Introducing the Cisco Nexus 2248TP-E Fabric Extender: A New Addition to the Cisco Nexus 2000 Series

Cisco is introducing the Cisco Nexus® 2248TP-E Fabric Extender (Figure 1). The Cisco Nexus 2248TP-E meets general-purpose data center needs. In addition, it has 32-MB buffers and enhanced statistics counters specifically optimized for data center applications such as big data, parallel storage, and video editing applications. The Cisco Nexus 2248TP-E comes with 48 100/1000BASE-T host ports and four Enhanced Small Form-Factor Pluggable (SFP+) 10 Gigabit Ethernet uplinks.

Figure 1.   Cisco Nexus 2248TP-E

The Cisco Nexus 2248TP-E works in conjunction with a parent Cisco Nexus 5000 or 7000 Series Switch. The minimum software release required for Cisco Nexus 5000 Series Switches to support the Cisco Nexus 2248TP-E is Cisco® NX-OS Software Release 5.1(3)N1(1). The Cisco Nexus 7000 Series will support the Cisco Nexus 2248TP-E in a future software release. All Cisco Nexus 2000 Series Fabric Extenders can be mixed and matched with a parent switch to provide a variety of connectivity options.

Cisco Nexus 2248TP-E Features

The Cisco Nexus 2248TP-E Gigabit Ethernet fabric extender offers the following features:

- Forty-eight 100/1000BASE-T server access ports
- Four 10 Gigabit Ethernet lossless uplink and fabric ports using Cisco Fabric Extender Transceiver (FET) SFP+, short-reach (SR) and long-reach (LR) SFP+, or CX1 direct-attach copper interconnects
- Connection to the Cisco Nexus 5000 Series parent switch at first customer shipment (FCS; Cisco Nexus 5010, 5020, 5548P, 5548UP, and 5596UP Switches)
- Support for cost-effective Cisco FET for uplink and fabric link connectivity, well suited to unified fabric environments
- Support for host PortChannel and virtual PortChannel (vPC) capabilities
- In-Service Software Upgrade (ISSU)
- Highly scalable distributed modular system with up to 1152 100/1000BASE-T ports (24 fabric extenders per Cisco Nexus 5500 platform)

- Compact one-rack-unit (1RU) form factor
- Choice of standard front-to-back cooling or reversed-airflow cooling, compatible with data center hot-aisle and cold-aisle designs
  - With standard front-to-back cooling, all switch ports are at the rear of the unit in close proximity to server ports, aligned with the hot aisle (port-side exhaust)
  - With reversed airflow, ports are aligned with the cold aisle (port-side intake)
- Choice of AC or DC power supply (the default configuration includes redundant dual power supplies)
- Hot-swappable fan trays
- Accessibility of all user-serviceable components
- Operation as a remote I/O module, extending the switch fabric for Cisco Nexus 5000 Series Switches
- Capability to be mixed and matched with different types of Cisco Nexus 2000 Series Fabric Extenders to the same parent switch to support various types of connectivity
- Homogeneous policies across a large number of ports
- Zero-touch provisioning, including configuration and software upgrade operations

Availability

The Cisco Nexus 2248TP-E has begun shipping and can be ordered alone or with Cisco FET. All Cisco Nexus 2200 platforms include dual power supplies and a fan tray in the default configuration. Table 1 lists the part numbers that can be ordered.

Table 1.   Ordering Information

Part Number	Description
Cisco Nexus 2200 Platform	
N2K-C2248TP-E	Cisco Nexus 2000 Series, 48 100/1000BASE-T host interfaces and 4 10 Gigabit Ethernet fabric interfaces, 32MB buffer, includes dual power supplies and a Fan Tray (requires SFP+ for uplinks)
Cisco Nexus 2200 Platform with Cisco FET	
N2K-C2248TF-E	Cisco Nexus 2000 Series 48 100/1000BASE-T host interfaces and 4 10 Gigabit Ethernet fabric interfaces, 32MB buffer, includes dual power supplies and Fan Tray, and 8 Fabric Extender Transceivers for fabric extension
Fan Modules	
N2K-C2248-FAN=	Cisco Nexus 2224TP and 2248TP FEX Fan Module (Std airflow, port side exhaust), spare
N2K-C2248-FAN-B=	Cisco Nexus 2224TP and 2248TP FEX Fan Module, Back-to-front airflow (Reversed airflow, port side intake), spare
Power Supplies	
N2200-PAC-400W=	Cisco Nexus 2200 AC Power supply (Std airflow, port side exhaust), spare
N2200-PAC-400W-B=	Cisco Nexus 2200 AC Power supply, Back-to-front airflow (Reversed airflow, port side intake), spare
N2200-PDC-400W=	Cisco Nexus 2200 DC Power supply (Std airflow, port side exhaust), spare
N2K-P1-BLNK=	Cisco Nexus 2148T FEX 1GE Power supply Blank, spare
N2200-P-BLNK=	Cisco Nexus 2200 Power supply Blank, spare

