



Preface

This preface describes the audience, organization, and conventions of the *Cisco MDS 9000 Family Command Reference*. It also provides information on how to obtain related documentation.

Audience

This guide is for experienced network operators and administrators who are responsible for configuring and maintaining the Cisco MDS 9000 family of multilayer directors and fabric switches.

Organization

This guide is organized as follows:

Chapter	Title	Description
Chapter 1	CLI Overview	Describes the CLI (command-line interface).
Chapter 2	A Commands	Describes all commands beginning with the letter “a.”
Chapter 3	B Commands	Describes all commands beginning with the letter “b.”
Chapter 4	C Commands	Describes all commands beginning with the letter “c.”
Chapter 5	D Commands	Describes all commands beginning with the letter “d.”
Chapter 6	E Commands	Describes all commands beginning with the letter “e.”
Chapter 7	F Commands	Describes all commands beginning with the letter “f.”
Chapter 8	I Commands	Describes all commands beginning with the letter “i.”
Chapter 9	L Commands	Describes all commands beginning with the letter “l.”
Chapter 10	M Commands	Describes all commands beginning with the letter “m.”
Chapter 11	N Commands	Describes all commands beginning with the letter “n.”
Chapter 12	P Commands	Describes all commands beginning with the letter “p.”
Chapter 13	Q Commands	Describes all commands beginning with the letter “q.”
Chapter 14	R Commands	Describes all commands beginning with the letter “r.”
Chapter 15	S Commands	Describes all commands beginning with the letter “s” except for the show commands.

Chapter	Title	Description
Chapter 16	Show Commands	Describes all the show commands.
Chapter 17	T Commands	Describes all commands beginning with the letter “t.”
Chapter 18	U Commands	Describes all commands beginning with the letter “u.”
Chapter 19	V Commands	Describes all commands beginning with the letter “v.”
Chapter 20	W Commands	Describes all commands beginning with the letter “w.”
Chapter 21	Z Commands	Describes all commands beginning with the letter “z.”

Document Conventions

Command descriptions use these conventions:

Convention	Indication
boldface font	Commands and keywords are in boldface.
<i>italic font</i>	Arguments for which you supply values are in italics.
[]	Elements in square brackets are optional.
{ x y z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x y z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

Convention	Indication
<i>screen font</i>	Terminal sessions and information the switch displays are in <i>screen font</i> .
boldface screen font	Information you must enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
< >	Nonprinting characters, such as passwords are in angle brackets.
[]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:



Note

Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.

**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Related Documentation

Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family

Cisco MDS 9100 Series Quick Start Guide

Cisco MDS 9500 Series and Cisco MDS 9216 Quick Start Guide

Cisco MDS 9100 Series Hardware Installation Guide

Cisco MDS 9216 Switch Hardware Installation Guide

Cisco MDS 9500 Series Hardware Installation Guide

Cisco MDS 9000 Family Command Reference

Cisco MDS 9000 Family Configuration Guide

Cisco MDS 9000 Family Fabric Manager User Guide

Cisco MDS 9000 Family Troubleshooting Guide

Cisco MDS 9000 Family System Messages Guide

Cisco MDS 9000 Family MIB Reference Guide

For information on VERITAS Storage Foundation™ for Networks 1.0, Cisco, refer to the following Veritas documents available at <http://support.veritas.com/>

VERITAS Storage Foundation for Networks Overview

VERITAS Storage Foundation for Networks Installation and Configuration Guide

VERITAS Storage Foundation for Networks Obtaining and Installing Licenses

VERITAS Storage Foundation for Networks GUI Administrator's Guide

VERITAS Storage Foundation for Networks CLI Administrator's Guide

VERITAS Storage Foundation for Networks README

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order annual or quarterly subscriptions through the online Subscription Store:

<http://www.cisco.com/go/subscription>

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can send your comments in e-mail to mdsfeedback-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

**Note**

If you purchased this product through a Cisco reseller, contact the reseller directly for technical support. If you purchased this product directly from Cisco, contact Cisco Technical Support at this URL:
<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance.

Cisco TAC Website

The Cisco TAC website (<http://www.cisco.com/tac>) provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year.

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

The online TAC Case Open Tool (<http://www.cisco.com/tac/caseopen>) is the fastest way to open P3 and P4 cases. (Your network is minimally impaired or you require product information). After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using these recommendations, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:
http://www.cisco.com/en/US/products/products_catalog_links_launch.html
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- Packet magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/go/packet>
- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>