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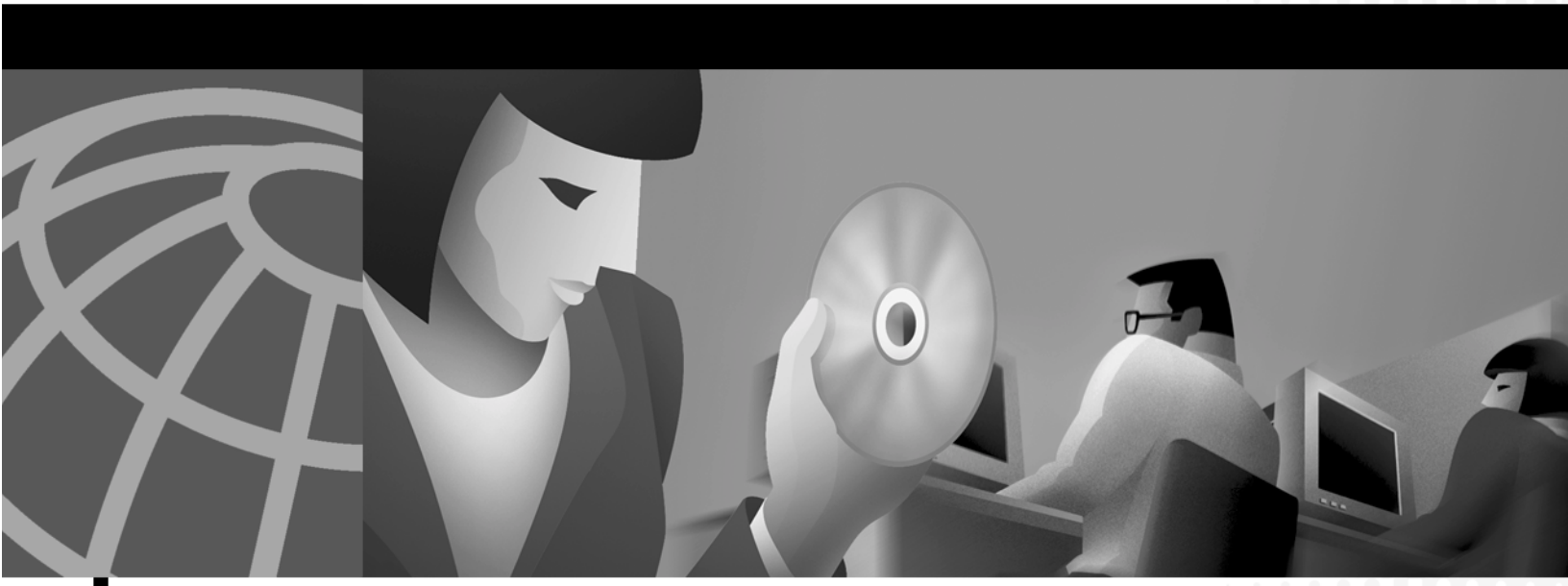

Cisco Internet CDN Software Command Reference

Version 2.1

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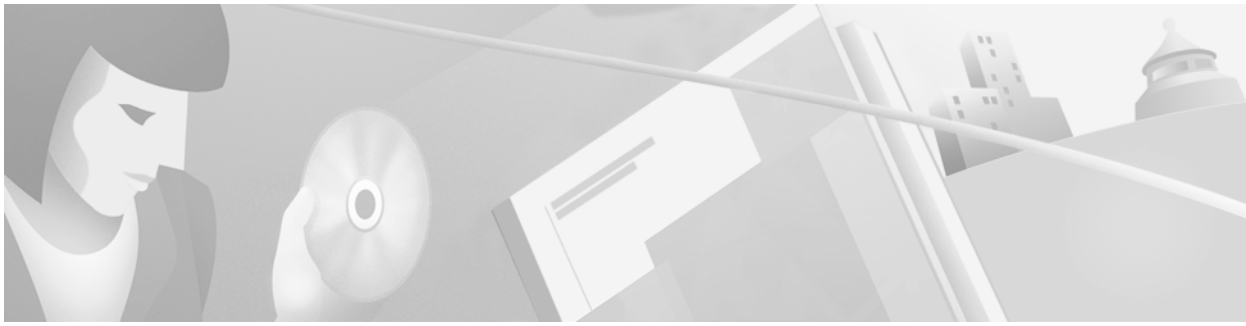

Preface

This preface describes who should read the *Cisco Internet CDN Software Command Reference*, how it is organized, and its document conventions. It contains the following sections:

- Audience, page v
- Document Organization, page v
- Document Conventions, page vi
- Additional Documentation, page vi
- Obtaining Documentation, page vii
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Audience

This command reference is for experienced network administrators familiar with TCP/IP networking concepts and router configuration.

Document Organization

This command reference includes the following chapters:

Chapter	Title	Description
Chapter 1	Command-Line Interface	Describes how to use the command-line interface, and presents the commands and command syntax in tables.
Chapter 2	Cisco Internet CDN Software, Version 2.1 Commands	Lists Cisco Internet CDN Software commands in alphabetical order and provides detailed descriptions of their use.

Document Conventions

This command reference uses basic conventions to represent text and table information.

Convention	Description
boldface font	Commands, keywords, and button names are in **boldface**.
italic font	Variables for which you supply values are in *italics*. Directory names and filenames are also in italics.
`screen` font	Terminal sessions and information the system displays are printed in `screen` font.
`boldface screen` font	Information you must enter is in **`boldface screen`** font.
`italic screen` font	Variables you enter are printed in *`italic screen`* font.
plain font	Enter one of a range of options as listed in the syntax description.
^D or **Ctrl-D**	Hold the **Ctrl** key while you press the **D** key.
string	Defined as a nonquoted set of characters. For example, when setting a community string for SNMP to "public," do not use quotation marks around the string, or the string will include the quotation marks.
Vertical bars (|)	Separate alternative, mutually exclusive, elements.
{ }	Elements in braces are required elements.
[ ]	Elements in square brackets are optional.
{**x** | **y** | **z**}	Required keywords are grouped in braces and separated by vertical bars.
[**x** | **y** | **z**]	Optional keywords are grouped in brackets and separated by vertical bars.
[{ }]	Braces within square brackets indicate a required choice within an optional element.

