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# Cisco MDS 9000 Family Release Notes for Cisco MDS SAN-OS Release 1.1(1a)

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This document describes the caveats and limitations for switches in the Cisco MDS 9000 Family. Use this document in conjunction with documents listed in the “[Related Documentation](#)” section on page 11.



Note

Release notes are sometimes updated with new information on restrictions and caveats. Refer to the following website for the most recent version of the *Cisco MDS 9000 Family Release Notes*:  
[http://www.cisco.com/en/US/products/hw/ps4159/ps4358/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/hw/ps4159/ps4358/prod_release_notes_list.html)

Table 1 shows the on-line change history for this document.

**Table 1** On-Line History Change

Revision	Date	Description
A0	06/23/2005	Added DDTS <a href="#">CSCei25319</a>

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## Introduction

The Cisco MDS 9000 Family of multilayer directors and fabric switches offer intelligent fabric-switching services that realize maximum performance while ensuring high reliability levels. They combine robust and flexible hardware architecture with multiple layers of network and storage management intelligence. This powerful combination enables highly available, scalable storage networks that provide advanced security and unified management features.

The Cisco MDS 9000 Family provides intelligent networking features such as multiprotocol and multitransport integration, virtual SANs (VSANs), advanced security, sophisticated debug analysis tools, and unified SAN management.

## System Requirements

This section describes the system requirements for Cisco MDS SAN-OS Release 1.1(1a) and includes the following topics:

- [Hardware Supported, page 32](#)
- [Determining the Software Version, page 4](#)
- [Feature Set, page 5](#)

## Hardware Supported

[Table 2](#) lists the hardware components supported on the Cisco MDS 9000 Family and the minimum software version required. See the [“Determining the Software Version”](#) section on [page 4](#).

**Table 2** Cisco MDS 9000 Family Supported Hardware Modules and Minimum Software Requirements

Component	Part Number	Description	Applicable Products
Software	M9500-SF1EK9-1.1.1a	MDS 9500 Series supervisor/fabric-I, enterprise software	MDS 9509 only
	M9200-EK9-1.1.1a	MDS 9216 enterprise software	MDS 9216 only
Chassis	DS-C9509	MDS 9509 director, base configuration (9-slot modular chassis includes 7 slots for switching modules and 2 slots for supervisor modules—SFPs sold separately)	MDS 9509 only
	DS-C9506	MDS 9506 director (6-slot modular chassis includes 4 slots for switching modules and 2 slots for supervisor modules—SFPs sold separately).	MDS 9506 only
	DS-C9216-K9	MDS 9216 16-port semi-modular fabric switch (includes sixteen 1 / 2-Gbps Fibre Channel ports, power supply, and expansion slot—SFPs sold separately)	MDS 9216 only
Supervisor modules	DS-X9530-SF1-K9	MDS 9500 supervisor/fabric-I, module	MDS 9500 Series only

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**Table 2 Cisco MDS 9000 Family Supported Hardware Modules and Minimum Software Requirements**

Component	Part Number	Description	Applicable Products
Switching modules	DS-X9016	MDS 9000 16-port 2/1-Gbps Fibre Channel module (SFPs sold separately)	MDS 9500 Series and 9216
	DS-X9032	MDS 9000 32-port 2/1-Gbps Fibre Channel module (SFPs sold separately)	
Services modules	DS-X9308-SMIP	An eight-port (8) Gigabit Ethernet IP storage services module.	
LC-type fiber-optic SFP <sup>1</sup>	DS-SFP-FC-2G-SW	2/1-Gbps Fibre Channel — short wave SFP	MDS 9500 Series and 9216
	DS-SFP-FC-2G-LW	2/1-Gbps Fibre Channel — long wave SFP	
	DS-SFP-FCGE-SW	1-Gbps Ethernet and 2/1-Gbps Fibre Channel—short wave SFP	
	DS-SFP-FCGE-LW	1-Gbps Ethernet and 2/1-Gbps Fibre Channel — long wave SFP	
CWDM <sup>2</sup>	CWDM-SFP-xxxx-2G	Gigabit Ethernet and 2/1-Gbps Fibre Channel SFP LC interface xxxx nm, where xxxx = 1470, 1490, 1510, 1530, 1550, 1570, 1590, or 1610 nm	MDS 9500 Series and 9216
	CWDM-MUX-4	Add/drop multiplexer for four CWDM wavelengths	
	CWDM-MUX-8	Add/drop multiplexer for eight CWDM wavelengths	
	CWDM-CHASSIS-2	Two slot chassis for CWDM add/drop multiplexer(s)	
Power supplies	DS-CAC-845W	845W <sup>3</sup> AC power supply for MDS 9216	MDS 9216 only
	DS-CAC-2500W	2500W AC power supply	MDS 9509 only
	DS-CDC-2500W	2500W DC power supply	
	DS-CAC-4000W-US	4000W AC power supply for US (cable attached)	
	DS-CAC-4000W-INT	4000W AC power supply international (cable attached)	
	DS-CAC-1900W	1900W AC power supply for MDS 9506	MDS 9506 only
DS-CDC-1900W	1900W DC power supply for MDS 9506		
CompactFlash	MEM-MDS-FLD512M	MDS 9500 supervisor CompactFlash disk, 512MB	MDS 9500 Series only
Port analyzer adapter	DS-PAA	A standalone Fibre Channel-to-Ethernet adapter that allows for simple, transparent analysis of Fibre Channel traffic in a switched fabric.	MDS 9500 Series and 9216

