



Using Cisco IOS XE Software

This chapter provides information about the Cisco IOS XE software used to configure Cisco Catalyst 8000V. The software for Cisco Catalyst 8000V uses standard Cisco IOS XE CLI commands and conventions.

Commands are not case sensitive. You can abbreviate the commands and parameters if the abbreviations contain enough letters to be different from any other currently available commands or parameters.

The following table lists the keyboard shortcuts for entering and editing commands.

Table 1: Keyboard Shortcuts

Keystrokes	Purpose
Ctrl-B or the Left Arrow key	Move the cursor back by one character.
Ctrl-F or the Right Arrow key	Move the cursor forward by one character.
Ctrl-A	Move the cursor to the beginning of the command line.
Ctrl-E	Move the cursor to the end of the command line.
Esc B	Move the cursor back by one word.
Esc F	Move the cursor forward by one word.

The history buffer stores the last 10 commands you entered. History substitution allows you to access these commands without retyping them, by using special abbreviated commands.

Table 2: History Substitution Commands

Command	Purpose
Ctrl-P or the Up Arrow key	Recall commands in the history buffer beginning with the most recent command. Repeat the key sequence to recall successively older commands.
Ctrl-N or the Down Arrow key	Return to more recent commands in the history buffer after recalling commands with Ctrl-P or the Up Arrow key.

Command	Purpose
Router# show history	While in the EXEC mode, list the last several commands you have just entered.

The command modes available in the traditional Cisco IOS CLI are exactly the same as the command modes available in Cisco IOS XE.

Use the CLI to access Cisco IOS XE software. Because the CLI is divided into many different modes, the commands available to you at any given time depend on the mode that you are currently in. Entering a question mark (?) at the CLI prompt allows you to obtain a list of commands available for each command mode.

When you log in to the CLI, you are in the user EXEC mode. The user EXEC mode contains only a limited subset of commands. To have the access to all the commands, enter the privileged EXEC mode normally by using a password. From the privileged EXEC mode, you can issue any EXEC command - user or privileged mode - or you can enter the global configuration mode.

Most EXEC commands are one-time commands. For example, **show** commands show important status information and **clear** commands clear counters or interfaces. The EXEC commands are not saved when the software reboots.

Configuration modes allow you to make changes to the running configuration. If you later save the running configuration to the startup configuration, these changed commands are stored when the software is rebooted. To enter specific configuration modes, you must start at the global configuration mode. From the global configuration mode, you can enter the interface configuration mode and a variety of other modes such as protocol-specific modes.

The following table describes how to access and exit various common command modes of the Cisco IOS XE software. It also shows examples of the prompts displayed for each mode.

Table 3: Accessing and Exiting Command Modes

Command Mode	Access Method	Prompt	Exit Method
User EXEC	Log in.	Router>	Use the logout command.
Privileged EXEC	From the user EXEC mode, use the enable EXEC command.	Router#	To return to the user EXEC mode, use the disable command.
Global configuration	From the privileged EXEC mode, use the configure terminal privileged EXEC command.	Router(config)#	To return to the privileged EXEC mode from global configuration mode, use the exit or end command.
Interface configuration	From the global configuration mode, specify an interface using an interface command.	Router(config-if)#	To return to the global configuration mode, use the exit command. To return to the privileged EXEC mode, use the end command.

Entering a question mark (?) at the CLI prompt displays a list of commands available for each command mode. You can also get a list of keywords and arguments associated with any command by using the context-sensitive help feature.

To view the help specific to a command mode, a command, a keyword, or an argument, use one of the commands listed in the following table.

Table 4: Help Commands and Purpose

Command	Purpose
help	Provides a brief description of the help system in any command mode.
abbreviated-command-entry?	Provides a list of commands that begin with a particular character string. (No space between command and question mark.)
abbreviated-command-entry<Tab>	Completes a partial command name.
?	Lists all the commands available for a particular command mode.
command ?	Lists the keywords or arguments that you must enter next on the command line. Enter space between command and question mark.

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NVRAM File Security

Cisco Catalyst 8000V allows you to encrypt some of the disk partitions internal to the VM to provide extra security around sensitive data that may be stored on the routers. For example, information in the NVRAM is encrypted so that it is not visible to administrative entities with access to the physical hard disk upon which Cisco Catalyst 8000V is stored.

You can search and filter the output of **show** and **more** commands. This functionality is useful if you need to sort through large amounts of output or if you want to exclude output that you need not see.

To use this functionality, enter a **show** or **more** command followed by the “pipe” character (|); one of the keywords **begin**, **include**, or **exclude**; and a regular expression on which you want to search or filter (the expression is case sensitive):

```
show command { append | begin | exclude | exclude | include | redirect | section | tee } regular-expression
```

```
show command | {append | begin | exclude | include | redirect | section | tee} regular-expression
```

The output matches certain lines of information in the configuration file.

To power off a Cisco Catalyst 8000V instance, you must power off the VM upon which the router is installed. For information about powering off the VM, see your VM vendor documentation.

