Cisco Nexus 9000 Series NX-OS Release Notes

Release 10.5(1)F

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(1)F for use on the Cisco Nexus 9000 Series switches.

Date	Description
August 15, 2024	Added the defect to CSCwj89973 to Resolved Issues section
July 31, 2024	Added the defect to CSCwh41388 to Resolved Issues section.
July 26, 2024	Release 10.5(1)F became available.

Note: When installing Cisco NX-OS software Release 10.5(1)F on N9K-C9504, N9K-C9508 and N9K-C9516 modular chassis you must install SMU that address CSCwk42645.
C9516 - https://software.cisco.com/download/home/286195224/type/286278856/release/10.5(1)
C9508 - https://software.cisco.com/download/home/285956854/type/286278856/release/10.5(1)
C9504 - https://software.cisco.com/download/home/286195223/type/286278856/release/10.5(1)

Installation of the NXOS image and the SMU can be done at the same time by using "install all nxos <*image location*> package <*SMU filename*>" command. For more details, see the Performing Software Maintenance Upgrades guide.

Software Features

New Software Features

Product Impact	Feature	Description
Feature Set	system routing template-l2-heavy -- Template support on FX3 platforms	Beginning with Cisco NX-OS Release 10.5(1)F, system routing template-l2-heavy template is supported on FX/FX2/FX3 platforms.
	MAC learning disable at VLAN level	Beginning with Cisco NX-OS Release 10.5(1)F, MAC learning can be disabled at the VLAN level on the Cisco Nexus 9300-FX/FX2/FX3/GX/GX2/H2R/H1 Series switches and Cisco Nexus 9500 Series switches with 9700-EX/FX/GX line cards. For more information, see Cisco Nexus 9000 Series NX-OS Layer 2 Switching Configuration Guide, Release 10.5(x).

Product Impact	Feature	Description
	Allow use of reserved VLAN as ingress in the VLAN mapping	Beginning with Cisco NX-OS Release 10.5(1)F, VLANs 1-4094 can be configured as the ingress VLAN for VLAN mapping. Prior to Cisco NX-OS Release 10.5(1)F, VLAN mapping supports VLANs 1-3967 as the ingress VLAN. For more information, see Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.5(x), and Cisco Nexus 9000 NX-OS Interfaces Configuration Guide, Release 10.5(x).
	Priority Flow Control (PFC) QOS support on 9800 switches	Beginning with Cisco NX-OS Release 10.5(1)F, Added support to transport RDMA over Converged Ethernet (RoCE) v2 protocols on Cisco Nexus N9K-C9800 switches. For more information, see Cisco Nexus 9000 Series NX-OS Quality of Service Configuration Guide, Release 10.5(x).
	EVPN over RFC5549 - VXLAN Multisite	Beginning with Cisco NX-OS Release 10.5(1)F, VXLAN EVPN with RFC 5549 underlay is supported for multi-site environments on Cisco Nexus 9000 Series switches. For more information, see Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.5(x).
	ePBR IPACL One-arm endpoints	Beginning with Cisco NX-OS Release 10.5(1)F, it is no longer necessary to explicitly configure the reverse IP address for one-arm service devices. For more information, see Cisco Nexus 9000 Series NX-OS ePBR Configuration Guide, Release 10.5(x).
	Service Chaining with Security Groups	Beginning with Cisco NX-OS Release 10.5(1)F, users can redirect traffic flows between endpoints part of different Security-Groups. With this release, there is support available for redirection to 1 node only. For more information, see Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.5(x).
	Exclude-L3-Proto in ECMP hashing	Beginning with Cisco NX-OS Release 10.5(1)F, the **exclude-l3-proto** option is added to the **ip load-sharing address** command to allow the exclusion of the IP protocol from ECMP hashing during nexthop selection on Cisco Nexus 9300-GX2 Series switches. For more information, see Cisco Nexus 9000 Series NX-OS Unicast Routing Configuration Guide, Release 10.5(x).
	Multi-thread support for YANG subscribe	Beginning with Cisco NX-OS Release 10.5(1)F, multi-thread support for YANG subscribe is added.
	PIM Null register packing	Beginning with Cisco NX-OS Release 10.5(1)F, you can configure Null-Register packing to send multiple multicast (S, G)s in one Null-Register packet and reduce the packet processing overhead in the PIM routers.
	UCMP (Unequal Cost Multi Path) Load balancing with BGP Extended Community attributes	Beginning with Cisco NX-OS Release 10.5(1)F, DMZ Link Bandwidth feature is introduced to load balance traffic towards a BGP learnt route reachable through multiple autonomous system exit links.

