HPE SN8700C 16-slot 16/32/64Gb Fibre Channel Director Switch (R7L00B)



What's new

- 64Gb FC modules without transceivers or fully populated with 64Gb SFP+ transceivers
- 64Gb FC short wave SFP+ transceiver

Overview

Are you looking to modernize your storage area network?

Today's mission-critical storage environments require greater consistency, predictability, and performance to keep pace with growing business demands. Faced with explosive data growth, data centers need more I/O capacity to accommodate the massive amounts of data, applications, and workloads.

The HPE Storage Director Switch C-series SN8700C is a director-class SAN switch designed for deployment in small to medium-sized storage networks to support enterprise clouds

and business transformation. It layers a comprehensive set of intelligent features onto a high-performance, protocol-independent switch fabric.

The HPE Storage Director Switch C-series SN8700C enables enterprise clouds, transforms large storage area networks, lowers operating costs, and deploys Fibre Channel (FC) and IBM Fibre Connectivity (FICON) on a single fabric.

Features

Lower TCO with SAN Consolidation

The HPE Storage Director Switch C-series SN8700C lets you easily consolidate data assets into fewer, larger, and more manageable SANs to reduce your hardware footprint and associated capital expenditures (CAPEX) and operating expenses (OPEX).

It provides up to 48 terabits per second (Tb/s) of FC system bandwidth and 768 (16 slots) or 384 (8 slots) or 192 (4 slots) 16/32/64 Gb/s in a single chassis.

Existing 16/32 Gbps customers can transparently move to 32/64 Gbps speeds without the need for a major equipment upgrade as the 48-port 32 Gbps FC switching module or 48-port 64 Gbps FC switching module can be easily inserted into an existing HPE Storage Director Switch C-series SN8700C.

It provides line-rate, nonblocking, and predictable performance for all traffic conditions for every port up to 64 Gbps speed in the chassis.

It offers VSAN technology, access control lists (ACLs) for hardware-based intelligent frame processing, and fabric-wide quality of service (QoS) enable migration from SAN islands to enterprise wide storage networks.

High Availability

The HPE Storage Director Switch C-series SN8700C offers fully redundant components, including fabric cards, supervisors, and power supplies.

It provides grid redundancy on the power supply and 1+1 redundant supervisors.

With the HPE Storage Director Switch C-series SN8700C, users can add additional Fabric-3 modules to enable N+1 fabric redundancy with no loss of performance.

The port-channel capability allows you aggregate up to 16 physical links into one logical bundle. The bundle can consist of any speed-matched ports in the chassis, helping ensure that the bundle can remain active in the event of a port or module failure.

It provides outstanding high availability, helping ensure that solutions exceed the maximum uptime requirements of today's most-demanding environments.

Easy Manageability

The HPE Storage Director Switch C-series SN8700C supports enhanced diagnostic features such as inter-switch link (ISL) and host-bus-adapter (HBA) diagnostics, read diagnostic parameters, link cable beacon, and advanced reliability features such as forward error correction (FEC) with HBA ports.

Cisco Nexus Dashboard Fabric Controller (NDFC), formerly DCNM, provides a centralized management tool with task-based wizards that simplifies management of switches and fabrics. Additional advanced features are available with the Advantage and Premier Subscription licenses, sold separately.

Cisco Data Center Network Manager (DCNM) is renamed as Cisco Nexus Dashboard Fabric Controller (NDFC) from release 12.0.1a.

Cisco SAN Insights delivers deep visibility into I/O traffic between the compute

and the storage infrastructure. This information is in addition to the already-available visibility obtained from individual ports, switches, servers, virtual machines, and storage arrays.

Fully Integrated SAN Analytics (HPE C-series SAN Insights or HPE C-series Premier license)

The HPE Storage Director Switch C-series SN8700C offers state-of-the-art SAN analytics and telemetry capabilities that have been built into this next-generation hardware platform.

It inspects I/O flows to bring out a unified view of the infrastructure irrespective of the architecture or vendor of storage arrays, servers, or operating systems.

The telemetry data extracted from the inspection of the frame headers are calculated on board (within the director module) and, using an industry-leading open format, can be streamed to any analytics-visualization platform.

SAN Analytics can be integrated with and visualized by using the advanced features of Nexus Dashboard Fabric Controller (NDFC).

Technical specifications

HPE SN8700C 16-slot 16/32/64Gb Fibre Channel Director Switch

Product Number	R7L00B
Port speed	16/32/64 Gb/s Fibre Channel
Aggregate switch bandwidth	Up to 48-Tbps front-panel Fibre Channel switching bandwidth
Encryption capability	AES 256-bit
Protocol supported	Fibre Channel
Management software	Cisco Nexus Dashboard Fabric Controller (NDFC)
Availability features	Equipped with hot swappable redundant 2 SUP-4 modules, six hot swappable redundant Fabric-3 modules (16-slot), three hot swappable redundant Fabric-3 modules (8-slot/4-slot), eight 3000W power supplies (16 slot) or four 3000W power supplies (8 slot) or two 3000W power supplies (4 slot)
Form factor	26U for HPE SN8700C 16-slot Director, 14U for HPE SN8700C 8-slot Director, 9U for HPE SN8700C 4-slot Director
Model availability	16-slot chassis, 8-slot chassis, 4-slot chassis
Upgradability	Base units include zero port modules. Ports can be added in 48 port increments, depending on protocol and line speeds required.
Software (required)	NX-OS Software Release 6.2.1 or later; NX-OS Software Release 8.4.1 or later for Supervisor-4/Fabric-3 support; NX-OS 9.2(2) is required for Advantage and Premier licenses NX-OS 9.3(1) or later required for 64Gb transceivers
Ports	192, 384, or 768 ports
Software (optional)	Port upgrade license, Enterprise Package license, Cisco Nexus Dashboard Fabric Controller (NDFC) license, SAN Insights (1/3/5 yrs), Advantage license (1/3/5 yrs), Premier license (1/3/5 yrs)
Product dimensions	9RU : 39.62 x 43.9 x 81.3 cm; 14RU: 61.9 x 43.9 x 86.4 cm; 26RU: 114.9 x 43.9 x 88.9 cm
Weight	SN8700C 4-slot Chassis only: 65.8 kg; SN8700C 8-slot Chassis only: 84.2 kg; SN8700C 16-slot Chassis only: 136 kg

For additional technical information, available models and options, please reference the QuickSpecs

HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

Consulting services

Experts can help you map out your path to hybrid cloud and optimize your operations.

Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

- HPE Complete Care Service: a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.
- HPE Tech Care Service: the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.

The Defective Media Retention (DMR) service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. Comprehensive Defective Material Retention (CDMR) allows you to keep all data retentive components.

HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them here.

Explore **HPE GreenLake**

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Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Image may differ from the actual product

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