CISCO SYSTEMS

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Release Notes for CiscoWorks Windows 3.2(1)

21 October 1998

This document discusses the CiscoWorks Windows 3.2(1) release and includes the following information:

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> **Note**   For more recent release note information, check Cisco Connection
> Online (CCO) for possible updates. Refer to the last section of this release
> note for CCO access information.

Features of This Release

- CiscoWorks Windows 3.2(1) is supported on HP OpenView Professional
  Suite 7.3 (D.01.02, D.02.00, and D.03.00).

- Optionally, on Windows NT 4.0, CiscoWorks Windows runs on HP
  OpenView Network Node Manager 5.01 and 5.02.

- CiscoWorks Windows 3.2(1) is upgradeable from CiscoWorks Windows
  3.1(1) and 3.0(1).

> **Note**   Before installing CiscoWorks Windows or CiscoView devices, read the caveats
> in "Installation Notes and Caveats" on page 12.

About Device Support

New devices are supported on all CiscoWorks Windows-supported platforms
unless otherwise noted.

You can add new CiscoView device packages from the CiscoView Upgrade
Planner webpage on CCO at
http://www.cisco.com/kobayashi/library/netmanage/cview/. On this
webpage, go to the section "Download CiscoView Software Updates" and
click "CiscoView 4.*x* Packages." From the "CiscoView 4.*x* Packages"
webpage, you can download packages for all supported devices. (See Table 4,
later in this release note, for a list of the most recent device packages as of
October 1998.)

Cisco IOS Information

This section contains the latest Cisco IOS (Internetwork Operating System)
software version information at the time of printing.

Configuration Builder devices support Cisco IOS software Releases 10.2 through 11.3. Access servers require a minimum of Cisco IOS software Release 10.3. Cisco 3600 devices require Cisco IOS software Release 11.1 or later. Cisco 4000 series devices require Cisco IOS software Release 10.3 or later.

CiscoView, Show Commands, and Health Monitor devices support Cisco IOS software Releases 10.2 through 11.3 except where noted in the device package readme file. (These readme files are available from CCO as described in the previous section, "About Device Support.")

Note   CiscoView supports the Qualified Logical Link Control (QLLC) feature in Cisco IOS software Release 10.3(7) or later and in Cisco IOS software Release 11.0(2) or later. CiscoView supports the Synchronous Data Link Control (SDLC) feature in Cisco IOS software Release 10.2 or later. CiscoView supports the CIP card in Cisco IOS software Release 10.2 or later.

Documentation Information

The documentation for CiscoWorks Windows includes this release note, a CD-ROM booklet, a Getting Started manual, and online help. The primary documentation for CiscoWorks Windows is the online help. If you have documentation feedback, please forward comments to

bug-doc@cisco.com

The documents shipping with this release include:

- *Getting Started with CiscoWorks Windows*

- *Getting Started with CiscoView*

- *CiscoWorks Windows CD Installation Instructions*, which includes quick reference instructions for downloading device packages.

- *Release Notes for CiscoWorks Windows Release 3.2(1)*

Customer documentation can also be found on the Cisco Enterprise Customer Documentation CD or on CCO.

CiscoWorks Windows Device Information

Table 1 shows supported CiscoView devices by product type.

Table 1   Supported CiscoView Devices [1]

Small to Medium Business Products	Mid-Range Enterprise Products[2]	High-End Enterprise Products
Cisco 761, 762, 765, 766, 771, 772, 775, 776	Catalyst switch models[3] 1200, 1400, 1600, 1601, 1700, 1800, 1900, 2100, 2600, 2800, 2820, 2900, 2900XL, 2926, 3000, 3100, 3200, 3900, 5002, and CPW2200	Catalyst 5000, 5500, 5505, and 5509; and 8510
Cisco 1003, 1004, and 1005	EtherSwitch Pro16, EPS2015, 1200, 1220, 1400, 1420	Cisco 7000, 7010, 7204, 7206, 7505, 7507, 7513 routers
Cisco 1601, 1602, 1603, 1604, 1605	EtherSwitches: Pro16 and CPW16	LS1010
Cisco 2501, 2502, 2503, 2504, 2505, 2507, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2520, 2521, 2522, 2523, 2524, and 2525	Workgroup concentrators 1400	
Cisco 3600 series (includes 3620 and 3640) and 3800 series	Fasthub 216T	
Cisco 4000 series[4] (includes 4000, 4000-M, 4500, 4500-M, 4700, and 4700-M)		Cisco uBR7246 and uBR904
AS5200 Access Server	AS2509-RJ AS2511-RJ	AS5300 Access Server AS5800 Access Server
Cisco 1501, 1502, 1503, 1516		
Fasthub 300 and Fasthub 100+ Series		

Table 1   Supported CiscoView Devices (continued)[1]

Small to Medium Business Products	Mid-Range Enterprise Products[2]	High-End Enterprise Products
EPS-500, EPS-1500, EPS2115, CPW-500, CPW-2115, and CPW-16		
MWEB200		

1 CiscoPro devices (not shown in this table) are also supported, where applicable.
2 Adapters WA-C301TA, WA-C303TA, WA-C308TA, WA-C306TA, WA-C321T-PC, WA-C321T-UX, WA-C323T-PC, WA-C323T-UX, WA-C326T-PC, WAC326T-UX, WA-C328T-PC, WA-C328T-UX are no longer supported.
3 Catalyst 1000 and 1100 are no longer supported.
4 Due to a fix made for the BRI port problem, the Cisco 4000 series devices now support Cisco IOS 10.3 or later.

Note   Check CCO periodically for download information on the latest device support and upgrades. See the CiscoView Upgrade Planner webpage: http://www.cisco.com/kobayashi/library/netmanage/cview/

Table 2 provides the CiscoWorks Windows applications and the devices each application supports.

