



Cisco Nexus 3550-T Release Notes, Release 10.1(2t)

Purpose

This document provides information about the currently supported network applications for the Nexus® 3550-T Programmable Network Platform. The product plan is to create and release new 3550 Series platform applications. The new network application releases will be communicated in the quarterly Cisco New Product Introduction (NPI) as they are released.

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.

Table 1. Changes to this Document

Date	Description
December 16, 2021	Cisco NX-OS 3550-T Release 10.1(2t) became available.

Patch Files

This release includes the patches listed in this section.

The patch files for the platforms can be downloaded from the Software Download Center for the respective platforms with a valid CCO account. Here is a direct link:

[https://software.cisco.com/download/home/286326689/type/286278856/release/10.1\(2t\)](https://software.cisco.com/download/home/286326689/type/286278856/release/10.1(2t))

Table 2. Patch Files

Patch File	Requires Reload	Release
SMU Patch to address SMU defect	Requires reload	NXOS 10.1(2t)SMU(7)

To download this patch follow the instructions in the [Cisco Nexus 3550-T Release Notes. Patch Release 10.1\(2t\)](#).

New and Enhanced Features

New Features		
Feature	Description	Release
ULL Layer 3 Routing	Ultra-Low Latency Layer 3 switching capability. <ul style="list-style-type: none">Static Routing	NXOS 10.1(2t)

New Features		
Feature	Description	Release
	<ul style="list-style-type: none"> ■ BGP ■ PIM ■ OSPF ■ Exchange facing handoff ■ Top-of-Rack Colocation Switch <p>For more information, see the Cisco Nexus 3550-T NX-OS Software Upgrade and Installation Guide.</p>	
ULL Layer 2 Switching	<p>Ultra-Low Latency Layer 2 switching capability.</p> <ul style="list-style-type: none"> ■ Mac learning ■ VLAN Tagging/Trunking ■ LLDP ■ IGMP ■ STP ■ ULL Layer 2 Fabric ■ N:N Layer 2 switching <p>For more information, see the Cisco Nexus 3550-T Configuration Guide.</p>	NXOS 10.1(2t)
Security	<p>Enhanced packet filtering and Network Address Translation.</p> <ul style="list-style-type: none"> ■ Per Port RACL Filtering ■ Unicast NAT/PAT ■ Low Latency Firewall ■ Exchange Distribution to trading floor <p>For more information, see the Cisco Nexus 3550-T Configuration Guide.</p>	NXOS 10.1(2t)
High Availability	<p>Provides redundancy in the network.</p> <ul style="list-style-type: none"> ■ Link Aggregation (LAG) ■ VRRP ■ Exchange facing handoff redundancy ■ Top-of-Rack Colocation Switch 	<p>NXOS 10.1(2t)</p> <p>Available in a future release:</p> <ul style="list-style-type: none"> ■ MC LAG
Wan Extension	<p>Wan Link Policing.</p> <ul style="list-style-type: none"> ■ Wan Link Policing ■ 1G Support 	Available in a future release

New Features		
Feature	Description	Release
	<ul style="list-style-type: none"> Low latency link aggregation for long-haul link sharing VLAN tagging and trunking 	
FastMux	Packet aggregation capability. <ul style="list-style-type: none"> Low Latency L2 Packet Aggregation 1G, 10G, 25G Support Layer 2 Packet aggregation in colocation N:1 Packet Aggregation 	Available in a future release
Exchange Gateway App	Ultra-Low Latency Exchange Fairness and HPT. <ul style="list-style-type: none"> Precise Timestamping (RX and TX) <250 ps resolution 8G Deep buffer Timestamping at Exchange gateway Fairness in Exchange 	Available in a future release
Data Broker App	Packet Flow Optimization. <ul style="list-style-type: none"> Packet De-Duplication SSL/TLS Encryption Used with Nexus Data Broker to detect and drop duplicated packets 	Available in a future release
Grand Master App	Provides Grand Master Clock. <ul style="list-style-type: none"> Time Sync (Inc GPS, PPS) PTP (GM/Boundary) Grand Master Clock 	Available in a future release
Tap Agg	Provides Network Visibility. <ul style="list-style-type: none"> Precise Timestamping (RX and TX) Time Sync (Inc GPS, PPS) PTP (GM/Boundary) <250 ps resolution 8G Deep buffer Network Visibility Market Data capture and aggregation 	Available in a future release

