Cisco Nexus 3000 Series NX-OS Release Notes, Release 10.1(1)

This document describes the features, issues, and exceptions of Cisco NX-OS Release 10.1(1) software for use on Cisco Nexus 3500 and 3600 platform switches.

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.

Table 1. Changes to this Document

Date	Description
February 16, 2021	Cisco NX-OS Release 10.1(1) became available.

New and Enhanced Software Features

Feature	Description
ITD	Added support for N3K-C36180YC-R and N3K-C3636C-R switches. For more information, see the Cisco Nexus 3600 Series NX-OS Intelligent Traffic Director Configuration Guide, Release 10.1(x).
Network Operations Interface (gNOI)	grpc Network Operations Interface (gNOI) defines a set of gRPC-based micro-services for executing operational commands on network devices. For more information, see the Cisco Nexus 3500/3600 Series NX-OS Programmability Guide, Release 10.1(x).
OpenConfig Model Additions	Added support for the following: state containers for the OpenConfig ACL at interface-ref level system config containers for domain-name, login banner and motd banner models For more information, see the Cisco Nexus 3500/3600 Series NX-OS Programmability Guide, Release 10.1(x).
BGP Interface Peering: Range AS Support	Added support to expand BGP interface peering configuration by allowing a route map, which can contain AS lists and ranges. For more information, see the Cisco Nexus 3548/3600 Series Unicast Configuration Guide, Release 10.1(x).
Suppress Link Prefixes in IS-IS	Added support to suppress or selectively advertise interface prefixes in system link-state packets (LSPs). For more information, see the Cisco Nexus 3600 Series Unicast Configuration Guide, Release 10.1(x).
MACsec	Added MACsec support for Cisco Nexus N3K-C3636C-R platform switch. For more information, see the Cisco Nexus 3548/3600 Series Security Configuration Guide, Release 10.1(x).
Redesign of the install deactivate CLI	Added support for options to either downgrade to the base version of RPM or to uninstall RPM. For more information see, Cisco Nexus 3600 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.1(x).
Third-party RPM validation	Introduced a restriction on installation of unsigned or non-Cisco signed third-party RPMs, with an option to bypass the restriction. For more information see, Cisco Nexus 3600 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.1(x).

New Hardware Features

Cisco NX-OS Release 10.1(1) does not include any new hardware for the Cisco Nexus 3000 Series.

Unsupported Hardware

Beginning with Cisco NX-OS Release 10.1(1), the following hardware are not supported.

- N3K-C3064PQ
- N3K-C3016Q
- N3K-C3064PQ-E
- N3K-C3064TQ
- N3K-C3064PQ-X
- N3K-C3048TP
- N3K-C3132Q
- N3K-C3164Q
- N3K-C3132Q-X
- N3K-C3132Q-XL
- N3K-C3172PQ
- N3K-C3172TQ
- N3K-C3172PQ-XL
- N3K-C3172TQ-XL
- N3K-C31128PQ
- N3K-C31108PC-V
- N3K-C31108TC-V
- N3K-C3132Q-V
- N3K-C3132C-Z
- N3K-C3264Q
- N3K-C3264C-E
- N3K-C3232C
- N3K-C34180YC
- N3K-C3464C
- N3K-C3432D-S
- N3K-C3408-S
- N3K-C3548/24

- N3K-C3548X/24X

Release Image

Cisco Nexus 3000 Series platforms support NX-OS 10.1(1) 32-bit image and do not support NX-OS 10.1(1) 64-bit image.

Open Issues

The following tables lists the open issues for Cisco Nexus 3500 and Cisco Nexus 3600 family switches in Cisco NX-OS Release 10.1(1). Click the Bug ID to search the Cisco Bug Search Tool for additional information about the bug.

Bug ID	Description
CSCvx21961	Headline: Stop POAP at a specific time cause a running-config change Symptoms: Stop POAP at a specific time cause a running-config change >switch %$ VDC-1 %$ poap: Waiting 8 seconds for links to come up after breaking. Workarounds: stop POAP earlier or later
CSCvw44074	Headline: High rate of SMBus failed kernel messages causing all ports to shutdown Symptoms: N3064 switch running 7.0.3.I7.6 code reports continuous SMBus failed and I2C bus errors when using 3rd party QSFP optics. 2020 Jul 2 20:34:25.809 N3064-switch %$ VDC-1 %$ %KERN-2-SYSTEM_MSG: [4890082.782004] SMBus failed! (01) - kernel 2020 Jul 2 20:34:26.809 N3064-switch %$ VDC-1 %$ %KERN-2-SYSTEM_MSG: [4890082.882128] SMBus failed! (10) During the problem state, switch may become sluggish and OIR of the optics may cause all the ports to go in shutdown state Workarounds: A new cli is made available in this code to identify faulty QSFP causing these errors: switch#attach module 1 module-1# sh hardware internal neutron-usd errors | grep MODSEL MODSEL failed port 51, last good port 49, faulty port 52 MODSEL failed port 51, last good port 49, faulty port 52 Replace the optics. In the above output, optics in port 52 is faulty.

