forwarding l2 table utilization instance all
CSCwi06810	MAC address table doesn't change via GARP during MAC move
CSCwi61233	High Info interrupts trigger throttle logic resulting DMA starvation and CPU busy
CSCwi71532	laser shuts down even break link is enabled post peer link shutdown
CSCwi85849	During PTP sync process, the switch updates the clock identity field but keeps sending unsynced time
CSCwi89071	Unable to see RBAC policy regex configuration in the running config.
CSCwj08246	NFP process reloaded unexpectedly after processing a config flow
CSCwj24274	N9K BGP route metric in RIB does not update after MED change when using Multipath

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Bug ID	Headline
CSCwj27559	9.3(13): DME cc Failure seen for nxapi use-vrf management on FX3
CSCwj33002	N9K - Memory leak in tahusd process after EVPN uplink flap on FX3/GX/GX2/HX switch
CSCwj33847	Configuring Auto Neg on 25G 2.5M turns off fec, expected fec to be in fc-fec
CSCwj34504	" link debounce link-up time xx" config disappear after performing conf replace
CSCwj34531	Nexus 9k Switch Reloads Due To TAHUSD process
CSCwj37244	VXLAN - Traffic to IP x.x.137.2 is wrongly intercepted by OAM Sup ACL
CSCwj37487	problem in sub-interface creation when service-reflect interface config for mvrf nat
CSCwj42402	SR MPLS: ipfib process core after interface and router ISIS flap
CSCwj42765	10.4(3)F: Mcast traffic drop after running clear ip mroute * command on MVPN handoff device
CSCwj43716	10.4(3): NGOAM is getting service not responding error when peer nodes are not older version
CSCwj45146	SSH login triggers TACACS " temporary failure in name resolution" after upgrade
CSCwj49714	N9K: Traffic redirected to Ethernet1/1 if PACL has redirect option to a port missing XCVR
CSCwj50127	NXOS PSU shows shutdown though PSU is working
CSCwj50490	VXLAN EVPN GX - OV Table mis-programming causes BUM traffic to fail after VPC peer reload
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
CSCwj56953	10.5(1): in Underlay, explicit weight assignment to all available paths does not work
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
CSCwj67317	Multicast traffic dropping at Nexus 9500 FM-G due to ELAM VLAN_XLATE_MISS
CSCwj68588	9332-GX2B: DoM not supported error with 3rd party 100G AOC
CSCwj69012	DHCP Discover packets are being dropped with custom COPP policy on a purely L2 Nexus 9k
CSCwj69659	One way CDP neighborship seen between Nexus 9500 (L3) & Catalyst 3850(L2) when VLAN 1 is tagged.
CSCwj70267	N9K: ARP issue with Fabric Peering in VxLAN EVPN VPC set up
CSCwj73810	While adding IP unnumbered interface using Netconfic, an error generate
CSCwj77571	400G DR4 Finisar and Finisar+ on Nexus 9000 shows incorrect `show int transceiver` detail outputs

