Cisco Nexus 9000 Series NX-OS Release Notes, Release 10.2(5)M

Introduction

This document describes the features, issues, and exceptions of Cisco NX-OS Release 10.2(5)M software for use on Cisco Nexus 9000 Series switches.

The new Cisco NX-OS Software Release and Image-naming Convention information is available here — Cisco NX-OS Software Strategy and Lifecycle Guide.

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

The following table lists the changes to this document:

Date	Description
April 25, 2024	Added CSCwh50989 and CSCwe53655 to Open Issues.
May 05, 2023	Added PTP in Unsupported Features on N9K-C92348GC section
March 07, 2023	Cisco NX-OS Release 10.2(5)M became available.

New and Enhanced Software Features

There are no new or enhanced features introduced in Cisco NX-OS Release 10.2(5)M.

Hardware Features

There are no new hardware features introduced in Cisco NX-OS Release 10.2(5)M.

For details on transceivers and cables that are supported by a switch, see the Transceiver Module (TMG) Compatibility Matrix.

Unsupported Features on N9K-C92348GC

Beginning with Cisco NX-OS Release 10.1(1), the following features are not supported on N9K-C92348GC:

- VXLAN
- SW/HW Telemetry
- NetFlow/Analytics
- iCAM
- PTP
- NX-SDK
- DME, Device YANG, OpenConfig YANG, gRPC, NETCONF, RESTCONF

Note: NXAPI CLI and XML Agent (NETCONF over SSH) are supported on this platform.

Release Image

In Cisco NX-OS Release 10.2(5)M, the following two 64-bit images are supported:

- The 64-bit Cisco NX-OS image filename that begins with " nxos64-cs" (for example, nxos64-cs.10.2.5.M.bin). This image is supported on all Cisco Nexus 9000 series fixed switches as well as 9000 Modular switches with FM-E/FM-E2/FM-G.
- The 64-bit Cisco NX-OS image filename that begins with " nxos64-msll" (for example, nxos64-msll.10.2.5.M.bin). This image is supported on Cisco Nexus 9000 -R and -R2 series modular switches.

The 32-bit image is no longer supported.

Open Issues

Bug ID	Description
CSCwe06759	Headline: Memory leak at FEX unit. Symptoms: FEX devices are unexpectedly reloading after the memory is depleted. Workarounds: None
CSCwe42043	Headline: BGP External-Fallover is not working when TTL-Security is enabled. Symptoms: When TTL-Security is enabled, BGP Externall-Fallover does not bring down the eBGP session as soon as the physical interface (Eth1/47) is down. Instead, BGP is waiting for the hold timer to expire (which has been configured to be 20 secs). Workarounds: Disable TTL-Security.

Bug ID	Description
CSCwe43450	Headline: Tahusd Crash caused unexpected reload post ISSU from Cisco NX-OS Release 9.3.6 to Cisco NX-OS Release 9.3.9 Symptoms: Unexpected reload with the following reason: # sh logging onboard internal reset-reason ---------- Module: 1 ---------- Switch OBFL Log: Enabled Last log in OBFL was written at time Tue Feb 21 18:40:02 2023 Reset Reason for this card: Image Version : 9.3(9) Reset Reason (LCM): Unknown (0) at time Mon Feb 20 22:37:39 2023 Reset Reason (SW): Reset Requested due to Fatal Module Error (4) at time Mon Feb 20 22:35:26 2023 >>>>>>>>>>>>>> Service (Additional Info): SAP:1428 Reset Reason (HW): Kernel Reboot (1) at time Mon Feb 20 22:37:39 2023 Workarounds: Not Applicable
CSCwe46297	Headline: Nexus 9000 silent reload by " Watchdog Timeout." Symptoms: The N9K-C9504-B3-G device running 10.2.4.M version code unexpected reloads by " Watchdog Timeout." Workarounds: None
CSCwe50502	Headline: NX-OS Unexpected Reloaded due to Watchdog with high ASIC interrupt counters Symptoms: Nexus 9000 device unexpectedly reloads with " Watchdog Timeout" reason and without generating core files under " show cores" , due to a large number of ASIC interrupts. Workaround: None. The only way for the device to recover from the influx of interrupts is to reload.
CSCwe51952	Headline: Transient loop in BiDir multicast segment observed during change of DF Symptoms: Short burst of BiDir multicast traffic during DF change Workaround: None