Table 2   CiscoWorks Windows Applications

Configuration Builder[1]	Show Commands	Health Monitor
Routers: 2500, 2501, 2502, 2503, 2509, 2510, 2511, 2514, 2512, 2515, 2520, 2521, 2522, 2523, 2524, 2525, 4000, 4500, 7000, 7010, 7204, 7206, 7505, 7507, and 7513	Routers: AccessPro, 2501-15, 4000, 4500, 7000, 7010, 7204, 7206, 7505, 7507, and 7513	Routers: AccessPro, 2501-15, 4000, 4500, 7000, 7010, 7204, 7206, 7505, 7507, and 7513
Hub/Router: 2505 and 2507	Hub/Router: 2505 and 2507	Hub/Router: 2505 and 2507
Access Servers: AS5200, AS5300	Access Servers: 2509, 2510, 2511, and 2512	Access Servers: 2509, 2510, 2511, and 2512

Table 2   CiscoWorks Windows Applications (continued)

Configuration Builder[1]	Show Commands	Health Monitor
	CiscoPro switch models CPW 10-100, CPW500, CPW 1200, CPW1400, and CPW2115	CiscoPro switch models CPW 10-100, CPW500, CPW 1200, CPW1400, and CPW2115

1   Configuration Builder devices support Cisco IOS software Releases 10.0 through 11.3, with the exception of access servers, which require a minimum of Cisco IOS software Release 10.2. Cisco 3600 devices require Cisco IOS software Release 11.1 or later. Cisco 4000 series devices require Cisco IOS software Release 10.3 or later.

Note   Check CCO periodically for information on the latest device support and software upgrades. Refer to the last section of this release note for CCO access information.

Table 3 describes the applications supported by CiscoView.

Table 3   Supported CiscoView Applications

Application	Description	OS	Cisco IOS	Device Support
Threshold Manager	Monitors the availability and performance of Cisco devices	Windows NT 4.0, Workstation/Server, and Windows 95	Cisco IOS 11.1 or 11.2 with RMON events and alarms group support	Cisco 7000, 7010, 7505, 7507, and 7513; Cisco 4000, 4500, and 4700; Cisco 2501–2505, 2507, 2509–2525; Catalyst 1200 and 5000
StackMaker	Manages the device membership in a Cisco stack	Windows 95 and Windows NT 4.0	Cisco IOS 10.0 through 11.2	Cisco 1500, 1600, 2600, 3600; Catalyst 1900, Catalyst 2820, Catalyst 2900XL; Fasthub 200 and Fasthub 300; AS5200 and AS5300; HP 10Base-T Hub-16M, MWEB200
Flash File System	Provides file copying and editing features for the 7000 Series routers	Windows NT 4.0	Cisco IOS 10.0 through 11.2	Cisco 7000, 7010, 7202, 7204, 7206, 7505, 7507, 7513 routers

The CiscoView device packages included in this release are shown in Table 4 (following).

Note that there are additional device packages not included on the CiscoView CD-ROM, but which are available for download from CCO at http://www.cisco.com/kobayashi/library/netmanage/cview/.

Refer to the package readme files for details on the supported devices. Readme files are available at the same location on CCO as the device packages. For more information about selecting and downloading device packages, see the section "Incrementally Installing Device Packages" (later in this release note).

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Table 4   CiscoView Device Package Versions

Device Package	Version
1000.pkg	4.0(1.2)
1500.pkg	4.0(1.2)
1600.pkg	4.0(5.0)
2500.pkg	4.0(4.0)
2600.pkg	4.0(3.0)
3600.pkg	4.0(11.0)
3800.pkg	4.0(1.02)
4000.pkg	4.0(3.1)
700.pkg	4.0(1.4)
7000.pkg	4.0(5.0)
AS5200.pkg	4.0(5.0)
AS5300.pkg	4.0(3.1)
AS5800.pkg	4.1(2.0)
CPW10_100.pkg	4.0(1.4)
CPW1200.pkg	4.0(1.4)
CPW1220.pkg	4.0(1.5)
CPW1400.pkg	4.0(1.4)
CPW1420.pkg	4.0(1.5)
CPW16.pkg	4.0(1.1)

Table 4   CiscoView Device Package Versions (continued)

Device Package	Version
CPW2115.pkg	4.0(1.1)
CPW2200.pkg	4.0(2.1)
CPW316.pkg	4.0(1.4)
CPW500.pkg	4.0(1.1)
Cat116.pkg	4.0(1.4)
Cat1200.pkg	4.0(1.4)
Cat1600.pkg	4.0(1.3)
Cat1700.pkg	4.0(1.4)
Cat1800.pkg	4.0(1.1)
Cat1900.pkg	4.0(2.0)
Cat2100.pkg	4.0(1.4)
Cat216.pkg	4.0(1.4)
Cat2600.pkg	4.0(1.3)
Cat2800.pkg	4.0(1.4)
Cat2820.pkg	4.0(2.1)
Cat2900.pkg	4.0(2.1)
Cat2900XL.pkg	4.0(2.0)
Cat3000.pkg	4.0(1.6)
Cat3900.pkg	4.0(1.5)
Cat5000.pkg	4.1(2.6)
Cat5500.pkg	4.1(2.6)
Cat8510.pkg	4.1(1.1)
Cisco1516.pkg	4.0(1.2)
EPS2015.pkg	4.0(1.1)
LS1010.pkg	4.0(2.3)
MWEB200.pkg	4.0(1.1)
ubr7200.pkg	4.0(1.1)
ubr900.pkg	4.0(1.0)

Table 4   CiscoView Device Package Versions (continued)

Device Package	Version
TD_INTG.pkg	4.1(1.6)
WG_Concentrator.pkg	4.0(1.3)
stackmkr.pkg	4.0(1.1)
Threshold_WIN.pkg	4.0(1.1.3)

Incrementally Installing Device Packages

There are several ways to add (or incrementally install) support for new devices to CiscoView. Direct customers should refer to the section "Cisco Connection Online" at the end of this release note for information about accessing CCO. Partner-initiated customers should refer to the section "Partner Initiated Customer Accounts" (following).

Downloading Device Packages from CCO

You can add new devices to CiscoView from the CiscoView Upgrade Planner webpage on CCO at http://www.cisco.com/kobayashi/library/netmanage/cview/. On this webpage, go to the section "Download CiscoView Software Updates" and click "CiscoView 4.*x* Packages." From the "CiscoView 4.*x* Packages" webpage, you can download packages for all supported devices. For more information, refer to the "Downloading Device Packages" chapter in *Getting Started with CiscoView.* A quick reference version exists in the *CiscoView CD Installation Instructions* booklet.

Determining Which Package to Download

In general, multiple devices within the same product family share a single device package. If you have a specific device in mind, look for the device package for the device's family. For example, use the 2500 package file for a Cisco 2512.