Resolved Issues

The following tables lists the resolved issues for Cisco Nexus 3500 and Cisco Nexus 3600 family switches in Cisco NX-OS Release 10.1(1). Click the Bug ID to search the Cisco Bug Search Tool for additional information about the bug.

Bug ID	Description
CSCvc53438	Headline: Shared tree takes up to 60 seconds to be pruned after 2nd receiver joins Symptoms: Receivers will receive duplicated packets for 60 seconds or less, 10 to 15 seconds after a new receiver joins the shared tree. Workarounds: On the IHRs, make the IIF of the source and share tree the same. This will not prevent the IHR of sending the *,G PIM Join towards the RP, but will drop the packets on shared tree.
CSCve89395	Headline: N3500 duplicates multicast packets due to delayed pruning of new *G path Symptoms: We see duplication of multicast packet on the receiver for a short period of time. This short period of time could cause a huge amount of multicast packet to be duplicated. Duplication can range from 1500 - 7500 packets being duplicated depending on the rate at what the stream is being forwarded. Workarounds: The workaround is to configure the following command on LHRHardware profile multicast rpf-check-optimization*Drawback of workaroundYou might be prompted the following when configuring the workaround:WARNING:Please do not use 'ip pim spt-threshold infinity' command when using this command for optimization
CSCvf00752	Headline: N3500: MCAST stops working with igmp host-proxy, lose (S,G) Symptoms: Under normal operation the N3500 may stop processing mcast traffic when using the igmp host-proxy feature. The (S,G) entry will no longer be programmed on the switch. Workarounds: Check show ip interface <intf> and check for multicast routing. If thats disabled,remove and replace the igmp host-proxy configuration
CSCvf02296	Headline: N3500 as LHR may multiply mcast traffic due to *G fwd-ing and delayed SGR prune Symptoms: Multicast Traffic duplication in specific scenario Workarounds: Configure rpf check optimization so that (*,G) doesn't forward when (S,G) is present.hardware profile multicast rpf-check-optimization
CSCvf29916	Headline: RPF for pim bidir not getting updated on bring up of primary RP Symptoms: PIM BIDIR entry has old RPF oif after RPF change Workarounds: Shut/no shut of the old RPF interface.
CSCvg13002	Headline: N3500 igmp ssm-translate not working after reload Symptoms: Reload of switch causes the CLI command for adding the igmp ssm-translate rules to be missed.igmpv2 join is not translated to igmpv3 and SG is not created as expected. Workarounds: Reprogram the ssm-translate rules via CLI manually after reload.Default L3 interfaces and add the configuration back.
CSCvs45104	Headline: Interface remain down after errdisable auto-recovery Symptoms: An interface will remain down as 'link not connected' after err-disable auto-recovery has removed the state of errdisable. Workarounds: Apply 'shutdown' and then 'no shutdown' under the affected interface to bring it back up.
CSCvt25753	Headline: Nexus 3500 IGMPv3 leave from single host causes OIL flush until next query

Bug ID	Description
	Symptoms: When Nexus 3500 has downstream host using IGMPv3 and the host sends a leave for the multicast group the mroute OIL gets flushed and other hosts lose the multicast stream even though their interface is still populated in the IGMP snooping table. Workarounds: Disable explicit host tracking under vlan configuration:configure terminalvlan configuration 10no ip igmp snooping explicit-tracking
CSCvt34933	Headline: Cisco Nexus 3500 Switches reports high PTP correction in milli-seconds after reselecting original GM Symptoms: N3500 reporting high PTP correction. Workarounds: Reload the device.
CSCvw49048	Headline: JSON formatted outputs inconsistent with unicast routing table. Symptoms: When retrieving JSON formatted MROUTE entries, the uptime for the route is reported in the same format as "regular" CLI.With the higher uptime, the value gets imprecise eg "1w2d"However for Unicast routing table, the JSON formatted outputs provide more precise uptime information.This bug is opened to unify the JSON outputs of both unicast and multicast table and to provide more precise uptime than "regular" CLI Workarounds: N/A
CSCvw55744	Headline: When NAT Sampling timeout is configured, TCP translation timeout never takes effect Symptoms: When NAT sampling timeout and TCP timeout are both configured, the TCP timeout is ignored. After the sampling timeout expires, the general NAT translation timeout counts down, and the entry is aged out without the TCP timeout ever triggering.TCP/UDP timeouts are not honored when set to default values. # show run all ip nat translation tcp-timeout 3600ip nat translation udp-timeout 3600If you re-configure TCP/UDP timeout to different value than default (3600 s) then problem is not seen and configured timeouts are honored.# show run all ip nat translation tcp-timeout 3000ip nat translation udp-timeout 2500. Workarounds: Configure TCP/UDP timeouts to different value than default one. After that, values should be honored and configure higher sampling-timeout value to make up for the missing TCP timeout value.
CSCvx00331	Headline: N3K-C36180YC-R does not Forward BUM Traffic received on VLAN range (3968 to 4047 and 4094) Symptoms: If VTEP N3K-C36180YC-R receive the BUM traffic on VLAN range (3968 to 4047 and 4094), will not send the traffic to Multicast OIL. Workarounds: Use another VLAN that is NOT on range (3968 to 4047 and 4094)
CSCvt57671	Headline: N3500 does not send igmp host-proxy joins out of all configured interfaces Symptoms: 'show ip igmp' output does not show host-proxy groups. Workarounds: None
CSCvv76073	Headline: N3K-C36180YC-R: STS LED on the back of the chassis does not light up Symptoms: On N3K-C36180YC-R, STS LED on the back of the chassis does not light upNo functional impact has been reported by this symptom. Workarounds: No workaround. As described, no functional impact has been reported by this symptom.