Bug ID	Description
CSCwe41327	Headline: SYSMGR-3-CFGWRITE_FAILED: Configuration copy failed due to 100% usage of startup-cfg Symptoms: Nexus switches may fail to save the config to startup config due to frequent changes to the ACL config with below errors: 2023 Feb 10 13:17:11.746 N3k %PSS-0-PSS_WRITE_DATA_FAILURE: aclmgr: failed to write data to /var/sysmgr/startup-cfg/bin/aclmgr_start_cfg_user block 8785: partial write 2023 Feb 10 13:17:11.746 N3k%PSS-0-PSS_WRITE_DATA_FAILURE: aclmgr: failed to write data to /var/sysmgr/startup-cfg/bin/aclmgr_start_cfg_user block 8785: partial write (message repeated 1 time) 2023 Feb 10 13:17:11.746 N3k %PSS-0-PSS_WRITE_FAILURE: aclmgr: failed to write data: Operation not permitted 2023 Feb 10 13:17:11.760 N3k %SYSMGR-3-CFGWRITE_SRVFAILED: Service " aclmgr" failed to store its configuration (error-id 0x4048000C). 2023 Feb 10 13:17:11.927 N3k %SYSMGR-2-CFGWRITE_ABORTED: Configuration copy aborted. 2023 Feb 10 13:17:14.017 N3k %SYSMGR-3-CFGWRITE_FAILED: Configuration copy failed (error-id 0x401E0000). switch# show system internal flash | in Mount|startup Mount-on 1K-blocks Used Available Use% Filesystem /var/sysmgr/startup-cfg 102400 90632 11768 89 none switch# Workaround: Avoid the growing usage of startup-cfg by making configuration changes without config session/commit. Once startup-cfg usage hits 100%, the configuration save to startup will fail. Recovery is by switch reload. The running configuration can be saved to bootflash if additional configuration can't be saved to the bootflash.
CSCwe55237	Headline: Nexus: Configuring overlapping IPv6 address with different mask on L3 interface does not throw error. Symptoms: If IPv6 address is configured, which is overlapping on two different L3 interfaces of the same box using different subnets, no warning message is seen. This is not the case for IPv4. Workaround: Use a subnet calculator to ensure the addresses are not overlapping.
CSCwe53655	Headline: Revert reserved mac blocking behavior for VRRP macs on SVIs Symptoms: User will not be able to configure VRRP macs on SVI interfaces. Workaround: None
CSCwe07768	Headline: Nexus 9000 BFD packets placed in the default queue Symptoms: BFD packets are being put into the default queue, which can cause BFD neighbors to flap when there is buffer congestion. Workarounds: Manually configure a QoS policy to set BFD packets to QoS group 7 (priority queue).

Bug ID	Description
CSCwe53655	Headline: Revert reserved MAC blocking behavior for VRRP macs on SVIs Symptoms: User is not able to configure VRRP VMAC on SVI interfaces. Workarounds: None.
CSCwh50989	Headline: Custom COPP causing transit traffic to be punted to the CPU on Nexus 9300-GX2 Symptoms: When custom-COPP policy contains ACL rules which match on Layer 4 destination or source port, transit traffic also hits the COPP and the packets are copied to CPU. This causes duplication of traffic as CPU also routes the copied packets to the destination. Workarounds: Custom COPP policy using src/dst match mitigates punt for transit traffic.

Resolved Issues

Bug ID	Description
CSCwd03152	Headline: VLAN Mapping issue and STP inconsistency with single leg VPC Symptoms: When Nexus 9000 switches running on version 9.3(9) in vPC connects to a downstream access switch; with single link switch is running VXLAN and vPC port channels has PV mapping configuration; STP state of configured vPC port channel (even though port is in shut state) will be in forwarding state. Translated VLAN in downstream access VLAN will be in broken state due to the receipt of wrong BPDUs. Workarounds: Enable both links from vPC primary and secondary towards access switch.
CSCwd21451	Headline: SNMP walk on any OID does not return with expected results Symptoms: SNMP walk on any OID does not return with expected results. Example: ipAdEntAddr IP-MIB or OID returns only 2 IPs even though multiple IPs are configured: server-host% snmpwalk -v 2c -c '***' pnq16-co-agg-r2 IP-MIB::ipAdEntAddrIP-MIB::ipAdEntAddr.10.130.96.4 = IpAddress: 10.130.96.4IP-MIB::ipAdEntAddr.10.130.96.65 = IpAddress: 10.130.96.65 Workarounds: None
CSCwe11348	Headline: Telemetry memory limit reached dropping collection Symptoms: Telemetry stops working on N9K-C93180YC and N9508Nexus reports memory occupied exceeds the limit allowed and syslog " telemetry memory limit is reached" is generated. Workarounds: • Remove telemetry feature configuration using “no feature telemetry” command. • Wait for 3 minutes for the process to gracefully exit. • Remove HTTP destination configuration and reapply telemetry configuration. The telemetry HTTP configuration can be re-applied later once HTTP destination is stable.

Bug ID	Description
CSCwe30433	Headline: IP packets with IP option not routed after reload Symptoms: Ping with IP option will not be routed on configured Nexus 9500 series switches if the switch comes up just after reload. When packets are not routed, " Ingress ICMP Redirect processing drop" in " show ip traffic" is counted up. Workarounds: If you have standby supervisor, switchover the supervisor. The issue will not be seen. Note that if switch comes up with no configuration, this issue will not be observed just after configuring switch for routing. Issue will be seen after reload with saved configuration.
CSCwc87548	Headline: Underrun errors transmitted when upgrading from 40 to 100 Gbps on a Nexus 9000 EOR. Symptoms: When the SFP is replaced to support 100G (QSFP-100G-SR4) or by changing the speed of the port (QSFP-40/100-SRBD), underrun packets are transmitted. However, output errors counter will not increase locally. CRC starts to increase on neighbor device. These ports are configured on a layer 2 Port channel (no vPC) while working at 40G no CRC are seen. Workarounds: Downgrade to 40 Gbps.
CSCvw14504	Headline: Add OUI 0x4CE176 to OUI Database - Port-channels and trunking not working with OUI 0x4CE176 Symptoms: Port-channels or trunking not working. One symptom might be:<pre>%PORT-5-IF_DOWN: %$VSAN 100%$ Interface fc1/33 is down (Error disabled - port reinit limit reached) </pre> Workarounds: <pre>configwwn oui 0x4CE176</pre>
CSCwd82039	Headline: Unexpected Supervisor failover due to sys-mgr process crash in NXOS Symptoms: A Core File is generated due to a crash on the 'sysmgr' process, which causes the supervisor line card to reboot. Workarounds: None
CSCwc95886	Headline: BGP Additional Paths Not Advertised as Expected When eBGP Peer Is Configured In VPNv4 Address Family Symptoms: BGP additional paths are not advertised to peers as expected Workarounds: Remove eBGP neighbors from VPNv4 address family to advertise additional paths as expected
CSCvs79768	Headline: N9K Micron_5100_MTFD " Bootflash Read-Only State" ; Kernel I/O Errors Found Symptoms: Write operations on a switch fail, 'copy run start', etc. The following error is observed when running " show version"# show versionsh: /mnt/pss/patch_debug.log: Read-only file system`show logging logfile`%USER-3-SYSTEM_MSG: File Writing Failed for /mnt/pss/aaa_vdc_1.seqnum - aaad%SYSMGR-3-CFGWRITE_FAILED: Configuration copy failed (error-id 0x401E0004).%KERN-3-SYSTEM_MSG: [2246055.161748] blk_update_request: I/O error, dev loop9, sector 0 - kernel Workarounds: None