To determine if your particular device is supported, look at the readme for the device package (available on the same webpage listed in the previous section).

Partner Initiated Customer Accounts

To get more information about the Partner Initiated Customer Accounts (PICA) program before accessing CCO for device package files, use the following URL (requires a userid and password):

http://www.cisco.com/acs/info/pica.html

You can also refer to the "Downloading Device Packages" chapter in *Getting Started with CiscoWorks Windows*.

Defects Fixed in This Release

Table 5 (following) lists problems in CiscoWorks Windows 3.1(1) that are fixed in CiscoWorks Windows 3.2(1). Only the most serious problems are listed.

Applet and device package problems that have been fixed since the previous release are described in the respective applet and device package readme files. These readme files are available from the CiscoView Upgrade Planner:

http://www.cisco.com/kobayashi/library/netmanage/cview

Table 5   Defects Fixed in CiscoWorks Windows 3.2(1)

CSCdi51665	Users preferences such as timeout are not persistent across CiscoView sessions.
CSCdi62739	When saving new policies for a host, they will not match if IP is in use.
CSCdj38584	Sometimes CiscoView cannot be configured due to missing fonts.
CSCdj39055	CiscoView does not support workgroup concentrator WS-X1434.
CSCdj43438	CiscoView does not properly convert the Timeticks SYNTAX.
CSCdj50382	A wrong instance might be used for subclass discovery.
CSCdj59472	Newly created rows might not be added to table.
CSCdj60605	CiscoView might fail to open a device if both the Catalyst 5000 and Yosemite card are set to the same community strings.
CSCdj61077	CiscoView package for the Cisco 7000 has typo for feip-f.
CSCdj64545	TCL script interprets address as exponent ex. 1e550.
CSCdj68522	CiscoView port monitor default polling fails.

Table 5	Defects Fixed in CiscoWorks Windows 3.2(1)
CSCdj72051	CiscoView is not able to work with AS5300.
CSCdj75454	Cisco 7000 package corrupts the Memory Used graph.
CSCdj75485	Need enhancement in engine for StackView support for AS5300.
CSCdj92755	CiscoView crashes when going to PVC Configuration menu.
CSCdk03414	Catalyst 5000 always uses default 6 sec SNMP timeouts.
CSCdk03853	MIB files for the imported module SNMPV2-SMI are missing.
CSCdk05800	Change in the Wr.Com.Str When Opening a device does not change Op.
CSCdk10541	Default telephone text box accepting junk values.
CSCdk11370	Cancel option adds entries in phone book.

Troubleshooting

If you cannot open a device in CiscoView, a message is displayed indicating that the device is unmanageable for one of the following reasons:

- The Simple Network Management Protocol (SNMP) agent is not running in the device.

  You can still ping the device from the management station.

- You have entered an incorrect community string in the **File>Open Device** window.

- The management station cannot access or successfully ping the device. This could be caused because the request timed out or because there was a noSuchName condition.

  If the request timed out, you can try increasing the timeout period, verifying the write community string, or checking that the device is reachable.

  If there was a noSuchName condition, verify the write community string.

- You are missing the device package.

  If you try to access a device when the device package is not installed in CiscoView, CiscoView displays the following error message:

  ```
  CiscoView is unable to open devicename because you do not have the
  appropriate device package installed on your machine. You can
  download the latest device package from the CiscoView Upgrade
  Planner:
  http://www.cisco.com/kobayashi/library/netmanage/cview
  ```

  If you receive this error message, you should access the specified URL, and download and install the correct device package.

- You have an obsolete version of a device package.

  Check your device package and compare the date with the version on CCO at http://www.cisco.com/kobayashi/library/netmanage/cview. Upgrade your device package to the latest version, if required.

CiscoWorks Windows Notes and Caveats

This section contains notes and restrictions that apply to the CiscoWorks Windows 3.2(1) release:

- Installation Notes and Caveats, page 12
- General Notes and Caveats, page 14

Note   For your reference, identification numbers follow the description of the caveat, for example, [CSCdj00001]. If you need to contact Technical Support about one of the following caveats, refer to the identification number to speed up the resolution of any questions or situations you might encounter.

Installation Notes and Caveats

Installation notes and caveats for CiscoWorks Windows follow.

Castle Rock SNMPc

- For the bug fixes in SNMPc 4.1r/4.2.4, refer to the SNMPc readme file. Use the following URL to access the Castle Rock SNMPc 4.2.4 release: http://www.castlerock.com/update.htm.

  If you plan to upgrade from 4.1r to 4.2.4, do so before installing CiscoWorks Windows. Otherwise you will need to reinstall CiscoWorks Windows after upgrading to SNMPc 4.2.4.

- After a new SNMPc installation, you must reinstall CiscoWorks Windows.

- When you run CiscoWorks Windows on SNMPc for the first time, you are prompted to compile MIB files. Select the **Yes** button. If you do not compile the MIB files, SNMPc might not properly discover and manage your Cisco devices, and CiscoWorks Windows applications might not run properly. MIB compilation might issue warning messages.

CiscoWorks Windows

- Exit all applications before installing CiscoWorks Windows. CiscoWorks Windows installation might overwrite old Windows dynamic link libraries (DLLs) with newer versions, which could cause active applications to terminate.

- If the Kalpana SwitchVision application is installed on your system, uninstall the product before proceeding with the CiscoWorks Windows install.

- If CiscoWorks Windows fails to run immediately after an initial installation, exit and restart Windows.

- Do not install CiscoWorks Windows and CiscoVision on the same workstation. This configuration is not currently supported, and results are unpredictable.

- CiscoWorks for Switched Internetworks (CWSI) cannot coexist with CiscoWorks Windows on the same machine.

Delay When Installing All Devices

If you select all the devices to be installed from the Device Install menu, it might take some time before there is an indication that the installation is progressing.

Hardware Disk Space Requirements

- The hardware disk space requirement for CiscoWorks Windows is 90 MB of free disk space with all packages installed. Additional disk space is needed for the Network Management System (NMS). Approximations follow. Consult the documentation that accompanies the NMS product for specific disk space requirements.