Product Impact	Feature	Description
	Advertise Remote prefixes with PIP as Next Hop instead of VIP	Beginning with Cisco NX-OS Release 10.5(1)F, you can configure BGW to advertise external EVPN type-5 routes with PIP as next-hop and RMAC of PIP towards the fabric side. With this configuration, BGW uses PIP instead of VIP for route advertisement.
	Microsegmentation using VXLAN Group Policy Option: Enhancements	Beginning with Cisco NX-OS Release 10.5(1)F, microsegmentation using VXLAN Group Policy Option will support additional match criteria, VLAN range and analytics for VXLAN packets carrying Group Policy Option. Support for microsegmentation will be available on Cisco Nexus 9408 switches. For more information, see Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.5(x).
	ECMP Dynamic Load-Balancing (DLB) on Nexus 9000 • ECMP Static Pinning • DLB Per packet load balancing. • VxLAN underlay – Tunnel Multipath Table on Cloudscale	Until the current release, ECMP load balancing continues to be done using a hash created from fields in the packet. Thus, the load balancing decision is fixed based on values of the fields used to generate the hash. However, from Cisco NX-OS Release 10.5(1)F, along with the existing feature, the new Layer 3 ECMP Dynamic Load Balancing (DLB) feature provides support to efficiently load balance traffic depending on the current state of utilization of the outgoing links. The feature is supported with native layer 3, as well with VXLAN. The prominent features of Layer 3 ECMP DLB are as follows: • Faster convergence during link failures. • Maximize the utilization of available network paths. • Provide redundancy in case of link or node failures. • Minimize congestion by evenly spreading traffic across all paths. • Increase overall network performance without needing additional or specialized infrastructure. • Use Dynamic Rate Estimator (DRE)/DLB to allow better traffic load balancing in the fabric. • Support static-pinning where a source port can be pinned to a destination port which is part of a DLB Enabled ECMP Group. All the flows from the source port using a DLB ECMP group, which has the pinned destination port as member, are sent to the pinned destination port only. This feature provides two modes of load balancing: • The Flowlet Load Balancing (FLB) option provides for load balancing at the flowlet level. • The Per Packet Load Balancing (PLB) allows for traffic being distributed across the available links in a DLB ECMP and spread out, reducing the impact of large or long-lived flows on network congestion.

Product Impact	Feature	Description
		Beginning with Cisco NX-OS Release 10.5(1)F, added support to enable Dynamic Load Balancing for underlay paths for VXLAN tunnels, allowing for ECMP routing on Layer 3 interfaces. For more information, see Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.5(x).

Enhanced Software Features

The enhanced features that are listed below are existing features that are introduced in earlier releases, but enhanced to support new platforms in Cisco NX-OS Release 10.5(1)F.

Product Impact	Feature	Description
Feature Set	QoS FEX show commands	Beginning with Cisco NX-OS Release 10.5(1)F, the **show interface priority-flow-control** commands are enhanced to display the PFC information for Cisco Nexus 9300-FX3 FEX Host Interfaces (HIF). For more information, see Cisco Nexus 9000 Series NX-OS Quality of Service Configuration Guide, Release 10.5(x).
	show consistency-checker storm-control brief and detail option	Beginning with Cisco NX-OS Release 10.5(1)F, the **show consistency-checker storm-control** command is enhanced to display brief and detail information. For more information, see Cisco Nexus 9000 Series NX-OS Troubleshooting Guide, Release 10.5(x).
	Added details option to show ipv4/ipv6 bgp neighbor commands	Beginning with Cisco NX-OS Release 10.5(1)F, the **show bgp {ipv4 | ipv6} unicast neighbors** commands are enhanced to display brief and detail information. For more information, see Cisco Nexus 9000 Series NX-OS Unicast Routing Configuration Guide, Release 10.5(x).
	NXOS Image management: S1 image uplift	Beginning with Cisco NX-OS Release 10.5(1)F, the 64-bit Cisco NX-OS image filename with “nxos64-cs” as the prefix (for example, nxos64-cs.10.5.1.F.bin) is no longer supported on Cisco Nexus 9800 switches. Instead, the 64-bit Cisco NX-OS image filename with “nxos64-s1” as the prefix (for example, nxos64-s1.10.5.1.F.bin) is supported and mandatory on all Cisco Nexus 9800 series switches. For more information, see Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.5(x).
	SMU Retry/Reload Switch if SMU install Fails	Beginning with Cisco NX-OS Release 10.5(1)F, if a SMU is valid and compatible with the image and needs to be activated, but fails to activate, the switch reloads automatically. For more information, see Cisco Nexus 9000 Series NX-OS System Management Configuration Guide, Release 10.5(x). For more information, see Cisco Nexus 3600 Switch NX-OS System Management Configuration Guide, Release 10.5(x). For more information, see Cisco Nexus 3548 Switch NX-OS System Management Configuration Guide, Release 10.5(x).