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Bug ID	Headline
CSCwj78936	Config-sync fails to import running-config into Switch-Profile
CSCwj79046	N9K:duplicate " no errdisable detect cause acl-exception" in startup-config
CSCwj82709	" no mac address-table loop-detect nve port-down" cannot be configure on NXOS 10.2.5 or 10.4.3
CSCwj83432	[N9K] QSFP-100G-ZR4: Same value with Rx Power " High alarm" and " High warning" threshold
CSCwj84211	N9K-C9348GC-FXP - Ingress drops all packets with Bad Preamble tag
CSCwj88820	Nexus 93180YC-FX3 : L2 IGMP joins are dropped when L3 GRE tunnel is configured
CSCwj88901	Bad config applied to previous context if next config context contains syntax error in config file
CSCwj89859	N9K PBR IPv4 ACEs of icam will count without any PBR configuration.
CSCwj89920	Adding ITU channel config prevents port-channel creation on N9K switch.
CSCwj89973	N9K NX-OS 10.4(3) vman crash after upgrade, due to third-party transceiver being inserted
CSCwj90902	Telemetry suddenly stops working due to memory leak
CSCwj92155	Not able to remove the PIM RP-address config
CSCwj95850	N9K-C9348GC-FXP - Ingress drops all packets with Bad Preamble tag
CSCwk02394	SSH session/console pause indefinitely during configuring netflow
CSCwk02635	N9300 FHR may fail to create SG state for one of the sources sending traffic to same group
CSCwk03048	N9k TCAM Carving for e-racl must not be allowed for mpls extended ecmp
CSCwk03361	Unable to create a TACACS user due to the directory /var full with a power supply debug logfile.
CSCwk04005	VxLan: vPC fabric peering flap after time change
CSCwk04520	n9k: " DCBX No ACK in 100 PDU" seen after upgrade from 9.3.x to 10.3.4a
CSCwk07305	Packets with MPLS-SR label dropped on P routers
CSCwk11030	Storm control gets triggered when unplug/replug the cable of a port
CSCwk12313	Nexus generates VPC PKA packet with source IP not present on device
CSCwk15087	MST priority value get removed after changing vlan in a instance.
CSCwk27865	Archive feature doesn't work when $ is specified within password
CSCwk29697	KLM_pss installation delay seen (potentially leading to boot failure)
CSCwk30154	Stats for ACE matching different ether type not updated in MAC ACL
CSCwk32265	nxos/N9K-X9400-16W: Port 15 and 16 do not correctly forwarding traffic after reload

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Bug ID	Headline
CSCwk34847	Nexus 9000 crash due to " tahusd" process crash @ tah_sdk_hea_aclqos_hex_print
CSCwk35857	Traffic blackholed after module or chassis reload EOR R linecards with custom MAC config
CSCwk36818	N9K - Memory leak in TAHUSD_MTRACK_TYPE_STATS_DMA_HDLR
CSCwk45686	Twamp not working in a server-N9k setup.
CSCwk49219	Type 2 route for RMACs with Next hop set to vIP address is not generated for IPv6 Fabric underlay
CSCwk49778	Getting an error when trying to enable log-neighbor-changes command
CSCwk50423	TLS Client Hello advertises curves not allowed by CC
CSCwk52635	Removing VLAN on one pair causing other pair to suspend all VLANs on port-channel in pvlan trunk
CSCwk56902	Configuring 'udld diable' thru configure-replace it returns an empty patch and nothing configuring
CSCwk59961	MMODE config failure with large range of interface configs
CSCwk61156	QinQ traffic disrupted afer removing " switchport trunk allow-multi-tag" command
CSCwk61235	Critical CVE in component openssh. Upgrade to latest version.
CSCwk64527	10.5(1): Permission denied error seen on show interface | json on network-operator other than admin
CSCwk69444	Rapid memory leak in securityd and component(libpython3.8.so.1.0)
CSCwk70281	NXOS: port-security mac-address config accepted but not applied
CSCwk72984	10.5(1): N9K-X9400-8D: 4x100g DR4 HBO/SBO, all 4 lanes are not up on LEM reload/power cycle
CSCwk73210	private-vlans suspended on vpc primary side after switch bootup
CSCwk74555	host-proxy configurations doesnt work properly after trigger of pim restart
CSCwk76333	N9K traffic interrupt due to delayed phy port down when admin shutdown E1-48 PO member port
CSCwk77003	N9K delay forwarding of IGMP proxy v3 report when " ip igmp snooping v3-report-suppression" enabled
CSCwk78700	BGP does not pass Tunnel Encapsulation attribute to Cloudsec from the best path in BRIB
CSCwk82500	Nexus SNMP Transceiver Polling causes SNMPD process crash
CSCwk84750	Memory Leak on snmpd process
CSCwk88760	static igmp/mld snooping not work when flexlink UP/Standby state changed
CSCwk99030	GX/GX2 platforms leak ucast PIM register messages to s/w in switching path
CSCwm00544	Nexus N9K-X9716D-GX Failed 100G to 400G Conversion

