



# Release Notes for Cisco SN 5420 Storage Router Release 1.1.5

---

August 6, 2001



**Note**

---

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.

---

These release notes support Cisco SN 5420 Storage Router for Release 1.1.5.

For a list of software caveats that apply to Release 1.1.5, see the “[Caveats](#)” section. The caveats are updated for every maintenance release and are located on Cisco.com and the Documentation CD-ROM.

## Contents

These Release Notes describe the following topics:

- [Introduction, page 2](#)
- [System Requirements, page 2](#)
- [New and Changed Information, page 6](#)
- [Limitations and Restrictions on SN 5420 Storage Router Clusters, page 6](#)
- [Caveats, page 7](#)
- [Documentation Updates, page 9](#)
- [Related Documentation, page 11](#)
- [Service and Support, page 11](#)
- [Obtaining Documentation, page 12](#)
- [Obtaining Technical Assistance, page 13](#)



---

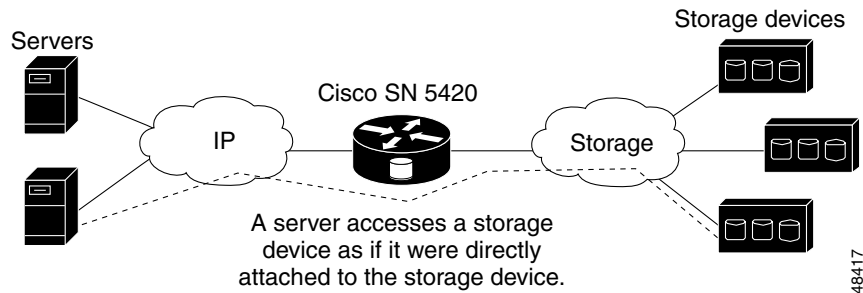
**Corporate Headquarters:**  
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

Copyright © 2001. Cisco Systems, Inc. All rights reserved.

# Introduction

The SN 5420 Storage Router provides servers with IP access to storage through SCSI routing using iSCSI protocol. The iSCSI protocol is a protocol for encapsulating SCSI requests and responses over IP. With SCSI routing, servers use an IP network to access storage as if the servers were directly attached to the storage devices. (See [Figure 1](#).)

**Figure 1** SN 5420 Storage Router Overview



**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 Release 1.1.5 and includes the following information:

- [Obtaining iSCSI Drivers, page 3](#)
- [External Devices, page 3](#)
- [External Hosts, page 3](#)
- [Graphical User Interface, page 4](#)
- [Determining the SN 5420 Software Version, page 4](#)
- [Upgrading to a New Software Release, page 5](#)
- [Uninstalling an Upgrade, page 5](#)

## Obtaining iSCSI Drivers

To access the SN 5420 Storage Router, servers must have a Cisco Storage Networking iSCSI driver installed and configured. 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.

## External Devices

The SN 5420 Storage Router Gigabit Ethernet interface uses a flow control mechanism for stopping and starting traffic that prevents the loss of data. Flow control should also be turned on at the Gigabit Ethernet port that the SN 5420 Storage Router is plugged in to.

## External Hosts

- To ensure the best performance for the iSCSI drivers, the extended windowing feature of TCP and the receive and transmit flow control feature of the Gigabit Ethernet driver should be enabled on all servers connecting to the SN 5420. You can use the CLI **show scsirouter connection tcp** command to display the current and maximum TCP window size for each connected host.
- If you are using a 3Com Gigabit Ethernet Server network interface card, the minimum supported revision level is “B” (3C985B-SX). Using a card with a lower revision level will decrease performance.

## Graphical User Interface

- To ensure the display of the most current SN 5420 information, disable your browser cache. If caching is enabled, use your browser Refresh or Reload function to force the current page to be reloaded from the storage router.
- To access the online Help system for the SN 5420 web-based GUI, use a browser that is compatible with HTML 3.2, such as Internet Explorer 3.0 or later, or Netscape Navigator 3.0 or later. Any browser that does not provide full support for Dynamic HTML (such as Netscape Navigator) must be enabled to support Java, JavaScript and style sheets.

