Cisco Nexus 9000 Series NX-OS IP Fabric for Media Release Notes

Release 10.6(2)F

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Cisco Nexus 9000 Series IP Fabric for Media Release Notes, Release 10.6(2)F

This document describes the features, issues, and limitations of Cisco NX-OS software Release 10.6(2)F for use on the Cisco Nexus 9000 Series switches.

Introduction

This document describes the Cisco IP fabric for media solution, new hardware, software features, upgrade instructions, and caveats for Cisco NX-OS Release 10.6(2)F software for use on Cisco Nexus 9000 Series Switches.

Date	Description
December 14, 2025	Release 10.6(2)F became available.

IP Fabric for Media

Today, the broadcast industry uses a serial digital interface (SDI) router and SDI cables to transport video and audio traffic. The SDI cables can carry only a single unidirectional signal. As a result, many cables, frequently stretched over long distances, are required, making it difficult and time-consuming to expand or change an SDI-based infrastructure.

Cisco's IP fabric for media solution helps transition from an SDI router to an IP-based infrastructure. In an IP-based infrastructure, a single cable can carry multiple bidirectional traffic flows and can support different flow sizes without requiring changes to the physical infrastructure. The solution uses Cisco Nexus 9000 Series switches in conjunction with the Cisco non-blocking multicast (NBM) algorithm (an intelligent traffic management algorithm) and with or without the Cisco Nexus Dashboard Fabric Controller (NDFC) IP for Media Fabric (IPFM) to provide a highly reliable (zero drop multicast), highly visible, highly secure, and highly available network.

Cisco Nexus 9000 Series NX-OS IP Fabric for Media solution supports the following types of deployments:

- Spine-leaf topology—A single or multi-spine deployment method with variable flow size that allows the NBM fabric to form a multicast flow.
- Single modular switch—An architecture suitable for fixed deployments, with the controller providing features such as flow visibility, security, and monitoring.

New software features

This section provides a brief description of the new software features introduced in this release.

Table 1. New software features for Cisco Nexus 9000 Series switches, Release 10.6(2)F

Product Impact	Feature	Description
Feature set	Flow bandwidth enhancement to support 8K and 16K video resolution feeds	Beginning with Cisco NX-OS Release 10.6(2)F, the maximum supported bandwidth range for flow policies has been increased from 25 Gbps (25,000,000 Kbps) to 100 Gbps (100,000,000 Kbps) to support 8K and 16K video resolution feeds in IPFM deployments. This feature will be available on Cisco Nexus Nexus 9300-FX, FX2, FX3, GX, GX2, H2R, H1, and 9800 Series switches.

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New hardware features

There are no hardware features supporting Cisco NX-OS Release 10.6(2)F.

Supported Device Hardware

Table 3 lists the hardware that the Cisco Nexus 9000 Series NX-OS IP Fabric for Media Release 10.6(2)F supports. For additional information about the supported hardware, see the Hardware Installation Guide for your Cisco Nexus 9000 Series device.

Table 2. Cisco Nexus 9000 Series Hardware

Product ID	Hardware Description	Role in Topology
N9K-C93108TC-FX3	Cisco Nexus 93108TC-FX3 1-RU switch with 48 100M/1G/10G RJ45 and 6 40/100G QSFP28	Leaf switch in spine-leaf topology
N9K-C93108TC-FX	Cisco Nexus 93108TC-FX 1-RU Top-of-Rack switch with 48 10GBASE-T (copper) ports and 6 40/100-Gigabit QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C93180YC-FX	Cisco Nexus 93180YC-FX 1-RU Top-of-Rack switch with 48 10/25-Gigabit SFP28 ports and 6 40/100-Gigabit QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C9348GC-FX3	Cisco Nexus C9348GC-FX3 is RU switch with 48 1GBase-T (copper ports), 4x SFP28 and 2x QSFP28 ports.	Leaf switch in spine-leaf topology
N9K-C9348GC-FXP	Cisco Nexus 9348GC-FXP switch with 48 100M/1GBASE-T (copper) ports, 4 10/25-Gigabit SFP28 ports, and 2 40/100-Gigabit QSFP ports	Leaf switch in spine-leaf topology
N9K-C93180YC-FX3S	Cisco Nexus 93180YC-FX3S 1-RU Top-of-Rack switch with 48 25/50/100-Gigabit Ethernet SFP28 ports and 6 10/25/40/50/100-Gigabit QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C93180YC-FX3	Cisco Nexus 93180YC-FX3 1-RU Top-of-Rack switch with 48 25/50/100-Gigabit Ethernet SFP28 ports and 6 10/25/40/50/100-Gigabit QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C93180YC-FX3P	Cisco Nexus 93108TC-FX3P 1-RU Top-of-Rack switch with 48 10GBASE-T (copper) ports and 6 40/100-Gigabit QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C93216TC-FX2	Cisco Nexus 93216TC-FX2 2-RU switch with 96 100M/1G/10G RJ45 ports and 12 40/100-Gigabit QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C93360YC-FX2	Cisco Nexus 93360YC-FX2 2-RU switch with 96 10/25-Gigabit SFP+ ports and 12 40/10-Gigabit Ethernet QSFP28 ports	Leaf switch in spine-leaf topology
N9K-C93240YC-FX2	Cisco Nexus 93240YC-FX2 1.2-RU Top-of-Rack switch with 48 10/25-Gigabit SFP28 fiber ports and 12 40/100-Gigabit Ethernet QSFP28 ports	Spine or leaf switch in spine-leaf topology