Note Means *reader take note*. Notes contain helpful suggestions or references to materials not contained in the manual.

Caution Means *reader be careful*. In this situation, you might do something that could result in data loss or equipment damage.

Additional Documentation

For additional information on the Cisco Internet CDN Software product, refer to the following documentation:

- *Cisco Internet CDN Documentation Roadmap*
- *Cisco Internet CDN Software User Guide Version 2.1*

- *Cisco Internet CDN Software Configuration Guide Version 2.1*
- *Release Notes for Cisco Internet CDN Software Version 2.1*
- *Cisco Content Distribution Manager 4670 Product Description Note*
- *Cisco Content Engine 7320 Product Description Note*
- *Cisco Content Router 4450 Product Description Note*
- *Cisco Content Engine 500 Series Hardware Installation Guide*
- *Cisco Content Engine 500 Series Hardware Release Note*
- *Cisco Content Networking Hardware Installation Guide for the Seven-Rack Unit Chassis*
- *Cisco Content Smart Switch Quick Configuration Guide*
- *Cisco Content Smart Web Switch Installation and Operation Guide*
- *Regulatory Compliance and Safety Information for the Cisco Content Networking Product Series*
- *Cisco Storage Array 6 Installation and Configuration Guide*
- *Cisco Storage Array 12 Installation and Configuration Guide*

Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

World Wide Web

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

http://www.cisco.com

Translated documentation is available at the following URL:

http://www.cisco.com/public/countries_languages.shtml

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  http://www.cisco.com/go/subscription

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Cisco.com

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Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available through the Cisco TAC: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Inquiries to Cisco TAC are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Which Cisco TAC resource you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

The Cisco TAC Web Site allows you to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to the following URL:

http://www.cisco.com/tac

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

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

If you cannot resolve your technical issues by using the Cisco TAC Web Site, and you are a Cisco.com registered user, you can open a case online by using the TAC Case Open tool at the following URL:

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

If you have Internet access, it is recommended that you open P3 and P4 cases through the Cisco TAC Web Site.

Cisco TAC Escalation Center

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

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

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

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

CHAPTER 1

Command-Line Interface

This chapter explains how to access the command-line interface (CLI) and provides a summary of the CLI commands included in the *Cisco Internet CDN Software Command Reference*. The commands are grouped alphabetically in three categories: user level EXEC commands, privileged level EXEC commands, and global configuration commands.

Accessing the CLI

You can access the command-line interface by establishing a remote connection or by connecting directly to the device.

Accessing the CLI Using a Remote Connection

You can establish a remote connection with a Content Engine (CE), Content Router (CR), or Content Distribution Manager (CDM) using Telnet or Secure Shell (SSH). In a single Telnet or SSH session, you cannot connect to more than one device; you can have several Telnet or SSH sessions running in parallel for different devices.

SSH connections are strongly recommended because SSH lets you communicate securely over insecure channels and provides strong authentication.

Using SSH to Connect

You can use any SSH client program to establish a remote SSH connection. The following procedure uses the Secure CRT application.

Step 1 Launch Secure CRT on your computer.

Step 2 Choose **File > Connect**.

The Connect to Remote Host window appears.

Step 3 Enter the IP address or host name of the device in the Host name field.

Step 4 Enter the username and passwords in the Username and Password fields, respectively. The default username is **admin**, and the default password is **default**.

Step 5 Click **OK**.

The CLI and prompt appear.

Note You can access devices either through the CLI or through Linux. In Linux, all the standard UNIX commands are available. The CLI has Cisco Internet CDN Software-specific commands and a limited set of UNIX commands. We recommend that you use the CLI to access devices. If you need to use Linux, enter **merlot** as the username and **default** as the password.

Caution If you are using Linux, do not use the "control exit" command to exit the session. Using this command shuts down all servers and CLI daemons. Instead, use the "exit" command.

Using Telnet to Connect

You can use any Telnet client program (for example, Reflection Telnet) to connect to a device. The following procedure uses Windows to start a Telnet session.

Step 1 Choose **Start > Run** on your Windows desktop.

The Run dialog box appears.

Step 2 Enter the IP address or DNS name of the device in the Open field.

Step 3 When prompted, enter a username and password. The default CLI username is **admin** and the default password is **default**.

Step 4 Click **OK**.

The CLI and prompt appear.

Note You can access devices either through the CLI or through Linux. In Linux, all the standard UNIX commands are available. The CLI has Cisco Internet CDN Software-specific commands and a limited set of UNIX commands. We recommend that you use the CLI to access devices. If you need to use Linux, enter **merlot** as the username and **default** as the password.

Caution If you are using Linux, do not use the "control exit" command to exit the session. Using this command shuts down all servers and CLI daemons. Instead, use the "exit" command.

Accessing the CLI Using a Physical Connection

Establish a serial connection between your terminal and the device. For information on how to establish a serial connection with your device, refer to the applicable document from the following list:

- For the Content Distribution Manager: *Hardware Installation Guide for the Seven-Rack Unit Chassis*
- For a Content Engine 500 Series device: *Cisco Content Engine 500 Series Hardware Installation Guide*
- For a Content Engine 7300 Series device: *Hardware Installation Guide for the Seven-Rack Unit Chassis*

Note On a Content Engine 7320, you cannot have both a console connection and a monitor or keyboard connected to the device at the same time.

- For a Content Router 4450: *Hardware Installation Guide for the Seven-Rack Unit Chassis*

Once you are connected, you can use any terminal communications application to access the CLI. The following procedure uses HyperTerminal.

Step 1 Launch HyperTerminal.

The Connection Description window appears.

Step 2 Enter a name for your session in the Name field.

Step 3 Click **OK**.

The Connect To window appears.

Step 4 From the drop-down list, choose the COM port to which the device is connected.

Step 5 Click **OK**.

The Port Properties window appears. Set the port properties as follows:

- Baud Rate = 9600
- Data Bits = 8
- Flow Control = none
- Parity = none
- Stop Bits = 1

Step 6 Click **OK** to connect.

Step 7 Press **Enter** to display the command-line interface prompt.

Once a session is created, you can save the connection description by choosing File > Save As. Saving the connection description has the following two advantages:

- The next time you launch HyperTerminal, the session is listed as an option under Start > Programs > Accessories > HyperTerminal > Name_of_session. This option lets you reach the CLI prompt directly without going through the configuration steps.