Bug ID	Description
CSCuz51618	Headline: Memset, memcpy, strncpy causing overflow Symptoms: A device could crash as a result of a stack overflow/corruption in the SNMPd process. Workarounds: None
CSCvy52393	Headline: Nexus 9000 reloading due to unknown reason. Symptoms: 1) Nexus 9000 should have a version that has the fix for the bugs CSCvm44989 and CSCvu78592. 2) The reload reason should be the following: show logging onboard internal reset-reasonReset Reason for this card:Image Version : 9.3(7)Reset Reason (LCM): Unknown (0) at time Reset Reason (SW): Reset Requested by CLI command reload (9) at time Reset Reason (HW): Unknown (0) at time 3) The IOFPGA registers show this output: show logging onboard internal cardcl<Time of the crash>crdcl_get_board_reset_reason: reason:0x00000000<Time of the crash>IOFPGA POWER DEBUG = 83000004<Time of the crash>IOFPGA RESET CAUSE = 00000000 Workarounds: None
CSCvz06811	Headline: Nexus Data Broker switch floods IGMPv3 membership queries out of all input ports Symptoms: IGMP membership queries are flooded out of monitoring ports and IGMP storms due to queries are forwarded from Nexus Data Broker Switch to production network. Workarounds: Filter the IGMP with an access list.
CSCvz67451	Headline: Bootflash lifetime usage threshold syslog has in correct usage value in show command. Symptoms: The following syslog will appear when the switch reaches a lifetime usage value of 95% on the bootflash. PLATFORM-2-BOOTFLASH_LIFETIME_MAJOR: Bootflash lifetime usage crossed 95%. Collect 'show hardware internal bootflash log' and consult with product support team. When the recommended command is checked the output has been observed to have inaccurate usage percentages. These percentages make it difficult to determine if the syslog is correct and if the switch is seeing an issue. Workarounds: None
CSCwb41711	Headline: DHCP snooping source MAC address validation drops DHCP relay messages Symptoms: DHCP snooping enabled Nexus switch drops DHCP Discover messages generated by the DHCP relay agent device due to mismatched packet source MAC address and DHCP Client MAC Address field. Workarounds: disable DHCP snooping MAC address validation.no ip dhcp snooping verify mac-address

Bug ID	Description
CSCwb86366	Headline: aclqos crashes and system reboots when defaulting BO ports that is a member of PO Symptoms: NXOS crash due to aclqos hap resetissue is seen even after some interface flap on the Nexus switch even with no configuration change. Workarounds: Upgrade to latest Cisco NX-OS 10.3.x releases
CSCwc36942	Headline: UC_RPF_FAIILUR/uRPF is kept on even when recreating SVI with no uRPF Symptoms: Asymmetric traffic are dropped with the ELAM final drop of " UC_RPF_FAIILUR" Workarounds: • The “reload ascii” command would load the configuration on reboot instead of binary. • Remove the uRPF configuration on SVI before deleting the SVI itself.
CSCwc65941	Headline: Increasing input overruns on the management interface on Nexus 9000 Symptoms: Observed increasing in input overruns on management interface (mgmt0) on N9K when receiving LLDP packets from catalyst (WS-C2960X-48T) switch. Workarounds: Disable the LLDP configurations on catalyst switch for the mgmt0 attached port.
CSCwc70139	Headline: L2ACLredirect failures are not resulting in kernel panic Symptoms: L2ACLredirect failures are not resulting in kernel panic Workarounds: Apply the following EEM for force reload: event manager applet gold_l2acl override __L2ACLRedirect action 1 syslog priority emergencies msg L2ACL_test_failed_reloading action 2 reload force
CSCwc73361	Headline: MPLS Labels not being advertised to neigbour switches after reboot on Nexus 9336C. Symptoms: Network topology configured with Segment Routing + MPLS network for L3VPNS on 4 X Nexus 9336C switches (NX-OS mode). OSPF as the IGP and to advertise the MPLS labels. Labels are learnt once its configured. Once any one of the Nexus devices are rebooted, the labels from the switch is no longer advertised by the switch that was rebooted to any other neighbour Nexus devices. The same occurs for any switch that is rebooted. OSPF database opaque external type 7 prefix is not generated or advertised to other neighbor switches by the switch which was rebooted. When a command is entered under the Segment Routing configuration section (for example : global block range or a prefix) something triggers the labels to be advertised via OSPF and the type 7 prefix is visible in the OSPF database and subsequently installed in the MPLS forwarding table of the remaining three switches. WorkAround: Remove p2p configuration from loopback interface.

