

Cisco NX-OS Software Release 4.2(1)N2(1) for Cisco Nexus 5000 Series Switches and 2000 Series Fabric Extenders

PB620452

Cisco® NX-OS Software is a data center-class operating system built with modularity, resiliency, and serviceability at its foundation. Based on the industry-proven Cisco MDS 9000 SAN-OS Software, Cisco NX-OS helps ensure continuous availability and sets the standard for mission-critical data center environments. The self-healing and highly modular design of Cisco NX-OS makes zero-effect operations a reality and enables exceptional operational flexibility.

Cisco NX-OS Software Release 4.2(1)N2(1) is a Cisco NX-OS Software release on the Cisco Nexus® 5000 Series Switches and 2000 Series Fabric Extenders. This software release introduces the Cisco Nexus 2224TP GE Fabric Extender. In addition, several new software features are introduced to improve performance, scalability, and management for the product line. The combination of the Cisco Nexus 2000 Series and 5000 Series offers a highly cost-effective access-layer architecture for 100 Megabit Ethernet, Gigabit Ethernet, 10 Gigabit Ethernet, mixed Gigabit Ethernet, 10 Gigabit Ethernet server, Ethernet and unified fabric, and physical and virtual server environments.

Cisco Nexus 2224TP GE Fabric Extender

The Cisco Nexus 2224TP is a stackable one-rack-unit (1RU) switch used in conjunction with Cisco Nexus 5000 Series Switches (Figure 1). The Cisco Nexus 2224TP is managed and configured by the upstream switch. The fabric extender downloads the software image from its Cisco Nexus 5000 Series parent switch in the same way that a module would download it from the supervisor in a modular chassis. The Cisco Nexus 5000 Series with Cisco NX-OS Software Release 4.2(1)N2(1) supports the Cisco Nexus 2224TP.

Figure 1. Cisco Nexus 2224TP GE Fabric Extender Front View



The Cisco Nexus 2224TP offers the following features:

- Compact 1RU form factor
- Front-to-back cooling compatible with data center hot-aisle and cold-aisle designs, with all switch ports at the rear of the unit in close proximity to server ports
- Hot-pluggable capability
- Twenty-four 100/1000 BASE-T host ports on the rear panel, with two 10 Gigabit Ethernet Small Form-Factor Pluggable Plus (SFP+) uplink ports on the rear panel
- Host PortChannel and virtual PortChannel (vPC) support
- Support for up to 12 Cisco Nexus 2224TP fabric extenders per Cisco Nexus 5000 Series Switch
- Airflow from the power supply side to the port side

- Dual power supplies (1+1 redundant) in the default configuration, load sharing, and hot-swappable capability (same power supply shared across Cisco Nexus 2000 Series platforms)
- Hot swappable fan tray with redundant fans
- Uplink support for SFP+: Cisco Fabric Extender Transceiver (FET-10G) short reach (SR), long reach (LR), and CX1 (1, 3, and 5m respectively); long-reach multimode (LRM) is not supported

New Software Features

Support for 1 Gbps on Cisco Nexus 2232PP

Cisco NX-OS Software Release 4.2(1)N2(1) enables support for 1-Gbps port speed on all host ports of the Cisco Nexus 2232PP. The following transceivers are supported for 1-Gbps port speed:

- GLC-T
- GLC-SX-MM
- GLC-LH-SM
- SFP-GE-T
- SFP-GE-S
- SFP-GE-L

Link Aggregation Control Protocol Fast Timers

Cisco NX-OS Software Release 4.2(1)N2(1) supports two timer values for periodic transmission: slow periodic timeouts and fast periodic timeouts. Changing the Link Aggregation Control Protocol (LACP) timer rate allows users to modify the duration of the LACP timeout. Using the **lACP rate** command, users can set the rate at which LACP control packets are sent to an LACP-supported interface. Users can change the timeout rate from the default value (30 seconds) to a fast rate (1 second). This command is supported only on LACP-enabled interfaces.

For More Information

For more information about Cisco Nexus switches, please visit <http://www.cisco.com/go/nexus5000> and <http://www.cisco.com/go/nexus2000>.



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