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Bug ID	Headline
CSCwm04251	Parent Missing for OID 1.3.6.1.2.1.47.1.1.1.1.4 in N9K-C93600CD-GX
CSCwm05051	QinQ inner-vlan stripped egress with system dot1q-tunnel transit
CSCwm05197	DHCP packet not able to traverse a n9k with ip address dhcp on a svi
CSCwm05521	TAHUSD crash with " show" commands on BearValley ports
CSCwm06182	QDD-2X100-SR4-S - Breakout interfaces lanes shutdown when sibling interfaces are shutdown.
CSCwm06460	Unable to remove " fabric forwarding mode anycast-gateway" from a L3VNI
CSCwm11106	clean up traces in " show hardware internal tah event-history xcvr <port>"
CSCwm11587	VPC fabric peer sends TCP packets with DSCP value 0
CSCwm11668	Running " show logging onboard card-boot-history" and similar commands on FX3 in fex mode crashes FEX
CSCwm12994	'clear hardware internal forwarding adjacency statistics default-route' command throws error
CSCwm13904	Unable to install nxapi certificate
CSCwm24449	Missprogramming Infra-VLAN is redirecting traffic to CPU on Nexus 9K.
CSCwm27313	Multicast traffic gets delayed to forward upon receiving v3 proxy report
CSCwm29927	NTP configuration with use-vrf management fails with FQDN
CSCwm30659	Twampv6 not working in 10.2(4) release
CSCwm35057	In 9k vpc, remove and readd peer-gateway on both sides results in stale sdk-l2 entry
CSCwm37332	PTP out of sync on a breakout interface
CSCwm39756	L2 multicast traffic is not forwarded to vPC Fabric peer switch.
CSCwm45137	Observing tahusd crash & box reload while running sh tech all post upgrading SSD firmware
CSCwm47657	Nexus responds with timeout instead of " Bad context specified" when SNMP query uses context
CSCwm49356	IGMP flooding through TAP interfaces
CSCwm50407	Host Route learning is failing when vPC peer switch is down for orphan host
CSCwm60250	Memory Leak in l2fm Process Shared Library libutils.so on Nexus 9k Switches
CSCwm68391	N9K crashes with IPFIB Segmentation Fault when processing iBGP Updates with unreachable NHs
CSCwm72260	Implement recovery mechanism for traffic going over same incoming interface
CSCwm77153	Nexus 9500 - ethport-channel core with ascii reload

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General/Known Issues

Click the bug ID to access the Bug Sefarch Tool and see additional information about the bug.

Bug ID	Description
CSCwi95977	DME CC failure for mutiisite virtual rmac
CSCwi95768	Loopback Ping is not working after enabling MPLS LDP at Interface
CSCwh36396	Third Party 40G SWDM4 transceiver may take between 40-60 secs to link up
CSCwh88451	URIB crashed on urib_chlist_segv_handler after restarting bgp and urib together
CSCwi57646	ESG_SGACL: Source of MAC detail is not seen in json output of MAC table
CSCwi87175	slight drop in L2 multicast performance in pualaner switch
CSCwi24238	With NDFC/auto-config, VPC peer-link stays down on disable 'feature tunnel-encryption'
CSCvt37624	'The BGP instance is not in expected state' after quick bgp unconfig / reconfig with 700K ipv4 pfx
CSCwi22304	TTL is not decremented for decap L3 VPN traffic on N9K-C9800.
CSCwh44244	DME inconsistency in sys/mplsta-[eth1/7/1] object after some CLI sequence
CSCvi86421	Ports put into internal fail error disable due to TCAM resource exhaustion post reload

Device Hardware

The following tables list the Cisco Nexus 9000 Series hardware that Cisco NX-OS Release 10.4(4)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 9800 Switches

Product ID	Description
N9K-C9808	16-RU modular switch with slots for up to 8 Line Cards in addition to 2 supervisors, 8 fabric modules, 4 fan trays, and 3 power trays.
N9K-C9804	10-RU modular switch with slots for up to 4 Line Cards in addition to 2 supervisors, 8 fabric modules, 4 fan trays, and 2 power trays.

Table 2. Cisco Nexus 9800 Series Line Cards

Product ID	Description
N9K-X9836DM-A	Cisco Nexus 9800 36-port 400G QSFP-DD Line Card with MACsec.
N9K-X98900CD-A	Cisco Nexus 9800 14-port 400G QSFP-DD + 34-port 100G QSFP28 Line Card.

