Cisco Nexus 9000 Series NX-OS Release Notes

Release 10.6(1s)

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

Introduction

This document provides information about the features, networking mode capabilities of the N9300 Smart Switch, and relevant documentation for Cisco NX-OS Release 10.6(1s) on the Cisco N9300 Series.

Date	Description
September 15, 2025	Release 10.6(1s) became available.

Cisco N9300 Series Smart Switches

The Cisco N9300 Series Smart Switches are integrated network devices designed for scalable, secure, and efficient data center operations. They combine advanced networking and security features with hardware acceleration and software flexibility, embedding stateful security powered by Cisco Hypershield directly into the network fabric.

Cisco N9300 Series Smart Switches utilize Cisco® Silicon One® E100 ASIC for high-performance switching and DPUs for enhanced security and services. The family includes 100G and 25G switches with 800G DPU acceleration. Models such as the Cisco Nexus N9348Y2C6D-SE1U and N9324C-SE1U offer exceptional flexibility and performance, making them ideal Top of Rack (ToR) solutions for VXLAN-EVPN, BGP fabrics, and Multisite deployments. These switches can be deployed as leaf switches, border leaf, or border gateways, enabling customers to build adaptable and high-performing data center architectures.

The Cisco N9300 Series Smart Switches offer converged switching and routing services.

For product specifications, see Cisco N9300 Series Smart Switch Data Sheet.

Cisco N9324C-SE1U switch

Starting with Cisco NX-OS Release 10.6(1s), the N9300 Series Smart Switches introduces the Cisco N9324C-SE1U switch, a 1-RU solution designed to deliver high-performance networking capabilities. Its features include:

- 24 x 100G ports
- Cisco Silicon One E100 ASIC offering high-speed connectivity and scalability
- Top of Rack (ToR) solutions for VXLAN-EVPN, BGP fabrics, and Multisite deployments
- 4 DPU offering software-defined stateful services

  For hardware details, see Cisco N9324C-SE1U NX-OS-Mode Switch Hardware Installation Guide.

Cisco N9348Y2C6D-SE1U switch

Starting with Cisco NX-OS Release 10.6(1s), the N9300 Series Smart Switches introduces the Cisco N9348Y2C6D-SE1U switch, a 1-RU solution designed to deliver high-performance. It features include:

- 48-port 25G + 2-port 100G + 6-port 400G switch
- Cisco Silicon One E100 ASIC offering high-speed connectivity and scalability
- Top of Rack (ToR) solutions for VXLAN-EVPN, BGP fabrics, and Multisite deployments
- 2 DPUs offering software-defined stateful services

  For hardware details, see Cisco N9348Y2C6D-SE1U switch Hardware Installation Guide.

Software Features

Guides listed in the below table contains contents specific only to Cisco NX-OS Release 10.6(1s).

Feature Type	Description
Network Interfaces and Speeds	- Cisco N9324C-SE1U switch - Port Speed: 40G, 100G - Breakout: 4 x10G, 4 x 25G, 2 x 50G - Cisco N9348Y2C6D-SE1U switch - Port Speed: 10G, 25G, 40G, 100G, 400G - Breakout: 4 x10G, 4 x 25G, 2 x 50G, 4 x 100G - L3 routed, routed sub (native and PC) - SVI support - VLAN, access, trunk For information on port speed and breakout, see Port peed and breakout modes.
L2	- DHCP relay - QinQ - SVI support - UDLD - Port channels (PC), vPC - ELAM - ICAM - RSTP. MSTP - LACP, LLDP
Unicast Routing/ L3 (IPv4 and IPv6)	- BGP, OSPF, EIGRP, ISIS, BFD (Single Hop), VRF, RIP - ECMP 8192 ECMP groups, 512-way ECMP - IP directed broadcast - uRPF - Static routing - HSRP, VRRP - IP unnumbered (non-SVI)
Multicast	- L2/L3 IPv4 multicast PIM (ASM, SSM) - L3-Phy, PO, SI, SVI, vPC

Feature Type	Description
	• L2-PO • IGMP snooping • Flow path visibility • Multicast route-aliveness • Hitbit, route statistics (pkts, bytes)
MPLS/SR	• SR-MPLS underlay • SR-MPLS L3EVPN
Quality of Service	• Classification and marking • Queuing and scheduling • CoPP, custom CoPP
Network Security	• AAA, RADIUS, TACACS+ • Ingress PACL • Ingress and egress RACL (IPV4/V6) • SSH protocol version 2 • SNMPv3 • PBR • MACsec

