



## **High Availability Command Reference, Cisco IOS XE Release 3E (Cisco WLC 5700 Series)**

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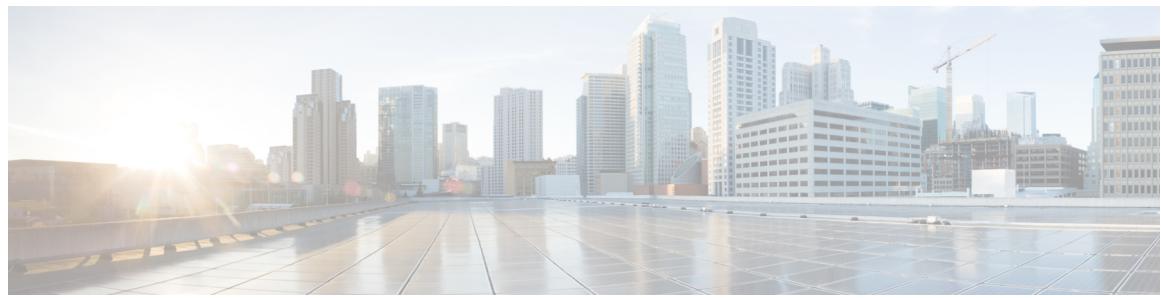
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# Preface

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## Document Conventions

This document uses the following conventions:

Convention	Description
<code>^</code> or <code>Ctrl</code>	Both the <code>^</code> symbol and <code>Ctrl</code> represent the Control (Ctrl) key on a keyboard. For example, the key combination <code>^D</code> or <code>Ctrl-D</code> means that you hold down the Control key while you press the D key. (Keys are indicated in capital letters but are not case sensitive.)
<b>bold</b> font	Commands and keywords and user-entered text appear in <b>bold</b> font.
<i>Italic</i> font	Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic</i> font.
<code>Courier</code> font	Terminal sessions and information the system displays appear in <code>courier</code> font.
<b><code>Courier</code></b> font	<b><code>Courier</code></b> font indicates text that the user must enter.
<code>[x]</code>	Elements in square brackets are optional.
<code>...</code>	An ellipsis (three consecutive nonbolded periods without spaces) after a syntax element indicates that the element can be repeated.
<code> </code>	A vertical line, called a pipe, indicates a choice within a set of keywords or arguments.
<code>[x   y]</code>	Optional alternative keywords are grouped in brackets and separated by vertical bars.

Convention	Description
{x   y}	Required alternative keywords are grouped in braces and separated by vertical bars.
[x {y   z}]	Nested set of square brackets or braces indicate optional or required choices within optional or required elements. Braces and a vertical bar within square brackets indicate a required choice within an optional element.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
< >	Nonprinting characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

### Reader Alert Conventions

This document may use the following conventions for reader alerts:


**Note**

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.


**Tip**

Means *the following information will help you solve a problem*.


**Caution**

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


**Timesaver**

Means *the described action saves time*. You can save time by performing the action described in the paragraph.


**Warning**
**IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

SAVE THESE INSTRUCTIONS

# Related Documentation

**Note**

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Before installing or upgrading the controller, refer to the controller release notes.

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- Cisco Validated Designs documents, located at:

<http://www.cisco.com/go/designzone>

- Error Message Decoder, located at:

<https://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi>

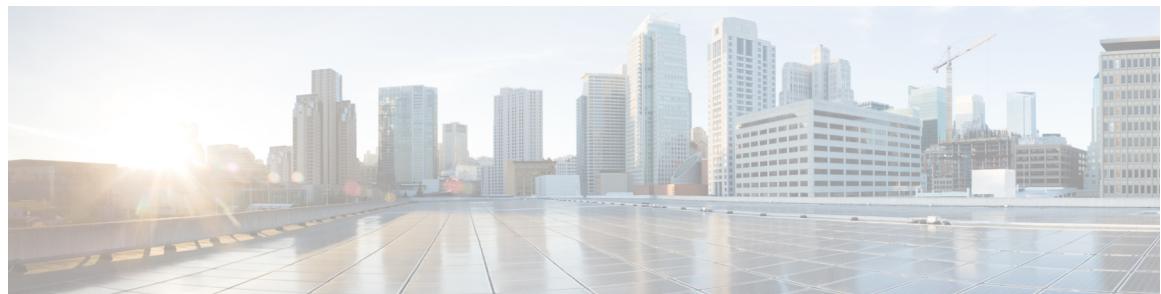
# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>

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# Using the Command-Line Interface

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This chapter contains the following topics:

- [Using the Command-Line Interface, page 1](#)

## Using the Command-Line Interface

This chapter describes the Cisco IOS command-line interface (CLI) and how to use it to configure your switch.

### Understanding Command Modes

The Cisco IOS user interface is divided into many different modes. The commands available to you depend on which mode you are currently in. Enter a question mark (?) at the system prompt to obtain a list of commands available for each command mode.