1. SFP = small form factor pluggable

2. CWDM = coarse wave division multiplexing

3. W = Watt

## Determining the Software Version



### Note

We strongly recommend that you use the latest available software release for all Cisco MDS 9000 Family products.

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To determine the version of the Cisco SAN-OS software currently running on a Cisco MDS 9000 Family switch, log in to the switch and enter the **show version EXEC** command.

## Feature Set

This Cisco MDS SAN-OS Release 1.1(1a) software is packaged in feature sets (also called software images) depending on the platform. The Cisco MDS SAN-OS software feature sets available for the Cisco MDS 9000 Family include Ethernet, Fibre Channel (1 Gbps and 2 Gbps), SNMP, and IP packets.

## Compatibility Matrix

Table 3 lists the compatible matrix for Cisco MDS SAN-OS releases.

**Table 3 Cisco MDS SAN-OS Compatibility Matrix**

From	To	Supported
<b>Nondisruptive Upgrade</b>		
Release 1.0(3a)	Release 1.1(x)	Yes
Release 1.0(4)	Release 1.1(x)	Yes
Release 1.0(2a)	Release 1.1(x)	No
Release 1.1(x)	Release 1.0(x)	No
<b>The install all Command</b>		
Release 1.0(2a)	Release 1.0(3a)	No
Release 1.0(3a)	Release 1.0(2a)	Yes
Release 1.0(3a)	Release 1.0(4) and above	Yes
Release 1.0(4) and above	Release 1.0(3a)	Yes
<b>The IPS Module</b>		
Release 1.0(x)		No
Release 1.1(x)		Yes

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## New Features in Release 1.1(1a)

SAN-OS Release 1.1(1a) is a maintenance release for switches in the Cisco MDS 9000 Family. See the “Caveats” section on page 7 for details on closed and outstanding caveats and limitations.

## Limitations and Restrictions

The following limitations and restrictions apply to all switches in the Cisco MDS 9000 Family:

### Downgrading to 1.0(4) or to 1.0(3a) from Release 1.1.1a

When downgrading the following switches from Release 1.1(1a) to Release 1.0(3a) or to Release 1.0(4), avoid using the **reload** command:

- Cisco MDS 9216 switches
- Switches in the Cisco MDS 9500 Series with only one supervisor module.

Caveat CSCea76574 already addresses this limitation.



#### Tip

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Use the **install all** command to gracefully reload the switch and handle configuration conversions.

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To revert to Release 1.0(4) or 1.0(3a) from Release 1.1(1a), follow these steps:

---

**Step 1** Save the configuration using the **copy running-config startup-config** command to save the new configuration into nonvolatile storage.

**Step 2** Issue the **install all** command to reload the switch.

Refer to the *Cisco MDS 9000 Family Configuration Guide* for further information on the **install all** command.

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## Caveats Resolved in Release 1.1(1a)

The following caveats were resolved in Release 1.1(1a):

- [CSCeb36501](#)
- [CSCeb07573](#)
- [CSCea76574](#)
- [CSCeb25354](#)
- [CSCeb32230](#)
- [CSCeb10177](#)
- [CSCeb32430](#)

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## Caveats

This section lists the caveats and corrected caveats for this release. Use [Table 4](#) to determine the status of a particular caveat. In the table, “R” indicates a resolved caveat, and “O” indicates an open caveat.