NMS	Version	Approximate Disk Space[1]
HP OpenView Professional Suite	7.3 (D.01.02, D.02.00, or D.03.00)	28 MB
HP OpenView Network Node Manager for Windows NT	5.01 or 5.02	55 MB
SNMPc	4.1r or 4.2.4	8 MB

1   This requirement varies per the number of discovered and managed nodes.

- For a Windows NT 4.0 Server, the disk space requirements are typically double that of the other supported platforms, assuming that Windows NT 4.0 was installed with the default allocation unit size of 65536 bytes. This results in a requirement for 438 MB of available hard disk space during installation. After installation, 100 to 180 MB of hard drive space is required, depending on the number of devices you install.

General Notes and Caveats

General notes and caveats are divided into six sections:

- Notes and Caveats for Operating Systems and Other NMSs, page 15
- Notes and Caveats for Enterprise Network Management Products (CiscoView, Configuration Builder, Health Monitor, StackMaker, Show Commands, and Threshold Manager), page 17

- Notes and Caveats for Workgroup Products, page 21

- Notes and Caveats for Access Products, page 29

- Notes and Caveats for High-End Business Products (ATM switches and the Cisco 7000, 7200, and 7500 series), page 31

- Notes and Caveats for Online Help, page 34

Notes and Caveats for Operating Systems and Other NMSs

General notes and caveats for CiscoWorks Windows operating systems and optional Network Management Systems follow.

Castle Rock SNMPc

Changing the Device Community String for SNMPc

You can change the default device community string only once in Castle Rock SNMPc, by using the **Edit>Node Defaults** command. You then need to save and reload the network map for the new default community string to take effect. Performing this procedure again has no effect. You can use the following workaround to change community strings in the future.

You can change the community strings for all devices at once, instead of one at a time.

Step 1   Select one node.

Step 2   Select **Edit>Edit Object**.

Step 3   Select **Comm...**

Step 4   Change to the appropriate community string.

Step 5   Select **Change** in the Edit Node Attributes window.

Step 6   Select **Edit>Copy**.

Step 7   Select **Map>Select Nodes**.

Step 8   Select **All Agent Types and Entire Map**.

Step 9   Select **Edit>Paste**.

Step 10   Make sure only Community and In Map are selected, then click **OK**.

This procedure sets the community string for all selected objects.

Debug SNMP Menu Option

When the SNMP Debug option is enabled, it pops up a separate console window that shows SNMP traffic to and from the device. Do not close this window because CiscoView will exit also.

HP OpenView Network Node Manager Version 5.01 and 5.02 on Windows NT

Before you install CiscoWorks Windows, stop the netmon by running the command **ovstop netmon**. CiscoWorks Windows installation might be delayed if netmon is running when you launch the install. After you install CiscoWorks Windows, netmon starts automatically if you chose to integrate CiscoWorks Windows with Network Node Manager. If you did not chose CiscoWorks Windows/Network Node Manager integration, manually start netmon by running the command **ovstart netmon**.

Windows 95

CiscoWorks Windows cannot be installed on Windows 95 if FPROTO 2.2.7 is also installed and active on the machine. Deactivate FPROTO 2.2.7 before you install CiscoWorks Windows. [CSCdj38627]

HP OpenView Professional Suite D.02.00 does not wait for user input when MIB compilation errors occur, making it difficult to pinpoint the erring MIB.

Windows NT

Under the Windows NT environment, simultaneously running too many sessions of the CiscoWorks Windows applications (for example, Health Monitor, Show Commands, and Configuration Builder) can cause a General Protection Fault (GPF) in the module *MFC250.dll*. This is a known Microsoft bug that you can avoid by running fewer sessions of the applications. [CSCdi31282, CSCdi34536]

Notes and Caveats for Enterprise Network Management Products

Colormap Problems

Windows 95 has a known Microsoft colormap problem. Some colors are mapped incorrectly when you switch between applications.

Dragging Ports

For this release, use the left mouse button to drag a port on Windows. Only certain devices (such as the CAT1200, CAT1600, CAT5000, CPW16) have defined their ports for dragging across devices.

IP Address

The Health Monitor, CiscoView, Show Commands, and Configuration Builder applications communicate with a device using its primary IP address. If the primary interface is down, these applications can not locate or reach the secondary IP address for that device. [CSCdi31320]

CiscoView

CiscoView and Internationalization

CiscoView does not support internationalization.

CiscoView Times Out

In high traffic situations, you might experience timeouts. To increase the timeout period, select **Options>Properties** from the CiscoView menu and change the value for the Timeout field.

You should not reduce the physical view polling interval below (retries*timeout), especially if you experience timeouts; this can exhaust resources on Windows and result in a general error.

HP OpenView

If a switch is configured as two or more domains, HP OpenView discovery might not work properly and might discover only one of the domains. If this occurs, use CiscoView to manage the domain directly rather than launching the switch from the map.

With HP OpenView, the grapher does not graph with v2c agents, especially 64-bit counters values. The HP OpenView bug ID is 4701401398. To work around this problem, use the Data Collector to collect and to then graph the desired data. [CSCdk08824]

Printing to LaserJet III

CiscoView might fail to print to a LaserJet III printer, especially in the "LaserJet" format, because of this printer's limited memory.

Configuration Builder

Access Server Features

For access server features, the Chat Script Manager dialog box might create

```
expect null/send null lines
```

in a chat script. If you inadvertently create empty lines under the Expect and Send fields, you receive error messages about your chat script. Delete and recreate the chat script. [CSCdi34038]

Context-Sensitive Help

Selecting a menu item with the mouse and pressing **F1** opens the Configuration Builder Help Contents main window instead of context-sensitive help. However, context-sensitive help is supported for all Configuration Builder dialog boxes. [CSCdi34304]

Dialog Box Margins

Dialog box margins might not align on some monitor resolutions. [3D-look]

Sending Configuration Files

Configuration Builder is designed for initial configuration and subsequent modifications of routers. A configuration sent by Configuration Builder might not completely overwrite a manually created or modified existing configuration. To simplify configuration, Configuration Builder supports the most common configuration options and uses defaults when possible. You are encouraged to view configurations before sending them to a router to ensure that the generated configuration commands and defaults meet your expectations.