- You can connect your cable to a different device without configuring a new HyperTerminal session. If you use this option, make sure that you connect to the same port on the new device as was configured in the saved HyperTerminal session. Otherwise, a blank screen appears without a prompt.

Using Command-Line Processing

Cisco Internet CDN Software commands are not case sensitive. You can abbreviate commands and parameters as long as they contain enough letters to be different from any other currently available commands or parameters. (See Table 1-1.)

Table 1-1 Command-Line Processing Keystroke Combinations

Keystroke Combinations	Function
Ctrl-A	Jumps to the first character of the command line.
Ctrl-B or the Left Arrow key[1]	Moves the cursor back one character.
Ctrl-C	Escapes and terminates prompts and tasks.
Ctrl-D	Deletes the character at the cursor.
Ctrl-E	Jumps to the end of the current command line.
Ctrl-F or the Right Arrow key[1]	Moves the cursor forward one character.
Ctrl-K	Deletes from the cursor to the end of the command line.
Ctrl-L	Repeats the current command line on a new line.
Ctrl-T	Transposes the character at the cursor with the character to the left of the cursor.
Ctrl-U; Ctrl-X	Deletes from the cursor to the beginning of the command line.
Ctrl-W	Deletes the last word typed.
Ctrl-Z	Exits from global configuration mode to return to EXEC mode.
Esc-B	Moves the cursor back one word.
Esc-D	Deletes from the cursor to the end of the word.
Esc-F	Moves the cursor forward one word.
Delete key or Backspace key	Erases a mistake when you are entering a command; reenter the command after using this key.

1. The arrow keys function only on ANSI-compatible terminals such as VT100s.

Command Modes

The three categories of command modes are user level EXEC commands, privileged level EXEC commands, and global configuration commands.

EXEC Mode

There are two EXEC access levels: privileged and user. The **enable** and **disable** commands switch between the two levels. The user level EXEC command line is available to users if they enter a valid password at login. The user level EXEC commands are a subset of the privileged level EXEC commands. The user level EXEC prompt is the host name followed by a right angle bracket (>). The prompt for the privileged level EXEC command line is the pound sign (#). To execute an EXEC command, enter the command at the EXEC system prompt and press the **Enter** key. In the following example, a user accesses the privileged-level EXEC command line from the user level.

```
Host> enable
Host#
```

Use the **Delete** or **Backspace** key sequences to edit commands when you type commands at the EXEC prompt.

As a shortcut, you can abbreviate commands to the fewest letters that make them unique. For example, the letters **sho** can be entered for the **show** command.

Certain EXEC commands display multiple screens with the following prompt at the bottom of the screen:

```
--More--
```

Press the **Spacebar** to continue the output, or press **Enter** to display the next line. Press any other key to return to the prompt. Also, at the --More-- prompt, you can enter a **?** to display a help message.

To leave EXEC mode, use the **exit** command at the system prompt:

```
Host# exit
```

Global Configuration Mode

You must be in global configuration mode to enter global configuration commands. To enter global configuration mode, use the following set of commands:

```
Host> enable
Host# configure
Host(config)#
```

To exit global configuration mode, use the **end** global configuration command:

```
Host(config)# end
Host#
```

This returns you to privileged EXEC mode.

You can also exit global configuration mode by entering the **exit** command or pressing **Ctrl-Z**.

Check Command Syntax

The user interface provides error isolation in the form of an error indicator, a caret symbol (^). The ^ symbol appears at the point in the command string where you have entered an incorrect command, keyword, or argument.

In the following example, suppose you want to set the clock. Use context-sensitive help to check the syntax for setting the clock.

An example of a mistake is:

```
Host# clock 1222
              ^
%Invalid input detected at ‘^’ marker.
Host# clock ?
read-calendar    Read the calendar and update system clock
set              Set the time and date
update-calendar  Update the calendar with system clock
Host# clock
```

The help output shows that the **set** keyword is required. Check the syntax for entering the time:

```
Host# clock set ?
<0-23>:  Current Time (hh:mm:ss)
Host# clock set
```

Enter the current time in 24-hour format with hours, minutes, and seconds separated by colons:

```
Host# clock set 13:32:00
% Incomplete command.
```

The system indicates that you need to provide additional arguments to complete the command. Press the **Up Arrow** to automatically repeat the previous command entry. Then add a space and question mark (?) to display the additional arguments:

```
Host# clock set 13:32:00 ?
<1-31> Day of the month
January Month of the year
February
March
. . .
```

Enter the day and month as prompted and use the question mark for additional instructions:

```
Host# clock set 13:32:00 23 December ?
  <1993-2035>  Year
```

Now you can complete the command entry by entering the year:

```
Host# clock set 13:32:00 23 December 00
                                     ^
%Invalid input detected at '^' marker.
Host#
```

The caret symbol (^) and help response indicate an error with the 00 entry. To display the correct syntax, press **Ctrl-P** or the **Up Arrow**. You can also reenter the command string, and then enter a space character, a question mark, and press **Enter**:

```
Host# clock set 13:32:00 23 December ?
<1993-2035> Year
Host# clock set 13:32:00 23 December
```

Enter the year using the correct syntax and press **Enter** to execute the command:

```
Host# clock set 13:32:00 23 December 2000
WARNING: Setting the clock may cause a temporary service interruption.
Do you want to proceed? [no] yes
Sat Dec 23 13:32:00 EST 2000
Host#
```

System Help

You can obtain help when you enter commands by using the following methods:

- For a brief description of the context-sensitive help system, enter **help**.
- To list all commands for a command mode, enter a question mark (**?**) at the system prompt.
- To obtain a list of commands that start with a particular character set, enter an abbreviated command immediately followed by a question mark (**?**).

```
Host# cl?
clear  clock
```

- To list the command keywords or arguments, enter a space and a question mark (**?**) after the command:

```
Host# clock ?
  clear  Clear the current time from the battery-backed clock
  save   Save the current time into the battery-backed clock
  set    Set the local time and date
```

EXEC Command Summary

The EXEC commands are entered in EXEC mode. Table 1-2 lists the user level EXEC commands. Table 1-3 lists the privileged level EXEC commands. All the commands available at the user level are available at the privileged level.

