Cisco Nexus 3600 NX-OS Release Notes, Release 9.2(1)

This document describes the features, caveats, and limitations for Cisco NX-OS Release 9.2(1) software for use on Cisco Nexus 3636C-R and 36180YC-R switches. Use this document in combination with documents listed in *Related Documentation*.

Table 1 shows the online change history for this document.

Table 1. Online History Change

Date	Description
January 31, 2019	Updated Open Caveats.
December 14, 2018	Added Licensing Information.
July 18, 2018	Created the release notes for Release 9.2(1).

Contents

Introduction

Cisco NX-OS software is a data center-class operating system designed for performance, resiliency, scalability, manageability, and programmability at its foundation. The Cisco NX-OS software provides a robust and comprehensive feature set that meets the requirements of virtualization and automation in mission-critical data center environments. The modular design of the Cisco NX-OS operating system makes zero-impact operations a reality and enables exceptional operational flexibility.

The Cisco Nexus 3000 Series switches, which includes Cisco Nexus 3100, 3200, 3400, 3500, and 3600 platform switches, and Cisco Nexus 9300 and 9500 platform switches run on the same binary image, also called the **"unified"** image.

Cisco NX-OS Release 9.2(1) is the first release that adopts unified version numbering. As more platforms have been added, there is no need to have a **"platform" designator** as used in the past.

An example of a previous release number is: 7.0(3)I7(4). In this format, **the 'I'** is the platform designator.

Moving forward for the previously identified platforms, we will be adopting the simplified 3-letter versioning scheme. For example, (unified-release-major.major/minor..maintenance).

Note: In order to accommodate upgrade compatibility from an older software version that is expecting a platform designator, when the install all command is entered or the show install all impact command is entered, the version string appears as 9.2(1)I9(1). Th**e "I9(1)" portion of the string** can be safely ignored. It will later appear as 9.2(1).

Licensing Information

Temporary licenses with an expiry date are available for evaluation and lab use purposes. They are strictly not allowed to be used in production. Please use a permanent or subscription license that has been purchased through Cisco for production purposes.

For more information, see the [Cisco NX-OS Licensing Guide](#).

System Requirements

This section includes the following sections:

- Supported Device Hardware
- Supported Optics

Supported Device Hardware

[Table 2](#) lists the Cisco Nexus 3600 switch hardware that Cisco NX-OS Release 9.2(1) supports. For additional information about the supported hardware, see the [Cisco Nexus 3600 NX-OS Mode Switch Hardware Installation Guide](#).

Table 2. Cisco Nexus 3600 Switch Hardware

Product ID	Description

Product ID	Description
N3K-C3636C-R	The Cisco Nexus 3636C-R is a 1 rack unit (RU) switch with 36 100-Gigabit QSFP28 ports, 2 management ports, 1 console port, and 1 USB port. The switch supports both port-side exhaust and port-side intake airflow schemes. The switch has two power supplies, one for operations and the other for redundancy. Both power supplies must be either AC power supplies or DC power supplies.
N3K-C36180YC-R	The Cisco Nexus 36180YC-R is a 1 rack unit (RU) switch with 48 1/10/25-Gigabit SFP ports and 6 40-Gigabit QSFP/100-Gigabit QSFP28 ports, 1 management port, 1 console port, and 1 USB port. The switch supports both port-side exhaust and port-side intake airflow schemes. The switch has two power supplies, one for operations and the other for redundancy. Both power supplies must be either AC power supplies or DC power supplies.

Supported Optics

See the Cisco Transceiver Modules Compatibility Information for a list of supported optical components.

New and Changed Information

This section lists the following topic:

- ■ New Hardware Features in Cisco NX-OS Release 9.2(1)
- ■ New Software Features in Cisco NX-OS Release 9.2(1)

New Hardware Features in Cisco NX-OS Release 9.2(1)

Cisco NX-OS Release 9.2(1) supports the following new hardware:

- ■ There are no new hardware features in Cisco NX-OS Release 9.2(1).

New Software Features in Cisco NX-OS Release 9.2(1)

Cisco NX-OS Release 9.2(1) includes the following new software features:

Fundamentals Features

- ■ show time-stamp running-config last-changed command—Displays the timestamp when the running configuration was last changed.

For more information, see the Cisco Nexus 3600 NX-OS Fundamentals Configuration Guide, Release 9.2(x).

Multicast Features
- ■ Multicast VLAN Registration (MVR) updates—Enabling or disabling IGMP snooping on both vPC peers also enables the forwarding of IGMP queries from different MVR source VLANs into the same MVR receiver VLAN. The resulting

IGMP queries may send out queries with different versions and query interval. For maintaining the behavior prior to Cisco NX-OS Release 7.0(3)I3(1), use the mvr suppress-query vlan command.

For more information, see the Cisco Nexus 3600 NX-OS Multicast Configuration Guide, Release 9.2(x).

Security Features
■ No Service Password-Recovery—Added the No Service Password-Recovery feature which disables the password recovery mechanism.