These browser restrictions apply only to the online Help system. There are no browser limitations or requirements associated with the SN 5420 web-based GUI.

## Determining the SN 5420 Software Version

To determine the version of SN 5420 software running on your Cisco SN 5420 Storage Router, establish a Telnet or console port session with the storage router, and change to Administrator mode. Then enter the CLI **show software** command. (See [Example 1](#).)

### Example 1 Determining the Software Version

```
[SN5420-A01]# show software
Version          Boot  Hash  Sign  Crash      Size  Date
1.1.4            OK   OK    N/A    0         6.95 MB Jun 18 13:33 CST 2001
1.1.5            OK   OK    N/A    0         7.01 MB Aug  2 12:07 CST 2001
  Disk Space Free: 10.5 Mbytes
    Download URL: http://10.1.11.32/~software/sn5420
    Download User: SWAdmin01
    Running Version: 1.1.5
  Will boot Version: 1.1.5
```

The last entries in the table of information displayed in response to the command show the running version (*Running Version*) and the version that the storage router will run at the next reboot (*Will boot Version*).

You can also check the version of the SN 5420 software by using the SN 5420 web-based GUI. At the web-based GUI **Monitor** page, click **Processor and SW** under the **System** menu. Clicking **Processor and SW** causes the **Processor and Software Information** table to be displayed. The **Software Version** field contains the current software version information.

## Upgrading to a New Software Release

For information about upgrading to new SN 5420 software using the CLI, see the section “Installing Updated Software” in Chapter 6, “Maintaining and Managing the SN 5420” of the *Cisco SN 5420 Storage Router Software Configuration Guide*.

To upgrade to new SN 5420 software using the SN 5420 web-based GUI, follow these instructions:

- 
- Step 1** Log in as Admin.
  - Step 2** Click **Download Software** in the **Maintenance** menu and follow the instructions.
  - Step 3** After you have downloaded the new version of software, click **System Reset** in the **Maintenance** menu.
  - Step 4** At **Select next boot version**, select the new software version.
  - Step 5** Click **Reset System**.
  - Step 6** After the storage router has rebooted, verify that it is running the new software. (See the [“Determining the SN 5420 Software Version”](#) section on page 4)
- 

For information about upgrading to new iSCSI driver software, see the readme file for the appropriate iSCSI driver.

## Uninstalling an Upgrade

To return to a previous SN 5420 software release and remove the updated SN 5420 software using the CLI, follow these instructions:

	Command	Description
<b>Step 1</b>	<b>enable</b>	Enter Administrator mode.
<b>Step 2</b>	<b>show software</b>	Verify that the previous version of SN 5420 software is still available. If it is not, see the section “Installing Updated Software” in Chapter 6, “Maintaining and Managing the SN 5420” of the <i>Cisco SN 5420 Storage Router Software Configuration Guide</i> .
<b>Step 3</b>	<b>set software version 1.1.4</b>	Select the software to be booted when the system next starts; for example, boot version 1.1.4 when the system restarts. This may take several minutes.
<b>Step 4</b>	<b>reboot</b>	Reboot the SN 5420 Storage Router.
<b>Step 5</b>	<b>enable</b>	Enter Administrator mode after the storage router reboots.
<b>Step 6</b>	<b>show software</b>	Verify that the storage router is now running the correct software.
<b>Step 7</b>	<b>delete software version 1.1.5</b>	(Optional) Remove the updated SN 5420 software from the storage router.

