

Cisco Nexus 9000 Series NX-OS Release Notes

Release 10.5(4)M

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.

Introduction

This document describes the features, issues, and limitations of Cisco NX-OS software Release 10.5(4)M for use on the Cisco Nexus 9000 Series switches.

Date	Description
October 21, 2025	Release 10.5(4)M became available.

Software Features

There are no new software features introduced in Cisco NX-OS Release 10.5(4)M.

Hardware Features

There are no new hardware features introduced in Cisco NX-OS Release 10.5(4)M.

Release Image

Note: Starting from 10.5(3)F, Cisco NX-OS no longer provides a separate EPLD image. Instead, the EPLD image is bundled with all NX-OS images and so the image sizes are correspondingly larger.

In Cisco NX-OS Release 10.5(4)M, the following four 64-bit images are supported:

- The 64-bit Cisco NX-OS image filename with “nxos64-cs” as the prefix (for example, nxos64-cs.10.5.4.M.bin) is supported on all Cisco Nexus 9000 series switches except Cisco Nexus 9500 series -R and -R2 modular switches, Cisco Nexus 9800 switches, and N9364E-SG2 switches.
- The 64-bit Cisco NX-OS image filename with “nxos64-s1” as the prefix (for example, nxos64-s1.10.5.4.M.bin) is supported and mandatory on all Cisco Nexus 9800 and N9364E-SG2 switches.
- The 64-bit Cisco NX-OS image filename with “nxos64-msll” as the prefix (for example, nxos64-msll.10.5.4.M.bin) is supported on Cisco Nexus 9500 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
CSCwj48097	The throughput displayed by `show policy-map interface ethernet x/y` outputs as "n/a bps" in Nexus 9000.

Bug ID	Headline
CSCWq99451	Nexus 9504 with N9K-X9736C-FX fails to enable Eth1/33-34 (QSFP-40G-SR-BD) to Catalyst 9407
CSCWr56724	N9K-C9364D-GX2A :: BGP sessions using type6 encryption fail after device power-cycle
CSCWq16614	N9K FX3P 1G ports with MACsec enabled drop Layer 2 (L2) traffic
CSCWp07635	VXLAN BGW - IR mcast traffic blackholed when qos-marking policy applied
CSCWq38959	Traffic failed over ND_ISSU with mixed speed (1G/2.5G)
CSCWr08364	Nexus Prefix-List name auto-completion causes incorrect list selection when multiple similar names exist
CSCWp92116	vxlان/vpc/xconnect - vpc primary shut down cause flap on xconnect session from vpc secondary
CSCWq07875	SPAN Session not mirroring some traffic after SPAN SRC or DST interfaces are bounced
CSCWq14316	show ip route detail shows hex values when total routes are more than 1000
CSCWq16614	N9K FX3P 1G ports with MACsec enabled drop Layer 2 (L2) traffic
CSCWq47988	NXOS : N9K-C93108TC-FX3P : 1gig copper interface randomly enters an Rx path stuck state
CSCWq79994	ND ISSU from 10.5.3 to 10.5.4 and 10.5.4M bin to upg, not displaying correct flashed version in "show hardware internal dev-version"
CSCWp99573	10.6.1 [107]:post migrating IR -> mcast, met not created for underlay causing traffic drop

Resolved Issues

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

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

Bug ID	Headline
CSCwo61245	Cisco NX-OS Software Sensitive Log Information Disclosure Vulnerability
CSCWq64732	Applying snmp configuration on a device with type 6 encryption enabled, makes the snmp process to crash
CSCwo99266	Vulnerabilities in openssh 9.8p1 CVE-2025-26465 and others
CSCwo41002	N9500-R: Disable mac learning on additional higher range internal ports
CSCWp01976	In OSPFv3, the path selection for E1 type route is not working properly for some prefixes.
CSCWq20968	Fabric link tracking is not working as expected with vPC Fabric Peering when peer keep-alive link is down
CSCWq07016	GRPC crash - Memory cgroup out of memory: Killed process (grpc) with no core, due to memory leak