Table 1-2 Cisco Internet CDN Software User Level EXEC Commands

User EXEC Command	Syntax	Description
cd	**cd** *directoryname*	Changes the current directory.
dir	**dir** [*directory*]	Displays files in long list format.
dnslookup	**dnslookup** {*host* | *domain-name*}	Resolves host name (DNS).
enable	**enable**	Accesses privileged EXEC commands.
exit	**exit**	Exits any mode or active terminal session.
ftp	**ftp**	Enables access to FTP options, such as accessing or transferring files stored in a directory on a remote server.
help	**help**	Assistance for command-line interface.
info	**info**	Shows running system information.
lls	**lls** [*directory*]	Displays directory files in long list format.
ls	**ls** [*directory*]	Displays files in directory.
ping	**ping** {*hostname* | *ip-address*}	Sends echo packets.
pwd	**pwd**	Displays path of the present working directory.
telnet	**telnet** {*hostname* | *ip-address*}	Establishes a Telnet connection with a specified device.
view	**view** *path_of_file*	Displays a file.

Table 1-3 Cisco Internet CDN Software Privileged Level EXEC Commands

Privileged EXEC Command	Syntax	Description
configure	**configure**	Enables entry into configuration mode from privileged EXEC mode.
disable	**disable**	Turns off privileged EXEC commands.
help	**help**	Assistance for command-line interface.
node	**node** {**clearstate** | **debugoff** | **debugon** | **debugtar** | **diskadmin** | **getprop** *property_name* | **logs** | **peekable** | **relog** | **restore** | **restart** | **routes** | **setcontentmask** | **setnictype** | **setprop** *key_name* | **start** | **status** | **stop**}	Controls and enables monitoring of the status of Cisco Internet CDN devices.
reboot	**reboot**	Reboots the device.
routerutil	**routerutil** {**clear** | **create** *networkmask* | **dump** | **remove** *networkmask* | **show** *proxyaddress* | **supernodes**}	Accesses information about the workings of a Content Router and modifies the way it works.
show	**show** {**all** | **build** | **cron** | **disk** | **env** | **ip** | **logs** | **meminfo** | **netstat** | **ps** | **pstree** | **routes** | **runningconfig** | **spool** | **top**}	Displays system information.
shutdown	**shutdown**	Shuts down the device.
standbycdm	**standbycdm** {**primary** | **standby**}	Controls activation and deactivation of primary and standby Content Distribution Managers.
storeutil	**storeutil** {**invalidate** | **purgesyslog** | **report** | **restore** | **validate**}	Reports and debugs invalid database records.
upgrade	**upgrade** {**backup** | **dbupgrade** | **display** | **restore** | **rollback** | **swupgrade** | **swupgradeclr**}	Controls upgrades to Cisco Internet CDN Software.

Global Configuration Command Summary

Cisco Internet CDN Software global configuration commands are entered in global configuration mode. To enter global configuration mode, use the following set of commands:

```
Host> enable
Host# configure
Host(config)#
```

Table 1-4 lists the global configuration commands.

Table 1-4 Cisco Internet CDN Software Global Configuration Commands

Global Configuration Command	Syntax	Description
dbsetup	**dbsetup**	Repeats the process of setting up the database that stores CDN data.
end	**end**	Exits configuration and privileged EXEC modes.

Table 1-4 Cisco Internet CDN Software Global Configuration Commands (continued)

Global Configuration Command	Syntax	Description
exit	**exit**	Exits any mode or active terminal session.
help	**help**	Assistance for command-line interface.
netsetup	**netsetup**	Captures network configuration for a Cisco Internet CDN device.
register	**register**	Registers a Cisco Internet CDN device.
setup	**setup**	Configures or reconfigures a Cisco Internet CDN device.

CHAPTER 2

Cisco Internet CDN Software, Version 2.1 Commands

This chapter contains an alphabetical listing of all command-line interface (CLI) commands for the Cisco Internet CDN Software, Version 2.1.

cd

To change directory, use the **cd** command in user or privileged EXEC mode.

cd *directoryname*

Syntax Description

directoryname	Name of the directory.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Usage Guidelines

Use this command to maneuver between directories and for file management. The directory name becomes the default prefix for all relative paths. Relative paths do not begin with a slash "/". Absolute paths begin with a slash "/".

Enter **cd..** to move to the directory that is one level higher than the one you are in.

Examples

Relative path:

```
Host> cd local1
```

Absolute path:

```
Host> cd /local1
```

Related Commands

dir

lls

ls

pwd

configure

To enter global configuration mode, use the **configure** command in privileged EXEC mode. You must be in global configuration mode to enter global configuration commands.

configure

To exit global configuration mode, use the **end**, **Ctrl-Z**, or **exit** commands.

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **configure** command is a privileged level command, so you must enter **enable** before entering **configure**.

Examples

```
Host> enable
Host# configure
Host(config)#
```

Related Commands

Ctrl-Z

end

exit

dbsetup

To repeat the process of setting up the database that stores Cisco Internet CDN data, without having to reenter information, use the **dbsetup** global configuration command.

dbsetup

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Global configuration

Usage Guidelines

You use the **dbsetup** command on a Content Distribution Manager (CDM) when you have already gone through the configuration routines using the **setup** command. If the user interface or the Content Distribution Manager stalls during the setup process, you can enter the **dbsetup** command. This repeats the setup process without your having to reenter information.

Examples

```
Host> enable
Host# configure
Host(config)# dbsetup
```

Related Commands

setup

dir

To view a long list of files in a directory, use the **dir** command in user or privileged EXEC mode.

dir [*directory*]

Syntax Description

directory	(Optional) Name of the directory to list.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Usage Guidelines

Use this command to view a detailed list of files contained within the working directory, including names, sizes, and time created. The equivalent command is **lls**.

Examples

```
Host> dir
size            time of last change                name
--------------  -------------------------          -----------
       3931934  Tue Sep 19 10:41:32 2000           errlog-cache-20000918-164015
           431  Mon Sep 18 16:57:40 2000           ii.cfg
           431  Mon Sep 18 17:27:46 2000           ii4.cfg
           431  Mon Sep 18 16:54:50 2000           iii.cfg
          1453  Tue Sep 19 10:34:03 2000           syslog.txt
          1024  Tue Sep 19 10:41:31 2000  <DIR>    testdir
```

Related Commands

lls

ls

disable

To turn off privileged EXEC mode, use the **disable** command in privileged EXEC mode.

disable

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **disable** command places you in user EXEC mode. To turn privileged EXEC mode back on, use the **enable** command.