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Product ID	Hardware Description	Role in Topology
N9K-C9336C-FX2	Cisco Nexus 9336C-FX2 1-RU switch with 36 40/100-Gigabit Ethernet QSFP28 ports	Spine or leaf switch in spine-leaf topology
N9K-C9336C-FX2-E	Cisco Nexus 9336C-FX2-E 1-RU switch with 36 40/100-Gigabit Ethernet QSFP28 ports	Spine or leaf switch in spine-leaf topology
N9336C-SE1	Cisco Nexus 9336C-SE1 switch is a 1-RU fixed-port, Top-of-Rack (TOR) switch	Spine or Leaf in spine-Leaf topology
N9K-C9316D-GX	Cisco Nexus 9316D 1RU switch with 16 fixed 40/100/400G QSFP-DD ports	Spine switch in spine-leaf topology
N9K-C93600CD-GX	Cisco Nexus 93600CD-GX 1RU switch with 28 fixed 40/100G QSFP-28 ports and 8 fixed 40/100/400G QSFP-DD ports	Spine or leaf switch in spine-leaf topology
N9K-C9364D-GX2A	Cisco Nexus 9364D-GX2A is a 2-Rack-Unit (2RU) switch with 64 fixed 40/100/400G QSFP-DD ports and two fixed 1/10G SFP+ ports	Spine or leaf switch in spine-leaf topology
N9K-C9348D-GX2A	Cisco Nexus 9348D-GX2A is a 2-Rack-Unit (2RU) switch with 48 fixed 40/100/400G QSFP-DD ports and two fixed 1/10G SFP+ ports	Spine or leaf switch in spine-leaf topology
N9K-C9332D-GX2B	Cisco Nexus 9332D-GX2B is a compact form-factor 1-Rack-Unit (1RU) switch with 32 fixed 40/100/400G QSFP-DD ports and two fixed 1/10G SFP+ ports	Spine or leaf switch in spine-leaf topology
N9K-C9332D-H2R	Cisco Nexus 9332D-H2R is a TOR switch with 32 QSFP-DD ports and two fixed SFP ports	Leaf switch in spine-leaf topology
N9K-C93400LD-H1	Cisco Nexus 93400LD-H1 is a 1-RU Switch with 48 10G/25G/50G SFP56 ports and 4 400G QSFP-DD ports.	Leaf switch in spine-leaf topology
N9K-C9364C-H1	Cisco Nexus 9364C-H1 2-RU switch with 64 fixed 40/100GQSFP-28 ports.	Spine or leaf switch in spine-leaf topology
Cisco Nexus 9504 or 9508 switch with the following line cards: N9K-X9636C-R N9K-X9636C-RX N9K-X9636Q-R	Cisco Nexus 9504 4-slot or 9508 8-slot switches N9K-X9636C-R: 36-port 40/100-Gigabit Ethernet QSFP28 line card N9K-X9636C-RX: 36-port 40/100-Gigabit Ethernet QSFP28 line card N9K-X9636Q-R: 36-port 40-Gigabit Ethernet QSFP+ line card	Spine in spine-leaf topology or single modular switch
N9K-X9624D-R2 N9K-C9508-FM-R2	N9K-X9624D-R2 Line card with 24 400G QSFP-DD ports (only to be used with 8-slot chassis) N9K-C9508-FM-R2 Fabric module for 400G line card (only to be used with 8-slot chassis)	Spine in spine-leaf topology or single modular switch

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Product ID	Hardware Description	Role in Topology
Cisco Nexus 9804 and 9808 switch with the following line card: N9K-X98900CD-A N9K-X9836DM-A	Cisco Nexus 9804 4-slot or Nexus 9808 8-slot modular switch N9K-X98900CD-A line card with 34 100G QSFP28 and 14 QSFP-DD ports N9K-X9836DM-A Line card with 36 40/100/400G QSFP-DD ports	Spine in spine-leaf topology or single modular switch
Cisco Nexus 9408 switch with the following expansion modules: N9K-X9400-8D N9K-X9400-16W	Cisco Nexus 9408 is centralized modular switch with 8 line-card expansion modules (LEMs) N9K-X9400-8D: Nexus 9400 8p 400G QSFP-DD LEM N9K-X9400-16W: Nexus 9400 16p 200G LEM	Spine in spine-leaf topology or single modular switch

Open issues

This table lists the open issues in this specific software release.

Note: This software release may contain open bugs first identified in other releases. To see additional information, click the bug ID to access the Cisco Bug Search Tool.

Table 3. Open issues for Cisco Nexus 9000 Series NX-OS IP Fabric for Media, Release 10.6(2)F

Bug ID	Headline
CSCwr99585	NFM-RTP-SCALE: gNMIC get fails for RTP flows greater than 16K

Resolved Issues

There are no resolved issues in Cisco Nexus 9000 Series NX-OS IP Fabric for Media, Release 10.6(2)F.

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

Limitations

Sub interfaces should be in the same nbm VRF mode as its parent interface. They (parent port and its sub interfaces) can be in either nbm pim-active or nbm pim-passive mode.

For example: If the parent port is part of NBM VRF which is in PIM active mode, its subinterfaces must also be in the VRF (can be different VRF context) with the same PIM active mode.

Related Documentation

- Cisco Nexus 9000 Series IP Fabric for Media Solution Guide, Release 10.6(x)

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- Cisco Nexus 9000 Series NX-OS Release Notes, Release 10.6(2)F
- Cisco Nexus 9000 Series NX-OS Verified Scalability Guide, Release 10.6(2)F
- Cisco Nexus 3000 and 9000 Series NX-API REST SDK User Guide and API Reference
- Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.6(2)F
- The entire Cisco Nexus 9000 Series NX-OS documentation set is available at the following URL: http://www.cisco.com/c/en/us/support/switches/nexus-9000-series-switches/tsd-products-support-series-home.html

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