Bug ID	Description
CSCwc79911	Headline: vPC in down state with reason 'Inactive' after add on VLAN VNI and peer-ip from another VxLAN Symptoms: VLAN is removed from active VLANs list on vPC peer-link port-channel after VLAN vn-segment configuration changes. Workarounds: Delete/re-configure the missing VLAN on both vPC peers:no vlan <vlan_id>vlan <vlan_id>vn-segment <segment-id>
CSCwc81130	Headline: Log reported that N9K-C92348GC's PSU went down and up in 1-3 sec Symptoms: Syslog reported that N9K-C92348GC's PSU went down and up in 1-30 sec Workarounds: None
CSCwc93774	Headline: Netflow configured under " vlan configuration" range takes longer than expected. Symptoms: When configuring netflow under " vlan configuration" for large range (ex: 1-999) as below, the command takes 15 minutes to complete: vlan configuration 1-999 ip flow monitor flow_name inputfor the half range 1-500 the command takes 5 minutes Workarounds: None
CSCwc99674	Headline: DME inconsistency when custom COPP policy is applied. Symptoms: " show consistency-checker dme running-config enhanced" fails Workarounds: None
CSCwd05450	Headline: PVLAN and port flap issue Symptoms: vPC member port on secondary vPC peer gets flapped once you associate/add/configure a secondary PVLAN to the primary PVLAN; along with the vPC member port is configured as promiscuous PVLAN port. Workarounds: None
CSCwd11687	Headline: ARP reply packets are dropped if they are received from peer-link Symptoms: ARP resolution issue on devices connected to N9K devices with -R linecards. Unicast ARP reply packets are not forwarded from Nexus 9000 SVI to the host across the peer-link. Workarounds: Shut and no shut vPC peer-link.

Bug ID	Description
CSCwd13471	Headline: snmp trap does not send out to specific server Symptoms: With below SNMP configuration, after reload, snmp trap is sent only to X.X.X.2 and X.X.X.3. It is not sent to X.X.X.1. snmp-server host X.X.X.1 traps version 2c public snmp-server host X.X.X.1 use-vrf managementsnmp-server host X.X.X.1 source-interface mgmt0snmp-server host X.X.X.2 traps version 2c public snmp-server host X.X.X.2 use-vrf managementsnmp-server host X.X.X.2 source-interface mgmt0snmp-server host X.X.X.3 traps version 2c public snmp-server host X.X.X.3 use-vrf managementsnmp-server host X.X.X.3 source-interface mgmt0 Workarounds: Remove existing configuration and reconfigure hosts after reload of device or perform snmp process restart.
CSCwd15262	Headline: Netconf crash during a rpc call Symptoms: The service netconf in a nexus device could fail after performing a RPC %SYSMGR-2-SERVICE_CRASHED. Workarounds: None
CSCwd23382	Headline: Log reported that N9K-C9508 's PSU went down and up in 1-3 sec Symptoms: Nexus 9000 EOR PSU flap issue on Nexus 9508 switch running on Cisco NX-OS Release 9.3(9). Workarounds: None
CSCwd27172	Headline: Unexpected reload after POAP process is crashed. Symptoms: A device reloads leaving a POAP core file:2022 Oct 11 13:00:32 switch %$ VDC-1 %$ %SYSMGR-2-SERVICE_CRASHED: Service " poap" (PID 847) hasn't caught signal 11 (core will be saved). Workarounds: Reduce the bootfile-url length to less than 128 characters.
CSCwd29257	Headline: IPv6 OSPF ECMP route does not show both routes as best. Symptoms: IPv6 OSPF ECMP route does not show both routes marked with asterisk (*) as best, only one route gets marked with the asterisk (as best). Thus, the route from one neighbor shows up with the asterisk and the route from the other neighbor does not. Workarounds: Clear the IPv6 route as follows: #clear ipv6 route 2001:fb1::/48

Bug ID	Description
CSCwd41354	Headline: grpcnxsdk works thread is not released properly Symptoms: The observation is that there exists an ongoing gNMI 5-second sample subscription for System/ptp-items/ephoper-items/pastcorrections-items/PtpEphCorrection-list. When this path is queried, the path itself does not let the gNMI SET to take place. 1. The repetitive queries every 5 second of this path triggers a bug, which prevents the query itself from finishing. 2. Then the next gNMI SET is blocked due to this unfinished query. 3. The client script times out and sends more SET requests, which only pile up and use up the max limit of 16 sessions. Workarounds: Kill the grpcnxsdk process to recover automatically and make further queries.
CSCwd42595	Headline: Output of show spanning-tree root no longer shows " This bridge is root" for non-vPC VLANs. Symptoms: When upgrading to Cisco NX-OS Release 9.3(10) the output of command, show spanning-tree root does not indicate if the bridge is root for non-vPC VLANs. Workarounds: None
CSCwd45291	Headline: The router ospfv3 summary-address under address-family ipv6 unicast is showing incomplete prefix value. Symptoms: After upgrading from Cisco NX-OS Release 7.0(3)I7(4) to Cisco NX-OS Release 9.3(9), router ospfv3 summary-address under address-family ipv6 unicast is showing incomplete prefix value. Workarounds: None
CSCwd45954	Headline: IOFPGA is not displaying during EPLD upgrade. Symptoms: After EPLD upgrade from Cisco NX-OS Release 7.0(3)I7(3) to Cisco NX-OS Release 9.3.9, a few 9788TC modules are showing expected behavior whereas 5-6 9788 TC are not upgraded correctly. Workarounds: None
CSCwd46673	Headline: Nexus 9000 Back Pressure Correction to Prevent PSU Fan Reverse Direction. Symptoms: Power supply exhaust fan was observed spinning in wrong direction. Workarounds: None
CSCwd46964	Headline: Issue with configuring BFD RX interval. The BFD session seems to always use 50 ms as TX interval. Symptoms: When configuring BFD RX Interval, the BFD echo packets seem to be still transmitted at 50 ms which is the minimum TX Interval. It seems like the desired RX interval which is configured in the config under the interface is not taken into account using the below command - bfd echo-rx-interval 250 Workarounds: Use the below command to specify the BFD TX: intervalbfd interval 250 min_rx 250 multiplier 3