To return to a previous SN 5420 software release and remove the updated SN 5420 software using the SN 5420 web-based GUI, follow these instructions:

- 
- Step 1** Log in as Admin.
  - Step 2** Click **System Reset** in the **Maintenance** menu.
  - Step 3** At **Select next boot version**, select the software version to be run on the SN 5420.
  - Step 4** Click **Reset System**.
  - Step 5** After the storage router has rebooted, verify that it is running the selected software. (See the [“Determining the SN 5420 Software Version”](#) section on page 4.)
  - Step 6** (Optional) Click the **Maintenance** menu, then click the **Delete?** link to the right of the new software version to remove it from the storage router.
- 

For information about uninstalling updated iSCSI driver software, see the readme file for the appropriate iSCSI driver.

## New and Changed Information

There are no new features in Release 1.1.5.

## Limitations and Restrictions on SN 5420 Storage Router Clusters

For this release, there are no new limitations or restrictions on SN 5420 Storage Router clusters. The limitations and restrictions associated with SN 5420 release 1.1.3 still apply, as follows:

- A storage router cluster can contain up to two SN 5420 Storage Routers.
- A cluster can contain up to four instances of SCSI routing services.
- Each instance of SCSI routing services in a cluster can support up to 32 servers. (Each server connects to an instance of SCSI routing services with only one TCP/IP session. Each instance of SCSI routing services can support up to 32 TCP/IP sessions.)

# Caveats

Caveats describe unexpected behavior or defects in SN 5420 software releases. 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 release and may apply to previous releases.
- The “[Resolved Caveats](#)” section list caveats resolved in a particular release, but open in previous releases.

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 release. 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

There are no severity 1 or 2 caveats open against SN 5420 Release 1.1.5. 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.

## Resolved Caveats

All the caveats listed in this section are resolved in SN 5420 Release 1.1.5. This section describes severity 1 and 2 caveats and selected caveats of other severity levels.

- CSCdu37527

When the storage router has a SCSI routing services instance configured with targets and LUNs, the LUNs cannot be deleted if the iSCSI driver has logged in.

Workaround: There is no workaround. The iSCSI driver must log out before a LUN can be deleted.



## Note

CLI command functionality was changed and a new CLI command keyword was added as part of the resolution of this caveat. See the **delete scsirouter target force** command described in the “[Documentation Updates](#)” section on page 9.

- CSCdu47113

Under certain circumstances, failed I/O to a target may interrupt I/O to other targets. The problem may occur when hosts running the Cisco SN iSCSI driver for Windows NT are accessing multiple targets and one or more targets are made unavailable.

Workaround: Restart the iSCSI driver.

- CSCdu51605

After a Fibre Channel switch reboots, targets may not be accessible if the ports register to the fabric in a different order. This only occurs if loop ID mapping is used for fibre-attached devices.

Workaround: Reboot the SN 5420 Storage Router.



---

**Note** The output of the **show devices** CLI command has been enhanced and checks have been added to the **add scsirouter target** command to warn the user when the device interface topology is not consistent with the selected mapping method. See the **show devices** and **set scsirouter target** commands described in the [“Documentation Updates” section on page 9](#).

---

- CSCdu60125

The firmware may return overruns on reads when a cable is unplugged and then plugged back in while running reads, causing the Fibre Channel port to hang. These errors need to be retried by the storage router.

Workaround: There is no workaround.

- CSCdu68070

Low-level POST NVRAM tests cause the boot code to hang early in the boot process. The following text displays on the RS-232 console:

```
<<< Cisco SN5420 Storage Router >>>

WARNING! One or more level one POST tests are disabled!

s012
```

Workaround: There is no workaround.

# Documentation Updates

This section describes changes to the Cisco SN 5420 Storage Router documentation set.

- References to iSCSI driver CD

On pages vii, 1-1 and 1-10 of the *Cisco SN 5420 Storage Router Software Configuration Guide*, and page 1-1 of the *Cisco SN 5420 Storage Router Hardware Installation Guide*, there are references to a Cisco Storage Networking iSCSI Drivers CD. The iSCSI drivers, readme and example configuration files referenced there are currently available only through the Cisco.com website. The Cisco SN 5420 Storage Router does not currently ship with a Cisco Storage Networking iSCSI Drivers CD.