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Table 3. Cisco Nexus 9800 Series Fabric Modules

Product ID	Description
N9K-C9808-FM-A	Cisco Nexus 9800 Fabric Module for 8-slot Chassis
N9K-C9804-FM-A	Cisco Nexus 9800 Fabric Module for 4-slot Chassis

Table 4. Cisco Nexus 9800 Supervisor Module

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

Table 5. Cisco Nexus 9800 Fans and Fan Trays

Product ID	Description
N9K-C9808-FAN-A	Cisco Nexus 9800 8-slot chassis fan tray (1st Generation)
N9K-C9804-FAN-A	Cisco Nexus 9800 4-slot chassis fan tray (1st Generation)

Table 6. Cisco Nexus 9800 Power Supplies

Product ID	Description
NXK-HV6.3KW20A-A	Cisco Nexus 9800 6,300W 20A AC and HV Power Supply

Table 7. Cisco Nexus 9500 Switches

Product ID	Description
N9K-C9504	7-RU modular switch with slots for up to 4 Line Cards in addition to two supervisors, 2 system controllers, 3-6 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, 3-6 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, 3-6 fabric modules, 3 fan trays, and up to 10 power supplies.

Table 8. 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

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Product ID	Description	Maximum Quantity		
		Cisco Nexus 9504	Cisco Nexus 9508	Cisco Nexus 9516
N9K-X9788TC-FX	Cisco Nexus 9500 48-port 1/10-G BASE-T Ethernet and 4-port 40/100 Gigabit Ethernet QSFP28 Line Card	4	8	16
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 9. 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 10. 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

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Product ID	Description	Minimum	Maximum
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 11. 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 12. Cisco Nexus 9500 Supervisor Modules

Supervisor	Description	Maximum
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

Note: N9K-SUP-A and N9K-SUP-A+ are not supported on Cisco Nexus 9504 and 9508 switches with -R and -R2 Line Cards.

Table 13. Cisco Nexus 9500 System Controller

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

Table 14. 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

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Table 15. Cisco Nexus 9500 Fabric Module Blanks with Power Connector

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

Table 16. 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 17. Cisco Nexus 9400 Switches

Product ID	Description
N9K-C9408	4-RU, 8-slot centralized 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
N9K-X9400-16W	Cisco Nexus 9400 16p 200G QSFP56 LEM
N9K-X9400-22L	Cisco Nexus 9400 LEM with 22 10G/25G/50G ports.

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Table 18. Cisco Nexus 9200 and 9300 Switches

Cisco Nexus Switch	Description
N9K-C92348GC-X	The Cisco Nexus 92348GC-X switch (N9K-C92348GC-X) is a 1-RU 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 two-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-C93400LD-H1	1-RU fixed-port, L2/L3 switch with 48 50G SFP56 ports and 4 400G QSFP-DD uplink ports.
N9K-C93108TC-FX3	1 RU fixed-port switch Forty-eight 100M/1G/10GBASE-T ports (ports 1–48), Six 40/100-Gigabit ports QSFP28 (ports 49–54), Two management ports (one 10/100/1000BASE-T port and one SFP port), One console port (RS-232), and one USB port.
N9K-C9332D-H2R	1-RU fixed-port switch with 400-Gigabit QSFP-DD ports (32), 10-Gigabit SFP+ ports (2), Management ports (one 10/100/1000BASE-T port and one SFP port), console port (RS-232), and USB port.
N9K-C9348GC-FX3	1 RU fixed-port switch 48 10/100/1000M copper RJ-45 downlink ports, 4 10-/25G SFP28 uplink ports, and 2 40-/100G QSFP28 uplink ports.
N9K-C9348GC-FX3PH	1-RU fixed-port switch 40 10M/100M/1G copper RJ-45 downlink ports that support PoE/PoE+/PoE++ and 8 10M/100M copper RJ-45 downlink ports that support PoE/PoE+/PoE++, 4 10-/25G SFP28 uplink ports, and 2 40-/100G QSFP28 uplink ports.
N9K-C93180YC-FX3H	1-RU fixed-port switch with 24 100M/1/10/25-Gigabit Ethernet SFP28 ports (ports 1–24), 6 10/25/40/50/100-Gigabit QSFP28 ports (ports 49–54), One management port (one 10/100/1000BASE-T port), and One console port (RS-232)
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 49–64 support MACsec encryption. • Ports 651–64and66 support 1/10 Gigabit speeds.
N9K-C9364C-H1	2-RU fixed-port switch with 64 100G SFP28 ports.
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 (1-RU) spine switch with 32p 400/100-Gbps QSFP-DD ports and 2p 1/10 SFP+ ports.