Bug ID	Description
CSCwd47148	Headline: Smart licensing :: Callhome HTTP proxy is not working when defined using IPv6 address Symptoms: Communications with CSSM portal not working when using IPv6 HTTP proxy. Device reports: %LICMGR-3-LOG_SMART_LIC_COMM_FAILED: (pid=xxxx) Communications failure with the Cisco Smart Software Manager (CSSM) : Fail to send out Call Home HTTP message Workarounds: Instead of referencing the HTTP proxy using IPv6, use HOSTNAME and define the static IPv6 host.
CSCwd53084	Headline: SNMP is not returning any value Symptoms: snmp get/walk to Nexus 9000 might stop working and returns empty values or note that OID does not exist even if OID should be present and populated on the system. Workarounds: Restart SNMP process. However, issue might return after the restart. Performa a new restart if required.
CSCwd54117	Headline: IPv6 ssh not getting denied for default port 22 Symptoms: No command in Nexus CLI syntax to change SSH port number. Changing SSH port number is available in bash mode. Workarounds: None
CSCwd63807	Headline: Traffic forwarding issues may occur on port-channel having VLAN configured which doesn't exist in database Symptoms: Traffic forwarding issues may occur on port-channel which has more than one physical member configured. Issues will be seen on physical ports which don't come up as first port in port-channel. Workarounds: • If there is a native VLAN configured which does not exist in VLAN database, then that VLAN should be created. • Configuration of native VLAN pointing to non-existing VLAN should be removed and after that switch should be reloaded. • If there is VLAN allowed on trunk which exist in PIXM table but do not exist in running-config vlan configuration, then that VLAN should be either excluded from port-channel or added to VLAN running-config. The switch should also be reloaded. • However, since VLAN does not exist in running-config and exist in certain switch tables, reload ascii should be considered.

Bug ID	Description
CSCwd64423	Headline: Fill word IDLE not reported correctly in output of 'show hardware internal fc-mac all-ports' Symptoms: This is a show command output error. module-1# show hardware internal fc-mac all-ports * ----------* Port Info* Interface fc1/29********** PORT SPECIFIC INFO **********Port Enable State : DownDisable Time(Jiffies) : 0x0Configured Mode : PORT_MODE_AUTOInitial Operating Mode : FCP_INT_OPER_MODE_UNKNOWNpm_oper_mode : UNKNOWNTrunk Mode : unknownMax RX Size (bytes) : 0Fill word for 8g Speed : 0xBC94FFFFFill word 0xBC94FFFF is not supported on N9000 platform. This value is displayed incorrectly. Workarounds: None. No functional impact.
CSCwd24644	Headline: Latest Cisco NX-OS 10.2.2 image shows in.dcos-telnetd process cored on 2 of the switches. Symptoms: Telnet cores being formed when telnet feature is enabled on the device. Workarounds: Since telnet is not the recommended method to connect to the device, the workaround is to disable telnet and use ssh to the switch.
CSCwd66084	Headline: N9K-C9364C-GX - removing SFP-10G from one port will cause other ports in the same quad flap Symptoms: When the quad speed is 100G (when 100G optics are inserted in the port in the quad), Insert and then remove a SFP-10G will cause other ports which are in same quad flap. This issue only occurs when removing SFP-10G. The same issue is not seen when removing 40G SFP. Workarounds: None
CSCwd67745	Headline: Switch crashes with "tunnel-encryption" and "speed 10000" configured on the same interface. Symptoms: The tahusd process will crash resulting boot loop on switch startup when conditions are met. Workarounds: Do not manually set speed to 10000 or use QSA.
CSCwd68610	Headline: MRIB hap reset Symptoms: Nexus 9000 running Cisco NX-OS Release 9.3(10) had an unexpected reload generating core dumps for mrib and mcastfwd process. Workarounds: None
CSCwd74536	Headline: Interfaces get error-disabled in VXLAN environment on a VTEP after flapping multiple times. Symptoms: Interfaces get error-disabled in VXLAN environment on a VTEP after flapping multiple times. No error disable reason is shown in show interface output. Workarounds: None

Bug ID	Description
CSCwd81153	Headline: N9K GX2 :: Core while configuring max source interfaces in SPAN Symptoms: Adding sup-eth0 to monitor session source when there are already 31 physical source interfaces can lead to monitor session crash and reload of the box. Workarounds: Avoid configuring maximum sources or putting sup-eth0 in source list.
CSCwd83094	Headline: LACP rate configuration causes 'config replace' operation to fail. Symptoms: If the existing port is in a port-channel and admin is up, and the desired configuration on the same port needs to change 'lacp rate' this will cause the config replace operation to fail. You may see the following error in the output of 'show config-replace log exec':<snip>'interface Ethernet1/1'`lacp rate fast`ERROR: Command validation failed. Cannot set lacp rate. Port is not admin down in port-channel Workarounds: Shutdown the conflicting port before attempting config replace again.
CSCwd92065	Headline: The start time and end time exported in the netflow are showing incorrect values. Symptoms: Wrong timestamp is found in the netflow exported data, where the time is ahead of the actual time or the system uptime. Workarounds: None
CSCwd95021	Headline: Multicast mroute tables are not updating the incoming interface after current interface itself is shutdown. Symptoms: Multicast mroutes tables are not updating after shutting down the current incoming interface of multicast group. The tables still point to the one which is shutdown. Workarounds: None
CSCwe01333	Headline: Post upgrade object value changes to 'object 0 not' Symptoms: After disruptive upgrade to Cisco NX-OS Release 10.2(x) or 10.3(x), object value changed to 'object 0 not'. Before upgrade:track 103 list boolean or object 101 object 102 delay up 30 After upgrade:track 103 list boolean or object 0 not >>>>>>> object 0 not >>>>>>>delay up 30 Workarounds: Remove and re-deploy track list configuration.