New Features		
Feature	Description	Release
Custom User Applications (FDK)	Adding custom intelligence in the network. <ul style="list-style-type: none"> ■ FDK (Firmware Development Kit) ■ Deep packet inspection ■ Custom application specific logic 	NXOS 10.1(2t)

New Hardware Features

The following new hardware are introduced in Cisco NX-OS 3550-T Release 10.1(2t):

- 1RU 48 port SFP28 (Small Form-factor Pluggable 28) configuration (backwards compatible with SFP+ and SFP).
- Dual redundant, hot-swap PSUs and dual hot-swap fans.
- Build using a Xilinx Virtex Ultrascale Plus VU35P Field Programmable Gate Array (FPGA) with a “-3” speed grade. The chip has 8GB of High Bandwidth Memory (HBM) on board.
- x86-based management processor with 100MB/s/1GB/s (RJ45) and 1GB (SFP+) based management ports.
- Hardware (electronics) supporting 25G speeds to the FPGA.

Cisco Nexus 3550-T Programmable Network Platform features a console port, a Micro USB port, and a 1G RJ45 port, which can be used as management interfaces. The Cisco Nexus 3550-T Platform uses a Command Line Interface (CLI) designed to address the needs of low-latency FPGA configurations.

The Cisco Nexus 3550-T Programmable Network Platform includes standard enterprise manageability and deployment capability features such as automatic configuration (via DHCP), SNMP, TACACS+ authentication, on-board Python programmability, BASH shell access, and time-series logging.

See the [Cisco Nexus 3550-T Configuration Guide](#) to learn more.

Release Image

Cisco Nexus 3550-T switches require 64-bit NX-OS image depending on the Cisco Nexus 3550-T platforms.

Open Issues

Bug ID	Description
CSCvy82000	<p>Headline: One side of the link state is connected and other side it's "Link not connected"</p> <p>Symptoms: One side of the link remains in 'Link not connected' state.</p> <p>Conditions: Switch reload. The issue is not seen consistently.</p> <p>Workarounds: Flap the port which is in the Link not connected state .(shut/no shut).</p> <p>In some cases, the peer port needs to be flapped as well.</p>
CSCvy92285	<p>Headline: IntraQuad L3 Unicast getting dropped</p> <p>Symptoms: L3 Unicast traffic may get dropped in a corner-case scenario.</p> <p>Conditions: Traffic Ingresses and is expected to Egress out of the same L2 trunk Port-Channel interface after getting routed between SVIs.</p> <p>Workarounds: None.</p>
CSCvz10166	<p>Headline: SFP 1gig mgmt interface didnt come up</p> <p>Symptoms: Link does not come up when connected to the 1GbE SFP management port. Management connectivity is not established.</p> <p>Conditions: Any supported transceiver connected to the 1GbE SFP management port.</p> <p>Workarounds: None. Use RJ45 port for management connectivity on N3550-T.</p>
CSCwa32108	<p>Headline: RACL ACE modify or new ACE entry addition needs explicit port flap on the applied interface</p> <p>Symptoms: Ingress traffic matching a newly added/modified RACL ACE entry is not denied/permited as per the new ACE entry.</p> <p>Conditions:</p> <p>Condition # 1:</p> <p>RACL with one or more ACEs is configured on a port. Traffic that does not match any of the configured ACEs ingresses on the port. It is denied as expected.</p> <p>Now, a permit ACE entry matching the previous traffic stream is added to the RACL configured on the port.</p> <p>The traffic continues to get dropped instead of getting forwarded.</p> <p>Condition # 2:</p> <p>RACL with a permit ACE entry is configured on a port. Traffic that matches the ACE ingresses on the port. It is permitted and forwarded as expected.</p> <p>Now, the ACE is modified to make it a deny entry instead of permit.</p> <p>The traffic continues to get forwarded instead of being dropped.</p> <p>Workarounds: Flap (shut/ no shut) the ports on which the modified RACL is configured.</p>