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Cisco Nexus Switch	Description
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 RJ-45 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[1]	Cisco Nexus 9300 with 48p 100M/1 G, 4p 10/25 G SFP+ and 2p 100 G QSFP

1 For N9K-C9348GC-FXP the PSU SPROM is not readable when the PSU is not connected. The model displays as "UNKNOWN" and status of the module displays as "shutdown.

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

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-SFAN-30CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	9348GC-FX3
NXA-SFAN-30CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	3	9348GC-FX3
NXA-SFAN-30CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	9348GC-FX3PH
NXA-SFAN-30CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	3	9348GC-FX3PH
NXA-SFAN-35CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	6 5 4	9332D-H2R 93400LD-H1 93108TC-FX3
NXA-SFAN-35CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	6 5 4	9332D-GX2B 93400LD-H1 93108TC-FX3
NXA-SFAN-35CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	6	9332D-GX2B
NXA-FAN-160CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	9364C [2] 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-FX [1] 93180YC-FX [1] 9348GC-FXP [1]
NXA-FAN-30CFM-F	Fan module with port-side exhaust airflow (blue coloring)	3	93108TC-FX [1] 93180YC-FX [1] 9348GC-FXP

[2] For specific fan speeds see the Overview section of the Hardware Installation Guide.

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Product ID	Description	Quantity	Cisco Nexus Switches
NXA-FAN-35CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	4 6	92300YC [1] 9332C [1] 93180YC-FX3S [3] 93180YC-FX3 93108TC-FX3P 93180YC-FX3H 9336C-FX2-E 9316D-GX 93600CD-GX
NXA-FAN-35CFM-PI	Fan module with port-side intake airflow (burgundy coloring) Fan module with port-side exhaust airflow (blue coloring)	4 6 6	92300YC [1] 9332C [1] 93180YC-FX3S [2] 93180YC-FX3 93108TC-FX3P 93180YC-FX3H 9316D-GX 93600CD-GX 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-PDC-715W-PI	715-W DC power supply with port-side intake airflow (blue coloring)	2	93108TC-FX3P
NXA-PDC-440W-PE	440-W DC power supply with port-side exhaust airflow (blue coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PDC-440W-PI	440-W DC power supply with port-side intake airflow (burgundy coloring)	2	9348GC-FX3 9348GC-FX3PH

[3] 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.

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Product ID	Description	Quantity	Cisco Nexus Switches
NXA-PHV-350W-PE	350-W AC power supply with port-side exhaust airflow (blue coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PHV-350W-PI	350-W AC power supply with port-side intake airflow (burgundy coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PAC-350W-PE2	350-W AC power supply with port-side exhaust airflow (blue coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PAC-350W-PI2	350-W AC power supply with port-side intake airflow (burgundy coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PAC-1900W-PE	1900-W AC power supply with port-side exhaust airflow (blue coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PAC-1900W-PI	1900-W AC power supply with port-side intake airflow (burgundy coloring)	2	9348GC-FX3 9348GC-FX3PH
NXA-PHV-2KW-PI	2000-W HVDC power supply with port-side intake airflow (burgundy coloring)	2	9332D-H2R 93400LD-H1
NXA-PAC-1500W-PE	1500-W AC power supply with port-side exhaust airflow (blue coloring)	2	9332D-GX2B
NXA-PAC-1500W-PI	1500-W AC power supply with port-side intake airflow (burgundy coloring)	2	9332D-GX2B
NXA-PAC-500W-PE	500-W AC power supply with port-side exhaust airflow (blue coloring)	2	93180YC-FX 93108TC-FX3
NXA-PAC-500W-PI	500-W AC power supply with port-side intake airflow (burgundy coloring)	2	93180YC-FX 93108TC-FX3
NXA-PAC-650W-PE	650-W AC power supply with port-side exhaust (blue coloring)	2	92300YC 93180YC-FX3S 93180YC-FX3 93180YC-FX3H
NXA-PAC-650W-PI	650-W AC power supply with port-side intake (burgundy coloring)	2	92300YC 93180YC-FX3S 93180YC-FX3 93180YC-FX3H
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 (burgundy coloring) 1	2	9336C-FX2 9336C-FX2-E 9332C 93240YC-FX2

