



# CHAPTER 1

## Command-Line Interface Command Summary

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This chapter provides an overview of how to use the Cisco Internet Streamer Content Delivery System (CDS) software command-line interface (CLI), including an explanation of CLI command modes, CDS devices modes, and tables that summarize the purpose of the commands in each mode. The chapter includes the following sections:

- [Using CDS Device Modes, page 1-1](#)
- [Using Command-Line Processing, page 1-1](#)
- [Using Command Modes, page 1-2](#)
- [Checking the Command Syntax, page 1-5](#)
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Note

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The CLI can be accessed through the console port or Telnet.

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## Using CDS Device Modes

In the Cisco Internet Streamer CDS software, the device mode determines whether the CDS device is functioning as a Service Engine (SE), CDS Manager (CDSM), or Service Router (SR). The commands available from a specific CLI mode are determined by the CDS device mode that is in effect. Use the **device mode** Global configuration command to change the current device mode to another configuration. Use the **show device-mode** command to display the current device configuration.

To determine if a specific command is available for a specific device type, see [Table 2-1](#).

## Using Command-Line Processing

Cisco Internet Streamer CDS 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.

You can scroll through the last 20 commands stored in the history buffer and enter or edit the command at the prompt (see [Table 1-1](#)).

**Table 1-1** *Command-Line Processing Keystroke Combinations*

Keystroke Combination	Function
Ctrl-A	Jumps to the first character of the command line.
Ctrl-B or the Left Arrow key	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	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-N or the Down Arrow key	Enters the next command line in the history buffer.
Ctrl-P or the Up Arrow key	Enters the previous command line in the history buffer.
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 entered.
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 made when entering a command; re-enter the command after using this key.

## Using Command Modes

The CLI for Cisco Internet Streamer CDS Release 3.1 software is similar to the CLI for the Cisco IOS software. Both the Cisco IOS software and the CDS CLI are organized into different commands and configuration modes. Each mode provides access to a specific set of commands. This section describes the command modes provided by Cisco Internet Streamer CDS Release 3.1 software CLI, and includes the following topics:

- [Using EXEC Mode, page 1-3](#)
- [Using Global Configuration Mode, page 1-3](#)
- [Using Interface Configuration Mode, page 1-4](#)
- [Using Other Configuration Modes, page 1-4](#)

## Using EXEC Mode

Use the EXEC mode for setting, viewing, and testing system operations. The EXEC mode is divided into two access levels, user and privileged. Use the **enable** and **disable** commands to switch between the two levels.

Access to the user-level EXEC command line requires a valid password. 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 **Return** key. In the following example, a user accesses the privileged-level EXEC command line from the user level:

```
ServiceEngine> enable
ServiceEngine#
```

Use the **Delete** or **Backspace** key sequences to edit commands when you enter 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 **Return** to display the next line. Press any other key to return to the prompt. Also, at the `--More--` prompt, you can enter a question mark (?) to display the help message.

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

```
ServiceEngine# exit
```

The EXEC commands are entered in EXEC mode.

## Using Global Configuration Mode

Use Global configuration mode for setting, viewing, and testing the configuration of Internet Streamer CDS software features for the entire device. To enter this mode, enter the **configure** command from privileged EXEC mode. You must be in Global configuration mode to enter Global configuration commands:

```
ServiceEngine# configure
ServiceEngine(config)#
```

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

```
ServiceEngine(config)# end
```

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

Global configuration commands are entered in Global configuration mode.

## Using Interface Configuration Mode

Use the interface configuration mode for setting, viewing, and testing the configuration of Internet Streamer CDS software features on a specific interface. To enter this mode, enter the **interface** command from the Global configuration mode. The following example demonstrates how to enter interface configuration mode:

```
ServiceEngine# configure
ServiceEngine(config)# interface ?
GigabitEthernet Select a gigabit ethernet interface to configure
PortChannel      Ethernet Channel of interfaces
Standby          Standby groups
```

To exit interface configuration mode, enter **exit** to return to Global configuration mode:

```
ServiceEngine(config-if)# exit
ServiceEngine(config)#
```

The interface configuration commands are entered in interface configuration mode.

## Using Other Configuration Modes

The CLI provides several other configuration modes that make it easier to configure specific features, including the configuration modes described in [Table 1-2](#).

**Table 1-2** *Commands Used to Access Configuration Modes for Specific Features*

Configuration Mode	Command to Enter from Global Configuration Mode
Standard access control list (ACL) configuration mode	<b>ip access-list standard</b>
Extended ACL configuration mode	<b>ip access-list extended</b>
Internet Content Adaptation Protocol (ICAP) service configuration mode	<b>icap service</b>
Open Shortest Path First (OSPF) configuration mode	<b>router ospf</b>
Service Routing Protocol (SRP) configuration mode	<b>router srp</b>
Border Gateway Protocol (BGP) configuration mode	<b>router bgp</b>
Intermediate System -to-Intermediate System (IS-IS) configuration mode	<b>router isis</b>

To work with these configuration modes, enter the appropriate command from the Global configuration mode prompt. The CLI can enter a new configuration mode where all subsequent commands apply to the current entry. To return to Global configuration mode, enter the **exit** command.

For further information about these configuration modes and the commands permitted in each one, see [Chapter 2, “Cisco Internet Streamer CDS Release 3.1 Software Commands.”](#)

# Checking the 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.

For example, if you want to set the clock, use context-sensitive help to check the syntax for setting the clock.

An example of a mistake is as follows:

```
ServiceEngine# clock ?
read-calendar  Read the calendar and update system clock
set            Set the time and date
update-calendar Update the calendar with system clock
```

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

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

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

```
ServiceEngine# 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:

```
ServiceEngine# 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:

```
ServiceEngine# clock set 13:32:00 12 April ?
<1993-2035> Year
```

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

```
ServiceEngine# clock set 13:32:00 12 April 00
^
%Invalid input detected at '^' marker.
ServiceEngine#
```

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 re-enter the command string, and then enter a space character, a question mark, and press **Enter**:

```
ServiceEngine# clock set 13:32:00 12 April ?
<1993-2035> Year
ServiceEngine# clock set 13:32:00 12 April
```

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

```
ServiceEngine# clock set 13:32:00 12 April 2009
Sun Apr 12 13:32:00 UTC 2009
Restarting acquisition and distribution
ServiceEngine#
```

## 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 (?):

```
ServiceEngine# c1?
clear clock
```

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

```
ServiceEngine# clock ?
read-calendar Read the calendar and update system clock
set Set the time and date
update-calendarUpdate the calendar with system clock
```

## Filtering Output Using Output Modifiers

Many commands produce lengthy output that may use several screens to display. Using output modifiers, you can filter this output to show only the information that you want to see.

The following three output modifiers are available:

- **begin regular-expression**—Displays the first line in which a match of the regular expression is found and all lines that follow.
- **include regular-expression**—Displays all lines in which a match of the regular expression is found.
- **exclude regular-expression**—Displays all lines except those in which a match of the regular expression is found.

To use one of these output modifiers, type the command followed by the pipe symbol (|), the modifier, and the regular expression that you want to search for or filter. A regular expression is a case-sensitive alphanumeric pattern. It can be a single character or number, a phrase, or a more complex string.

## Saving Configuration Changes

To avoid losing new configurations, save them to NVRAM using the **copy** or **write** commands, as shown in the following examples:

```
ServiceEngine# copy running-config startup-config
```

or

```
ServiceEngine# write
```

See the command description for the **copy running-config startup-config** command for more information about the running and saved configuration modes.