

Коммутатор Cisco MDS 9148S

DS-C9148S-K9



Описание

Поставляется с 48 активированными портами
2, 4, 8, и 16 Гбит/с.

Cisco MDS 9148S Multilayer Fabric Switch - доступный,
универсальный, легко управляемый коммутатор для
сетей

SAN

начального уровня и для сетей отделов предприятий.
Коммутатор, выполненный на специали
зированных ИС для сетей хранения типа «коммутатор
на кристалле», обеспечивает выделенную полосу
пропускания Fibre Channel 16 Гбит/с на каждом из 48
портов Cisco MDS 9148S. Для простоты заказа он
поставляется в полной 48-портовой конфигурации.

Для упрощения настройки готового решения предусмотрен мастер быстрой настройки Quick Configuration Wizard.
Предусмотрены такие функции корпоративного класса, как неразрушающая модернизация, виртуальные SAN
(VSAN), межсетевая маршрутизация Inter-VSAN Routing (IVR), обеспечение качества обслуживания QOS,
агрегирование каналов (Port Channels), виртуализация портов N-Port ID Virtualization (NPIV).

Для обеспечения высокой доступности установлены резервированные блоки питания и вентиляторы,
допускающие замену в "горячем" режиме.

Тип коммутатора

Тип коммутатора	Управляемый L2
Линейка Cisco	MDS 9100

Питание

Напряжение питания	100-240V AC
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Интерфейсы

Количество основных портов	48
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Доп. описание

Protocols:

- FC-PI-2, Revision 10 (ANSI INCITS 404-2006)
- FC-PI-3, Revision 4 (ANSI INCITS 460-2011)
- FC-PI-4, Revision 8 (ANSI INCITS 450-2008)
- FC-PI-5, Revision 6 (ANSI INCITS 479-2011)
- FC-FS, Revision 1.9 (ANSI INCITS 373-2003)
- FC-FS-2, Revision 1.01 (ANSI INCITS 424-2007)
- FC-FS-2, Amendment 1 (ANSI INCITS 424-2007/AM1-2007)
- FC-FS-3, Revision 1.11 (ANSI INCITS 470-2011)
- FC-LS, Revision 1.62 (ANSI INCITS 433-2007)
- FC-LS-2, Revision 2.21 (ANSI INCITS 477-2011)
- FC-SW-2, Revision 5.3 (ANSI INCITS 355-2001)
- FC-SW-3, Revision 6.6 (ANSI INCITS 384-2004)
- FC-SW-4, Revision 7.5 (ANSI INCITS 418-2006)
- FC-SW-5, Revision 8.5 (ANSI INCITS 461-2010)
- FC-GS-3, Revision 7.01 (ANSI INCITS 348-2001)
- FC-GS-4, Revision 7.91 (ANSI INCITS 387-2004)
- FC-GS-5, Revision 8.51 (ANSI INCITS 427-2007)
- FC-GS-6, Revision 9.4 (ANSI INCITS 463-2010)
- FCP-2, Revision 8 (ANSI INCITS 350-2003)
- FCP-3, Revision 4 (ANSI INCITS 416-2006)
- FCP-4, Revision 2b (ANSI INCITS 481-2011)
- FC-SB-2, Revision 2.1 (ANSI INCITS 349-2001)
- FC-SB-3, Revision 1.6 (ANSI INCITS 374-2003)
- FC-SB-3, Amendment 1 (ANSI INCITS 374-2003/AM1-2007)
- FC-SB-4, Revision 3.0 (ANSI INCITS 466-2011)



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- FC-SB-5, Revision 2.00 (ANSI INCITS 485-2014)
- FC-BB-6, Revision 2.00 (ANSI INCITS 509-2014)
- FC-BB-2, Revision 6.0 (ANSI INCITS 372-2003)
- FC-BB-3, Revision 6.8 (ANSI INCITS 414-2006)
- FC-BB-4, Revision 2.7 (ANSI INCITS 419-2008)
- FC-BB-5, Revision 2.0 (ANSI INCITS 462-2010)
- FC-VI, Revision 1.84 (ANSI INCITS 357-2002)
- FC-SP, Revision 1.8 (ANSI INCITS 426-2007)
- FC-SP-2, Revision 2.71 (ANSI INCITS 496-2012)
- FAIS, Revision 1.03 (ANSI INCITS 432-2007)
- FAIS-2, Revision 2.23 (ANSI INCITS 449-2008)
- FC-IFR, Revision 1.06 (ANSI INCITS 475-2011)
- FC-FLA, Revision 2.7 (INCITS TR-20-1998)
- FC-PLDA, Revision 2.1 (INCITS TR-19-1998)
- FC-Tape, Revision 1.17 (INCITS TR-24-1999)
- FC-MI, Revision 1.92 (INCITS TR-30-2002)
- FC-MI-2, Revision 2.6 (INCITS TR-39-2005)
- FC-MI-3, Revision 1.03 (INCITS TR-48-2012)
- FC-DA, Revision 3.1 (INCITS TR-36-2004)
- FC-DA-2, Revision 1.06 (INCITS TR-49-2012)
- FC-MSQS, Revision 3.2 (INCITS TR-46-2011)
- Fibre Channel classes of service: Class 2, Class 3, and Class F
- Fibre Channel standard port types: E, F and FL
- Fibre Channel enhanced port types: SD, ST, and TE
- In-band management using IP over Fibre Channel (RFC 2625)
- IPv6, IPv4, and Address Resolution Protocol (ARP) over Fibre Channel (RFC 4338)
- Extensive IETF-standards-based TCP/IP, SNMPv3, and