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Product ID	Description	Quantity	Cisco Nexus Switches
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
NXA-PAC-1400W-PE	1400-W AC power supply with port-side exhaust airflow (blue coloring)	2	93400LD-H1
NXA-PAC-1400W-PI	1400-W AC power supply with port-side intake airflow (burgundy coloring)	2	93400LD-H1
N9K-PUV-1200W	1200-W Universal AC/DC power supply with bidirectional airflow (white coloring)	2	92300YC 93108TC-FX 93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C 93108TC-FX3
NXA-PDC-930W-PE	930-W DC power supply with port-side exhaust airflow (blue coloring)	2	93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C 93180YC-FX3H 93108TC-FX3
NXA-PDC-930W-PI	930-W DC power supply with port-side intake airflow (burgundy coloring)	2	93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C 93180YC-FX3H 93108TC-FX3

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Product ID	Description	Quantity	Cisco Nexus Switches
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
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 airflow (blue coloring)	2	9364C-GX
NXA-PAC-2KW-PI	2000-W AC power supply with port-side intake airflow (burgundy coloring)	2	9364C-GX 9332D-H2R
NXA-PDC-2KW-PE	2000-W DC power supply with port-side exhaust airflow (blue coloring	2	9364C-GX 93400LD-H1
NXA-PDC-2KW-PI	2000-W DC power supply with port-side intake airflow (burgundy coloring)	2	9364C-GX 9332D-H2R 93400LD-H1
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:

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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-X9732C-FX	4 5 (n+1 redundancy)	4 5 (n+1 redundancy)	4 5 (n+1 redundancy)	4 5 (n+1 redundancy)	4 5 (n+1 redundancy)	4 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 6 (n+2 redundancy)	4 6 (n+2 redundancy)
N9K-X9636C-R	5 6 (n+1 redundancy)	5 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 10.4(4)M supports the Cisco Nexus Dashboard Insights on Cisco Nexus 9300-FX, 9300-FX2, 9300-FX3, 9300-GX, 9300-GX2, 9400, and 9800 platform switches and 9500 platform switches with -EX/FX/GX Line Cards. See the Cisco Nexus Insights documentation.

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

Related Content

Document Title	Description
Cisco Nexus 9000 Series Switches	Cisco Nexus 9000 Series Switches documentation
Cisco NX-OS Software Strategy and Lifecycle Guide	Cisco NX-OS Software Release and Image-naming Convention
Cisco Nexus 3000 and 9000 Series NXAPI REST SDK User Guide and API Reference	Cisco Nexus 3000 and 9000 Series NX-NX-API REST SDK User Guide and API Reference | • Cisco NX-OS Licensing Guide • Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator • Cisco Nexus Smart Licensing Using Policy User Guide	Licensing Information **Note:** When you downgrade from Cisco NX-OS Release 10.4(4)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.
Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide	Cisco Nexus 9000 Series Software Upgrade and Downgrade Guide, Release 10.4(x)
Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes	Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes, Release 10.4(4)M
https://cisco.github.io/cisco-mibs/supportlists/nexus9000/Nexus9000MIBSupportList.html	Cisco NX-OS Supported MIBs
Cisco Nexus 9000 Series Switch FEX Support Matrix	Supported FEX modules
Cisco Nexus 9000 Series Hardware Installation Guides	Cisco Nexus 9000 Series Hardware Installation Guides

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