If you receive a banner command timeout error message when sending a configuration file, remove the banner command from the configuration file and resend the file. If you receive other command timeout error messages when sending files, select **File>Communication Timeouts**. In the Communication Timeouts dialog box, increase the long and short timeout values and try sending the file again. [CSCdi20708]

Spreadsheet Control

- When you use the keyboard to navigate spreadsheet style controls, you must press the space bar twice to modify a check box. [CSCdi15204]

- The **Esc** key does not close the window when the input focus is in the spreadsheet style controls. Use the window menu or move the input focus out of the spreadsheet controls to close the window. [CSCdi15891]

Health Monitor

- The **F1** key context-sensitive help feature is not supported for Health Monitor menu items. Context-sensitive help is supported for all Health Monitor dialog boxes. [CSCdi32448]

- To see the most recently polled data, click the right scroll bar. [CSCdi70842]

Show Commands

Show Commands features are not supported by all device types. However, Show Commands' unsupported features can still be selected.

If you select an unsupported feature, you see an error message. For example, if you select the show controllers CxBus feature for a Cisco CPA2509, you see the following error message:

```
This command is not supported by this IOS image.
```

[CSCdi30902]

StackMaker

StackMaker has two internal debugging problems:

- When the StackMaker Debug option is set to **On**, debug messages print to the StackMaker Debug Log file. The default is **Off**. The StackMaker Debug Log file stores messages that are useful in troubleshooting problems. This log file is *smDebugLog* in *c:\CWW* or the install directory.

- When the StackMaker Debug SNMP option is set to **On**, SNMP debug messages print to the console on the PC. The messages show the SNMP packets that have been sent and received. The default is **Off**.

The StackMaker log file stores the results of a saved stack configuration (Actions>Apply Stack Configuration). The log file is *$NMSROOT\etc\cview\devices\stackmkr\sm.log*. When the log file exceeds 1 MB, it automatically resets to 0 bytes.

When StackMaker runs on Catalyst 1900 devices, some debug output is printed to the console. You can ignore this output.

You might get error messages when invoking StackView for a device, particularly if you just changed the "seed" device or if you previously opened and closed the stack. If you get error messages when invoking StackView, exit the current CiscoView session and launch a new CiscoView session. [CSCdk12100]

If you have an AS5200, AS5300, Catalyst 216, and Cisco 3640 in a stack, and you are using CiscoView in CiscoWorks Windows, LS3 Setup might crash with a Dr. Watson for NT error with the error message "wish.exe exception access violation." This crash occurs only if you click any item under Connection Info twice and if the Catalyst 216 is the seed device. [CSCdk23763]

Threshold Manager

Threshold Settings

Some agents, most notably the Catalyst switches, impose a limit on the number of alarm and event entries that can be created. Applying a large number of thresholds to these devices will likely fail. In this case, some alarm entries might be successfully created but their associated event entries are not. These failed creations are marked as *Failed* in the Current Threshold Settings pane. If you attempt to delete those settings, Threshold Manager reports that the deletion failed (because it cannot delete nonexistent event entries). In this case, you can ignore the error message, and can verify that the deletion occurred by retrieving the threshold settings after the deletion.

Notes and Caveats for Workgroup Products

Catalyst 116 and CPW 316

To delete an entry from the Set Managers configuration, enter a blank field. The IP address of 0.0.0.0 does not remove the entry from the Set Manager Table.

Catalyst 216

The Cat216 4.0(1.1) device package will not work in HP OpenView Professional Suite 7.2 (C.02.17) and 7.3 (D.01.00 and D.01.02) because of an invalid HP OpenView device ID.

Catalyst 1200

When you use the Switch Zoom menu (if TrafficDirector is installed) from CiscoView to view multiple switch ports, the default configuration for the Catalyst 1200 is Statistics, Short-Term history, Long-Term history, and Host group. To see the Short-Term or Long-Term history from Traffic Monitor, use the Domain Manager to configure the Short-Term and Long-Term groups manually or use Segment Zoom to view the port first.

When using the Segment Zoom menu from CiscoView to view the port segment, the default configuration for the Catalyst 1200 is the Statistics, Short-Term history, Long-Term history and Host group. For the Catalyst 5000 it is Statistics, Short-Term history, and Long-Term history.

If you see the "Error: Entry or Group not present in Agent" message when starting Segment Zoom, Switch Zoom, or Data Capture, the write community string might not match the device. If the community string matches but the problem still occurs, use the CiscoView Configure Device menu to see whether the RMON capability is enabled.

If you launch Switch/Port Zoom from CiscoView and then delete one of the RMON Agents using TrafficDirector, you must relaunch CiscoView before launching Switch/Port Zoom again.

If you see "IP address is not set in sysIpAddr MIB variable," the Catalyst 1200 SNMP agent does not store the correct IP address in the sysIpAddr MIB variable. You must use CiscoView to correct this error. Select **Configure>Device**, enter the correct IP address in the corresponding field, and click **Modify**.

TrafficDirector 3.3 cannot be launched for interfaces with ifIndex values greater than 1000.

Catalyst 1700

Version 4.0(1.4) of the Cat1700.pkg device package does not work properly if either of the following device packages are installed: Cat1900.pkg, Version 4.0(2.0); or Cat2820.pkg, Version 4.0(2.1). [CSCdk48245]

Catalyst 1800

The device agent does not update the IP address table of MIB-II properly and does not reflect the correct IP address information of all the device interfaces. You cannot view the correct IP address information of the device by selecting **Device>Configure>IP Address Table**.

You cannot create new static entries for IP Route Table and ARP Table through CiscoView.

In the interface configuration (**Port>Config>Interface**), modifying the IP parameters always displays an error message, but the modification is successful.

You cannot change the bridge type of the FDDI port to sr-only or srt.

You cannot change the bridge type of the Token Ring port to srtb or tb-only.

The system time configuration is not included as part of device configuration.

Catalyst 1900, Catalyst 2100, Catalyst 2800, EtherSwitch 1200, and EtherSwitch 1400 Series Devices

CPW1200, CPW1220, CPW1400, CPW1420, Catalyst 1900, Catalyst 2100, Catalyst 2800, and Catalyst 2820—The General Bridge window shows the bridge information for VLAN1 only. Bridge information for other VLANs is not available.

CPW1200, CPW1220, CPW1400, CPW1420, Catalyst 1900, Catalyst 2100, Catalyst 2800, and Catalyst 2820—The Spanning Tree Protocol window for switched ports is available for ports in VLAN1 only. This window does not show valid information for ports that are not in VLAN1.