For more information, see the Cisco Nexus 3600 NX-OS Security Configuration Guide, Release 9.2(x).

System Management Features
■ PTP offload support added on the Cisco Nexus 96180C-R switch.

For more information, see the Cisco Nexus 3600 NX-OS System Management Configuration Guide, Release 9.2(x).

Upgrade and Downgrade Features
■ Optionality—Support added for modular package management. Cisco NX-OS software now provides the flexibility to add, remove, and upgrade the features selectively without changing the base NX-OS software.

For more information, see the Cisco Nexus 3600 NX-OS Upgrade and Downgrade Guide, Release 9.2(x).

VXLAN Features
■ VXLAN CLI Simplification—Support added for the reduction of CLI commands.

For more information, see the Cisco Nexus 3600 NX-OS VXLAN Configuration Guide, Release 9.2(x).

Resolved Caveats–Cisco NX-OS Release 9.2(1)

The following table lists the resolved bugs in Cisco NX-OS Release 9.2(1). You can use the bug ID to access the Cisco Bug Search Tool and see additional information about the bug.

Bug ID	Description
CSCvf92051	MVR knob to disable forwarding of IGMP queries
CSCvg06224	VRRP3 fails when enabled as part of CR
CSCvg15512	Evaluate Red Hat Linux CVE-2017-1000253 Vulnerability
CSCvg21203	1G copper GLC-TE XCVR LED state is GREEN when link is not connected
CSCvg43189	Packet tracer does not work
CSCvg65387	N9000 SG-hash next-hop-based LB configuration missing after reload
CSCvg71109	configure replace fails if macsec policy is associated with an interface
CSCvh04216	Implement hardware profile command for dropping punt packets in controller environment
CSCvh15975	After uninstalling feature-set mpls, the configuration replace feature fails.
CSCvh32392	Evaluation of n9k-standalone-sw for CPU Side-Channel Information Disclosed
CSCvh62721	Logs for breakout interfaces seen on a non-breakout port with no breakout configs
CSCvh65245	100 GbE interface doesn't stop debounce timer after insert cable
CSCvh68385	Show hardware internal errors improvements - show tech support
CSCvh87784	Kernel loadable module for additional info on panic and Mammoth Signal Integrity PEX settings
CSCvh90381	N9k -EX all interface counters stop incrementing
CSCvi04426	Kernel panic triggered reload due to fast software PSU back-to-back access
CSCvi11173	PSU: Total Power Available for additional modules displays Negative value

CSCvi24118	DP:"sh inventory" and "sh env f d" NXA-FAN160CFM-F should be NXA-FAN160CFM-PE
CSCvi33006	N95R: 7.0(3)F3.x is join/leave delay is slower than 7.0(3)F2.x
CSCvi49426	(s,g) not timing out at decap even after data traffic stops.
CSCvi49600	On SC reload the P40 reloads
CSCvi52063	[NBM] CR fails for host-policy cli
CSCvi54421	Packet drops on N9K when LACP peer delayed LACP PDU with C bit 1
CSCvi74138	With logging level nbm changed to 7, when creating a new SVI, the device is stuck in infinite reboot
CSCvi80799	"no feature nv overlay" doesn't clean up all state in FM-E's
CSCvj03194	Tunneling BFD packets on VXLAN is NOT working for T2 platforms
CSCvj07743	Telnet stuck when Vlan SVI configured as NAT inside and physical interface as NAT outside
CSCvj09807	Tahoe Nexus 93240 switch, 100gig link stays up when remote end in down state
CSCvj14692	Redirected IP packet not forwarded to destination
CSCvj16981	XLATE entry missing with > 1 FEX with same community VLAN host
CSCvj17763	N9K to continue session w/ primary key on primary keychain when a peer is configured with mismatched key
CSCvj23487	Account for cable type to choose FEC mode for 25G ports
CSCvj26076	Elaborate and comprehensive status for each key configured under a keychain (primary and fallback)
CSCvj28815	n9k LDAP fails to associate correct role when using search-map user profile attribute "memberOf"
CSCvj39292	orib process still exists after disable relevant feature
CSCvj43550	Dummy PIM neighbor 0.0.0.0 created after creating (S,G) entry when nbm is enabled
CSCvj44902	nginx_f process core using NXAPI to remove large EVPN configuration
CSCvj52053	NGMVPN and MRIB entries not cleaned up if Data/IGMP Traffic stopped after triggers
CSCvj54806	OBFL no partitions mounted on eMMC device
CSCvj61179	RACL CC doesn't catch label misprogramming on bdstatetable on Cisco ASIC based switches
CSCvj77420	Generate syslog for repeated 2B Parity Error in MMU table
CSCvj81868	Tahoe - same_if_uc Drop for ERSPAN Pk When Egress-Intf Is L2 and Same As Original Packet Ingress
CSCvj87438	[N9K] Match Statements within route-map do not function as AND for table-map
CSCvj89438	Tahoe: Packet drop issue after removing a L2VNI Gateway SVI on Nexus 9k
CSCvj94409	When POAP is done, Maintenance mode profile configuration lost if switch reload
CSCvj98984	Unable to make changes via configuration sync after upgrade
CSCvk06881	interface stuck inactive after SFP plugged in
CSCvk06735	Delete the *, G policy, OIF is not removed immediately (removed after 3 IGMP joins).