When you start a session on the switch, you begin in user mode, often called user EXEC mode. Only a limited subset of the commands are available in user EXEC mode. For example, most of the user EXEC commands are one-time commands, such as **show** commands, which show the current configuration status, and **clear** commands, which clear counters or interfaces. The user EXEC commands are not saved when the switch reboots.

To have access to all commands, you must enter privileged EXEC mode. Normally, you must enter a password to enter privileged EXEC mode. From this mode, you can enter any privileged EXEC command or enter global configuration mode.

Using the configuration modes (global, interface, and line), you can make changes to the running configuration. If you save the configuration, these commands are stored and used when the switch reboots. To access the various configuration modes, you must start at global configuration mode. From global configuration mode, you can enter interface configuration mode and line configuration mode.

This table describes the main command modes, how to access each one, the prompt you see in that mode, and how to exit the mode. The examples in the table use the hostname *Switch*.

**Table 1: Command Mode Summary**

<b>Mode</b>	<b>Access Method</b>	<b>Prompt</b>	<b>Exit Method</b>	<b>About This Mode</b>
User EXEC	Begin a session with your switch.	Switch>	Enter <b>logout</b> or <b>quit</b> .	Use this mode to <ul style="list-style-type: none"> <li>Change terminal settings.</li> <li>Perform basic tests.</li> <li>Display system information.</li> </ul>
Privileged EXEC	While in user EXEC mode, enter the <b>enable</b> command.	Controller#	Enter <b>disable</b> to exit.	Use this mode to verify commands that you have entered. Use a password to protect access to this mode.
Global configuration	While in privileged EXEC mode, enter the <b>configure</b> command.	Controller(config)#	To exit to privileged EXEC mode, enter <b>exit</b> or <b>end</b> , or press <b>Ctrl-Z</b> .	Use this mode to configure parameters that apply to the entire switch.
VLAN configuration	While in global configuration mode, enter the <b>vlan</b> <i>vlan-id</i> command.	Controller(config-vlan)#	To exit to global configuration mode, enter the <b>exit</b> command. To return to privileged EXEC mode, press <b>Ctrl-Z</b> or enter <b>end</b> .	Use this mode to configure VLAN parameters. When VTP mode is transparent, you can create extended-range VLANs (VLAN IDs greater than 1005) and save configurations in the switch startup configuration file.
Interface configuration	While in global configuration mode, enter the <b>interface</b> command (with a specific interface).	Controller(config-if)#	To exit to global configuration mode, enter <b>exit</b> . To return to privileged EXEC mode, press <b>Ctrl-Z</b> or enter <b>end</b> .	Use this mode to configure parameters for the Ethernet ports.

Mode	Access Method	Prompt	Exit Method	About This Mode
Line configuration	While in global configuration mode, specify a line with the <b>line vty</b> or <b>line console</b> command.	Controller(config-line)#	To exit to global configuration mode, enter <b>exit</b> . To return to privileged EXEC mode, press <b>Ctrl-Z</b> or enter <b>end</b> .	Use this mode to configure parameters for the terminal line.

For more detailed information on the command modes, see the command reference guide for this release.

## Understanding the Help System

You can enter a question mark (?) at the system prompt to display a list of commands available for each command mode. You can also obtain a list of associated keywords and arguments for any command.

**Table 2: Help Summary**

Command	Purpose
<b>help</b>	Obtains a brief description of the help system in any command mode.
<i>abbreviated-command-entry</i> ?  Controller# <b>di?</b> dir disable disconnect	Obtains a list of commands that begin with a particular character string.
<i>abbreviated-command-entry</i> <Tab>  Controller# <b>sh conf&lt;tab&gt;</b> Controller# <b>show configuration</b>	Completes a partial command name.
?  Switch> ?	Lists all commands available for a particular command mode.
<i>command</i> ?  Switch> <b>show</b> ?	Lists the associated keywords for a command.
<i>command keyword</i> ?  Controller(config)# <b>cdp holdtime</b> ? <10-255> Length of time (in sec) that receiver must keep this packet	Lists the associated arguments for a keyword.

## Understanding Abbreviated Commands

You need to enter only enough characters for the switch to recognize the command as unique.

This example shows how to enter the **show configuration** privileged EXEC command in an abbreviated form:

```
Controller# show conf
```

## Understanding no and default Forms of Commands

Almost every configuration command also has a **no** form. In general, use the **no** form to disable a feature or function or reverse the action of a command. For example, the **no shutdown** interface configuration command reverses the shutdown of an interface. Use the command without the keyword **no** to re-enable a disabled feature or to enable a feature that is disabled by default.

Configuration commands can also have a **default** form. The **default** form of a command returns the command setting to its default. Most commands are disabled by default, so the **default** form is the same as the **no** form. However, some commands are enabled by default and have variables set to certain default values. In these cases, the **default** command enables the command and sets variables to their default values.