Examples

```
Host# disable
Host>
```

Related Commands

enable

dnslookup

To resolve a host or domain name to an IP address, use the **dnslookup** command in user or privileged EXEC mode.

dnslookup {*host* | *domain-name*}

Syntax Description

host	Name of host on network.
domain_name	Domain name.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Examples

```
Host> dnslookup myhost
official hostname: myhost.cisco.com
          address: 172.16.0.0

Host> dnslookup cisco.com
official hostname: cisco.com
         address: 172.16.0.0

Host# dnslookup  172.16.0
official hostname: 172.16.0
          address: 172.16.0.0
```

enable

To enter privileged EXEC mode, use the **enable** command in user EXEC mode.

enable

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

User EXEC

Usage Guidelines

To return to privileged EXEC mode from user EXEC mode, use the **enable** command. The **disable** command takes you from privileged EXEC mode back to user EXEC mode.

Examples

```
Host> enable
Host#
```

Related Commands

disable

end

To exit global configuration mode, use the **end** global configuration command.

end

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Global configuration

Usage Guidelines

Use the **end** command to exit global configuration mode after completing any changes to the running configuration.

The **Ctrl-Z** command also exits global configuration mode.

Both commands return you to privileged EXEC mode.

Examples

```
Host(config)# end
Host#
```

Related Commands

exit

Ctrl-Z

exit

To exit global configuration or privileged EXEC mode or to close an active terminal session, use the **exit** command.

exit

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

EXEC and global configuration

Usage Guidelines

Use the **exit** command in global configuration mode to return to privileged EXEC mode. You can also press **Ctrl-Z** or use the **end** command from any configuration mode to return to privileged EXEC mode.

Use the **exit** command in privileged EXEC mode to return to user EXEC mode.

Use the **exit** command in user EXEC mode to close an active terminal session and terminate the EXEC mode session.

Examples

```
Host# exit
Host>
```

Related Commands

end

ftp

To gain access to FTP commands, use the **ftp** command in user EXEC mode.

ftp

Syntax Description

The **ftp** command, executed from the Cisco Internet CDN Software CLI, has the same options as in the UNIX environment. The keywords shown here are those that you are most likely to use with a Cisco Internet CDN device. To see the full range of available options, enter **ftp**, press **Enter**, and then type **help**. For information on any of the options, enter **help** *command*, where *command* is the name of the specific option.

open *server*

help [*command*]

ls [*remote_directory* [*local_file*]]

exit

open	Establishes a connection to the specified host FTP server.
server	IP address or DNS name of the server that you want to connect to.
help	Describes the function of a command.
command	(Optional) Command that you want information on.
ls	Prints a list of the files in a directory on the remote server.
remote_directory	(Optional) File directory on the remote server.
local_file	(Optional) File on the remote server.
exit	Terminates the FTP session with the remote server and exits FTP.

Defaults

No default behavior or values.

Command Modes

User EXEC

Usage Guidelines

You cannot enter an **ftp** command using the syntax **ftp** *command*. You must enter **ftp**, press **Enter**, and then enter the command.

Examples

```
Host> enable
Host# ftp
ftp> help
ftp> open 10.0.0.0
```

Related Commands

view

help

To obtain online help for the command-line interface, use the **help** command in user EXEC, privileged EXEC, or global configuration mode.

help

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

User EXEC, privileged EXEC, and global configuration

Usage Guidelines

For help at any point in a command, enter a question mark (**?**). If nothing matches the command name you entered, the help list will be empty. In this case, you need to abbreviate the string of characters that makes up the command until entering a **?** shows the available options. For example, if **statistics ?** does not produce any results, try **statistic ?** or **stat ?**.

Two styles of help are provided:

- Full help is available when you enter a valid command argument followed by a **?** (for example, **show ?** describes each possible argument of the command **show**).
- Partial help is provided when you enter an abbreviated command and you want to know what arguments match the input (for example, **show stat?** might produce statistics or statistic as results).

Examples

```
Host# help
or
Host(config)# help
```

info

To show running system information, use the **info** command in user or privileged EXEC mode.

info

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Usage Guidelines

The **info** command gives you information such as host name, IP address, software version, system time, device uptime, file system information, and node and server status.

If a colon (:) is displayed at the bottom of the page, you can exit the page by entering **q**.

Examples

```
Host# info
Node Type-----: CDM
Hostname------: born-xx.sightpath.com
Primary IP----: 10.0.0.0(eth0)
Content IP----: ()
CDN SW Version: 2.0.0.0.21
Current Time--: Wed May 2 12:59:53 GMT 2001
System Uptime-: 12:59pm  up 1 day, 13:53,  4 users,  load average: 0.02, 0.08
System uname--: Linux born-xx.sightpath.com 2.2.16-3 #1 Mon Jun 19 19:11:44 EDT
2000 i686 unknown
who:     born
when:    Tue May  1 18:41:22 2001
host:    born-xxxx.sightpath.com
source:  /local/born/p4/merlot-V2-0
derived: /local/born/p4/merlot-V2-0/derived
Filesystem           1M-blocks      Used Available Use% Mounted on
/rw/dev/hda6               633       270       363  43% /
none                         0         0         0   -  /proc
/rw/dev/hda1                23         5        18  21% /boot
/rw/dev/hda10               38         0        38   0% /cisco/merlot/safe-state
none                         0         0         0   -  /rw/dev/pts
```

Related Commands

view

lls

To view a long list of directory names, use the **lls** command in user or privileged EXEC mode.

lls [*directory*]

Syntax Description

directory	(Optional) Name of the directory for which you want a long list of files.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Usage Guidelines

This command provides detailed information about files and subdirectories stored in the present working directory (including size, date, time of creation, system file system [sysfs] name, and long name of the file). This information can also be viewed with the **dir** command.

