Product Bulletin No. 3201

Cisco SFS 7012P and 7024P InfiniBand Server Switches

The Cisco® SFS 7000 Series InfiniBand server switches provide a new class of data center infrastructure that interconnects discreet server resources into a high-performance, 10-Gbps, low-latency fabric. The switches include many mainframe backplane technologies such as server processing and Remote Direct Memory Access (RDMA) for transmitting large amounts of data with little CPU overhead. The new Cisco SFS 7012P and 7024P InfiniBand server switches provide some of the industry's highest-density fabrics for interconnecting servers into effective, high-performance clusters and grids, creating the kind of collective performance enabled by the ever-lowering cost and increasing performance of compute power.

PRODUCT OVERVIEW

The Cisco SFS 7012P and 7024P InfiniBand server switches are designed for very large and dense high-performance computing environments. The Cisco SFS 7012P provides full, bisectional bandwidth across 144 10-Gbps Infiniband ports in a 7 rack-unit (7-RU) chassis. The Cisco SFS 7024P provides full bisectional bandwidth across 288 10-Gbps or up to 96 30-Gbps ports in a 14-rack-unit (14-RU) chassis. Both of these systems are optimized for dense cluster computing environments of 256 nodes and more. These systems can provide non-blocking, low-latency compute environments in a cost-effective manner. When used in conjunction with the Cisco SFS 3000 Series multifabric server switches, the entire Cisco SFS 7000 Series can consolidate I/O and link to the local-area and storage-area networks.

The Cisco SFS 7012P and 7024P offer the following customer benefits:

- Comprehensive performance and fabric diagnostics tools in a fully managed switch
- High-performance, industry standards-based InfiniBand interconnect technology
- Ideal interconnect for high-performance computing, science, and enterprise applications
- Integration with other Cisco SFS 7000 Series InfiniBand server switches and Cisco SFS 3000 Series multifabric server switches for a wide range of IP Communications, storage, and WAN and LAN connectivity options

Table 1 lists the primary features of the Cisco SFS 7012P and 7024P.

Table 1. Key Features

Feature	Description
High-Performance Server Fabric	144 and 288 ports of 20-Gbps, full-duplex, ultra low-latency server fabric interconnect
Non-Blocking Architecture	Full bisectional bandwidth for all ports, providing 2.8 Tbps (Cisco SFS 7012P) and 5.4 Tbps (Cisco SFS 7024P) of bandwidth
Remote Direct Memory Access	Move data directly from one server's memory to another, bypassing the CPU(s) and kernel
High Availability	Fully redundant power and cooling, with hot-swappable, field-replaceable units (FRU)
Rich System and Fabric Management	Command-line interface (CLI), Web, and Java-based systems and server fabric management options

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AVAILABILITY

The Cisco SFS 7012P and 7024P are generally available now. Table 2 lists the ordering information.

ORDERING INFORMATION

Table 2. Ordering Information

Part Number	Description
SFS-7012P	Cisco SFS 7012P InfiniBand Server Switch, 144-port chassis
SFS-7012P-X	Cisco SFS 7012P InfiniBand Server Switch, 144-port upgradeable chassis, ships with 108 ports, 67% blocking fabric
SFS-7024P	Cisco SFS 7024P InfiniBand Server Switch, 288-port chassis
SFS-7024P-X	Cisco SFS 7024P InfiniBand Server Switch, 288-port upgradeable chassis, ships with 156 ports, 67% blocking fabric
SFSX7012/24-4X12	Cisco SFS 7012P/7024P InfiniBand 4X 12-Port Line Card
SFS-7012/24-FM	Cisco SFS 7012P/7024P Switch Fabric Module—no management
SFS-7012/24-MM-K9	Cisco SFS 7012P/7024P Switch Fabric Module—with management
PWR-SFS7012/24	Cisco SFS 7012P/7024P Power Supply

FOR MORE INFORMATION

For more information about the Cisco SFS 7012P and 7024P, visit http://www.cisco.com/go/serverswitching or contact your local account representative at Cisco Systems®.

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