## Understanding CLI Error Messages

This table lists some error messages that you might encounter while using the CLI to configure your switch.

**Table 3: Common CLI Error Messages**

Error Message	Meaning	How to Get Help
% Ambiguous command: "show con"	You did not enter enough characters for your switch to recognize the command.	Re-enter the command followed by a question mark (?) with a space between the command and the question mark.  The possible keywords that you can enter with the command appear.
% Incomplete command.	You did not enter all the keywords or values required by this command.	Re-enter the command followed by a question mark (?) with a space between the command and the question mark.  The possible keywords that you can enter with the command appear.
% Invalid input detected at '^' marker.	You entered the command incorrectly. The caret (^) marks the point of the error.	Enter a question mark (?) to display all the commands that are available in this command mode.  The possible keywords that you can enter with the command appear.

## Using Configuration Logging

You can log and view changes to the switch configuration. You can use the Configuration Change Logging and Notification feature to track changes on a per-session and per-user basis. The logger tracks each configuration command that is applied, the user who entered the command, the time that the command was entered, and the parser return code for the command. This feature includes a mechanism for asynchronous notification to registered applications whenever the configuration changes. You can choose to have the notifications sent to the syslog.

**Note**

Only CLI or HTTP changes are logged.

## Using Command History

The software provides a history or record of commands that you have entered. The command history feature is particularly useful for recalling long or complex commands or entries, including access lists. You can customize this feature to suit your needs.

### Changing the Command History Buffer Size

By default, the switch records ten command lines in its history buffer. You can alter this number for a current terminal session or for all sessions on a particular line. These procedures are optional.

Beginning in privileged EXEC mode, enter this command to change the number of command lines that the switch records during the current terminal session:

```
Controller# terminal history [size number-of-lines]
```

The range is from 0 to 256.

Beginning in line configuration mode, enter this command to configure the number of command lines the switch records for all sessions on a particular line:

```
Controller(config-line)# history [size number-of-lines]
```

The range is from 0 to 256.

### Recalling Commands

To recall commands from the history buffer, perform one of the actions listed in this table. These actions are optional.

**Note**

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

**Table 4: Recalling Commands**

Action	Result
Press <b>Ctrl-P</b> or the up arrow key.	Recalls commands in the history buffer, beginning with the most recent command. Repeat the key sequence to recall successively older commands.
Press <b>Ctrl-N</b> or the down arrow key.	Returns to more recent commands in the history buffer after recalling commands with <b>Ctrl-P</b> or the up arrow key. Repeat the key sequence to recall successively more recent commands.
<b>show history</b>  Controller(config)# <b>help</b>	While in privileged EXEC mode, lists the last several commands that you just entered. The number of commands that appear is controlled by the setting of the <b>terminal history</b> global configuration command and the <b>history</b> line configuration command.

## Disabling the Command History Feature

The command history feature is automatically enabled. You can disable it for the current terminal session or for the command line. These procedures are optional.

To disable the feature during the current terminal session, enter the **terminal no history** privileged EXEC command.

To disable command history for the line, enter the **no history** line configuration command.

## Using Editing Features

This section describes the editing features that can help you manipulate the command line.

### Enabling and Disabling Editing Features

Although enhanced editing mode is automatically enabled, you can disable it, re-enable it, or configure a specific line to have enhanced editing. These procedures are optional.

To globally disable enhanced editing mode, enter this command in line configuration mode:

```
Switch (config-line)# no editing
```

To re-enable the enhanced editing mode for the current terminal session, enter this command in privileged EXEC mode:

```
Controller# terminal editing
```

To reconfigure a specific line to have enhanced editing mode, enter this command in line configuration mode:

```
Controller(config-line)# editing
```

## Editing Commands through Keystrokes

This table shows the keystrokes that you need to edit command lines. These keystrokes are optional.



**Note**

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

**Table 5: Editing Commands through Keystrokes**

Capability	Keystroke	Purpose
Move around the command line to make changes or corrections.	Press <b>Ctrl-B</b> , or press the left arrow key.	Moves the cursor back one character.
	Press <b>Ctrl-F</b> , or press the right arrow key.	Moves the cursor forward one character.
	Press <b>Ctrl-A</b> .	Moves the cursor to the beginning of the command line.
	Press <b>Ctrl-E</b> .	Moves the cursor to the end of the command line.
	Press <b>Esc B</b> .	Moves the cursor back one word.
	Press <b>Esc F</b> .	Moves the cursor forward one word.
	Press <b>Ctrl-T</b> .	Transposes the character to the left of the cursor with the character located at the cursor.
Recall commands from the buffer and paste them in the command line. The switch provides a buffer with the last ten items that you deleted.	Press <b>Ctrl-Y</b> .	Recalls the most recent entry in the buffer.
	Press <b>Esc Y</b> .	Recalls the next buffer entry. The buffer contains only the last 10 items that you have deleted or cut. If you press <b>Esc Y</b> more than ten times, you cycle to the first buffer entry.
Delete entries if you make a mistake or change your mind.	Press the <b>Delete</b> or <b>Backspace</b> key.	Erases the character to the left of the cursor.