Bug ID	Description
CSCwe05630	Headline: NXA-PAC-650W PSU Reported as "shutdown" but still operational. Symptoms: Power supplies (including, but not limited to: NXA-PAC-650W-PE/PI or NXA-PAC-500W-PE/PI) can be seen reported as shutdown while continuing to operate normally as per "show environment power detail" command. Workarounds: Perform the following PSU OIR steps to clear the incorrect status: • Disconnect power source cable from PSU. • Remove PSU from chassis. • Insert PSU to chassis. • Connect power source cable to PSU. These steps are in-line with the removal and installation steps documented in the *Replacing a Power Supply Module section of the Replacing Components* chapter of the Hardware Installation Guide for each product model.
CSCwe14182	Headline: IPFIB crash upon use of "show system internal forwarding table <>" command. Symptoms: The "show system internal forwarding table <>" command triggers a crash of the ipfib process on a Nexus 9000 (N9K-C9336C-FX2) running Cisco NX-OS Release 9.3(10) or 10.2(4)M. Workarounds: Avoid the use of the show system internal forwarding table <> command.
CSCwe14849	Headline: Unexpected reload due to tahusd Segmentation Fault in Timer Code Symptoms: A Cisco Nexus 9000 switch sometimes reboots unexpectedly due to tahusd process crash resulting from a segmentation fault, and a reset reason and an error log are generated. Workarounds: None
CSCwe31997	Headline: Cisco Nexus C93360YC-FX2 send packets even when TX credit is zero. Symptoms: Cisco Nexus C93360YC-FX2 or N9K-C9336C-FX2-E experience some expected credit loss or link reset from the peer switch every few seconds causing speed degradation. At times the port gets err-disabled. Workarounds: None. The only possible recommendation is to use same speed or higher speed ISLs to avoid credit transitioning to zero.

Bug ID	Description
CSCwe33279	Headline: Archive configuration is missing after upgrade NX-OS 9.3.10 to NX-OS 10.2.4. Symptoms: After upgrading from NX-OS 9.3.10 to NX-OS 10.2.4, archive configuration is lost. -archive - path bootflash:archive/xxxxxxx - time-period 10 - maximum 14 Workarounds: Migrate to Cisco NX-OS Release 10.2(5) instead of Cisco NX-OS Release 10.2.(1), 10.2(2), 10.2(3), or 10.2(4).
CSCwc83656	Headline: Storm control interfaces may see intermittent flap Symptoms: GX2 Interfaces may see flap if sudden burst of traffic is seen across the interface. Workarounds: Run the errdisable recovery interval <> command.

Known Issues

Bug ID	Description
CSCwi99525	On Cisco Nexus N2K-C2348TQ HIFs fail to utilize redundant Port-Channel links, to NIF, during link failover events.

Device Hardware

The following tables list the Cisco Nexus 9000 Series hardware that Cisco NX-OS Release 10.2(5)M supports. For additional information about the supported hardware, see the Hardware Installation Guide for your Cisco Nexus 9000 Series device.

Table 1. Cisco Nexus 9500 Switches

Product ID	Description
N9K-C9504	7.1-RU modular switch with slots for up to 4 line cards in addition to two supervisors, 2 system controllers, 3 to 6 fabric modules, 3 fan trays, and up to 4 power supplies.
N9K-C9508	13-RU modular switch with slots for up to 8 line cards in addition to two supervisors, 2 system controllers, 3 to 6 fabric modules, 3 fan trays, and up to 8 power supplies.
N9K-C9516	21-RU modular switch with slots for up to 16 line cards in addition to two supervisors, 2 system controllers, 3 to 6 fabric modules, 3 fan trays, and up to 10 power supplies.

Table 2. 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 400-Gigabit Ethernet QSFP 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 3. 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 4. 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	4	5

Product ID	Description	Minimum	Maximum
	fabric module		
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 5. 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 6. Cisco Nexus 9500 Supervisor Modules

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

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

Table 7. Cisco Nexus 9500 System Controller

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

Table 8. 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 9. Cisco Nexus 9500 Fabric Module Blanks with Power Connector

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

Table 10. 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 11. Cisco Nexus 9200 and 9300 Switches

Cisco Nexus Switch	Description
N9K-C9316D-GX	1-RU switch with 16x400/100/40-Gbps ports.
N9K-C9364C-GX	2-RU fixed-port switch with 64 100-Gigabit SFP28 ports.

