



## Fact Sheet

# Cisco MDS 9000 Family Mainframe Package

## PACKAGE DESCRIPTION

The Cisco® MDS 9000 Family Mainframe package is a comprehensive collection of features required for using the Cisco MDS 9000 Family switches in mainframe storage networks.

With the Mainframe package, the Cisco MDS 9000 Family has the capability to simultaneously support the Fibre Channel Protocol (FCP), Small Computer System Interface over IP (iSCSI), Fibre Channel over IP (FCIP), and FICON protocols. Providing support for all these protocols within a single, high-availability platform simplifies purchasing and deployment, reduces management costs, and leads to optimal usage of storage resources across open systems and mainframes.

The Mainframe package provides the following features:

- **Virtual SANs (VSANs) for FICON and FCP intermixing**—VSANs provide hardware-based partitioning of a single physical SAN into multiple VSANs that can be used to provide true hardware-based separation of FICON and FCP traffic. Thus, VSANs allow intermixing of FICON and FCP traffic on the same switch without compromising scalability, availability, manageability, and network security.
- **FICON Control Unit Port (CUP)**—Implementation of a special control device called the FICON Control Device, also known as CUP, in the Cisco MDS 9000 Family allows in-band management of the switch from FICON hosts.
- **Fabric Binding**—The Fabric Binding feature helps ensure that Inter-Switch Links (ISLs) are only enabled between switches that have been authorized in the fabric binding configuration. This feature helps prevent unauthorized switches from joining the fabric or disrupting current fabric operations.
- **Switch Cascading**—The Switch Cascading feature supports a topology for FICON devices wherein ISLs can be used between a host and an I/O device. Thus, Switch Cascading facilitates creation of mainframe storage networks consisting of multiple switches.
- **IBM TotalStorage Virtual Tape Server**—The Cisco MDS 9000 Family is fully qualified with IBM TotalStorage Virtual Tape Server (VTS) and IBM TotalStorage Peer-to-Peer Virtual Tape Server. These FICON capabilities enhance data backup and recovery, and data availability. Deploying VTS on VSAN-enabled networks protects the local mainframe environment from instability or excessive control traffic introduced by the metropolitan-area network (MAN), WAN, and remote network.
- **IBM TotalStorage Extended Remote Copy (XRC)**—The Cisco MDS 9000 Family is fully qualified with the IBM TotalStorage XRC application. XRC simplifies business-continuation implementation strategies by allowing asynchronous replication of data over extended distances. Deploying XRC on VSAN-enabled networks protects the local mainframe environment from instability or excessive control traffic introduced by the MAN, WAN, and remote network.
- **FICON Tape Acceleration**—Local acknowledgement to tape operations are used to extend distance and reduce application latency due to tape operations.
- **Additional features**—Additional FICON-related features included in the Mainframe package are:
  - FICON Native Mode and Native Mode Channel-to-Channel operation
  - Persistent FICON FCID assignment
  - Port swapping for host-channel cable connections

## SOFTWARE RELEASE

To use this package, SAN-OS 1.3(4a) or later must be installed.

## LICENSE INFORMATION

This package is licensed per switch for all the ports in the switch. Some features can be used only if the package is licensed for all the switches in the fabric.

## ORDERING INFORMATION

The ordering numbers associated with this package are:

- **M9500FIC1K9**—Mainframe package for one Cisco MDS 9500 Series Multilayer Director M9500FIC1K9—Spare
- **M9200FIC1K9**—Mainframe package for one Cisco MDS 9200 Series Multilayer Fabric Switch M9200FIC1K9—Spare

## ADDITIONAL REFERENCES

For more information, see the SAN-OS data sheet at: [http://www.cisco.com/en/US/products/ps5989/products\\_data\\_sheet09186a00801bcfd8.html](http://www.cisco.com/en/US/products/ps5989/products_data_sheet09186a00801bcfd8.html)



### Corporate Headquarters

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

### European Headquarters

Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
www-europe.cisco.com  
Tel: 31 0 20 357 1000  
Fax: 31 0 20 357 1100

### Americas Headquarters

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-7660  
Fax: 408 527-0883

### Asia Pacific Headquarters

Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus  
Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel  
Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal  
Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan  
Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2006 Cisco Systems, Inc. All rights reserved. CCSP, CCVP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, Packet, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0601R)