Open Caveats—Cisco NX-OS Release 9.2(1)

The following table lists the open caveats in Cisco NX-OS Release 9.2(1). Click the bug ID to access the Cisco Bug Search Tool and see additional information about the bug.

Bug ID	Description
CSCuz98451	OTM URIB Assert Error on Boot
CSCvb82259	Cisco Nexus 3000 Series switches take more than 10 secs to populate the S,G entry.
CSCvf76134	Multicast-heavy: traffic for /64 IPv6 LPM do not work in N9300-EX post ISSU 7.0(3)I6(1)->7.0(3)I7(2))
CSCvg65669	After reload license is not checked out despite having "port-license acquire" cli under port.
CSCvj81662	H-85: After range of VLAN delete/add, NGOAM session for couple of VLANs down-BGP IMET route missing

Bug ID	Description
CSCvk09517	Anycast prefix with label advertised diff areas is not seen as labelled prefix
CSCvk18949	cevQSFPUnknown for QSFP-40/100-SRBD in entPhysicalVendorType in entPhysicalTable ENTITY-MIB
CSCvk22717	linkFlapErrDisabled on back-to-back specific ports 19-22, 27-36 for ToR

Behavior Changes

This section lists limitations related to Cisco NX-OS Release 9.2(1).

Interface Behavior Changes

- Output format for the exec command CLI show vpc orphan-ports has changed from 7.0(3)F3(4) release to 9.2(1) release.

Programmability Behavior Changes

- Release 9.2(1) brings in the new kernel and the new processes.

- Interface counter statistics are grouped together in the XML/JSON output. The output for the show interface counters command in JSON format has changed.

- NX-API does not support insecure HTTP by default.

- NX-API does not support weak TLSv1 protocol by default.

Security Behavior Changes

- Stronger ciphers are used in Release 9.2(1).

- A new command, no service password-recovery is now supported.

- Only one version out of v4 and v6 versions of the uRPF command can be configured on an interface. If one version is configured, all the mode changes must be done by the same version and another version is blocked on that interface.

Limitations

This section lists limitations related to Cisco NX-OS Release 9.2(1).

- IPv4 traffic might drop when only IPv6 uRPF is enabled on the interface. For more information, see CSCvh99632.

- The PTP process restart and system switchover accumulates high corrections for a few seconds. For more information, see CSCvg49023.

- The LDP neighbor might flap on switchover in a scaled setup with many interfaces. Increase the discovery hello hold time for MPLS under the MPLS LDP configuration. For more information, see CSCvg71349.

- CoPP (Control Plane Policing) cannot be disabled. If you attempt to disable it, an error message appears. For more information, see CSCvi09329.

- The skip CoPP policy option has been removed from the Cisco NX-OS initial setup utility because using it can impact the control plane of the network. For more information, see CSCvc44819.

- On Cisco Nexus N3K-C3636C-R and N3K-C36180YC-R switches, auto-negotiation may not work when bringing up 100G links using QSFP-100G-CR4 cable. To work around this issue, you must hard-code the speed on all ports of the Cisco Nexus N3K-C3636C-R, on ports 49-64 of the Cisco Nexus N3K-C36180YC-R and disable auto-negotiation. For more information, see CSCvi82402.

Upgrade Paths to Release 9.2(1)

See the following upgrade paths for upgrading from an earlier release to Release 9.2(1):

- Release 7.0(3)F3(3) -> Release 7.0(3)F3(4) -> Release 9.2(1)

- Release 7.0(3)F3(3c) -> Release 9.2(1)

- Release 7.0(3)F3(4) -> Release 9.2(1)

Note: An upgrade from a release prior to 7.0(3)F3(3) to Release 9.2(1) is not supported. You must upgrade to either Release 7.0(3)F3(3), 7.0(3)F3(3c), or 7.0(3)F3(4) and then upgrade to Release 9.2(1).

Related Documentation

The entire Cisco Nexus 3600 NX-OS documentation set is available at the following URL:

https://www.cisco.com/c/en/us/support/switches/nexus-3000-series-switches/tsd-products-support-series-home.html

The *Cisco Nexus 3600 NX-OS Hardware Installation Guide* is available at the following URL:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus3600/hw/installation/guide/b_n3600_hardware_install_guide.html

The *Cisco Nexus 3600 NX-OS Verified Scalability Guide* is available at the following URL:

https://www.cisco.com/c/en/us/support/switches/nexus-3000-series-switches/products-installation-and-configuration-guides-list.html

Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, please send your comments to nexus3k-docfeedback@cisco.com. We appreciate your feedback.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Open a service request online at:

https://tools.cisco.com/ServiceRequestTool/create/launch.do

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/). This product includes software written by Tim Hudson (tjh@cryptsoft.com).