



# Release Notes for Cisco SN iSCSI Driver for Microsoft Windows NT Version 1.8.7

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June 11, 2001



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You can find the most current documentation on Cisco.com. This set of electronic documents may contain updates and modifications made after the hard-copy documents were printed.

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These release notes support Cisco Storage Networking iSCSI Driver for Microsoft Windows NT version 1.8.7.

For a list of software caveats that apply to version 1.8.7, 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 Cisco Storage Networking iSCSI Driver for Microsoft Windows NT provides a server with the ability to access storage through an IP network. The iSCSI driver uses iSCSI protocol to transport SCSI requests and responses over an IP network between the server and a Cisco SN 5420 Storage Router.

Architecturally, the iSCSI driver combines with the server TCP/IP stack, network drivers, and NICs to provide the same functions as a SCSI 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 server and a Cisco SN 5420 Storage Router via an IP network. The SN 5420 Storage Router, in turn, transports SCSI requests and responses between it and the storage devices attached to it.

Once the iSCSI driver is installed, the server will proceed with a discovery process for iSCSI storage devices as follows:

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- Step 1 The iSCSI driver requests available iSCSI targets from the storage router.
  - Step 2 The storage router sends available iSCSI target names to the server.
  - Step 3 The server logs into the iSCSI targets.
  - Step 4 The storage router accepts the server login and sends target identifiers.
  - Step 5 The server queries targets for device information.
  - Step 6 Targets respond with device information.
  - Step 7 The server creates table of internal devices.
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The Cisco Storage Networking iSCSI Driver for Microsoft Windows NT provides IP access to a maximum of eight remote SCSI targets, with each target capable of supporting eight LUNs. Remote SCSI targets can be accessed through one or more storage routers up to a maximum of eight storage routers.

**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 1.8.7 and includes the following information:

- [Operating System Requirements](#)
- [Obtaining the iSCSI Driver](#)
- [Determining the iSCSI Driver Version](#)
- [Upgrading to a New Version](#)
- [Uninstalling iSCSI Driver Software](#)

## Operating System Requirements

The Cisco Storage Networking iSCSI Driver for Microsoft Windows NT requires Microsoft Windows NT Server (or Workstation) version 4.0 with service pack 6a or later.



Note

This driver will not work with computers running Microsoft Windows 2000.

## Obtaining the iSCSI Driver

The Cisco Storage Networking iSCSI drivers, accompanying readme files, release notes and example configuration files are available for download to the general public and registered users of Cisco.com. Access the appropriate URL, as follows:

Access Type	URL
General public	<a href="http://www.cisco.com/cgi-bin/tablebuild.pl/sn5420">http://www.cisco.com/cgi-bin/tablebuild.pl/sn5420</a>
Registered Cisco.com users	<a href="http://www.cisco.com/cgi-bin/tablebuild.pl/sn5420">http://www.cisco.com/cgi-bin/tablebuild.pl/sn5420</a> (You will be prompted to enter your user name and password.)

In addition, you can check these websites for information about the availability of new drivers, updated drivers, driver compatibility, and other relevant information.



Note

URLs are subject to change without notice. If the URL changes, go to <http://www.cisco.com> and click **Software Center** at **Service & Support**. At Software Center, click **Storage Networking Software**. Then, at Storage Networking Software, click **Cisco SN 5420 Storage Router Software**. If you are a registered Cisco.com user, be sure to log in first.

## Determining the iSCSI Driver Version

To determine the version of the iSCSI driver software installed on your server, check the file versions of these files:

- iscsi.sys
- iscsicfg.cpl

Follow these steps:

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- Step 1** Use Windows Explorer to navigate to the c:\winnt\system32\drivers directory.
- Step 2** Right-click the file and then click **Properties** from the context-sensitive menu. The **Properties** dialog box displays.
- Step 3** Click the **Version** tab, and check the **File version**. The file version information should be the same in both files.
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## Upgrading to a New Version

To upgrade to a new version of iSCSI driver software, follow these instructions:

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- Step 1 Open Control Panel and double-click the SCSI Adapters icon. The **SCSI Adapters** dialog box opens.
  - Step 2 Close Control Panel. Control Panel must be closed to ensure that all the driver files will be appropriately updated. If Control Panel is open during the remaining steps in the upgrade process, certain driver files cannot be correctly updated.
  - Step 3 At the **SCSI Adapters** dialog box, click the **Drivers** tab.
  - Step 4 Click **Add**.
  - Step 5 At the **Install Driver** dialog box, click **Have Disk**. The **Install From Disk** dialog box opens.
  - Step 6 At the **Install From Disk** dialog box, select the source location for the driver files from the **Copy manufacturer's file from** list and click **OK**. Clicking **OK** opens another **Install Driver** dialog box.
  - Step 7 At the **Install Driver** dialog box opened in the previous step, select **Iscsi Driver** and click **OK**.
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### Note

If you are installing a new version of the driver over an existing one, and you are not certain that Control Panel was closed in Step 2, you must manually copy the newer version of the `iscsicfg.cpl` file from the installation source to the `c:\winnt\system32` directory. If you manually copy the newer version of the `iscsicfg.cpl` file over the older one, make sure that Control Panel is closed.

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See the readme file for additional information about upgrading to a new version of iSCSI driver software.