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remote monitoring (RMON) MIBs

Ports:

- Fixed configuration with 48 ports of 16-Gbps Fibre Channel
- Available in a 12-port configurable base or as a bundle with all 48 ports enabled
- Enable incremental ports on the 12-port base model, with the 12-port On-Demand Activation license

Performance

:

- Port speed: 2/4/8/16-Gbps autosensing with 16 Gbps of dedicated bandwidth per port
- Buffer credits: Up to 256 for a group of 4 ports, with a default of 64 buffer credits per port and a maximum of 253 buffer credits for a single port in the group
- PortChannel: Up to 16 physical links

Reliability and availability:

- ISSU
- Hot-swappable, dual redundant power supplies
- Hot-swappable fan tray with integrated temperature and power management
- Hot-swappable SFP+ optics
- Passive backplane
- Stateful process restart
- Any port configuration for PortChannels
- Fabric-based multipathing
- Per-VSAN fabric services
- Port tracking
- VRRP for management connections
- Online diagnostics

Network management:

- Access methods



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- Out-of-band 10/100/1000 Ethernet port
- RS-232 serial console port
- USB (Software support to be enabled in a future release)
- Access protocols
 - CLI using the console and Ethernet ports
 - SNMPv3 using the Ethernet port and in-band IP over Fibre Channel access
 - Storage Networking Industry Association (SNIA) Storage Management Initiative Specification (SMI-S)
- Distributed device alias service
- Network security
 - Per-VSAN RBAC using RADIUS and TACACS+-based authentication, authorization, and accounting (AAA) functions
 - SFTP
 - SSHv2 implementing AES
 - SNMPv3 implementing AES
- Management applications
 - Cisco MDS 9000 Family CLI
 - Cisco Prime DCNM

Programming interfaces:

- Scriptable CLI
- Cisco Prime DCNM web services API

Physical dimensions (HxWxD):

● Dimensions (H x W x D): 1.72 x 17.16 x 16.34 in. (4.37 x 43.59 x 41.50 cm), 1RU

● Rack-mountable in standard 19-inch Electronic Industries Alliance [EIA] rack

● Weight of fully configured chassis: 19.84 lb (9 kg)

Power:



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- Power supply: 300W AC (2 per switch)
- Power cord: Notched C15 socket connector connecting to C16 plug on power supply
- AC input: 100 to 240V AC (10% range)
- Frequency: 50 to 60 Hz (nominal)
- Maximum power consumption:
 - 100W (on base model config running 16G 100% traffic load at 25C)
 - 125W (on fully populated config running 16G 100% traffic load at 25C)
- Airflow: back to front (toward ports)
- 200 linear feet per minute (LFM) through system fan assembly
- Cisco recommends maintaining a minimum air space of 2.5 in. (6.4 cm) between walls and chassis air vents and a minimum horizontal separation of 6 in. (15.2 cm) between two chassis to prevent overheating

Temperature range:

- Temperature, ambient operating: 32 to 104°F (0 to 40°C)
- Temperature, ambient non-operating and storage: -40 to 158°F (-40 to 70°C)
- Relative humidity, ambient (noncondensing) operating: 10 to 90%
- Relative humidity, ambient (noncondensing) non-operating and storage: 10 to 95%
- Altitude, operating: -197 to 6500 ft (-60 to 2000m)

Approvals and compliance:

- Safety compliance
- CE Marking
- UL 60950
- CAN/CSA-C22.2 No. 60950
- EN 60950
- IEC 60950



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- TS 001
- AS/NZS 3260
- IEC60825
- EN60825
- 21 CFR 1040
- EMC compliance
- FCC Part 15 (CFR 47) Class A
- ICES-003 Class A
- EN 55022 Class A
- CISPR 22 Class A
- AS/NZS 3548 Class A
- VCCI Class A
- EN 55024
- EN 50082-1
- EN 61000-6-1
- EN 61000-3-2
- EN 61000-3-3

Fabric services:

- Name server
- Registered State Change Notification (RSCN)
- Login services
- Fabric Configuration Server (FCS)
- Public loop
- Broadcast
- In-order delivery

Advanced functions:

- Name server
- Registered State Change Notification (RSCN)



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- Login services
- Fabric Configuration Server (FCS)
- Public loop
- Broadcast
- In-order delivery

Advanced functions:

- VSAN
- IVR
- PortChannel with multipath load balancing
- Flow-based and zone-based QoS

System Requirements:

Cisco MDS 9000 NX-OS Software Release 6.2(9) or later
supporting Cisco MDS 9148S and Cisco Prime DCNM