VLAN colors are not displayed in CiscoView for a Catalyst 1900 with a VLAN is highlighted in VLAN Director. [CSCdk40128]

Catalyst 1924

If you launch a Catalyst 1924 with Firmware V8.00.04(03), you cannot access the Port Zoom or Switch Zoom applications from Rmon Options. [CSCdk24862]

CPW 1420 and Catalyst 2820

On the front panel display of the device, the Connect and Disabled LEDs on FDDI modules do not reflect the appropriate status.

The CiscoView **Configure>Module** option is supported only for one module type, even though it can be launched for multiple module types.

There is a dependency between the CPW1420 and Catalyst 2820. The CPW1420 device package will not run unless the Catalyst 2820 package is installed. [CSCdj64496]

Catalyst 1900, Catalyst 2820, CPW 1220, and CPW 1420

To delete an entry from the Set Managers configuration, enter an IP address of 0.0.0.0. The agent on the devices do not accept a blank entry for an IP address. [CSCdj03444]

Catalyst 116 and CPW 316

To delete an entry from the Set Managers configuration, enter a blank field. The IP address of 0.0.0.0 does not remove the entry from the Set Manager Table.

Catalyst 2600

The Catalyst 2600 device package contains two versions of the Enterprise MIBs for the Catalyst 2600 switch:

- *C2600_cisco.my*—This MIB file is installed to support devices with image versions prior to 2.2.1.

- *C2600.my*—This MIB file is installed to support devices with image version 2.2.1 or later.

If you are using a MIB browser tool, you will see the MIB variables defined in each of the above files, under different branches, at the same time, although any particular Catalyst 2600 switch will respond to queries on only one of the MIBs, based upon the release of software in the device. Cisco recommends that you upgrade your Catalyst 2600 switches to version 2.2.1 or later.

CPW 2200 and Catalyst 2900

If the number of the embedded RMON agent is over 50, you cannot create any new embedded RMON agent group for the new port. Use the Domain Manager to uninstall the agent group from the unused port to free the memory resource.

If you launch Switch/Port Zoom (if TrafficDirector is installed) from CiscoView and then delete one of the RMON Agents using TrafficDirector, you must relaunch CiscoView before launching Switch/Port Zoom again.

TrafficDirector 3.3 cannot be launched for interfaces with ifIndex values greater than 1000.

When multiple ports are selected, the **Port>Configure** window does not display the Broadcast Suppression category. This category is available only for single port selection.

When you enable port security administration on a port, there may be timeouts. If this happens, increase the SNMP timeout value to approximately 10 seconds.

The WS-X2901 module shows the speed LED lit only when the speed is configured as 100 Mbps and the port is connected.

The Port Utilization tool has been removed from the Tools menu and is now available only on a per module basis on the **Config>Module** menu.

Catalyst 2900XL

CiscoView is missing the Rmon Option menu for the Catalyst 2900XL, so there is no access to Traffic Director, Switch Zoom, Port Zoom. [CSCdk15743]

Catalyst 3000 Series

When you access a stack with six or more devices, there might be some significant performance problems. You can improve performance by increasing the SNMP timeout settings.

The Catalyst 3000 software does not support RMON on either a stack or an ATM port.

You might notice timeout messages and SNMP Set Failed messages when using the EtherChannel Configuration tool. If this happens, increase the SNMP timeout values for better performance.

If you are running version 2.0(1) of the Catalyst 3000 software, you will not be able to drag a port to a VLAN that does not already have ports assigned to it. You can fix this problem by upgrading to a later release of Catalyst 3000 software.

If you are running version 2.0(1) of the Catalyst 3000 software, changes to Full/Half Duplex settings will not always be reported correctly. You can fix this problem by upgrading to a later release of Catalyst 3000 software.

If you are running version 2.0(1) of the Catalyst 3000 software, the SAID value entered when creating a new VLAN will be redisplayed as a different value. However, the VLAN will have been created with the SAID value you specified. You can fix this problem by upgrading to a later release of Catalyst 3000 software.

The Domain Configuration and EtherChannel Configuration tools are not supported on Windows 95.

Because of restrictions in the Catalyst 3000 software, the WS-X3006B is displayed in CiscoView as a WS-X3006A.

If you launch Switch/Port Zoom (if TrafficDirector is installed) from CiscoView and then delete one of the RMON Agents using TrafficDirector, you must relaunch CiscoView before attempting to launch Switch/Port Zoom again.

Catalyst 3900

CiscoView does not show the rear view of the Catalyst 3900 box.

When you attempt to drag port(s) to drop into one of the CRFs in the VLAN table, CiscoView might exit with an error. To work around this problem, first select the ports of interest, then bring the focus back to the VLAN Table window. Drag the selected port(s) and drop them into the desired CRF.

The **Configure...** option under the Bridge Configuration category allows you to view a current configuration only. It reports an error when you attempt to configure new values for any parameter.

The Threshold Manager and TrafficDirector applications have not been fully tested with the Catalyst 3900.

If you have a Catalyst 3900 device package installed, you might receive error messages during MIB integration of CiscoWorks Windows with HP Openview NNM 5.02. You might be unable to load certain MIBs. [CSCdk10109]

Catalyst 5000 Series

When a Catalyst 5500 is open in CiscoView, any changes you make to the device's community strings do not take effect. To work around this problem, run xnmsmpconf and set the global default "set" value to "private." [CSCdk14013]

When a Catalyst 5000 is open in CiscoView, if you change the community strings, the changes will become the default community strings used by CiscoView for devices with unknown community strings. To work around this problem, close and reopen CiscoView, then change the default community strings by selecting **Options>Properties** from the menu. [CSCdk14111]

ATM, FDDI, and CDDI do not support Broadcast Suppression.

In machines that do not have a */tftpboot* directory (such as a PC), an error is displayed whenever the Upload/Download feature is invoked on a Catalyst 5000 module.

Do not use the Grapher in the CiscoView Monitor 10BaseT Group Switching Ethernet window. Use the Monitor or TrafficDirector tools (if TrafficDirector is installed) to see graphical views of the selected repeater ports.

When you use the Switch Zoom menu (if TrafficDirector is installed) from CiscoView to view multiple switch ports, the default configuration for the Catalyst 5000 is to configure Statistics only. To see the Short-Term or Long-Term history from Traffic Monitor, use the Domain Manager to configure the Short-Term and Long-Term groups manually or use Segment Zoom to view the port first.