Bug ID	Description
CSCvx19940	Headline: DHCP offer is not forwarded out of vpc port when received via vpc PL Symptoms: A DHCP offer packet is received by a DHCP relay from the server, and isn't sent out towards the client attached via VPC. Workarounds: None

Device Hardware

The following tables list the Cisco Nexus 3500 and Cisco Nexus 3600 Series hardware that Cisco NX-OS Release 10.1(1) supports. For additional information about the supported hardware, see the Hardware Installation Guide for your Cisco Nexus 3500 and Cisco Nexus 3600 Series devices.

Table 1.   Cisco Nexus 3500 Switches

Product ID	Description
N3K-C3548P-XL	Cisco Nexus 3548-XL switch

Table 2.   Cisco Nexus 3500 Series Fans, Fan Trays and Power Supplies

Product ID	Description
N2200-PAC-400W	Cisco Nexus 2000 or 3000 400W AC power supply, forward airflow (port side exhaust)
N2200-PAC-400W-B	Cisco Nexus 2000 or 3000 400W AC power supply, reverse airflow (port side intake)
N2200-PDC-400W	Cisco Nexus 2000 or 3000 400W DC power supply, forward airflow (port side exhaust)
N3K-PDC-350W-B	Cisco Nexus 2000 or 3000 350W DC power supply, reverse airflow (port side intake)
NXA-FAN-30CFM-B	Cisco Nexus 2000 or 3000 individual fan, reverse airflow (port side intake)
NXA-FAN-30CFM-F	Cisco Nexus 2000 or 3000 individual fan, forward airflow (port side exhaust)

Table 3.   Cisco Nexus 3600 Switches

Product ID	Description
N3K-C3636C-R	The Cisco Nexus 3636C-R is a 1 rack unit (RU) switch with 36 100-Gigabit QSFP28 ports,

Product ID	Description
	40-Gigabit QSFP, 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.

Upgrade and Downgrade

Upgrading Cisco Nexus 3500 and Cisco Nexus 3600 Series Switches

To perform a software upgrade or downgrade, follow the instructions in the *Cisco Nexus 3500 Series NX-OS Software Upgrade and Downgrade Guide* and *Cisco Nexus 3600 Series NX-OS Software Upgrade and Downgrade Guide*.

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

MIB Support

The Cisco Management Information Base (MIB) list includes Cisco proprietary MIBs and many other Internet Engineering Task Force (IETF) standard MIBs. These standard MIBs are defined in Requests for Comments (RFCs). To find specific MIB information, you must examine the Cisco proprietary MIB structure and related IETF-standard MIBs supported by the Cisco Nexus 3000 Series switch. The MIB Support List is available at the following FTP sites:

ftp://ftp.cisco.com/pub/mibs/supportlists/nexus3000/Nexus3000MIBSupportList.html

Supported Optics

To determine which transceivers and cables are supported by Cisco Nexus 3000 Series switches, see the Transceiver Module (TMG) Compatibility Matrix.

To see the transceiver specifications and installation information, see https://www.cisco.com/c/en/us/support/interfaces-modules/transceiver-modules/products-installation-guides-list.html.

Related Content

Cisco Nexus 3000 Series documentation: Cisco Nexus 3000 Series switch documentation

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

Licensing information:

- Cisco NX-OS Licensing Guide

- [Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator](#)

Documentation Feedback

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