Examples

```
Host> lls
     size          time of last change            name
-------------  -------------------------          -----------
             0  Tue Mar 18 01:52:41 1980          dir
       1959099  Tue Mar 18 01:52:41 1980          errlog-cache-19800317-171249
            62  Mon Mar 17 17:12:33 1980          errlog-dataserver-19800317-17
          1233
        439190  Tue Mar 18 01:52:34 1980          errlog-webserver-19800317-171
           243
         26758  Tue Mar 18 01:47:25 1980          syslog.txt
             0  Tue Mar 18 01:52:21 1980          testee
             0  Tue Mar 18 01:52:10 1980          tester
```

Related Commands

dir
ls

ls

To view a list of files or subdirectory names within a directory, use the **ls** command in user or privileged EXEC mode.

ls [*directory*]

Syntax Description

directory	(Optional) Name of the directory for which you want a list of files.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Usage Guidelines

To list the filenames and subdirectories within a particular directory, use the **ls** *directory* command; to list the filenames and subdirectories of the current working directory, use the **ls** command. To view the present working directory, use the **pwd** command.

Examples

```
Host> ls /local
etc
tftpboot
var
lib
ce60.pax
2125922304 bytes AVAILABLE ON VOLUME /c0t0d0s1
```

Related Commands

dir

lls

pwd

netsetup

To capture network configuration such as IP address, subnet, gateway, and Dynamic Host Configuration Protocol (DHCP) information for a Cisco Internet CDN device, use the **netsetup** global configuration command.

netsetup

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Global configuration

Examples

```
Host> enable
Host# configure
Host(config)# netsetup
```

Related Commands

setup

dbsetup

register

node

To control or monitor the status of Cisco Internet CDN devices, use the **node** command in privileged EXEC mode.

node {**clearstate** | **debugoff** | **debugon** | **debugtar** | **diskadmin** | **getprop** *property_name* | **logs** | **peekable** | **relog** | **restore** | **restart** | **routes** | **setcontentmask** | **setnictype** | **setprop** *key_name* | **start** | **status** | **stop**}

Syntax Description

clearstate	Returns the device to its factory settings.
debugoff	Disables system debugging.
debugon	Enables system debugging.
debugtar	Creates a system debug package containing output necessary for debugging problems with Cisco Internet CDN devices. The system debug package contains log files and state information about your device.
diskadmin	Add, repairs, or reconfigures disks.
getprop	Retrieves a CDN property.
property_name	Property of the system, for example, leaderCheckPeriod (the time after which a backup node checks the leader node to verify that it is still running).
logs	Displays system logs in real time, as events are being logged.
peekable	Enables or disables the peekable interface.
relog	Clears all log files.
restart	Restarts the Cisco Internet CDN Software on the selected device.
restore	Restores the state of a failed system disk.
routes	Adds, displays, and clears custom routes.
setcontentmask	Sets a netmask for a device's content IP address.
setnictype	Switches the system from a 10/100 Ethernet interface to a Gigabit Ethernet interface and vice versa.
setprop	Sets a system property on a CDN device.
key_name	Word used to signify a system property.
start	Starts the Cisco Internet CDN Software on the selected device.
status	Displays the status of the Cisco Internet CDN Software on the selected device.
stop	Stops the Cisco Internet CDN Software on the selected device.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

All **node** commands are privileged level commands, so you must enter **enable** before entering a **node** command.

When you return a device to its factory settings using the **node clearstate** command, the software loaded on the device is not affected, but all settings you specified when configuring the device are lost. The device reboots after you issue the **node clearstate** command and when it comes back online, it is no longer registered to your Cisco Internet CDN.

For the **debugoff** and **debugon** commands, note that system debugging is disabled by default. If you enable system debugging by using the **debugon** command, more detailed information is registered in the log files than if system debugging was disabled.

To exit from the **diskadmin** menu without taking any action, enter **Ctrl-C**.

When you enter the **node logs** command, you see different log files concurrently, as they are populated by logged events.

The **node peekable** command enables or disables the peekable interface. The peekable property can also be changed through the Content Distribution Manager user interface. If the property is changed from the Content Distribution Manager, the device restarts. If you use the CLI command, you can toggle the peekable property without having the device restart.

If you clear all log files using the **node relog** command, you cannot recover the files.

The **node restart** command restarts all CDN-related processes on the selected device.

Do not use the **node restore** command without the assistance of Cisco Technical Support.

Entering the **node routes** command displays a menu with six options.

- Option 1 enables you to add a new custom static route to the routing table. The device must be rebooted for the new routes to be set. Following is a sample of the **node routes** command for setting up a custom static route:

  ```
  # -net 129.6.0.0 netmask 255.255.0.0 gw 192.168.0.3 dev eth0
  ```

  In the sample, the *-net* value is the destination address of the network reached by this route. The *gw* value is the address of the external gateway through which packets are sent to reach this destination address. You can also specify the network interface to use for the route. Generally, there is no need to define the interface, because the system chooses the correct interface to reach the specified router by default. However, the *dev* option exists so that you can define the interface yourself if you want. These four items—the destination, the address mask, the gateway, and the interface—are the basic components of a route.
- Option 2 displays a list of all custom routes.
- Option 3 clears all the custom routes that you added.
- Option 4 shows all the active system routes.
- Option 5 implements the new custom routes you added using option 1 and sets them without your having to reboot the device.
- Option 6 enables you to exit from the **node routes** command.

The **node start** command restarts Cisco Internet CDN servers after the CDN processes have been halted using the **node stop** command.

The **node status** command displays the current operating status of the Cisco Internet CDN Software on the selected device.

The **node stop** command halts all Cisco Internet CDN processes running on the selected device.

Examples

```
Host> enable
Host# node stop
```

Related Commands

enable

ping

To send echo packets for diagnosing basic network connectivity on networks, use the **ping** command in user or privileged EXEC mode.

ping {*hostname* | *ip-address*}

Syntax Description

hostname	Host name of system to ping.
ip-address	IP address of system to ping.

Defaults

No default behavior or values

Command Modes

EXEC

Usage Guidelines

To use this command with the *hostname* argument, be sure that DNS functionality is configured on your Cisco Internet CDN device. To force the timeout of a nonresponsive host, or to eliminate a loop cycle, press **Ctrl-C**.

Examples

```
Host> ping mycontentengine
```

pwd

To display the path of the present working directory of the Cisco Internet CDN device, use the **pwd** command in user or privileged EXEC mode.

pwd

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Examples

```
Host> pwd
or
Host# pwd
```

Related Commands

cd

dir

lls

ls

reboot

To reboot the device on which you are running the command-line interface, use the **reboot** command in privileged EXEC mode.

reboot

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **reboot** command is a privileged level command, so you must enter **enable** before entering **reboot**. After entering the command, you will be prompted with a yes/no confirmation.

