



Release Notes for Cisco iSCSI Driver Version 3.3.4 for Sun Solaris

November 14, 2003

These release notes support Cisco iSCSI Driver version 3.3.4 for Sun Solaris.

For a list of software caveats that apply to version 3.3.4, see the “[Caveats](#)” section. The caveats are updated for every maintenance version and are located on [Cisco.com](#) and the Documentation CD-ROM.

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Introduction

The iSCSI Driver for Sun Solaris provides an IP host with the ability to access storage through an IP network. The iSCSI driver uses the iSCSI protocol to transport SCSI requests and responses over an IP network between the IP host and a Cisco SN 5400 or MDS 9000 Series system.

Architecturally, the iSCSI driver combines with the IP host's TCP/IP stack, network drivers, and network interface cards (NICs) to provide the same functions as a SCSI or a Fibre Channel adapter driver with a host bus adapter (HBA).

The iSCSI driver provides a transport for SCSI requests and responses for storage devices; however, instead of providing a transport for directly attached devices, the driver transports the SCSI requests and responses between the IP host and a Cisco SN 5400 or MDS 9000 Series system via an IP network. The SN 5400 or MDS 9000 Series system, in turn, transports SCSI requests and responses between it and the storage devices attached to it.

Once the iSCSI driver is installed and started, the host proceeds with a discovery process for storage devices.

A more technical description of the driver's design and its features can be found in the readme file that accompanies the iSCSI driver in the downloaded driver archive file.



Note

The iSCSI protocol is an IETF-defined protocol for IP storage (ips). For more information about the iSCSI protocol, refer to the IETF standards for IP storage at <http://www.ietf.org>.

System Requirements

This section describes the system requirements for version 3.3.4 and includes the following information:

- [Operating System Requirements, page 2](#)
- [SN 5400 Series System Software Requirements, page 3](#)
- [MDS 9000 Series System Software Requirements, page 3](#)

Operating System Requirements

- The iSCSI Driver for Sun Solaris runs only on SPARC processor-based machines.
- The iSCSI Driver for Sun Solaris requires either Sun Solaris version 7, 8 or 9, with all Sun-recommended patches installed for the version being used.
- If you are using the Sun Gigabit Ethernet adapter, the SUNWged driver must have the most recent version of patch 106765 (for SUNWged version 2.0) or patch 108813 (for SUNWged version 3.0) installed.
- The iSCSI Driver for Sun Solaris supports both single and multiple processor machines.
- To ensure the best performance for the iSCSI driver, the extended windowing feature of TCP should be enabled on all IP hosts. In general, a larger window size enhances system throughput performance.
- To maximize performance, the receive and transmit flow control feature of the Gigabit Ethernet driver should be enabled on all IP hosts. If the IP hosts are connected to any Ethernet switches, the receive and transmit flow control attributes should be enabled on each of the connected switch ports.

SN 5400 Series System Software Requirements

The iSCSI Driver version 3.3.4 for Sun Solaris is interoperable with a Cisco SN 5400 Series system running software release 3.2 or later. This version of the driver is not interoperable with a Cisco SN 5400 Series system running software release 2.5 or earlier.

MDS 9000 Series System Software Requirements

The iSCSI Driver version 3.3.4 for Sun Solaris is interoperable with a Cisco MDS 9000 Series system running SAN-OS Release 1.1(1) or later.

Installation Notes

This section describes how to obtain iSCSI driver software and upgrade an existing iSCSI driver installation, and includes the following information:

- [Downloading the iSCSI Driver, page 3](#)
- [Installing, Upgrading and Uninstalling iSCSI Driver Software, page 3](#)

Downloading the iSCSI Driver

Registered Cisco.com users can download the most current Cisco iSCSI drivers, readme files and release notes from Cisco.com. In addition, information about driver compatibility and other relevant driver information is available on Cisco.com. You can access software and related information by following these instructions:

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- Step 1** At <http://www.cisco.com>, log in to Cisco.com. Click **Technical Support** and **Software Center**.
 - Step 2** At the Software Center web page, under Software Products & Downloads, click **Storage Networking Software**.
 - Step 3** At the Storage Networking Software web page, click the appropriate link for your software.
 - Step 4** At the Software Download web page, click the file that you want to download. Another software download web page will be displayed with detailed information about the download file and Cisco's Software License Agreement. Follow the instructions on that and any subsequent web pages to download the software.
 - Step 5** To install and configure storage router software, see the appropriate storage router software configuration guide and release notes. To install and configure an iSCSI driver, see the readme file that accompanies the iSCSI driver (in the downloaded driver archive file) and the appropriate release notes.
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Installing, Upgrading and Uninstalling iSCSI Driver Software

For complete procedures to install and configure, upgrade, or uninstall iSCSI driver software, refer to the readme file that accompanies the iSCSI driver (in the downloaded driver archive file).