See the [“Obtaining iSCSI Drivers” section on page 3](#) for details on obtaining iSCSI drivers.

- Fibre Channel Port Cabling Specifications

On page B-2 of the *Cisco SN 5420 Storage Router Hardware Installation Guide*, Table, B-2, “Fibre Channel Port Cabling Specifications,” the values in the Maximum Cable Distance column should be changed as follows:

- Row 1: Change 300 ft (91 m) to 984 ft (300 m).
- Row 2: Change 500 ft (152 m) to 1640 ft (500 m).

- CLI command **add scsirouter target**

On pages 7-11 and 7-15 of the *Cisco SN 5420 Storage Router Software Configuration Guide*, the following sentences should be added to the end of the first paragraph in the “Usage Guidelines” section. On page 7-21, the sentences should be inserted into the “Usage Guidelines” section between the forth and fifth paragraphs.

Mapping to a loop ID assumes a compatible device interface topology, such as *loop*. If an incompatible device interface topology, such as point-to-point (PTP), is detected, a warning message is displayed (although the requested mapping action is still processed by the storage router).

- CLI command **delete scsirouter target**

The functionality of the **delete scsirouter target** command has been enhanced. Any attempt to delete a target or LUN that is currently logged into by an iSCSI driver will result in an informational message indicating that the object is in use and will not be deleted.

On page 7-32 of the *Cisco SN 5420 Storage Router Software Configuration Guide*, an optional **force** keyword should be added to the **delete scsirouter target** command. The **force** keyword allows the deletion of a target or LUN that is in use by an iSCSI driver, overriding the default protections.

Use the **force** keyword with caution. Deleting a target or LUN that is being actively used by an iSCSI driver can cause unexpected results.

The new command syntax is:

```
delete scsirouter name target {name | all} [lun nn] [force]
```

- CLI command **download software readme**

The **download software readme** command has been removed. The Release Notes document for each software release is only available as an electronic document on Cisco.com and the Documentation CD-ROM.

All references to the **download software readme** command should be removed from the *Cisco SN 5420 Storage Router Software Configuration Guide*.

- CLI command **set software version**

The functionality and output of the **set software version** command have been enhanced to include verification of software, confirmation of required disk space, and status at each step in the process.

- CLI command **show devices**

On page 7-131 of the *Cisco SN 5420 Storage Router Software Configuration Guide*, the “Usage Guidelines” section should be updated to read as follows:

Use this command to display the WWNN, WWPn, LUN number, vendor, product name and serial number for all devices found on the SN 5420 Fibre Channel network. For loop-attached devices, loop ID information is also displayed. For fabric-attached devices, the 24-bit port ID is displayed. The output indicates the type of topology on which the devices are detected as *private/public loop* or *fabric attached*.

The following “Examples” section should be added.

The following is an example of output for the **show devices** command when the device interface topology is set to PTP:

```
[SN5420A]# show devices
Private/Public Loop Devices detected:
lunwwn:wwpn:loopid:lun:vendor:product:serial
NONE
Fabric Attached Devices detected:
lunwwn:          wwpn:          portId: lun: vendor:   product:   serial
3000102037f9bf2a 3100003078b9bf2a 0x411ea 0 SEAGATE   ST31951FD 4DZA4MZB012
4000402037e9c036 4100004056b9c036 0x4113c 0 SEAGATE   ST31951FD 3CXO4M4T015
5003002037d9c01e 5100002088b9c01e 0x511f0 0 SEAGATE   ST31951FD 3CPQ4MN0715
6000082037c9bf7c 6100001137b9bf7c 0x511f1 0 SEAGATE   ST31951FD 3CZZ46H7005
```