Examples

```
Host> enable
Host# reboot
```

Related Commands

node

shutdown

register

To register a Cisco Internet CDN device with the Content Distribution Manager, use the **register** global configuration command.

register

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Global configuration

Usage Guidelines

All Cisco Internet CDN devices, including the Content Distribution Manager, need to be registered. Normally, registration is done as part of the setup program (through the **setup** command) when you are prompted with the question "Would you like to register this box now?" If you choose to defer registering the device, you can run the **register** command later, without going through the setup program again.

Examples

```
Host> enable
Host# configure
Host(config)# register
```

Related Commands

setup

netsetup

dbsetup

routerutil

Caution Do not use any routerutil command without first consulting Cisco Technical Support.

To access information about the workings of a Content Router or to modify the way it works, use the **routerutil** command in privileged EXEC mode.

routerutil {**clear** | **create** *networkmask* | **dump** | **remove** *networkmask* | **show** *proxyaddress* | **supernodes**}

Syntax Description

clear	Erases all proxy tables in the Content Router files.
create	Creates a proxy table for the specified network.
networkmask	Network address that you wish to create, in dotted-quad format followed by a slash and the number of significant bits, for example, 192.168.2.89/24.
dump	Dumps a text version of the Content Router files to disk.
remove	Removes the proxy table for the specified network.
networkmask	Network address that you wish to remove, in dotted-quad format followed by a slash and the number of significant bits, for example, 192.168.2.89/24.
show	Shows the proxy table for the specified address.
proxyaddress	Address for which you want to see a proxy table.
supernodes	Shows a list of the supernodes and standalone Content Engines known to the Content Router, and the hosted domains served by each one.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

Consult Cisco Technical Support before using any **routerutil** command.

The **routerutil** command is a privileged level command, so you must enter **enable** before entering a **routerutil** command.

The routing table that is displayed when you enter the **routerutil supernodes** command shows all the hosted domains listed under the cluster containing the supernode leader. This is because the Content Router forwards all DNS requests to this lead cluster and has no knowledge of assignments to clusters within the supernode.

The supernode list that is displayed after you enter the **routerutil supernodes** command may be very long. To display the entire list, press the **Spacebar** until you reach the end. The supernodes list is also saved to the cisco/merlot/state directory of your Content Router under the name “supernodes.html.” To exit after the supernodes list is displayed, enter **q**.

Examples

```
Host> enable
Host# routerutil clear
```

setup

To configure or reconfigure a Cisco Internet CDN device, use the **setup** command in global configuration mode.

setup

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Global configuration

Usage Guidelines

The setup program is a comprehensive configuration program that encompasses three other configuration routines:

- **netsetup**—This routine captures network configuration for the device such as IP address, subnet, gateway, and DHCP information.
- **dbsetup**—This routine validates the Oracle 8i database that stores Cisco Internet CDN data.
- **register**—This routine connects Cisco Internet CDN devices and Content Routers to their assigned Content Distribution Manager.

You run the setup program on each device to do the following:

- Name the device.
- Set temporary system and HTTP passwords.
- Assign a standby or a primary role to a Content Distribution Manager.
- Specify the Oracle database and DNS server information for the Content Distribution Manager.
- Specify the address of the Content Distribution Manager for the Content Routers and Content Engines.
- Specify network interfaces and network information.
- Bring the network online.
- Register the Content Distribution Manager, Content Routers, and Content Engines.
- Enter a default signature for certificates.

Examples

```
Host> enable
Host# configure
Host(config)# setup
```

Related Commands

netsetup

dbsetup

register

show

To display system information, use the **show** command in privileged EXEC mode.

show {**all** | **build** | **cron** | **disk** | **env** | **ip** | **logs** | **meminfo** | **netstat** | **ps** | **pstree** | **routes** | **runningconfig** | **spool** | **top**}

Syntax Description

all	Displays CDN device information.
build	Displays build information.
cron	Displays cron entries (tasks that are carried out based on repeating schedules).
disk	Displays a list of configured disks.
env	Displays your environment variables, such as your login name, the program you run as your command-line interpreter, the directory that you are logged into, and so on.
ip	Displays current IP information.
logs	Displays ongoing CDN system logs.
meminfo	Displays memory information.
netstat	Displays network statistics.
ps	Displays running processes.
pstree	Displays running processes as a tree so that you can trace which processes are called by which.
routes	Displays IP routes.
runningconfig	Shows running configuration.
spool	Displays command-line interface session spool filename.
top	Displays system processes that are currently using the most resources.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **show** command is a privileged level command, so you must enter **enable** before entering **show**.

If a colon (:) is displayed at the bottom of the show page, you can exit the page by entering **q**.

To quit after running the **show logs** command, enter **Ctrl-C**. To quit after running all other commands, enter **q**.

Examples

```
Host> enable
Host# show logs
==> /cisco/merlot/state/apache/log/access_log <==
10.0.0.0 - admin [02/May/2001:15:02:25 +0000] "GET /Images/edit.gif HTTP/1.09
```

Related Commands

info

shutdown

To shut down the device on which you are running the command-line interface, use the **shutdown** command in privileged EXEC mode.

shutdown

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **shutdown** command is a privileged level command, so you must enter **enable** before entering **shutdown**. After entering the command, you are prompted to confirm your decision.

After entering the **shutdown** command, you need to boot up the device manually.

Examples

```
Host> enable
Host# shutdown
```

Related Commands

node

reboot

standbycdm

To change the primary or standby status of a Content Distribution Manager following failover, use the **standbycdm** command in privileged EXEC mode.

standbycdm {**primary** | **standby**}

Syntax Description

primary	Designates the Content Distribution Manager as primary.
standby	Designates the Content Distribution Manager as standby.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **standbycdm** command is a privileged level command, so you must enter **enable** before entering a **standbycdm** command.

To synchronize your primary and standby Content Distribution Managers following failover of the active Content Distribution Manager:

Step 1 Access the CLI of the primary Content Distribution Manager (CDM1) and the standby Content Distribution Manager (CDM2).

Step 2 Enter the **standbycdm standby** command. This will designate CDM1 as the standby Content Distribution Manager.

