

What does FC interface mean

Article Overview

An FC (Fibre Channel) interface is a high-speed network port used to connect servers and storage devices in a storage area network (SAN), enabling reliable, lossless data transfer.

Overview of FC Interface

An FC interface is part of the Fibre Channel (FC) technology, a serial I/O network protocol designed for high-speed, in-order, and lossless transmission of block data between servers and storage systems . FC interfaces are commonly found on host bus adapters (HBAs) in servers or on storage devices, and they connect to FC switches to form a switched fabric, which is the backbone of a SAN . These interfaces support multiple protocols, including Fibre Channel Protocol (FCP) for SCSI commands and FICON for IBM mainframe ESCON commands .

Functionality

FC interfaces provide a dedicated point-to-point or virtualized connection between a server (N_Port) and a switch (F_Port). To optimize bandwidth, multiple virtual links can be created over a single physical connection using N_Port ID virtualization (NPIV) . This allows multiple sessions to share the same physical link while maintaining logical separation. FC interfaces can operate over optical fiber or copper cabling, supporting data rates from 1 Gbps up to 128 Gbps depending on the generation .

Types of FC Connectors

FC interfaces use specialized fiber-optic connectors to ensure precise alignment and low signal loss. The most common FC connector is the Ferrule Connector (FC), which features a 2.5 mm ferrule, threaded screw-on coupling, and high vibration resistance . FC connectors are often polished in UPC (Ultra Physical Contact) or APC (Angled Physical Contact) styles to optimize return loss and signal fidelity . These connectors are widely used in telecom, laboratory instruments, and core SAN equipment where repeatable, precise optical alignment is critical.

Applications

FC interfaces are primarily used in enterprise storage networks to connect servers to disk arrays, tape libraries, or flash storage systems. They enable high-performance data backup, replication, and low-latency access for mission-critical applications . In modern deployments, FC interfaces can also transport NVMe commands over Fibre Channel, supporting next-generation storage protocols . In summary, an FC interface is a specialized network port that provides high-speed, reliable connectivity between servers and storage devices in a SAN, using dedicated hardware, virtualized links, and precision fiber-optic connectors to ensure optimal

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performance and data integrity .

The FC architecture represents true channel and network integration and captures some of the benefits of both

The FC connector (Fiber Connector) is a type of fiber optic connector that is commonly used in high-speed networking

The FCP operates as a means of implementing the small computer systems interface (SCSI) protocol across the

One or two blocks of six proxy N_Port (NP_Port) interfaces to connect to FC switch fabric ports (F_Ports). Each FC

FC (Ferrule Connector) features a round screw structure. The screw installation of the FC connector is a little more

The committee charged with developing Fibre Channel technology was established within the American National Standards Institute

FC-2 -- The transfer of frames, sequences and exchanges comprising protocol information units. FC-3 -- Common services required

When a switch functions as an FCoE-FC gateway to connect FCoE devices on an Ethernet network to a Fibre

A Fibre Channel (FC) switch is a networking device that's compatible with the FC protocol and designed for use in a

Fibre Channel Interface Fibre channel is a type of SCSI hard drive technology used in high-end systems with multiple hard drives

o Fibre Channel's FC-0 level describes/specifies the physical interface characteristics, including transmission media,

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The gateway receives FC frames encapsulated in Ethernet from FCoE devices through an FCoE VLAN interface composed of one or

FC-0 - physical layer, defined by Fibre Channel Physical Interfaces standard, includes cabling, connectors

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etc.; Fibre Channel

When working with fiber optic technology, you'll frequently encounter terms like SC UPC, LC UPC, SC APC, LC APC, FC APC, and

A: As for the FC connectors, UPC means Ultra Physical Contact, while APC means Angled

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