The following is an example of output for the **show devices** command when the device interface topology is set to loop:

```
[SN5420A]# show devices
Private/Public Loop Devices detected:
lunwwn:          wwpn:          loopid: lun: vendor:   product:   serial
3000102037b7847d 3100002037b7847d 1      0x0 SEAGATE   ST31951FD 3CC03007110
2008002047z78e44 2100002047z78e44 2      0x0 SEAGATE   ST31951FD 3C3A830010C
9000002038c59748 2100002038c59748 3      0x0 SEAGATE   ST31951FD 3CCPNT00711
2000002067c51e08 2100002067c51e08 4      0x0 SEAGATE   ST31951FD 3CV2X000711
Fabric Attached Devices detected:
lunwwn:wwpn:portId:lun:vendor:product:serial
NONE
```

- CLI command **verify software version**

The output of the verify software version command has been enhanced to display additional information. On page 7-69 of the *Cisco SN 5420 Storage Router Software Configuration Guide*, the “Usage Guidelines” section should be updated to read as follows:

Use this command after downloading software to verify that the download completed successfully and that the download software is bootable. The output includes the name, size and status for each module in the SN 5420 Storage Router software.

## Related Documentation

The following sections describe the related documentation available for Cisco SN 5420 Storage Router Release 1.1.5. These documents consist of hardware installation and software configuration guides, and platform-specific release notes, readme and example configuration files for the Cisco Storage Networking iSCSI drivers.

## Release-Specific Documents

This Release Notes document is the only document specific to SN 5420 Release 1.1.5. It is only available as an electronic document on Cisco.com and the Documentation CD-ROM.

## Platform-Specific Documents

Platform-specific documents consist of the release notes, readme and example configuration files for Cisco Storage Networking iSCSI drivers. The files are currently available in electronic format only. See the [“Obtaining iSCSI Drivers” section on page 3](#) for details.

## Hardware Documents

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

## Software Documents

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

For documentation on the SN 5420 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.



### 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

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).

## Documentation Feedback

If you are reading Cisco product documentation on the World Wide Web, you can submit technical comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco.

You can e-mail your comments to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

Attn Document Resource Connection  
Cisco Systems, Inc.  
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

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information and resources at anytime, from anywhere in the world. This highly integrated Internet application is a powerful, easy-to-use tool for doing business with Cisco.

Cisco.com provides a broad range of features and services to help customers and partners streamline business processes and improve productivity. Through Cisco.com, you can find information about Cisco and our networking solutions, services, and programs. In addition, you can resolve technical issues with online technical support, download and test software packages, and order Cisco learning materials and merchandise. Valuable online skill assessment, training, and certification programs are also available.

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.

---

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

AccessPath, AtmDirector, Browse with Me, CCIP, CCSI, CD-PAC, *CiscoLink*, the Cisco *Powered* Network logo, Cisco Systems Networking Academy, the Cisco Systems Networking Academy logo, Fast Step, Follow Me Browsing, FormShare, FrameShare, GigaStack, IGX, Internet Quotient, IP/VC, iQ Breakthrough, iQ Expertise, iQ FastTrack, the iQ Logo, iQ Net Readiness Scorecard, MGX, the Networkers logo, *Packet*, RateMUX, ScriptBuilder, ScriptShare, SlideCast, SMARTnet, TransPath, Unity, Voice LAN, Wavelength Router, and WebViewer are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, Discover All That’s Possible, and Empowering the Internet Generation, are service marks of Cisco Systems, Inc.; and Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, the Cisco IOS logo, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Enterprise/Solver, EtherChannel, EtherSwitch, FastHub, FastSwitch, IOS, IP/TV, LightStream, MICA, Network Registrar, PIX, Post-Routing, Pre-Routing, Registrar, StrataView Plus, Stratm, SwitchProbe, TeleRouter, and VCO are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries.

All other trademarks mentioned in this document or Web site 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. (0106R)

Copyright © 2001, Cisco Systems, Inc.  
All rights reserved.