**Table 4 Release Caveats and Caveats Corrected Reference**

DDTS Number	Software Release (Resolved or Open)	
	1.1(1)	1.1.(1a)
<b>Severity 2</b>		
<a href="#">CSCeb36501</a>		R
<a href="#">CSCdz31332</a>	O	O
<a href="#">CSCeb01264</a>	O	O
<a href="#">CSCeb18262</a>	O	O
<a href="#">CSCeb05095</a>	O	O
<a href="#">CSCeb16270</a>	O	O
<a href="#">CSCei25319</a>		
<b>Severity 3</b>		
<a href="#">CSCeb07573</a>	O	R
<a href="#">CSCea76574</a>		R
<a href="#">CSCeb25354</a>		R
<a href="#">CSCeb32230</a>		R
<a href="#">CSCeb10177</a>		R
<a href="#">CSCeb32430</a>		R
<a href="#">CSCeb01112</a>	O	O
<a href="#">CSCdz12179</a>	O	O
<a href="#">CSCdz43707</a>	O	O
<a href="#">CSCeb17094</a>	O	O
<a href="#">CSCea60652</a>	O	O
<a href="#">CSCeb18066</a>	O	O
<a href="#">CSCea80896</a>	O	O
<a href="#">CSCeb10797</a>	O	O
<a href="#">CSCdz43106</a>	O	O
<a href="#">CSCea45726</a>	O	O
<a href="#">CSCea82028</a>	O	O
<a href="#">CSCeb19609</a>	O	O
<a href="#">CSCeb19588</a>	O	O
<a href="#">CSCeb34865</a>		O
<a href="#">CSCeg61535</a>	O	O

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## Resolved Caveats

- CSCeb36501  
**Symptom:** An E port remains in offline mode after a switch is reloaded.  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb36501>
- CSCeb07573  
**Symptom:** The Fabric Manager topology map incorrectly shows links between switches resulting from duplicate domain IDs in two or more VSAN islands.  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb07573>
- CSCea76574  
**Symptom:** Reverting to Release 1.0(3a) or to Release 1.0(4) from Release 1.1(1a) using the reload command causes the Zone server to crash. This occurs on Cisco MDS 9216 and 9500 with a single supervisor (see the “[Downgrading to 1.0\(4\) or to 1.0\(3a\) from Release 1.1.1a](#)” section on page 6).  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCea76574>
- CSCeb25354  
**Symptom:** An alert (syslog error notification, SNMP trap, or Call Home message) is not generated if the standby supervisor module fails to bootup properly.  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb25354>
- CSCeb32230  
**Symptom:** The switch port did not perform link reset to recover from an *all credit lost* state on E and TE ports.  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb32230>
- CSCeb10177  
**Symptom:** Issuing a **show system switchover impact** command while any module is booting up causes a Cisco MDS 95095 switch to failover.  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb10177>
- CSCeb32430  
**Symptom:** During switch bootup, occasionally some modules may fail to come online and may report the following syslog message: XBAR-2-MOD\_CONNECTION\_FAILURE: Xbar connection with module x failed  
or  
XBAR-1-XBAR\_ASIC\_FATAL\_ERROR: Encountered Fatal ASIC Error for module x device 12 error 0xc02  
Please use the following URL for further information:  
<http://www.cisco.com/cgi-bin/bugtool/onebug.pl?bugid=CSCeb32430>

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## Open Caveats

- CSCdz31332
 

**Symptom:** If automatic image synchronization is enabled, and the standby supervisor module is synchronizing the image from the active supervisor, the switch will not stop you from issuing the **reload** command on the active or standby supervisor modules. This may result in a failure to synchronize the images.

**Workaround:** Be sure to allow sufficient time for the images to be synchronized before reloading a supervisor module. Use the **show system status redundancy** CLI command to check the standby supervisor status.
- CSCeb01264
 

**Symptom:** When you issue the **copy startup-config running-config** command on a switch which is already up and running, the trunking ports may flap, due to reapplication of allowed VSANs for trunking ports in the startup configuration.

**Workaround:** Ensure that the startup configuration does not contain any allowed VSAN configuration for trunking ports (trunking ports default to the allowed VSAN configuration).
- CSCeb18262
 

**Symptom:** After issuing the **fcdomain manager restart disruptive** command, an IBM tape 3590 port on the switch displays a `not connected` status.

**Workaround:** Bring up the port by issuing the **shut** command followed by the **noshut** command on that port. For example:

```
switch# config t
switch(config)# int fc1/1
switch(config)# shut
switch(config)# no shut
```
- CSCeb05095
 

**Symptom:** If a **copy running-config startup-config** command is issued when a switching module is temporarily down, the configuration for that module will be deleted from the system. This primarily occurs at boot time before all the modules are online.

**Workaround:** First issue the **show module** command to ensure that all modules are online before issuing a **copy running-config startup-config** command.
- CSCeb16270
 

**Symptom:** Avoid using the same TCP port number for iSCSI and FCIP protocols on an IP Storage Services module (IPS module) port.

**Workaround:** None.
- CSCeb01112
 

**Symptom:** Importing the ASCII configuration multiple times in the same switch can cause the FCIP interface to go into `error disabled` state.

**Workaround:** None.

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- CSCdz12179
 

**Symptom:** When the Fabric Manager or Device Manager communicates with the Cisco MDS switch through Virtual Private Network (VPN) or any Network Address Translation (NAT) scheme, a generic error message occurs while adding duplicate zone members from a VPN connection.