Note When a Content Distribution Manager is in standby mode, its user interface is not functional.

Step 3 Activate CDM2 by entering the **standbycdm primary** command. This will designate CDM2 as the primary Content Distribution Manager and will cause it to synchronize with CDM1.

Note After activation, your primary Content Distribution Manager will show all Content Engines and Content Routers in “pending” mode for up to 10 minutes—the time it takes for the devices to register with the new primary Content Distribution Manager.

Your Content Distribution Managers have now switched roles so that:

CDM1 = standby CDM

CDM2 = primary CDM

If you would like to revert to CDM1 being the primary Content Distribution Manager:

Step 1 Deactivate CDM2 by entering the **standbycdm standby** command. This designates CDM2 as the standby Content Distribution Manager.

Step 2 Activate CDM1 by entering the **standbycdm primary** command. This designates CDM1 as the primary Content Distribution Manager so that:

CDM1 = primary Content Distribution Manager

CDM2 = standby Content Distribution Manager

Examples

```
Host> enable
Host# standbycdm standby
```

storeutil

To identify and debug invalid database records, use the **storeutil** command in privileged EXEC mode.

storeutil {**invalidate** | **purgesyslog** | **report** | **restore** | **validate**}

Syntax Description

invalidate	Marks invalid database records for exclusion.
purgesyslog	Purges all but the last 10 syslog records.
report	Reports a list of database records that have been marked invalid.
restore	Revalidates database records previously marked invalid.
validate	Runs database checks and prints information about invalid records.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

You must stop the Content Distribution Manager before running the **storeutil** command. Enter **node stop** to stop the Content Distribution Manager.

The **storeutil** command is a privileged level command, so you must enter **enable** before entering **storeutil**.

The **storeutil** set of commands lets you locate and debug invalid database records in which there are references from a store object to a nonexistent store object. The Content Distribution Manager may fail to start if there are invalid database references. If this happens, the user interface is not available and the Merlot log registers an error.

To obtain a list of invalid references, use the **storeutil validate** command. The list appears in the merlot/state/validation.log file. To prevent invalid references from being loaded, use the **storeutil invalidate** command to mark the invalid references for exclusion. Run the **validate** and **invalidate** commands as many times as necessary to receive a “passed” message from the system.

To save a list of objects that have been marked invalid in the merlot/state/validation.log file, use the **storeutil report** command.

If you have corrected the invalid references through database intervention and want to revalidate them, use the **storeutil restore** command.

To free up some of the space in the database that is allocated to system messages, you need to periodically clear the system messages stored in it. To do this, use the **storeutil purgesyslog** command to purge all but the last ten syslog records.

Examples

```
Host> enable
Host# storeutil
```

Related Commands dbsetup

show

telnet

To establish a Telnet connection to a Cisco Internet CDN device, use the **telnet** command in user level EXEC or privileged level EXEC mode.

telnet {*hostname* | *ip-address*}

Syntax Description

hostname	Host name of device with which you want to establish a Telnet connection.
ip-address	IP address of device with which you want to establish a Telnet connection.

Defaults

No default behavior or values.

Command Modes

User and privileged EXEC

Usage Guidelines

SSH and Telnet can run concurrently.

Examples

```
Host> enable
Host# telnet on
```

upgrade

To control upgrades to Cisco Internet CDN Software, use the **upgrade** command in privileged EXEC mode.

upgrade {**backup** | **dbupgrade** | **display** | **restore** | **rollback** | **swupgrade** | **swupgradeclr**}

Syntax Description

backup	Makes a backup copy of the existing database.
dbupgrade	Manually executes a database upgrade to the current software version.
display	Displays software upgrade and database upgrade status and information.
restore	Restores the database from the backup copy.
rollback	Restores the database if a database upgrade fails.
swupgrade	Manually upgrades Cisco Internet CDN Software update on the selected device.
swupgradeclr	Manually removes a software update file from the Content Distribution Manager while the update is in progress.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Usage Guidelines

The **upgrade** command is a privileged level command, so you must enter **enable** before entering **upgrade**.

The **upgrade rollback** command restores the database if a database upgrade fails. All the failed records are removed and the database is restored to the state before the failed upgrade. If your Content Distribution Manager fails to start, the database upgrade may have failed.

The **upgrade swupgrade** command performs a Cisco Internet CDN Software update on the selected device using the available update file. This is akin to performing a software update using the software update feature of the Content Distribution Manager.

Examples

```
Host> enable
Host# upgrade backup
```

view

To view a file, use the **view** command in user or privileged EXEC mode.

view *path_of_file*

Syntax Description

path_of_file	Path to the directory location where the file is stored.

Defaults

No default behavior or values

Command Modes

User and privileged EXEC

Usage Guidelines

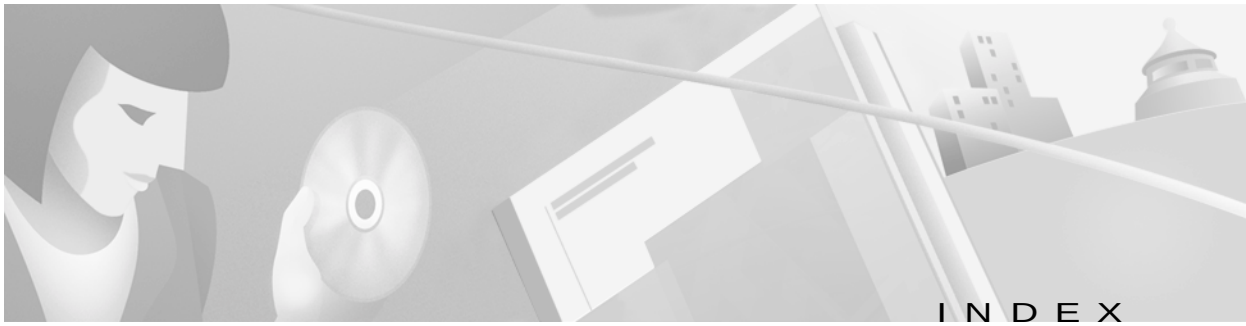
When you have reviewed the file, you can exit by entering **q**.

Examples

```
Host> view /cisco/merlot/state/apache/log/access_log
or
Host# view /cisco/merlot/state/apache/log/access_log
```

Related Commands

ls



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