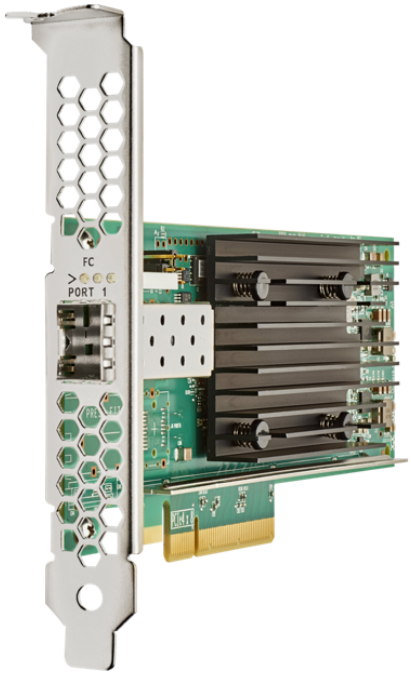
Data sheet

HPE SN1700Q 64Gb Fibre Channel Host Bus Adapter

HPE SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter (R7N86A)



What's new

- 64 Gb FC HBAs double the bandwidth of 32 Gb FC products while maintaining full compatibility. FC leverages a block-based design, which is best used with data-intensive enterprise workloads.
- The 64 Gb FC HBAs enable a non-disruptive firmware upgrade reducing downtime and meeting critical service level agreements (SLAs).
- The new FC-NVMe protocol supports exponentially more data queues and concurrent commands. Customers

Overview

The HPE SN1700Q 64Gb Fibre Channel Host Bus Adapters (HBAs) enable any HPE ProLiant server to share a highly resilient storage array such as the HPE Alletra Storage Array. Any HPE ProLiant with a Fibre Channel (FC) HBA can be configured to share storage. This type of design is a Storage Area Network (SAN). A FC Switch is used between the HPE ProLiant servers and the storage to direct data traffic to and from the server and storage.

A SAN is an excellent design for high availability, and high performance, using block-based design complementary to databases, online transaction processing, and enterprise resource processing. The SAN also enables different generations of FC products to interconnect allowing for phased upgrades or longer investment protection options.

can experience exponential storage performance gains in the form of much lower latency.

– Applying qualify of service performance parameters for virtual servers and new virtual lanes technology

Features

Increased 64Gb bandwidth creates a higher performance option for data delivery and interconnects

Block-based workloads like databases, ERP, and online transaction processing benefit from FC's predictable performance. These applications are designed to accomplish the business task leveraging the highest possible bandwidth, highest I/Os, and lowest latency.

Data center design using FC can offer levels of investment protection where higher performance requirements can be deployed with 64Gb but also allow for backward compatibility to 32 Gb and 16 Gb devices in the same environment. The customer can prioritize performance based on need.

Fibre Channel by design is the most secure protocol

The FC when designed helped eliminate IP addresses and delivered a new standard using unique worldwide names that could be contained within a customer's environment and only allowed FC devices to interact with each other. There are no "outside" communication addresses to access.

All 32 Gb and 64 Gb HPE FC HBAs have secure firmware download. An encryption key validates firmware files as authentic. This feature introduced with HPE Gen10 servers, continues today, and helps ensure the authenticity of device firmware.

HPE SN1700Q offers firmware integrity protection with hardware root of trust (RoT). The adapters' RoT enables both integrity and authenticity during adapter firmware updates by both validating embedded signatures with hardware embedded keys protecting updates that are applied over public networks.

Multi-generational, plug-n-play compatibility for two generations forward and two generations back

The investment in FC can be preserved allowing older generations of products to function with newer FC products and existing FC products to work with future generations of products. The flexibility offers a superb ROI and lower TCO than other data protocols.

Customers have a great deal of flexibility in every SAN design even as new requirements evolve. Older configurations with older HPE ProLiant servers can co-exist if their requirements are unchanged while newer, higher performance can be introduced without interfering with other configurations.

The design allows for greater flexibility in budgeting and IT planning. Funding may only be available only for a database or online transaction processing project while other existing configurations are not. FC can easily integrate old with new and extend lifecycles to 10 years or more.

A 100% uptime Storage Arrays require a complementary, highly available, storage network

A SAN storage array like the 100% available HPE Alletra Storage Array would require a redundant network path to reduce the probability of network failures impacting the storage array’s availability. A failed network negates a 100% available storage array.

Best practices suggest a dual networking path deployment with two sets of all networking components present to extend uptime beyond just the storage array. The deployment requires dual HBAs, dual switches, dual cables, and path failover software — either customized or from the operating system.

Technical specifications	HPE SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter
Product Number	R7N86A
Data rate	64 Gb FC
Number of ports	Single
Bus type	PCIe Gen4
Connector type	SFP+
Supported cables	OM3 and OM4 cables
Server type supported	HPE ProLiant DL300 and above Gen11 Servers HPE Alletra Gen11 Storage Servers
Compatible operating systems	Red Hat®, Linux®, SUSE Linux, VMware®, Microsoft Windows, visit www.hpe.com/storage/spock for the latest available information on operating system support.
Power	Single port: 12.4W max. with SFP dual port: 14.7W max. with SFPs
Compatible array platforms	HPE Alletra platforms HPE Primera platforms HPE Nimble Storage platforms HPE XP platforms HPE MSA platforms
Management features	HPE Compute Ops Management Data Services Cloud Console (DSCC)
Warranty	Three-year limited warranty, parts exchange, and next-business-day delivery. For more warranty information see https://www.hpe.com/storage/warranty
Platform supported	HPE ProLiant ML and DL Gen11 Servers HPE Alletra Storage Server 4110 HPE Alletra Storage Server 4120

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— Accelerate AI, from pilot to production

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

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