Capability	Keystroke	Purpose
	Press <b>Ctrl-D</b> .	Deletes the character at the cursor.
	Press <b>Ctrl-K</b> .	Deletes all characters from the cursor to the end of the command line.
	Press <b>Ctrl-U</b> or <b>Ctrl-X</b> .	Deletes all characters from the cursor to the beginning of the command line.
	Press <b>Ctrl-W</b> .	Deletes the word to the left of the cursor.
	Press <b>Esc D</b> .	Deletes from the cursor to the end of the word.
Capitalize or lowercase words or capitalize a set of letters.	Press <b>Esc C</b> .	Capitalizes at the cursor.
	Press <b>Esc L</b> .	Changes the word at the cursor to lowercase.
	Press <b>Esc U</b> .	Capitalizes letters from the cursor to the end of the word.
Designate a particular keystroke as an executable command, perhaps as a shortcut.	Press <b>Ctrl-V</b> or <b>Esc Q</b> .	
Scroll down a line or screen on displays that are longer than the terminal screen can display.	Press the <b>Return</b> key.	Scrolls down one line.
<b>Note</b> The More prompt is used for any output that has more lines than can be displayed on the terminal screen, including <b>show</b> command output. You can use the <b>Return</b> and <b>Space</b> bar keystrokes whenever you see the More prompt.		
	Press the <b>Space</b> bar.	Scrolls down one screen.
Redisplay the current command line if the switch suddenly sends a message to your screen.	Press <b>Ctrl-L</b> or <b>Ctrl-R</b> .	Redisplays the current command line.

## Editing Command Lines that Wrap

You can use a wraparound feature for commands that extend beyond a single line on the screen. When the cursor reaches the right margin, the command line shifts ten spaces to the left. You cannot see the first ten characters of the line, but you can scroll back and check the syntax at the beginning of the command. The keystroke actions are optional.

To scroll back to the beginning of the command entry, press **Ctrl-B** or the left arrow key repeatedly. You can also press **Ctrl-A** to immediately move to the beginning of the line.



### Note

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

In this example, the **access-list** global configuration command entry extends beyond one line. When the cursor first reaches the end of the line, the line is shifted ten spaces to the left and redisplayed. The dollar sign (\$) shows that the line has been scrolled to the left. Each time the cursor reaches the end of the line, the line is again shifted ten spaces to the left.

```
Controller(config)# access-list 101 permit tcp 131.108.2.5 255.255.255.0 131.108.1.20 255.25
Controller(config)# $ 101 permit tcp 131.108.2.5 255.255.255.0 131.108.1.20 255.255.255.0 eq
Controller(config)# $101.2.5 255.255.255.0 131.108.1.20 255.255.255.0 eq 45
```

After you complete the entry, press **Ctrl-A** to check the complete syntax before pressing the **Return** key to execute the command. The dollar sign (\$) appears at the end of the line to show that the line has been scrolled to the right:

```
Controller(config)# access-list 101 permit tcp 131.108.2.5 255.255.255.0 131.108.1.20 255.255.255.0 eq 45$
```

The software assumes that you have a terminal screen that is 80 columns wide. If you have a width other than that, use the **terminal width** privileged EXEC command to set the width of your terminal.

Use line wrapping with the command history feature to recall and modify previous complex command entries.

## Searching and Filtering Output of show and more Commands

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

To use this functionality, enter a **show** or **more** command followed by the pipe character (|), one of the keywords **begin**, **include**, or **exclude**, and an expression that you want to search for or filter out:

*command | {begin | include | exclude} regular-expression*

Expressions are case sensitive. For example, if you enter **| exclude output**, the lines that contain *output* are not displayed, but the lines that contain *Output* appear.

This example shows how to include in the output display only lines where the expression *protocol* appears:

```
Controller# show interfaces | include protocol
Vlan1 is up, line protocol is up
Vlan10 is up, line protocol is down
GigabitEthernet1/0/1 is up, line protocol is down
GigabitEthernet1/0/2 is up, line protocol is up
```

## Accessing the CLI

You can access the CLI through a console connection, through Telnet, or by using the browser.

You manage the switch stack and the stack member interfaces through the active switch. You cannot manage stack members on an individual switch basis. You can connect to the through the console port or the Ethernet management port of one or more stack members. Be careful with using multiple CLI sessions to the . Commands you enter in one session are not displayed in the other sessions. Therefore, it is possible to lose track of the session from which you entered commands.



### Note

---

We recommend using one CLI session when managing the switch stack.