Product Impact	Feature	Description
	PID-specific SMUs	Beginning with Cisco NX-OS Release 10.5(1)F, you can install PID-specific SMUs only on the PIDs they are meant for. For more information, see Cisco Nexus 9000 Series NX-OS System Management Configuration Guide, Release 10.5(x). For more information, see Cisco Nexus 3600 Switch NX-OS System Management Configuration Guide, Release 10.5(x). For more information, see Cisco Nexus 3548 Switch NX-OS System Management Configuration Guide, Release 10.5(x).
	Logging 2.0 support for callhome	Beginning with Cisco NX-OS Release 10.5(1)F, logging 2.0 support for callhome is introduced for Smart Licensing using Policy. For more information, see Cisco Nexus 9000 and 3000 Series NX-OS Smart Licensing Using Policy User Guide.
	PTP Time Distribution hold	The PTP Time Distribution (TD) hold feature, introduced in Cisco NX-OS Release 10.5(1)F, holds the time distribution until a Boundary Clock node locks to the primary time source and settles down to the target correction value. For more information, see Cisco Nexus 9000 Series System Management Configuration Guide, Release 10.5(x).
	IPv6 Underlay (IR) with DCI-IR (IPv6)	Beginning with Cisco NX-OS Release 10.5(1)F, added support for Ingress Replication (IPv6) underlay in data center fabric(DCI) for VXLAN EVPN, VXLAN EVPN Multi-Site, and TRM Multi-Site features. For more information, see Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.5(x).
Performance and Scalability	Traffic analytics enhancement	Beginning with Cisco NX-OS Release 10.5(1)F, the Traffic Analytics (TA) feature is enhanced to support a higher cadence for TA troubleshooting rules and provide granular support for the TA feature by allowing filters at the interface and VRF level. For more information, see Cisco Nexus 9000 Series NX-OS System Management Configuration Guide, Release 10.5(x).
	Reduced footprint for Nexus 9300v and 9500v image	Beginning with Cisco NX-OS Release 10.5(1)F, the footprint of Nexus 9300v and 9500v Lite NX-OS image is reduced from 10G to 6G For more information, see Cisco Nexus 9000v (9300v/9500v) Guide, Release 10.5(x).

Product Impact	Feature	Description
	PTP high-correction notification enhancement	The following attributes are added to the PTP high-correction notification: • lastHighCorrectionMPD • maxHighCorrectionTime • maxHighCorrectionValue • maxHighCorrectionMPD For more information, see Cisco Nexus 9000 Series System Management Configuration Guide, Release 10.5(x). For more information, see Cisco Nexus 3600 Switch NX-OS System Management Configuration Guide, Release 10.5(x). For more information, see Cisco Nexus 3548 Switch NX-OS System Management Configuration Guide, Release 10.5(x).
	Support for NBM and Mcast NAT limits in ICAM	Beginning with Cisco NX-OS Release 10.5(1)F, iCAM support is enabled for NBM and Multicast NAT. For more information, see Cisco Nexus 9000 Series NX-OS iCAM Configuration Guide, Release 10.5(x).
	Security Group ACL (SGACL) Feature interaction support	Beginning with Cisco NX-OS Release 10.5(1)F, Security Group ACL (SGACL) feature support is provided for the ESI, VXLAN-TE, VXLAN-PBR, CloudSec (DCI), and TRM features. For more information, see Cisco Nexus 9000 Series NX-OS Security Configuration Guide, Release 10.5(x).
Analytics (Software Telemetry)	Fix telemetry source interface granularity	Beginning with Cisco NX-OS Release 10.5(1)F, added support for source interface for telemetry.

Hardware Features

New Hardware Features

Cisco NX-OS Release 10.5(1)F does not include any new hardware features for the Cisco Nexus 9000 Series.

Enhanced Hardware Features

Cisco NX-OS Release 10.5(1)F does not include any new enhanced hardware features for the Cisco Nexus 9000 Series.

Unsupported Features on N9K-C92348GC

The following features are not supported on N9K-C92348GC in Cisco NX-OS Release 10.5(1)F.