When you use the Segment Zoom menu from CiscoView to view the port segment, the default configuration for the Catalyst 5000 is Statistics, Short-Term history, and Long-Term history.

If you see the message "Error: Entry or Group not present in Agent" when starting Segment Zoom, Switch Zoom, or Data Capture, the write community string may not match the device. If the community string matches but the problem still occurs, use the CiscoView Configure Device menu to see whether the RMON capability is enabled.

When you select the repeater module port on a Catalyst 5000, it always uses the first port of the selected segment to create the RMON agent group.

If all Catalyst 5500 slots are populated with modules and you experience timeouts, increase the SNMP timeout value to 15 seconds.

The WS-X5213 and WS-X5213A modules show the 100 Mbps speed LED lit only if the speed is configured at 100 Mbps and the port is connected.

Opening the FDDI/Ethernet Bridge category under **Configure>Device** in CiscoView can display an "unknown error." This is because of a problem with the device software.

If a general error (genErr) is displayed when you change vlanPortIslStatus, the selected port might not support ISL.

The values of ifAdminStatus and ifLinkUpDownEnable cannot be changed on an ATM port.

Port duplex settings cannot be changed on ATM and FDDI ports.

The value portSpanTreeFastStart cannot be changed on ATM and FDDI ports.

Configuring ports to unsupported speeds returns a general error (genErr). This is because of a problem in the device software.

CDP and CGMP Protocols Unsupported

The CPW 1200/1400 and Cat 2100/2800 devices do not support the CDP and CGMP protocols. The CiscoView dialogs for these will return errors.

Community String Mismatching

When the user enters values for the read-only, write-only, and read-writeId with the Command Line Interface (CLI) commands, these values must match. A mismatch results in noSuchName or timeout errors. To avoid these error conditions, use identical community strings in CiscoView and corresponding agents.

Duplicate Categories

When multiple ports of different types are selected, **Port>Config** may show duplicate categories.

Switch Firmware

The following firmware versions must be used in the switches:

Switch	Firmware Version
Catalyst 1700	1.38 or later
Catalyst 1900 and 2820	3.63 or later
Catalyst 2100 and 2800	3.63 or later
EtherSwitch 10/100	1.38 or later
EtherSwitch 1220 and 1400	3.63 or later
Grand Junction FastSwitch 10/100	1.37 or later
Grand Junction FastSwitch 2100 and 2800	3.62 or later
FastHub 300 Series	1.12 or later

TrafficDirector

When launching TrafficDirector 4.1.3 from CiscoView, make sure that */usr/lib* is included at the start of the LD_LIBRARY_PATH environment variable. A segmentation fault may occur if it is not included.

If you launch Switch/Port Zoom from CiscoView and then delete one of the RMON Agents using TrafficDirector, you must relaunch CiscoView before attempting to launch Switch/Port Zoom again.

TrafficDirector 3.3 cannot be launched for interfaces with ifIndex values greater than 1000.

Notes and Caveats for Access Products

Status of T1/E1 Channel_ports for Channel-group

In the channel_modem view, CiscoView does not properly reflect the status of the T1/E1 channel_ports (timeslots) that have been configured for channel-group. This is a Cisco IOS software problem.

Hot Swap Does Not Work for Stacked Cisco 3600

The hot swap feature is not available for stacked Cisco 3600 series routers.

Whenever the async/sync port configuration is changed, you must reopen the stack for CiscoView to update the async/sync port status. However, the hot swap feature for the async/sync ports is supported for individual Cisco 3600 series routers.

Also, whenever the async/sync port configuration is changed in a 16/32 port asynchronous network module, you must reopen the stack to obtain the latest state. However, the hot swap feature for the async/sync ports is supported for individual Cisco 3600 series routers.

Logical View and Channel Modem View Not Available in Stack View

The Logical View and Channel Modem Mapping view are not available for stacked Cisco 3600 series routers. This support is scheduled for a future release. However, Logical View is available on individual or stacked Cisco 3600 routers if a digital modem carrier card and a T1/ E1 card is present.

With Cisco IOS Versions Below 11.1(7), Table Misses Interfaces

The fix for defect CSCdi69480 (PRI/E1 interfaces missing in cardIfIndex table) is integrated into Cisco IOS Release 011.001(007) and later. The Cisco 3600 4.0(6.1) device package incorporates the fix and may not work properly with Cisco 3600 series routers running Cisco IOS versions below 011.001(007).

Cisco AS5800 Universal Access Servers

- Hotswap works inconsistently.

  After the hotswap, the dsphysical view alone gets redrawn. The work around is to exit CiscoView and re-open the device. [CSCdk11818]

- Cannot monitor PRI channels in CE1/CT1 card of the AS5800.

  Monitor of individual channels of trunk ports in CE1/CT1 card is not available. Only the configuration information is displayed. [CSCdk11819]

- Help for compression card is incorrect.

  Incorrect help information displayed for sa-compression card.
  [CSCdk11820]

- HealthMon Status shows wrong values for ShelfId and ShelfAddress.

  In device configuration dialog of the SC3640, the values displayed for
  ShelfId and ShelfAddress are wrong. [CSCdk11823]

- Pixel and mask of size 38 is shown bigger.

  The pixel and mask of size 38 is shown bigger for AS5800 and SC3640.
  The relevant files contain size of 48 pixels for width and height.
  [CSCdk11854]

- OID and Schema files for certain mibs are not included.

  The oid and schema files of the MIBs AAA, CISCO-PAGP-MIB,
  FASTMOD, FASTSWITCH, RFC1407-MIB, RFC1595-SONET-MIB,
  RFC1748-MIB, SNMPV2-CONF, ENTITY-MIB,
  CISCO-ENTITY-VENDORTYPE-OID-MIB,
  CISCO-5800-HEALTH-MON-MIB are not available in the package. The
  required oid and schema files are not published at the time of release.
  Therefore, these MIBs cannot be browsed in SNM and EM platforms.
  [CSCdk06905]

- Sometimes you cannot open an AS5800 device in Windows NT 4.0 with
  CiscoWorks Windows.