---

If you want to configure a specific stack member port, you must include the stack member number in the CLI command interface notation.

To debug a specific stack member, you can access it from the by using the **session stack-member-number** privileged EXEC command. The stack member number is appended to the system prompt. For example, *Switch-2#* is the prompt in privileged EXEC mode for stack member 2, and where the system prompt for the is Switch. Only the **show** and **debug** commands are available in a CLI session to a specific stack member.

## Accessing the CLI through a Console Connection or through Telnet

Before you can access the CLI, you must connect a terminal or a PC to the switch console or connect a PC to the Ethernet management port and then power on the switch, as described in the hardware installation guide that shipped with your switch.

CLI access is available before switch setup. After your switch is configured, you can access the CLI through a remote Telnet session or SSH client.

You can use one of these methods to establish a connection with the switch:

- Connect the switch console port to a management station or dial-up modem, or connect the Ethernet management port to a PC. For information about connecting to the console or Ethernet management port, see the switch hardware installation guide.
- Use any Telnet TCP/IP or encrypted Secure Shell (SSH) package from a remote management station. The switch must have network connectivity with the Telnet or SSH client, and the switch must have an enable secret password configured.

The switch supports up to 16 simultaneous Telnet sessions. Changes made by one Telnet user are reflected in all other Telnet sessions.

The switch supports up to five simultaneous secure SSH sessions.

After you connect through the console port, through the Ethernet management port, through a Telnet session or through an SSH session, the user EXEC prompt appears on the management station.



# High Availability Commands

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# debug platform stack-manager

To enable debugging of the stack manager software, use the **debug platform stack-manager** command in privileged EXEC mode. To disable debugging, use the **no** form of this command.

```
debug platform stack-manager {all| rpc| sdp| sim| ssm| trace}
no debug platform stack-manager {all| rpc| sdp| sim| ssm| trace}
```

Syntax Description	
<b>all</b>	Displays all stack manager debug messages.
<b>rpc</b>	Displays stack manager remote procedure call (RPC) usage debug messages.
<b>sdp</b>	Displays the Stack Discovery Protocol (SDP) debug messages.
<b>sim</b>	Displays the stack information module debug messages.
<b>ssm</b>	Displays the stack state-machine debug messages.
<b>trace</b>	Traces the stack manager entry and exit debug messages.

**Command Default** Debugging is disabled.

**Command Modes** Privileged EXEC

Command History	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

**Usage Guidelines** This command is supported only on stacking-capable switches.

The **undebug platform stack-manager** command is the same as the **no debug platform stack-manager** command.

When you enable debugging on a switch stack, it is enabled only on the stack master. To enable debugging on a stack member, you can start a session from the stack master by using the **session switch-number** EXEC command. Enter the **debug** command at the command-line prompt of the stack member. You also can use the **remote command stack-member-number LINE** EXEC command on the stack master switch to enable debugging on a member switch without first starting a session.

# main-cpu

To enter the redundancy main configuration submode and enable the standby switch, use the **main-cpu** command in redundancy configuration mode.

## main-cpu

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** Redundancy configuration

Command History	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

**Usage Guidelines** From the redundancy main configuration submode, use the **standby console enable** command to enable the standby switch.

**Examples** This example shows how to enter the redundancy main configuration submode and enable the standby switch:

```
Controller(config)# redundancy
Controller(config-red)# main-cpu
Controller(config-r-mc)# standby console enable
Controller#
```

**mode sso**

# mode sso

To set the redundancy mode to stateful switchover (SSO), use the **mode sso** command in redundancy configuration mode.

## **mode sso**

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** Redundancy configuration

## **Command History**

<b>Release</b>	<b>Modification</b>
Cisco IOS XE 3.2SE	This command was introduced.

## **Usage Guidelines**

The **mode sso** command can be entered only from within redundancy configuration mode.

Follow these guidelines when configuring your system to SSO mode:

- You must use identical Cisco IOS images on the switches in the stack to support SSO mode. Redundancy may not work due to differences between the Cisco IOS releases.
- If you perform an online insertion and removal (OIR) of the module, the switch resets during the stateful switchover and the port states are restarted only if the module is in a transient state (any state other than Ready).
- The forwarding information base (FIB) tables are cleared on a switchover. Routed traffic is interrupted until route tables reconverge.

## **Examples**

This example shows how to set the redundancy mode to SSO:

```
Controller(config)# redundancy
Controller(config-red)# mode sso
Controller(config-red)#
```

# policy config-sync prc reload

To reload the standby switch if a parser return code (PRC) failure occurs during configuration synchronization, use the **policy config-sync reload** command in redundancy configuration mode. To specify that the standby switch is not reloaded if a parser return code (PRC) failure occurs, use the **no** form of this command.

```
policy config-sync {bulk|lbl} prc reload  
no policy config-sync {bulk|lbl} prc reload
```

## Syntax Description

**bulk** Specifies bulk configuration mode.

**lbl** Specifies line-by-line (lbl) configuration mode.

## Command Default

The command is enabled by default.