- EIGRP
- RIP
- Intersight
- MPLS
- Segment Routing

- VXLAN

Release Image

In Cisco NX-OS Release 10.5(1)F, the following three 64-bit images are supported:

- The 64-bit Cisco NX-OS image filename with “nxos64-cs” as the prefix (for example, nxos64-cs.10.5.1.F.bin) is supported on all Cisco Nexus 9000 series switches except Cisco Nexus 9500 -R and -R2 switches and Cisco Nexus 9800 switches.
- The 64-bit Cisco NX-OS image filename with “nxos64-s1” as the prefix (for example, nxos64-s1.10.5.1.F.bin) is supported and mandatory on all Cisco Nexus 9800 series switches.
- The 64-bit Cisco NX-OS image filename with " nxos64-msll” as the prefix (for example, nxos64-msll.10.5.1.F.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
CSCwi92756	NXOS - RFC5424 timestamp hour is shifted by local zone offset
CSCwj48097	The throughput displayed by `show policy-map interface ethernet x/y` outputs as " n/a bps" in Nexus 9000
CSCwj54742	MGMT connectivity issues for N9K-C9336C-K1 & N9K-C9408 PIDs
CSCwj74973	10.5(1):N9K-C9364C-GX-qsa28:Some links not up when moved to 10.5(1) from pre-10.5(1) via ND ISSU
CSCwk04817	10.5(1)N9K-C9364C-GX-qsa28:speed change on one port in that quad,flaps the other ports in that quad
CSCwk61156	QinQ traffic disrupted after removing " switchport trunk allow-multi-tag" command
CSCwk72984	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
CSCwk73989	port states are not consistent on LEM removal, optics removal, LEM insert, optics swap
CSCwk81195	BrightZR Breakout mode interface delayed linkup time to ~300 seconds

Resolved Issues

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

Bug ID	Headline
CSCuw40579	inconsistent VRF output cli - sh ip proc vrf all when doing ISSU

Bug ID	Headline
CSCvc85027	" bfd-app" should not be spawned in production nodes
CSCwc19270	N93108TC-FX3P in FEX mode displayes incomplete port speed capabilities
CSCwf96967	" no layer3 peer-router syslog" or opposite not showing up in " show run"
CSCwh39932	N9300 fails to establish OSPF adjacency in non-vpc vlan with orphan port connected L3 device
CSCwh41388	FX3: system routing template-l2-heavy is not supported on FX3 platforms
CSCwh55496	GX2 devices - Control plane/Stats gets struck intermittently
CSCwh84282	After reload of 93108TC-FX3P/N9K-C93108TC-FX3H random copper/RJ45 interfaces might not come up
CSCwh90029	Error fetching entries from hardware -- forwarding l2 table utilization instance all
CSCwi06810	MAC address table doesn't change via GARP during MAC move
CSCwi07291	N9K snmp-server enable traps lldp lldpRemTablesChange duplicated after upgrade
CSCwi16943	Nexus 9k Interfaces go down (Link failure) after connecting SFP to Switch.
CSCwi20813	CSUSD Hap Reset on Nexus 9k When Adding Interface Breakout Config w/ N9K-X9400-16W Linecard
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_FAIILUR
CSCwi27923	Route-target representation of ASN4:NN in as-dot notation is not correct
CSCwi32905	SPAN To CPU:causing some of the traffic to hit the wrong queue
CSCwi42400	While Changing the IP of an interface using Netconf , it error's out
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
CSCwi44385	ssh -p 830 without subsystem accesses vsh
CSCwi44887	after upgrade from 9.3 to 10.2.6M " remove-private-as all" BGP configuration does not work
CSCwi46108	Support PTP on 100Mbps ports in NXOS
CSCwi50121	In satmgr , while handling sigchild signal may cause deadlock in malloc or other locked resources.
CSCwi52205	No error logs issued when using 1G speed on 10G interface
CSCwi55228	Increase CoPP policer for PTP to cover typical advertised scale
CSCwi56953	crash with ufdm process due mts buffer errors
CSCwi58944	Race condition between PMN, MRIB and PIM

Bug ID	Headline
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
CSCwi61143	Route-map configuration defaults to sequence 10 if no sequence is specified
CSCwi61233	High Info interrupts trigger throttle logic resulting DMA starvation and CPU busy
CSCwi63272	Missing RNH notification for mstatic
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
CSCwi71421	Part of VRF RD value shows 0:0 although it is configured correctly.
CSCwi71532	laser shuts down even break link is enabled post peer link shutdown
CSCwi73309	Glean traffic not punt to CPU
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
CSCwi75345	n9k/eltm: traffic drop due to incorrect index programmed in some port-channels (po) after reload
CSCwi78467	CCTRL cored because of CDR Interrupts
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
CSCwi82186	SSH Terrapin Prefix Truncation Weakness (CVE-2023-48795)