Bug ID	Headline
CSCwp95485	SYN-TIMEOUT and FINRST-TIMEOUT timers activate when ASCII reload happens, even with no tcp-nat tcam carved
CSCwo69188	SNMP syslogs stating ACL not found despite being present
CSCwo94050	N9K-C93108TC-FX3P - PoE Interfaces Require Manual Shut/No Shut to Power Up After Cable Insertion
CSCwp29610	N9k VXLAN prefixes are installed in FIB without NVE Flag
CSCwq99853	N9364E: High temperature caused by low fan speed.
CSCwp08468	flexcoh_SDK.log fills up /var/sysmgr/tmp_logs folder on the LC impacting ND-ISSU
CSCwo57673	Sporadic PTP corrections on N9K-C93180YC-FX3
CSCwo74023	N9K object-group editing causes aclqos hap-reset, ASIC errors and Module restart
CSCwp03577	N9K-C93108TC-FX3 - The 1G link comes up on the peer device after the FX3 reload and not in a system ready state
CSCwo66912	Upgrade from 9.3(x) to 10.4(5) fails due to SRG processing failed
CSCwq97976	Nexus 9K gets multiple reset with "nginx_dme hap reset"
CSCwf40627	N9K - CDP neighbor's Platform ID is incomplete when larger than 16 characters
CSCwo66097	Nexus 9000 - syslogd crash after changing remote logging host configuration
CSCwq41205	N9K - QSFP-100G-SR1.2 is treated as a "non-fiber port" by UDLD.
CSCwp03035	iBGP Routes Cannot Be Redistributed into OSPF
CSCwp83852	User role modifications not applied in N9K
CSCwo88419	nginx_dme process crashes repeatedly
CSCwq49850	Random macsec packets(control and data frame) corrupted leading to macsec tear down or ospf/bfd to be impacted
CSCwp00709	High CPU due to vsh.bin with rapid logging of sev 0,1,2 syslogs
CSCwp87790	Nexus N9K-C9364D-GX2A interface stays down after replacing the transceiver QDD-400G with a QSFP-100G
CSCwo84711	N9K: vsh.bin crash and error EOL function pfm_cli_show_inventory from library libpfm.so
CSCwo90276	N9k does not populate remote IP address field within AAA bound packet
CSCwq59640	Routes Redistributed into RIP Have Metric 0 After RIP Instance Restart
CSCwo90376	[Telemetry] Large number of AAAA DNS queries are sent by the nexus switch to the DNS server to resolve telegraf hostname, even though IPv6 is not configured

Bug ID	Headline
CSCwg52210	Multiple Ports flaps on N9K-X96136YC-R when one port goes down
CSCwp37753	Link never comes up for connection between MACSec/retimer ports on N9K-X98900CD-A line cards
CSCwg00225	'ipv6 link-local' configuration missing after reload
CSCwg26438	Memory leak when GRPC polling rtp flow stats
CSCwp17526	N9K PVLAN primary does not work if port-VLAN mapping is configured on the same port
CSCwg07354	n9k is stuck during booting up
CSCwg27803	Bandwidth remaining percent values are not honored on R series Line card
CSCwp22707	N9K-C93360YC-FX2 - PSU fans running at 100% after upgrade
CSCwp21192	Upgrading Nexus 93108TC-FX3P in Fex Mode from 9.3(11) to 10.4(4)M may cause specific FEX to not boot
CSCwp27254	Nexus 9000: VPC Fabric Port Status Stuck UP or DOWN After Virtual Peer-Link Reconfiguration
CSCwo79875	N9400 can not display LEM online syslog
CSCwh77780	Cisco NX-OS Software Python Parser Escape Vulnerability
CSCwg21628	N9K - "snmp-server source-interface informs" command removed when config profile is present
CSCwo72997	N9K Mroute is getting deleted/expired every 4-5 minutes.
CSCwp04480	PTP SMPTE mgmt messages have junk in trailer
CSCwp08416	N9K Configured with the `vlan dot1q tag native` global command may drop traffic on the port with SrcId 0
CSCwg39166	N3500 may reload due to aclqos crash when SR and ucast NAT entries overflow NAT tcam region
CSCwp61385	NXOS 10.3.6 missing OID 1.3.6.1.4.1.9.9.691.1.1.2.1 CefexConfigEntry in snmpwalk
CSCwg32191	N9K -FX3: VXLAN storm-control DCI bandwidth does not update after BGW reload
CSCwo81008	Netflow not exporting TCP flags
CSCwg64969	Micro-Burst Detection stops working after few minutes on N9K-C93180YC-FX3
CSCwg70642	ePBR ACL policy not configured in the hardware after VRF membership change on policy interface
CSCwp37399	GX2 non-retimer ports in breakout config and running auto-negotiation might not link up occasionally.
CSCwp16908	Improve proper handling when there is a ACT2 failure for chassis/Backplane