## Command Modes

Redundancy configuration

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Examples

This example shows how to specify that the standby switch is not reloaded if a parser return code (PRC) failure occurs during configuration synchronization:

```
Controller(config-red)# no policy config-sync bulk prc reload
```

# redundancy

To enter redundancy configuration mode, use the **redundancy** command in global configuration mode.

## redundancy

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** Global configuration

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

The redundancy configuration mode is used to enter the main CPU submode, which is used to enable the standby switch.

To enter the main CPU submode, use the **main-cpu** command while in redundancy configuration mode.

From the main CPU submode, use the **standby console enable** command to enable the standby switch.

Use the **exit** command to exit redundancy configuration mode.

## Examples

This example shows how to enter redundancy configuration mode:

```
Controller(config) # redundancy
Controller(config-red) #
```

This example shows how to enter the main CPU submode:

```
Controller(config) # redundancy
Controller(config-red) # main-cpu
Controller(config-r-mc) #
```

# redundancy config-sync mismatched-commands

To allow the standby switch to join the stack if a configuration mismatch occurs between the active and standby switches, use the **redundancy config-sync mismatched-commands** command in privileged EXEC mode.

**redundancy config-sync {ignore| validate} mismatched-commands**

## Syntax Description

<b>ignore</b>	Ignores the mismatched command list.
<b>validate</b>	Revalidates the mismatched command list with the modified running-configuration.

## Command Default

None

## Command Modes

Privileged EXEC

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

If the command syntax check in the running configuration of the active switch fails while the standby switch is booting, use the **redundancy config-sync mismatched-commands** command to display the Mismatched Command List (MCL) on the active switch and to reboot the standby switch.

The following is a log entry example for mismatched commands:

```
00:06:31: Config Sync: Bulk-sync failure due to Servicing Incompatibility. Please check
full list of mismatched commands via:
show redundancy config-sync failures mcl
00:06:31: Config Sync: Starting lines from MCL file:
interface GigabitEthernet7/7
! <submode> "interface"
- ip address 192.0.2.0 255.255.255.0
! </submode> "interface"
```

To display all mismatched commands, use the **show redundancy config-sync failures mcl** command.

To clean the MCL, follow these steps:

- 1 Remove all mismatched commands from the running configuration of the active switch.
- 2 Revalidate the MCL with a modified running configuration by using the **redundancy config-sync validate mismatched-commands** command.
- 3 Reload the standby switch.

**redundancy config-sync mismatched-commands**

You can ignore the MCL by doing the following:

- 1 Enter the **redundancy config-sync ignore mismatched-commands** command.
- 2 Reload the standby switch; the system changes to SSO mode.

**Note**


---

If you ignore the mismatched commands, the out-of-sync configuration at the active switch and the standby switch still exists.

- 
- 3 Verify the ignored MCL with the **show redundancy config-sync ignored mcl** command.

If SSO mode cannot be established between the active and standby switches because of an incompatibility in the configuration file, a mismatched command list (MCL) is generated at the active switch and a reload into route processor redundancy (RPR) mode is forced for the standby switch.

**Note**


---

RPR mode is supported on Catalyst 3850 switches as a fallback in case of errors. It is not configurable.

---

If you attempt to establish an SSO after removing the offending configuration and rebooting the standby switch with the same image, the C3K\_REDUNDANCY-2-IOS\_VERSION\_CHECK\_FAIL and ISSU-3-PEER\_IMAGE\_INCOMPATIBLE messages appear because the peer image is listed as incompatible. You can clear the peer image from the incompatible list with the **redundancy config-sync ignore mismatched-commands** EXEC command while the peer is in a standby cold (RPR) state. This action allows the standby switch to boot in a standby hot (SSO) state when it reloads.

**Examples**

This example shows how to revalidate the mismatched command list with the modified configuration:

```
Controller# redundancy config-sync validate mismatched-commands
Controller#
```

# redundancy force-switchover

To force a switchover from the active switch to the standby switch, use the **redundancy force-switchover** command in privileged EXEC mode on a switch stack.

## redundancy force-switchover

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** Privileged EXEC

Command History	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

**Usage Guidelines** Use the **redundancy force-switchover** command to manually switch over to the redundant switch. The redundant switch becomes the new active switch that runs the Cisco IOS image, and the modules are reset to their default settings.

The old active switch reboots with the new image and joins the stack.

If you use the **redundancy force-switchover** command on the active switch, the switchports on the active switch go down.