Bug ID	Headline
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.
CSCwi85849	During PTP sync process, the switch updates the clock identity field but keeps sending unsynced time
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
CSCwi92006	all interfaces shown input/output rate as 0pps on N9K FX2 platform
CSCwi92703	N9K-C93180YC-FX3: GNSS LED is red when GPS/GNSS antenna not connected and SyncE not enabled
CSCwi92703	N9K-C93180YC-FX3: GNSS LED is red when GPS/GNSS antenna not connected and SyncE not enabled
CSCwi95363	debug service-core [module <module>] sap <sap-id> frame-count <num> doesn't work
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
CSCwi99584	N9K-X9624D-R2: (*,G) for 224.0.1.129 causes PTP to stop being processed in hardware.
CSCwj00770v	Multicast TX SPAN is not working across slices in all HAL platforms after ND-ISSU from 10.3(5)M to 10.4(3)F
CSCwj01605	Wrong dot1q private-vlan tag after LACP update
CSCwj01675	Special character '\" used as switch username cause nxapi calls to fail
CSCwj02949	RTP Flow Monitor bitrate not accurate
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
CSCwj15659	QKD EFT : space between key and value

Bug ID	Headline
CSCwj16298	Restart SMU install operation will fail " " failed because could not get affected services" .
CSCwj19156	ACL resource utilization CLI is showing wrong values
CSCwj24274	N9K BGP route metric in RIB does not update after MED change when using Multipath
CSCwj28749	All traffic stops when ports with speed 2.5G/5G are oversubscribed
CSCwj29822	Port-security static mac configuration fail after L2VLAN RemoveAdd Trigger
CSCwj30700	VSH Crash when tunnel-encryption show command is used
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
CSCwj34060	Enhancing the design of vPC role election for improved resiliency
CSCwj34088	gRPC gNMI On-Change Telemetry Subscription for Sub-Interfaces Not Working
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
CSCwj40629	N9K - ePBR/PBR - Traffic sent to Incorrect NH
CSCwj41923	10.4(2) Locking Dynamic MAC Learning without configuring feature
CSCwj43054	BFD packet not hit the ACL entry as expected.
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
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
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
CSCwj62619	Manual disable " spanning-tree fcoe" in N9K is needed
CSCwj64248	" spanning-tree pathcost method long" missing from show run after cli config sequence
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
CSCwj67923	Bootflash shows 0KB in show version output in N9K-C92348GC-X

Bug ID	Headline
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
CSCwj72942	ssh rekey max-data 1K max-time 2M & "force" option of ssh key rsa not working
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
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 - Front Port - No Traffic Received in RX Direction
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.
CSCwj89894	Error NCIM12024 due to a postgress limitation for lldp tlv entry string count
CSCwj89920	Adding ITU channel config prevents port-channel creation on N9K switch.
CSCwj89965	Vulnerabilities in Openssh 9.5p1 - CVE-2023-51385
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
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

Bug ID	Headline
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
CSCwk34847	Nexus 9000 crash due to "tahusd" process crash @ tah_sdk_hea_aclqos_hex_print
CSCwk36818	N9K - Memory leak in TAHUSD_MTRACK_TYPE_STATS_DMA_HDLR
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
CSCwk56902	Configuring 'udld diable' thru configure-replace it returns an empty patch and nothing configuring
CSCwk61235	Confirm if CVE-2024-6387 impacts Nexus 9000
CSCwk69444	Rapid memory leak in securityd and component(libpython3.8.so.1.0)

General/Known Issues

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

Bug ID	Description
CSCwh34732	H2R PID: Kernel panic during ND ISSU from 10.4(1)
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 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

Bug ID	Description
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(1)F 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 (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
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
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

Supervisor	Description	Maximum
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 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

Product ID	Description	Quantity	Cisco Nexus Switches
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.

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.

Cisco Nexus Switch	Description
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.
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.

Cisco Nexus Switch	Description
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

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

[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-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 Error! Reference source not found.[1]Error! Reference source not found.**Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.** 93360YC-FX2**Error! Reference source not found.Error! Reference source not found.**
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 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

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

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-FAN-35CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	4 6	92300YC Error! Reference source not found.[1] 9332C Error! Reference source not found.[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.

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

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

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:

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(1)F 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(1)F 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(1)F
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

Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, please send your comments to nexus9k-docfeedback@cisco.com. We appreciate your feedback.

Legal Information

property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1721R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.