Bug ID	Headline
CSCwp04483	Nexus 9408: LEM is slot 6 showing 0 origin timestamp in PTP sync message on boot
CSCwq35843	STP crash while using private-vlan trunk promiscuous
CSCwo90314	When the aaa group1 cannot access the TACACS Server but the source-interface remains up, the permissions obtained by the role are abnormal
CSCwq95935	BGP next-hop filtering does not properly match source protocol during next hop evaluation
CSCwo97452	Tahudsd Crash while running back to back Show tech detail with Show tech usd-all
CSCwr23951	Incorrect enforce-first-as behavior with ATTR_SET
CSCwn82520	NXOS 10.3.6 link down when connected ISR speed manually set to 100
CSCwp58949	"ip igmp static-oif route-map <route-mape>" entries count towards ICAM PBR sequence
CSCwq14936	Issue with RIP Summary Route Propagation on Nexus 9000
CSCwq79630	show flow monitor xxxx cache show empty output
CSCwo92631	N9K: Macsec-psk no-show removes key-octet-string on upgrade
CSCwq23068	kernel panic at mts_sys_get_HA_state
CSCwr01636	Incorrect Redirect ACL programming leading to packet drop on Egress
CSCwo60636	Nexus 9408 - On occasion ASIC MAC fault interrupts are missed, resulting in down links staying connected.
CSCwp02936	N9k triggers a kernel panic due to memory leak in ipqosmgr
CSCwq26517	N9K DNS: source-interface not working for ip name-server command in 10.5(3)
CSCwp14674	%KERN-3-SYSTEM_MSG: [9710.356532] TCP: MD5 Hash not found for (11.11.xx.xx, 179)->(1.1.x.x, 46958) R - kernel
CSCwp25644	N9k PIDs brings down interfaces for laser cuts less than debounce timer
CSCwp85968	N9K - Interface changes may result in NFM process crash and switch reload
CSCwr26610	Routes received from eBGP neighbors are not advertised to peers and advertisement timer is not running.
CSCwm89236	Switch fails to establish TCP using IPv4 to CSLU if source-interface and IPv6 address are configured
CSCwr00321	Unexpected TCAM free space value when carving space to "egr-netflow".
CSCwr10308	Vlan mapping config removal breaks other vlan mappings
CSCwp15766	Unable to configure the MTU 1500 when creating port-channel sub interface via RESTCONF:PATCH