If you use this command on a switch that is in a partial ring stack, the following warning message appears:

```
Controller# redundancy force-switchover
Stack is in Half ring setup; Reloading a switch might cause stack split
This will reload the active unit and force switchover to standby[confirm]
```

**Examples** This example shows how to manually switch over from the active to the standby supervisor engine:

```
Controller# redundancy force-switchover
Controller#
```

**redundancy reload**

# redundancy reload

To force a reload of one or all of the switches in the stack, use the **redundancy reload** command in privileged EXEC mode.

**redundancy reload {peer| shelf}**

## Syntax Description

<b>peer</b>	Reloads the peer unit.
<b>shelf</b>	Reboots all switches in the stack.

## Command Default

None

## Command Modes

Privileged EXEC

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

Before using this command, see the “Performing a Software Upgrade” section of the *Stack Manager Configuration Guide (Platform—Cisco WLC 5700 Series)* for additional information.

Use the **redundancy reload shelf** command to reboot all the switches in the stack.

## Examples

This example shows how to manually reload all switches in the stack:

```
Controller# redundancy reload shelf
Controller#
```

# reload

To reload the stack member and to apply a configuration change, use the **reload** command in privileged EXEC mode.

**reload [/noverify|/verify] [LINE] at|cancel|in|slot stack-member-number|standby-cpu]**

## Syntax Description

<b>/noverify</b>	(Optional) Specifies to not verify the file signature before the reload.
<b>/verify</b>	(Optional) Verifies the file signature before the reload.
<b>LINE</b>	(Optional) Reason for the reload.
<b>at</b>	(Optional) Specifies the time in hh:mm for the reload to occur.
<b>cancel</b>	(Optional) Cancels the pending reload.
<b>in</b>	(Optional) Specifies a time interval for reloads to occur.
<b>slot</b>	(Optional) Saves the changes on the specified stack member and then restarts it.
<i>stack-member-number</i>	
<b>standby-cpu</b>	(Optional) Reloads the standby route processor (RP).

## Command Default

Immediately reloads the stack member and puts a configuration change into effect.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

If there is more than one switch in the switch stack, and you enter the **reload slot stack-member-number** command, you are not prompted to save the configuration.

## Examples

This example shows how to reload the switch stack:

```
Controller# reload
System configuration has been modified. Save? [yes/no]: y
```

**reload**

```
Proceed to reload the whole Stack? [confirm] y
```

This example shows how to reload a specific stack member:

```
Controller# reload slot 6
Proceed with reload? [confirm] y
```

This example shows how to reload a single-switch switch stack (there is only one member switch):

```
Controller# reload slot 3
System configuration has been modified. Save? [yes/no]: y
Proceed to reload the whole Stack? [confirm] y
```

# session

To access a specific stack member use the **session** command in privileged EXEC mode on the stack master.

**session** *stack-member-number*

## Syntax Description

<i>stack-member-number</i>	Stack member number to access from the .
----------------------------	--

## Command Default

None

## Command Modes

Privileged EXEC

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

When you access the member, its member number is appended to the system prompt.

Use the **session** command from the master to access a member Controller

Use the **session** command with **processor 1** from the master or a standalone switch to access the internal controller. A standalone Controller is always member 1.

## Examples

This example shows how to access stack member 3:

```
Controller# session 3
Controller-3#
```

**show platform stack-manager**

# show platform stack-manager

To display platform-dependent switch-stack information, use the **show platform stack-manager** command in privileged EXEC mode.

**show platform stack-manager {oir-states| sdp-counters| sif-counters} switch *stack-member-number***

## Syntax Description

<b>oir-states</b>	Displays Online Insertion and Removal (OIR) state information
<b>sdp-counters</b>	Displays Stack Discovery Protocol (SDP) counter information.
<b>sif-counters</b>	Displays Stack Interface (SIF) counter information.
<b>switch <i>stack-member-number</i></b>	Specifies the stack member for which to display stack-manager information.

## Command Default

None

## Command Modes

Privileged EXEC

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

Use the **show platform stack-manager** command to collect data and statistics for the switch stack.

Use this command only when you are working directly with your technical support representative while troubleshooting a problem. Do not use this command unless your technical support representative asks you to do so.

# show redundancy

To display redundancy facility information, use the **show redundancy** command in privileged EXEC mode

**show redundancy [clients| config-sync| counters| history [reload| reverse]]| slaves[*slave-name*] {clients| counters}| states| switchover history [domain default]]**

## Syntax Description

<b>clients</b>	(Optional) Displays information about the redundancy facility client.
<b>config-sync</b>	(Optional) Displays a configuration synchronization failure or the ignored mismatched command list (MCL). For more information, see <a href="#">show redundancy config-sync, on page 29</a> .
<b>counters</b>	(Optional) Displays information about the redundancy facility counter.
<b>history</b>	(Optional) Displays a log of past status and related information for the redundancy facility.
<b>history reload</b>	(Optional) Displays a log of past reload information for the redundancy facility.
<b>history reverse</b>	(Optional) Displays a reverse log of past status and related information for the redundancy facility.
<b>slaves</b>	(Optional) Displays all slaves in the redundancy facility.
<i>slave-name</i>	(Optional) The name of the redundancy facility slave to display specific information for. Enter additional keywords to display all clients or counters in the specified slave.
<b>clients</b>	Displays all redundancy facility clients in the specified slave.
<b>counters</b>	Displays all counters in the specified slave.
<b>states</b>	(Optional) Displays information about the redundancy facility state, such as disabled, initialization, standby or active.
<b>switchover history</b>	(Optional) Displays information about the redundancy facility switchover history.
<b>domain default</b>	(Optional) Displays the default domain as the domain to display switchover history for.