Telemetry and Monitoring	• SNMPv2
	• Software Telemetry
	  ◦ DME data collection
	  ◦ NX-API data sources
	  ◦ Google protocol buffer (GPB) encoding over Google Remote Procedure Call (gRPC) transport
	  ◦ JSON encoding over HTTP
	• sFlow
	• gNMI support
	• SPAN, SPAN on drop, ERSPAN

VXLAN	• VXLAN EVPN v4/v6 • Multicast/IR • TRMv4 • DSVNI • Multi-Site Anycast border gateway • vPC and vPC fabric peering • NGOAM • L3 physical port and L3PO as fabric uplinks • IGMP snooping with or without TRMv4
IPFM	• NBM Use cases • Policer Scale
Programmability	• Open NX-OS automation • Open and native YANG models ◦ NETCONF, RESTCONF, gNMI

Feature Type	Description
	• Python API • TCL • Cisco NX-API
Upgrade	• POAP • GIR • Disruptive ISSU
Licensing	• Premier, Advantage and Essentials License for appropriate features

Release Image

Note: Starting from 10.5(3)F, Cisco NX-OS no longer provides a separate EPLD image. Instead, the EPLD image is bundled with all NX-OS images and so the image sizes are correspondingly larger.

In Cisco NX-OS Release 10.6(1s), the following 64-bit image is supported:

- The 64-bit Cisco NX-OS image filename with "nxos64-s1-dpu" as the prefix (for example, nxos64-s1-dpu.10.6.1s.F.bin) is supported and it is mandatory on Cisco N9300 Series Smart Switches.

Note: The 32-bit image is no longer supported.

Open Issues

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

Bug ID	Headline
CSCwq90241	Configure Replace Command Fails with Syntax Error When Changing VLAN on Access Interface
CSCwq15922	100G speed change/100G breakout post link up requires device reload

Resolved Issues

There are no resolved issues in this release.

Device Hardware

The following table list the Cisco Nexus 9300 Series hardware that Cisco NX-OS Release 10.6(1s) supports. For additional information about the supported hardware, see the Hardware Installation Guide for your Cisco Nexus 9000 Series device.

Table 1.   Cisco N9300 Series Smart Switches

Product ID	Description
N9348Y2C6D-SE1U	1-RU switch with 48 x 25G, 6 x 400G, 2 x 100G ports, Cisco Silicon One E100 ASIC and 2 DPUs
N9324C-SE1U	1-RU switch with 24 x 100G ports, Cisco Silicon One E100 ASIC and 4 DPUs

Optics

For information about transceivers and cables supported on a switch, see the [Transceiver Module (TMG) Compatibility Matrix](#). For the transceiver specifications and installation information, see the [Install and Upgrade Guides](#).

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 10.6(x).x

Note: Only Disruptive Upgrade is supported. See [Disruptive Upgrade](#).

Note: Upgrading the Cisco N9324C-SE1U switch from NX-OS Release 10.5(3s) to NX-OS Release 10.6.1 is *not* recommended if the service-acceleration feature is in use. This feature is *not* supported in NX-OS Release 10.6.1.

Related Content

Document Title	Description
[Cisco Nexus 9000 Series Switches](#)	Cisco Nexus 9000 Series Switches documentation
[Cisco NX-OS Software Strategy and Lifecycle Guide](#)	Cisco NX-OS Software Release and Image-naming Convention
[Cisco N9300 Series Smart Switch Data Sheet](#)	Data sheet for Cisco N9300 Series Smart Switch
[Cisco NX-OS Licensing Guide](#) [Cisco Nexus 9000 and 3000 Series NX-OS Switch License Navigator](#) [Cisco Nexus Smart Licensing Using Policy User Guide](#)	Licensing Information **Note:** When you downgrade from Cisco NX-OS Release 10.6(1s) 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.

Document Title	Description
Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide	Cisco Nexus 9000 Series Software Upgrade and Downgrade Guide, Release 10.6(x)
Cisco N9324C-SE1U NX-OS-Mode Switch Hardware Installation Guide	Cisco Nexus 9324C-SE1U NX-OS-Mode Switch Hardware Installation Guide
Cisco Nexus N9348Y2C6D-SE1U NX-OS-Mode Switch Hardware Installation Guide	Cisco Nexus N9348Y2C6D-SE1U NX-OS-Mode Switch Hardware Installation Guide

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