New and Changed Information

The iSCSI driver for Sun Solaris no longer supports Sun Solaris version 2.6. It supports Sun Solaris version 7, 8 or 9 only.

Caveats

Caveats describe unexpected behavior or defects in the specified version of the driver. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious.

This document describes open and resolved severity 1 and 2 caveats and selected caveats of other severities:

- The “[Open Caveats](#)” section lists open caveats that apply to the current version and may apply to previous versions.
- The “[Resolved Caveats](#)” section list caveats resolved in this version, but open in previous versions.

Within the sections, the caveats are sorted alphanumerically by caveat number.



Note

If you have an account with Cisco.com, you can use Bug Navigator II to find caveats of any severity for any version. You can reach Bug Navigator II on Cisco.com at Service & Support: http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl.

Open Caveats

There are no open severity 1 or 2 caveats for the iSCSI driver version 3.3.4 for Sun Solaris.

Resolved Caveats

- CSCeb82884
When traffic is running and async events occur on the targets, the iSCSI connections may get dropped and do not recover, causing traffic to stop. The Sun Gigabit Ethernet card may then fail to ping anything on the Gigabit Ethernet network. In some cases, a system panic may occur.
The problem only occurs when the iSCSI driver is running on a Solaris host with Sun Gigabit Ethernet patches 108813-12, 108813-13.
Workaround: None. This problem is resolved in iSCSI driver version 3.3.4.

Troubleshooting

Cisco iSCSI driver troubleshooting information is available on the Cisco.com web site.

You can access troubleshooting information by following these instructions:

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- Step 1** At <http://www.cisco.com>, log in to Cisco.com. Click **Products & Services**, and select **Storage Networking Products** from the menu.
 - Step 2** At the Cisco Storage Networking Products web page, click **Cisco SN 5400 Series Storage Routers**, and then click **Technical Documentation**.
 - Step 3** At the Technical Documentation web page, click the **Tech Notes** link.
 - Step 4** At the Tech Notes page, click the appropriate link for your iSCSI driver.
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You can access iSCSI driver FAQs by following these instructions:

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- Step 1** At <http://www.cisco.com>, log in to Cisco.com. Click **Products & Services**, and select **Storage Networking Products** from the menu.
 - Step 2** At the Cisco Storage Networking Products web page, click **Cisco SN 5400 Series Storage Routers**, and then click **Product Literature**.
 - Step 3** At the Product Literature web page, click the **Q&A** link.
 - Step 4** At the Q&A page, click the appropriate link for your iSCSI driver.
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Related Documentation

The following sections describe the related documentation available for the iSCSI Driver version 3.3.4 for Sun Solaris. These documents consist of the iSCSI driver release notes and readme file, and the SN 5400 and MDS 9000 Series system hardware installation and software configuration guides.

Release-Specific Documents

This Release Notes document and the readme file are the only documents specific to iSCSI Driver version 3.3.4 for Sun Solaris. The release notes document is located on Cisco.com and the Documentation CD-ROM. The iSCSI driver readme file is available in electronic format, as part of the software download package. See the [“Downloading the iSCSI Driver”](#) section on page 3 for details.

Hardware Documents

Refer to the appropriate SN 5400 or MDS 9000 Series system hardware installation guide for hardware installation procedures. These documents are available as electronic documents on Cisco.com and the Documentation CD-ROM, and they may also be available as printed manuals.

Software Documents

Refer to the appropriate SN 5400 or MDS 9000 Series system software configuration guide for software configuration information. These documents are available as electronic documents on Cisco.com and the Documentation CD-ROM, and they may also be available as printed manuals.

Service and Support

For service and support for a product purchased from a reseller, contact the reseller, who offers a wide variety of Cisco service and support programs described in “Service and Support” of Cisco Information Packet shipped with your product.



Note

If you purchased your product from a reseller, you can access Cisco.com as a guest. Cisco.com is Cisco Systems' primary real-time support channel. Your reseller offers programs that include direct access to Cisco.com services.

For service and support for a product purchased directly from Cisco, use Cisco.com.

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>

Click Subscriptions & Promotional Materials in the left navigation bar.

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/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 e-mail comments about technical documentation to bug-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

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, 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. If you do not hold a valid Cisco service contract, please contact your reseller.

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

Using the online TAC Case Open Tool (<http://www.cisco.com/tac/caseopen>) is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which 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 the recommended resources, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (P1 and P2 cases are those in which 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 general networking, training and certification titles. Both new and experienced user will benefit from these publications. 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/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>

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.



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