Cisco Nexus Switch	Description
N9K-C93600CD-GX	1-RU fixed-port switch with 28 10/40/100-Gigabit QSFP28 ports (ports 1-28), 8 10/40/100/400-Gigabit QSFP-DD ports (ports 29-36)
N9K-C9364C	2-RU Top-of-Rack switch with 64 40-/100-Gigabit QSFP28 ports and 2 1-/10-Gigabit SFP+ ports. • Ports 1 to 64 support 40/100-Gigabit speeds. • Ports 49 to 64 support MACsec encryption. Ports 65 and 66 support 1/10 Gigabit speeds.
N9K-C9332C	1-RU fixed switch with 32 40/100-Gigabit QSFP28 ports and 2 fixed 1/10-Gigabit SFP+ ports.
N9K-C9332D-GX2B	1-Rack-unit (1RU) spine switch with 32p 400/100-Gbps QSFP-DD ports and 2p 1/10 SFP+ ports.
N9k-9348D-GX2A	48p 40/100/400-Gigabit QSFP-DD ports and 2p 1/10G/10G SFP+ ports
N9k-9364D-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-C93360YC-FX2	2-RU switch with 96 10-/25-Gigabit SFP28 ports and 12 40/100-Gigabit QSFP28 ports
N9K-C93240YC-FX2	1.2-RU Top-of-Rack switch with 48 10-/25-Gigabit SFP28 fiber ports and 12 40-/100-Gigabit Ethernet QSFP28 ports.
N9K-C93216TC-FX2	2-RU switch with 96 100M/1G/10G RJ45 ports, 12 40/100-Gigabit QSFP28 ports, 2 management ports (one RJ-45 and one SFP port), 1 console, port, and 1 USB port.
N9K-C93180YC-FX	1-RU Top-of-Rack switch with 10-/25-/32-Gigabit Ethernet/FC ports and 6 40-/100-Gigabit QSFP28 ports. You can configure the 48 ports as 1/10/25-Gigabit Ethernet ports or as FCoE ports or as 8-/16-/32-Gigabit Fibre Channel ports.
N9K-C93180YC-FX-24	1-RU 24 1/10/25-Gigabit Ethernet SFP28 front panel ports and 6 fixed 40/100-Gigabit Ethernet QSFP28 spine-facing ports. The SFP28 ports support 1-, 10-, and 25-Gigabit Ethernet connections and 8-, 16-, and 32-Gigabit Fibre Channel connections.
N9K-C93108TC-FX	1-RU Top-of-Rack switch with 48 100M/1/10GBASE-T (copper) ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C93108TC-FX-24	1-RU 24 1/10GBASE-T (copper) front panel ports and 6 fixed 40/100-Gigabit Ethernet QSFP28 spine-facing ports.
N9K-C93108TC-FX3P	1-RU fixed-port switch with 48 100M/1/2.5/5/10GBASE-T ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C9348GC-FXP*	Nexus 9300 with 48p 100M/1 G, 4p 10/25 G SFP+ and 2p 100 G QSFP
N9K-C92348GC-X	The Cisco Nexus 92348GC-X switch (N9K-C92348GC-X) is a 1RU switch that supports 696 Gbps of bandwidth and over 250 mbps. The 1GBASE-T downlink ports on the 92348GC-X can be configured to work as 100-Mbps, 1-Gbps ports. The 4 ports of

Cisco Nexus Switch	Description
	SFP28 can be configured as 1/10/25-Gbps and the 2 ports of QSFP28 can be configured as 40- and 100-Gbps ports. The Cisco Nexus 92348GC-X is ideal for big data customers that require a Gigabit Ethernet ToR switch with local switching.
N9K-C93180YC-EX	1-RU Top-of-Rack switch with 48 10-/25-Gigabit SFP28 fiber ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C93180YC-EX-24	1-RU 24 1/10/25-Gigabit front panel ports and 6-port 40/100 Gigabit QSFP28 spine-facing ports
N9K-C93108TC-EX	1-RU Top-of-Rack switch with 48 10GBASE-T (copper) ports and 6 40-/100-Gigabit QSFP28 ports
N9K-C93108TC-EX-24	1-RU 24 1/10GBASE-T (copper) front panel ports and 6 40/100-Gigabit QSFP28 spine facing ports.
N9K-C9336C-FX2	1-RU switch with 36 40-/100-Gb Ethernet QSFP28 ports
N9K-C9336C-FX2-E	1- RU switch with 36 40-/100-Gb QSFP28 ports

***Note:** 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" .

Table 12. Cisco Nexus 9200 and 9300 Fans and Fan Trays

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-FAN-160CFM-PE	Fan module with port-side exhaust airflow (blue coloring)	3	9364C [1] 93360YC-FX2
NXA-FAN-160CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	3	9364C [1] 93360YC-FX2
NXA-FAN-160CFM2-PE	Fan module with port-side exhaust airflow (blue coloring)	4	9364C-GX
NXA-FAN-160CFM2-PI	Fan module with port-side intake airflow (burgundy coloring)	4	9364C-GX
NXA-FAN-30CFM-B	Fan module with port-side intake airflow (burgundy coloring)	3	93108TC-EX 93108TC-FX [1] 93180YC-EX 93180YC-FX [1] 9348GC-FXP [1]
NXA-FAN-30CFM-F	Fan module with port-side exhaust airflow (blue coloring)	3	93108TC-EX 93108TC-FX [1] 93180YC-EX 93180YC-FX [1] 9348GC-FXP
NXA-FAN-35CFM-PE	Fan module with port-side exhaust airflow (blue	4	92300YC [1]

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

Product ID	Description	Quantity	Cisco Nexus Switches
	coloring)	6	9332C [1] 93180YC-FX3S [2] 93180YC-FX3 93108TC-FX3P 9336C-FX2-E 9316D-GX 93600CD-GX
NXA-FAN-35CFM-PI	Fan module with port-side intake airflow (burgundy coloring)	4 6	92300YC [1] 9332C [1] 93180YC-FX3S [2] 93180YC-FX3 93108TC-FX3P 9316D-GX 93600CD-GX 9336C-FX2-E
	Fan module with port-side exhaust airflow (blue coloring)	6	
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 13. Cisco Nexus 9200 and 9300 Power Supplies