**Workaround:** None. If an error occurs while running through VPN/NAT, all errors will show up as generic errors without a detailed message describing the error.
- CSCdz43707
 

**Symptom:** The Fabric Manager or Device Manager reports an error for all operations if the switch is multihomed (both IPFC-based in-band management and the out-of-band management interface are up) and the Fabric or Device Manager was started using the IPFC address. Typically, you will see a `notInTime window` error in the Device Manager and all SNMP set operations fail.

**Workaround:** If the switch is multihomed, then start the Fabric or Device Manager on the switch using the out-of-band management interface IP address.
- CSCeb17094
 

**Symptom:** The following IPS module port configurations are not allowed:

  - If a member port has subinterfaces, then the member port cannot be added to any PortChannel.
  - If a member port is part of a PortChannel, then you cannot create subinterfaces in this member port.
  - If a Gigabit Ethernet port is part of a PortChannel, then you cannot create a different PortChannel on its adjacent port.

**Workaround:** Do not perform these PortChannel related configurations. If you do have one of these configurations, remove it.
- CSCea60652
 

**Symptom:** For iSCSI configurations, both **no pwwn hh:hh:hh:hh:hh:hh:hh:hh** and **no pwwn auto number** delete all the pWWNs for a given target.

**Workaround:** None.
- CSCeb18066
 

**Symptom:** If you change the iSCSI switchport identification from name to IP address, the TCP sessions are not terminated.

**Workaround:** None.
- CSCea80896
 

**Symptom:** The Fabric Manager and Device Manager do not support iSCSI TCP parameter configuration and display.

**Workaround:** None.
- CSCeb10797
 

**Symptom:** When you delete a pWWN for an auto-created iSCSI initiator using the Device Manager, (removed from `snmp fcAddress` table), it still shows up in the CLI (the initiator is still auto-created).

**Workaround:** None.
- CSCdz43106
 

**Symptom:** The counter values freeze if the Device Manager port monitor window has been up and running for a long time (overnight or a few days).

**Workaround:** Close the frozen Device Manager window and re-open Device Manager.

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- CSCea45726
 

**Symptom:** The Device Manager shows a port in the down state (red square) when the operational status of the port is up. This rare occurrence is due to the failure cause of the port not being empty (for example, the failure case reflects the `initializing` state).

**Workaround:** None.
- CSCea82028
 

**Symptom:** When a switch is upgraded while the Device Manager for that switch is open, a Java error of class cast exception occurs. When this error occurs, some Device Manager menu items are unusable while other menu items remain in this error state.

**Workaround:** Close the Device Manager and reopen it.
- CSCeb19609
 

**Symptom:** After plugging and unplugging a Gigabit Ethernet cable multiple times the PortChannel gets isolated and issues a `remote domain manager not responding error`.

**Workaround:** None.
- CSCeb19588
 

**Symptom:** Sometimes, the `zone merge import` command results in isolation.

**Workaround:** Reissue the command to resolve the isolation problem.
- CSCeb34865
 

**Symptom:** The following error message is issued when you try configuring switch drop latency:

```
changing this parameter is not allowed could not update the value
```

**Workaround:** None. Switch drop latency is not configurable in this release of the software.
- CSCeg61535
 

**Symptom:** The Telnet server may not be disabled even if you disable it through setup. A telnet session will still work in the switch.

**Workaround:** Issue the `no telnet server enable` command in configuration mode to disable telnet after you login to the switch.
- CSCei25319
 

**Symptom:** An error message in the log file occurs because the platform manager component passes the wrong parameter while responding to a SNMP query. In some cases, this results in the query not being responded to.

**Workaround:** Perform a refresh on Device Manager to clear the problem.

## Related Documentation

*Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family*

*Quick Start Guide for the Cisco MDS 9000 Family*

*Cisco MDS 9200 Series Hardware Installation Guide*

*Cisco MDS 9500 Series Hardware Installation Guide*

*Cisco MDS 9000 Family Command Reference*

*Cisco MDS 9000 Family Configuration Guide*

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*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*

## 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](http://www.cisco.com/public/countries_languages.shtml)

### Documentation CD-ROM

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Cisco provides Cisco.com, which includes the Cisco Technical Assistance Center (TAC) website, as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from the Cisco TAC website. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC website, including TAC tools and utilities.

## Cisco.com

Cisco.com offers a suite of interactive, networked services that let you access Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

To obtain customized information and service, you can self-register on Cisco.com at this URL:

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## Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

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- Priority level 1 (P1)—An existing 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.

## Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. To access the Cisco TAC website, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation and attach any necessary files.

## Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

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

Before calling, please check with your network operations center to determine the Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

# 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:

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- 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:

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