Part Number	Description
Transceivers and Cables	
SFP-10G-SR(=)	10GBASE-SR SFP+ Module
SFP-10G-LR(=)	10GBASE-LR SFP+ Module
SFP-H10GB-CU1M(=)	10GBASE-CU SFP+ Passive Cable 1 Meter
SFP-H10GB-CU3M(=)	10GBASE-CU SFP+ Passive Cable 3 Meter
SFP-H10GB-CU5M(=)	10GBASE-CU SFP+ Passive Cable 5 Meter
SFP-H10GB-ACU7M(=)	10GBASE-CU SFP+ Active Cable 7 Meter
SFP-H10GB-ACU10M(=)	10GBASE-CU SFP+ Active Cable 10 Meter
GLC-T(=)	1000BASE-T SFP
GLC-SX-MM(=)	GE SFP, LC connector SX transceiver
GLC-LH-SM(=)	GE SFP, LC connector LX/LH transceiver
SFP-GE-T(=)	1000BASE-T SFP, Extended Temperature Range
SFP-GE-S(=)	GE SFP, LC connector SX transceiver, with Digital Optical Monitoring (DOM) and Extended Temperature Range
SFP-GE-L(=)	GE SFP, LC connector LX/LH transceiver, with Digital Optical Monitoring (DOM) and Extended Temperature Range
Accessory Kit	
N2200-ACC-KIT=	Cisco Nexus 2200 FEX Accessory Kit, spare
Power Cords	
CAB-N5K6A-NA(=)	Power Cord, 210/220V 30A North America
CAB-AC-250V/13A(=)	Power Cord for North America, 125VAC/13A
CAB-C13-C14-JMPR(=)	Recessed receptacle AC power cord 27
CAB-C13-C14-2M(=)	Power Cord Jumper, C13-C14 Connectors, 2 Meter Length
CAB-C13-C14-AC(=)	Power Cord Jumper, C13-C14 Connectors, 3 Meter Length
CAB-C13-CBN(=)	Cabinet Jumper Power Cord, 250 VAC 16A, C14-C13 Connectors
CAB-9K12A-NA(=)	Power Cord, 125VAC 15A NEMA 5-15 Plug, North America
SFS-250V-10A-AR(=)	SFS Power Cord - 250V, 10A - Argentina
CAB-9K10A-AU(=)	Power Cord, 250VAC 10A 3112 Plug, Australia
SFS-250V-10A-CN(=)	SFS Power Cord - 250V, 10A - PRC
CAB-9K10A-EU(=)	Power Cord, 250VAC 10A CEE 7/7 Plug, EU
SFS-250V-10A-ID(=)	SFS Power Cord - 250V, 10A - South Africa, UAE, India
CAB-IND-10A(=)	10A Power cable for India
SFS-250V-10A-IS(=)	SFS Power Cord - 250V, 10A - Israel
CAB-9K10A-IT(=)	Power Cord, 250VAC 10A CEI 23-16/VII Plug, Italy
CAB-9K10A-SW(=)	Power Cord, 250VAC 10A MP232 Plug, Switzerland
CAB-9K10A-UK(=)	Power Cord, 250VAC 13A BS1363 Plug (13 A fuse), UK

To place an order, visit the Cisco Ordering homepage. To download software, visit the Cisco Software Center.

Warranty

The Cisco Nexus 2000 Series Fabric Extenders have a 1-year limited hardware warranty. The warranty includes hardware replacement with a 10-day turnaround from receipt of a return materials authorization (RMA).

Cisco Services

Cisco offers a wide range of services to help accelerate your success in deploying and optimizing the Cisco Nexus 5000 Series Switches and Cisco Nexus 2000 Series Fabric Extenders in your data center. The innovative Cisco Services offerings are delivered through a unique combination of people, processes, tools, and partners and are focused on helping you increase operation efficiency and improve your data center network. Cisco Advanced Services uses an architecture-led approach to help you align your data center infrastructure with your business goals and achieve long-term value. Cisco SMARTnet® Service helps you resolve mission-critical problems with direct access at any time to Cisco network experts and award-winning resources. With this service, you can take advantage of the Cisco Smart Call Home service capability, which offers proactive diagnostics and real-time alerts on your Cisco Nexus 5000 Series Switches. Spanning the entire network lifecycle, Cisco Services offerings help increase investment protection, optimize network operations, support migration operations, and strengthen your IT expertise. For more information about Cisco Nexus Services, visit http://www.cisco.com/go/nexusservices.

For More Information

- Cisco Nexus 2000 Series Fabric Extenders: http://www.cisco.com/go/nexus2000
- Cisco Nexus 5000 Series Switches: http://www.cisco.com/go/nexus5000
- Cisco NX-OS Software: http://www.cisco.com/go/nxos

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