  Sometimes CiscoView pops up an error dialog with message such as
  "can't read "DD(AS5800dialShelfId)": no such element in array" when
  an AS5800 device is opened in NT 4.0. The work around is to increase the
  timeout value and open the device again. [CSCdk12752]

Notes and Caveats for High-End Business Products

LightStream1010

To configure an LECS address for LS1010 from CiscoView, ServiceId needs
to be the following: 10.1.3.6.1.4.1.353.1.5.1.*<Index>*, where Index is the row
differentiator for configuring multiple LECS addresses. Index is an integer.

Power Supply Display

By default, CiscoView 3.1(1) displays two power supplies for a Cisco 7000 router running Cisco IOS Release 10.2 and earlier. With Cisco IOS Release 10.3 and later, power supplies are displayed based on ciscoEnvMonSupplyState values.

Cisco 7000 Series

- View menu for Cisco 7000 series is inconsistent.

  The view menu for the 7204, 7206 has front view too but all the other 7000 series routers have just the rear view. [CSCdj86030]

- CiscoView with the Cisco 7000 package 4.0(4.0) fails on Token Ring Modules.

  Selecting Category "TokenRing Errors" generates an error: "The MIBs are not supported by the device." However, launching CiscoView 4.0 with the 7000 package 4.0(1.0) on the same router does not generate any errors. [CSCdk13389]

- Mismatch of formula in help for buffer failure in 7000pkg.

  Device monitor shows the wrong help context. [CSCdk08747]

- Ciscoview does not display pa-a8t.

  CV fails to display a 7206 with pa-8b-st, pa-a8t-x21, c7200-io1fe and cpu-7200 cards correctly. [CSCdk03826]

- x25CircuitCalledDteAddress in ascii value.

  The variables x25CircuitCalledDteAddress and 25CircuitCallingDteAddress are displayed in ascii. It is better to show these in numeric form. [CSCdj40816]

- Any Cisco IOS software release earlier than 11.1 causes FSIP dialogs in CV for mip ports.

  An invalid port level FSIP configuration category appears for devices with MIP cards running less than 11.1. The dialog just displays N/A for variables displayed in it as these are not applicable to it. [CSCdj23970]

- Delta values appear as absolute values.

  When using CV to monitor multiple ports, the delta value does not change relative to the 2 polling points, but is simply a dump of the raw SNMP value. [CSCdj93913]

- CiscoView shows incorrect utilization status on Frame DLCI.

  For CiscoView Windows, if you right click on a serial port running frame relay encapsulation, DLCI monitor gives incorrect "Traffic" information: the number you see on this screen does not match with the **sh frame pvc** command on the CLI of the router. [CSCdk08121]

Cisco uBR7200 Series

- RFC1595-SONET-MIB support:

  The RFC1595-SONET-MIB is not supported in ubr7200 device package version 1.1.

- Downstream Channel MIB Variable Settings:

  The downstream channel frequency (docsIfDownChannelFrequency) setting in the rport configuration dialog box accepts only values between 54 and 1000 Mhz (54,000,000 - 1,000,000,000). The standard MIB range for this variable is 0 to 1000 Mhz (0 - 1,000,000,000).

  The downstream channel width (docsIfDownChannelWidth) setting in the report configuration dialog box accepts only a value of 6 Mhz (6,000,000). The standard MIB range for this variable is 0 to 16 Mhz (0 - 16,000,000).

  The downstream channel modulation (docsIfDownChannelModulation) setting in the rport configuration dialog box accepts only values of 3 or 4. The standard MIB values for this variable are 1,2,3,4. 1 indicates unknown; 2 indicates other.

  The administration status of the channel cannot be changed from the Admin Status field in the rport dialog box.

- Upstream Channel MIB Variable Settings:

  The upstream channel frequency (docsIfUpChannelFrequency) setting in the rport configuration dialog box accepts only values from 5 to 42 Mhz (5,000,000 - 42,000,000) and the value of 0 Mhz. If 0Mhz is specified, the Administration Status automatically changes to down. The standard MIB range for this variable is 0 to 1000 Mhz (0 - 1,000,000,000).

The upstream channel width (docsIfDownChannelWidth) setting in the report configuration dialog box accepts only 1.6 Mhz (1,600,000). The standard MIB range for this variable is 0 to 16 Mhz (0 - 16,000,000).

The administration status of the channel cannot be changed from the Admin Status field in the rport dialog box.

- Fast Serial MIB Variable Display Values:

  The Fast Serial rport configuration dialog box for HSSI interface displays N/A for status of flow control signals (locIfFSIPrts,locIfFSIPcts, locIfFSIPdtr,locIfFSIPdcd,locIfFSIPdsr). The agent returns 0 instead of the acceptable values 1-3. (1 - Not Available, 2- Up, 3-Down).

- OID and Schema files for RF-IF-MIB in SNM and EM platforms:

  The oid and schema files for RF-IF-MIB are not included in ubr7200 device package version 1.1. The required oid and schema files are not published at the time of release. Therefore, RF-IF-MIB cannot be browsed in SNM and EM platforms.

Notes and Caveats for Online Help

Find Tab

The creation of the full-text search database (Find option) in online help might take several minutes, depending on the number of devices you have installed.

Because of the way a master CiscoView contents file is used by the software when multiple CiscoView device package help files are present, the list of files to include when setting up a customized find operation contains multiple items, called CiscoView. [CSCdj62089]

Service and Support

For service and support for a product purchased from a reseller, contact the reseller. Resellers offer a wide variety of Cisco service and support programs, which are described in the section "Service and Support" in the information packet that shipped with your chassis.

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

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

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel.
Maintenance customers and partners can self-register on CCO to obtain additional
information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and
value-added services to Cisco's customers and business partners. CCO services
include product information, product documentation, software updates, release notes,
technical tips, the Bug Navigator, configuration notes, brochures, descriptions of
service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and
enhanced simultaneously: a character-based version and a multimedia version that
resides on the World Wide Web (WWW). The character-based CCO supports
Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick
access to information over lower bandwidths. The WWW version of CCO provides
richly formatted documents with photographs, figures, graphics, and video, as well as
hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com

- WWW: http://www-europe.cisco.com

- WWW: http://www-china.cisco.com

- Telnet: cco.cisco.com

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82.
  Use the following terminal settings: VT100 emulation; databits: 8; parity: none;
  stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

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Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http://www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.

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