Bug ID	Headline
CSCwp22815	93600CD-GX buffer wedge post upgrade
CSCwp95741	Route in peer missing after configuring address-family ipv4 unicast under neighbor
CSCwq31398	SNMP-Server Community string not displaying 32 character community
CSCwo80063	System core file storage usage is unexpectedly high
CSCwp19152	NTP MTS build up leading to copy run start and show cli failure
CSCwo94447	Type 6 primary key fails to get programmed post multi-hop-upgrade + aaa config changes to 10.4.x
CSCwq10716	Light levels on N2k FEX report different values after NX-OS upgrade
CSCwq11709	SCP File Download Fails in Verbose Mode from NXOS Server
CSCwo71832	Cisco NX-OS Software Sensitive Log Information Disclosure Vulnerability
CSCwp90936	N9K/N3K unexpected reload due to sysmgr shutdown
CSCwo45133	N9K improvement to save power debug register2 in obfl
CSCwo46131	Add support for 'terminal prompt' command
CSCwp15191	DME "operErrDisQual" state "link-flap-err" not restored to "up" after interface error disabled state recovery
CSCwp21410	After removing vlan configuration, not able to reuse those flow monitors for other type of interfaces
CSCwo63323	MTM process crash when large number of MAC addresses in the network
CSCwn53876	The "show logging log" command output is displaying log entries in an incorrect timestamp order.
CSCwp10800	STP scalability affected by debugs
CSCwp19413	N9k Telemetry stops streaming under certain conditions
CSCwq58774	When sub-interface of an access-side Layer3 Port-Channel (i.e. Po1.100) is added, MPLS traffic is dropped on the MPLS-enabled interface where it arrived

General/Known Issues

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

Bug ID	Description
CSCwi95977	DME CC failure for mutiisite virtual rmac

Bug ID	Description
CSCwi95768	Loopback Ping is not working after enabling MPLS LDP at Interface
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 N9K-C9364C-H1 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 N9800
CSCwh44244	DME inconsistency in sys/mplsta-[eth1/7/1] object after some CLI sequence

Device Hardware

The following tables list the Cisco Nexus 9000 Series hardware that Cisco NX-OS Release 10.5(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.

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 (1 st Generation)
N9K-C9804-FAN-A	Cisco Nexus 9800 4-slot chassis fan tray (1 st Generation)

Table 6. Cisco Nexus 9800 Power Supplies

Product ID	Description
N9K-HV 6.3KW 20A-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
N9K-X9736C-FX3	Cisco Nexus 9500 36-port 40GE/100GE line card	4	8	16
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

Product ID	Description	Maximum Quantity		
		Cisco Nexus 9504	Cisco Nexus 9508	Cisco Nexus 9516
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
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

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

Table 18. Cisco Nexus 9200 and 9300 Switches

Cisco Nexus Switch	Description
N9364E-SG2-Q	The Cisco Nexus 9364E-SG2-Q switch is a 2-rack unit (RU), fixed-port, high-density switch designed to support high-density 800G fabrics for next generation leaf and spine designs.

Cisco Nexus Switch	Description
N9364E-SG2-O	The Cisco Nexus 9364E-SG2-O Switch is a 2-rack unit (RU), fixed-port, high-density switch designed to support high-density 800G fabrics for next generation leaf and spine designs.
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.

Cisco Nexus Switch	Description
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.
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."

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-FAN-30CFM-B	Fan module with port-side intake airflow (burgundy coloring)	3	93108TC-FX Error! Reference source not found.[1] 93180YC-FX Error! Reference source not found.[1] 9348GC-FXP Error! Reference source not found.[1]
NXA-FAN-30CFM-F	Fan module with port-side exhaust airflow (blue coloring)	3	93108TC-FX Error! Reference source not found.[1] 93180YC-FX Error! Reference source not found.[1] 9348GC-FXP
NXA-FAN-35CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	4	92300YC Error! Reference source not found.[1] 9332C Error! Reference source not found.[1] 93180YC-FX3S ^[3] 93180YC-FX3 93108TC-FX3P 93180YC-FX3H
		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 93180YC-FX3H
		6	9316D-GX 93600CD-GX
		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]

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.

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
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

Product ID	Description	Quantity	Cisco Nexus Switches
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
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

Product ID	Description	Quantity	Cisco Nexus Switches
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
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:

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 10.5(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](#).

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 10.5(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 10.5(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 10.5(x)
Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes	Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes, Release 10.5(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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