## Uninstalling iSCSI Driver Software

Follow these steps to uninstall iSCSI driver software:

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- Step 1 Open Control Panel and double-click the SCSI Adapters icon. The **SCSI Adapters** dialog box opens.
  - Step 2 Click the **Drivers** tab and select the iSCSI driver (Iscsi Driver).
  - Step 3 Click **Remove** and **OK**.
  - Step 4 Restart the server. If you want to reinstall the driver after removing it, you must restart the server first.
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# Caveats

This document lists caveats for Cisco Storage Networking iSCSI Driver for Microsoft Windows NT. Caveats describe unexpected behavior or defects in iSCSI software versions. 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](http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl).

## Open Caveats

This section describes possibly unexpected behavior by Cisco Storage Networking iSCSI Driver for Microsoft Windows NT version 1.8.7. All the caveats listed in this section are open in the iSCSI driver version 1.8.7, and describe severity 1 and 2 caveats, and selected caveats of other severity levels. For a more complete list of caveats against this release, access Cisco.com as described in the section “[Cisco.com](#)” at the end of this document.

- CSCdt82378

This problem occurs when a Microsoft Windows NT server is attached to LSI RAID via a Cisco SN 5420 Storage Router, and the server has both the iSCSI and RDAC drivers installed. RDAC is LSI's dual path failover driver. When the server is running both drivers, the NT Disk Administrator will see redundant paths to each LSI RAID disk when the Windows NT server is rebooted.

Workaround: Use the LSI “hot\_add” utility to save boot information, instead of using the iSCSI driver’s “save boot info” button. Perform the following steps:

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- Step 1** Clear boot information using the iSCSI Control Panel applet.
  - Step 2** Reboot the Windows NT host.
  - Step 3** Run the LSI “hot\_add” utility.
  - Step 4** Run the LSI “SM7devices” utility and verify that the correct number of disks appear, as well as 2 UTM (access) LUNs. If no disks appear, run the “hot\_add” utility again. If redundant disks appear, return to Step 1 and repeat this procedure.
  - Step 5** Run Windows NT Disk Administrator and assign drive letters to the LSI disks.
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- CSCdu38587

During prolonged periods of high-bandwidth iSCSI transactions, the iSCSI driver cannot free all the memory allocated for the I/O thread. This causes a blue-screen stop showing `MUST_SUCCEED_POOL_EMPTY`. The error is characterized by a steady increase in non-paged kernel memory usage during prolonged high-bandwidth iSCSI transactions prior to the stop.

Workaround: If non-paged kernel memory usage is observed to be steadily increasing, the blue-screen stop can be avoided by stopping the applications putting a heavy load on the iSCSI driver. This will allow the driver to catch up and free all of its outstanding memory allocations. If the blue-screen condition occurs, the iSCSI server must be rebooted to clear the condition.

## Resolved Caveats

All the caveats listed in this section are resolved in iSCSI driver version 1.8.7. This section describes severity 1 and 2 caveats and selected caveats of other severity levels.

- CSCdu28169

The Windows NT system will stop working when using the Cisco Storage Networking iSCSI Driver for Microsoft Windows NT version 1.8.6 or earlier as the initiator to a storage target that sends Rtt iSCSI messages. The driver specifies `UseRtt:no` at login; however, some devices do not completely honor the `UseRtt:no` login parameter. There is no workaround if the target cannot be made to completely honor the `UseRtt:no` login parameter.

- CSCdu28200

There is a potential for data corruption or incorrect detection of devices when underflow or underrun conditions are reported back to the Cisco Storage Networking iSCSI Driver for Microsoft Windows NT version 1.8.6 or earlier. There is no workaround.

## Related Documentation

The following sections describe the related documentation available for the Cisco Storage Networking iSCSI Driver for Windows NT version 1.8.7 and the Cisco SN 5420 Storage Router. These documents consist of the iSCSI driver release notes, readme and example configuration files, and the storage router hardware installation and software configuration guides.

The storage router hardware installation and software configuration documentation sets are available as printed manuals or electronic documents. The iSCSI driver readme file and example configuration file are available in electronic format, as part of the software download package. See the [“Obtaining the iSCSI Driver” section on page 3](#) for details.

## Release-Specific Documents

This Release Notes document is the only document specific to Cisco Storage Networking iSCSI Driver for Microsoft Windows NT version 1.8.7. It is located on Cisco.com and the Documentation CD-ROM.

Each release of storage router software includes an associated Release Notes document, which is also available as an electronic document on Cisco.com and the Documentation CD-ROM.

## Hardware Documents

Refer to the *Cisco SN 5420 Storage Router Hardware Installation Guide* for storage router hardware installation procedures. This document is available as a printed manual. It is also available as an electronic document on the Documentation CD-ROM and Cisco.com.

## Software Documents

Refer to the *Cisco SN 5420 Storage Router Software Configuration Guide* for storage router software configuration information and procedures. This document is available as a printed manual. It is also available as an electronic document on the Documentation CD-ROM and Cisco.com.

For documentation on the storage router web-based GUI, refer to the SN 5420 Storage Router web-based GUI online Help system.

## 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.



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**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.

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

# Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

## World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

## Documentation CD-ROM

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

## Ordering Documentation

Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco Product documentation from the Networking Products MarketPlace:  
[http://www.cisco.com/cgi-bin/order/order\\_root.pl](http://www.cisco.com/cgi-bin/order/order_root.pl)
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:  
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

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170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

# Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the TAC website.

## Cisco.com

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Customers and partners can self-register on Cisco.com to obtain additional personalized information and services. Registered users can order products, check on the status of an order, access technical support, and view benefits specific to their relationships with Cisco.

To access Cisco.com, go to the following website:

<http://www.cisco.com>

## Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

## Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

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

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

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

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

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

## Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

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

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.

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

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