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

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

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-PAC-650W-PI	650-W power supply with port-side intake (burgundy coloring)	2	92300YC 93180YC-FX3S 93108TC-EX 93180YC-EX 93180YC-FX3
NXA-PAC-750W-PE	750-W AC power supply with port-side exhaust airflow (blue coloring) 1	2	9336C-FX2 9336C-FX2-E 9332C 93240YC-FX2
NXA-PAC-750W-PI	750-W AC power supply with port-side intake airflow (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
N9K-PUV-1200W	1200-W Universal AC/DC power supply with bidirectional airflow (white coloring)	2	92300YC 93108TC-EX 93108TC-FX 93360YC-FX2 93180YC-FX3S 93180YC-EX 93180YC-FX 9364C
NXA-PDC-930W-PE	930-W DC power supply with port-side exhaust airflow (blue coloring)	2	93108TC-EX 93180YC-EX 93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C

Product ID	Description	Quantity	Cisco Nexus Switches
NXA-PDC-930W-PI	930-W DC power supply with port-side intake airflow (burgundy coloring)	2	93108TC-EX 93180YC-EX 93360YC-FX2 93180YC-FX3S 93180YC-FX 9364C
NXA-PDC-1100W-PE	1100-W DC power supply with port-side exhaust airflow (blue coloring)	2	93240YC-FX2 93600CD-GX 9316D-GX 9332C 9336C-FX2 9336C-FX2-E
NXA-PDC-1100W-PI	1100-W DC power supply with port-side intake airflow (burgundy coloring)	2	93240YC-FX2 93600CD-GX 9316D-GX 9332C 9336C-FX2 9336C-FX2-E
UCSC-PSU-930WDC	930-W DC power supply with port-side intake (green coloring)	2	93108TC-EX 93180YC-EX
UCS-PSU-6332-DC	930-W DC power supply with port-side exhaust (gray coloring)	2	93108TC-EX 93180YC-EX
NXA-PHV-1100W-PE	1100-W AC power supply with port-side exhaust airflow (blue coloring)	2	93240YC-FX2 9336C-FX2
NXA-PHV-1100W-PI	1100-W AC power supply with port-side intake airflow (burgundy coloring)	2	93240YC-FX2 9336C-FX2
NXA-PAC-2KW-PE	2000-W AC power supply with port-side exhaust 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
NXA-PDC-2KW-PE	2000-W DC power supply with port-side exhaust airflow (blue coloring	2	9364C-GX
NXA-PDC-2KW-PI	2000-W DC power supply with port-side intake airflow (burgundy coloring)	2	9364C-GX
N2200-PAC-400W	400-W AC power supply with port-side exhaust airflow (blue coloring)	2	92348GC-X
N2200-PAC-400W-B	400-W AC power supply with port-side intake airflow (burgundy coloring)	2	92348GC-X
N2200-PDC-350W-B	350-W DC power supply with port-side intake airflow	2	92348GC-X
N2200-PDC-400W	400-W DC power supply with port-side exhaust airflow (blue coloring)	2	92348GC-X

Compatibility Information

Fabric Module and Line Card compatibility details are listed below.

Table 14. Cisco Nexus 9500 Cloud Scale Line Cards

Product ID	N9K-C9504-FM-G	N9K-C9508-FM-G	N9K-C9504-FM-E	N9K-C9508-FM-E	N9K-C9508-FM-E2	N9K-C9516-FM-E2
N9K-X9716D-GX	4	4	No	No	No	No
N9K-X9736C-FX	5	5	5	5	5	5
N9K-X97160YC-EX	4	4	4	4	4	4
N9K-X9788TC-FX	4	4	4	4	4	4
N9K-X9732C-EX	4	4	4	4	4	4
N9K-X9736C-EX	4	4	4	4	4	4
N9K-X9732C-FX	4 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 15. 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 16. Cisco Nexus 9500 R2-Series Line Cards

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

Optics

To determine which transceivers and cables are supported by a switch, see the Transceiver Module (TMG) Compatibility Matrix. To see the transceiver specifications and installation information, see the Install and Upgrade Guides.

Cisco Nexus Dashboard Insights for Data Center

Cisco NX-OS Release 10.2(5)M supports the Nexus Dashboard Insights on Cisco Nexus 9200, 9300-EX, 9300-FX, 9300-FX2, and 9300-FX3 platform switches and 9500 platform switches with -EX/FX/GX line cards. For more information, 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 10.2(x). For information about an In Service Software Upgrade (ISSU), see the Cisco NX-OS ISSU Support Matrix.

Related Content

Cisco Nexus 9000 Series documentation: Cisco Nexus 9000 Series Switches

Cisco NX-OS Software Release and Image-naming Convention: Cisco NX-OS Software Strategy and Lifecycle Guide

Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator: Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator

Cisco Nexus 9000 Series Software Upgrade and Downgrade Guide: Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.2(x)

Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes: Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes, Release 10.2(5).

Cisco Nexus 3000 and 9000 Series NX-API REST SDK User Guide and API Reference: Cisco Nexus NX-API Reference

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

Supported FEX modules: Cisco Nexus 9000 Series Switch FEX Support Matrix

Licensing Information: Cisco NX-OS Licensing Guide and Cisco Nexus Smart Licensing Using Policy User Guide

When you downgrade from Cisco NX-OS Release 10.2(5)M to an earlier release, the features that use the ACI+NX-OS Essentials, Advantage, and add-on licenses or the Hardware Streaming Telemetry license continue to work in honor mode in the downgraded version. In addition, the output of the show license usage command continues to include entries for these unsupported licenses.

For more information, see the Cisco NX-OS Licensing Guide.

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.

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