Bug ID	Description
CSCvz73310	<p>Headline: Dynamic Nat Entries replicated when shutting L3backup Links in same quad leading to table exhaustion</p> <p>Symptoms: Primary link flap(shut/no shut) with NAT or ACL can cause NAT/ACL HW table exhaustion.</p> <p>Conditions:</p> <ol style="list-style-type: none"> Multiple backup I3 links configured with ACL or NAT and the rules are in the order of hundreds. L3 Back up Links are configured on the same quad. <p>Workarounds: Flap the L3 interfaces on which the ACL/NAT is configured. (or) Unconfigure and configure ACL/NAT back on the L3 interface.</p>
CSCwa70130	<p>Headline: L3 Routing across the ULL network in the Colo is unstable due to Mac out-of-sync issue</p> <p>Symptoms: Host to GW ping not working intermittently.</p> <p>Workarounds: A patch is now available to fix this issue. Please refer to the Cisco Nexus 3550-T Release Notes, Patch Release 10.1(2t) to download this patch.</p>

Device Hardware

The following table list the Cisco Nexus 3550-T hardware that Cisco NX-OS Release 10.1(1) supports. For additional information about the supported hardware, see the Hardware Installation Guide for Cisco Nexus 3550-T device.

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Table 1. Cisco Nexus 3550-T, Release 10.1(2t) Switches

Product ID	Description
N35-T-48X	Cisco Nexus 3550-T switch features a console port, a Micro USB port, and a 1G RJ45 port, which can be used as management interfaces.

Table 2. Cisco Nexus 3550-T, Release 10.1(2t) Fan Trays and Power Supplies

Product ID	Description
N35-T-FAN-PE	Fan module with port-side exhaust airflow
N35-T-FAN-PI	Fan module with port-side intake airflow
N35-T-PAC-PE	Cisco Nexus 2000 or 3000 400W AC power supply, forward airflow (port side exhaust)

Product ID	Description
N35-T-PAC-PI	Cisco Nexus 2000 or 3000 350W AC power supply, reverse airflow (port side intake)

Table 3. Cisco Nexus 3550-T, Release 10.1(2t) Power Cords

Power Cable PID	Description	Country
CP-PWR-CORD-AU N35-T-48X	Standard Power Cord	Australia
CAB-AC-10A-BRZ	Power Cord 10A NBR 14136 plug 3 pins	Brazil
CAB-9K12A-NA	Power Cord, 125VAC 13A NEMA 5-15 Plug, 8.2-Ft	North America
CAB-ACC	AC Power Cord, C13, NEMA 5-15P, 2.1m	
CAB-C13-C14-2M	Standard Power Cable, 240 Volts, 0.02 Pounds, Length: 6.6 ft., Connectors: 1 x power IEC 320 EN 60320 C13	
CAB-N35-AC-EU	AC Power Supply Cord	Europe
CP-PWR-CORD-UK	Cisco CP-PWR-CORD-UK Transformer Power Cord, Cisco VOIP phones	United Kingdom
CAB-IND-10A	Standard Power Cord, Second End Connector Type: IEC 320 EN 60320 C13, Current Rating: 10 A	India
CAB-C13-C14-3M-IN	This is a 10ft C13 to C14 18AWG 100-250V power cable that can be used to extend the lengths of 3-pin devices that utilize a shrouded power connector.	
CAB-3P-JPN	Standard AC Power Supply Cord Nema 5-15P to C13. Length: 6 Feet/19.6 Meters	Japan
CAB-C13-C14-2M-JP	Power cable - IEC 60320 C13 to IEC 60320 C14 - 6.6 ft	
CP-PWR-CORD-SA	AC Power Supply Cord	South Africa
CP-PWR-CORD-TW	AC Power Supply Cord	Taiwan

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 Network Insights for Data Center

Cisco NX-OS Release 10.1(2t) supports the Cisco Network Insights Advisor (NIA) and Cisco Network Insights for Resources (NIR) on Cisco Nexus 3550-T platform switches. For more information, see the [Cisco Network Insights documentation](#).

Upgrade and Downgrade

To perform a software upgrade or installation, follow the instructions in the [Cisco Nexus 3550-T Software Upgrade and Installation Guide, Release 10.1\(2t\)](#). For information about an In Service Software Upgrade (ISSU), see the [Cisco NX-OS ISSU Support Matrix](#).

Related Content

Cisco Nexus 3550-T, Release 10.1(2t) documentation.

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

Cisco Nexus 3550-T, Release 10.1(2t) Software Upgrade and Installation Guide.

Licensing Information: [Cisco NX-OS Licensing Guide](#)

When you downgrade from Cisco NX-OS Release 10.1(1) 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

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