## Command Default

None

## Command Modes

Privileged EXEC

**show redundancy**

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Examples

This example shows how to display information about the redundancy facility:

```
Controller# show redundancy
Redundant System Information :
-----
Available system uptime = 6 days, 9 hours, 23 minutes
Switchovers system experienced = 0
    Standby failures = 0
    Last switchover reason = not known

    Hardware Mode = Simplex
Configured Redundancy Mode = SSO
    Operating Redundancy Mode = SSO
    Maintenance Mode = Disabled
        Communications = Down      Reason: Simplex mode

Current Processor Information :
-----
    Active Location = slot 1
    Current Software state = ACTIVE
    Uptime in current state = 6 days, 9 hours, 23 minutes
    Image Version = Cisco IOS Software, IOS-XE Software, Catalyst 3
850 L3 Switch Software (CAT3850-UNIVERSALK9-M), Version 03.08.59.EMD EARLY DEPLOY
MENT ENGINEERING NOVA_WEEKLY BUILD, synced to DSGS_PI2_POSTPC_FLO_DSBU7_NG3K_11
05
Copyright (c) 1986-2012 by Cisco Systems, Inc.
Compiled Sun 16-S
    Configuration register = 0x102

Peer (slot: 0) information is not available because it is in 'DISABLED' state
Controller#
```

This example shows how to display redundancy facility client information:

```
Controller# show redundancy clients
Group ID = 1
clientID = 20002  clientSeq = 4  EICORE HA Client
clientID = 24100  clientSeq = 5  WCM_CAPWAP
clientID = 24101  clientSeq = 6  WCM_RRM HA
clientID = 24103  clientSeq = 8  WCM_QOS HA
clientID = 24105  clientSeq = 10  WCM_MOBILITY
clientID = 24106  clientSeq = 11  WCM_DOT1X
clientID = 24107  clientSeq = 12  WCM_APFROGUE
clientID = 24110  clientSeq = 15  WCM_CIDS
clientID = 24111  clientSeq = 16  WCM_NETFLOW
clientID = 24112  clientSeq = 17  WCM_MCAST
clientID = 24120  clientSeq = 18  wcm_comet
clientID = 24001  clientSeq = 21  Table Manager Client
clientID = 20010  clientSeq = 24  SNMP SA HA Client
clientID = 20007  clientSeq = 27  Installer HA Client
clientID = 29    clientSeq = 60  Redundancy Mode RF
clientID = 139   clientSeq = 61  IfIndex
clientID = 3300  clientSeq = 62  Persistent Variable
clientID = 25    clientSeq = 68  CHKPT RF
clientID = 20005 clientSeq = 74  IIF-shim
clientID = 10001 clientSeq = 82  QEMU Platform RF

<output truncated>
```

The output displays the following information:

- clientID displays the client's ID number.
- clientSeq displays the client's notification sequence number.
- Current redundancy facility state.

This example shows how to display the redundancy facility counter information:

```
Controller# show redundancy counters
Redundancy Facility OMs
```

```
    comm link up = 0
    comm link down = 0
    invalid client tx = 0
    null tx by client = 0
        tx failures = 0
    tx msg length invalid = 0

    client not rxing msgs = 0
    rx peer msg routing errors = 0
        null peer msg rx = 0
        errored peer msg rx = 0

    buffers tx = 0
    tx buffers unavailable = 0
        buffers rx = 0
    buffer release errors = 0

duplicate client registers = 0
failed to register client = 0
    Invalid client syncs = 0
```

```
Controller#
```

This example shows how to display redundancy facility history information:

```
Controller# show redundancy history
00:00:00 *my state = INITIALIZATION(2) peer state = DISABLED(1)
00:00:00 RF_EVENT_INITIALIZATION(524) op=0 rc=0
00:00:00 *my state = NEGOTIATION(3) peer state = DISABLED(1)
00:00:01 client added: Table Manager Client(24001) seq=21
00:00:01 client added: SNMP SA HA Client(20010) seq=24
00:00:06 client added: WCM_CAPWAP(24100) seq=5
00:00:06 client added: WCM_QOS HA(24103) seq=8
00:00:07 client added: WCM_DOT1X(24106) seq=11
00:00:07 client added: EICORE HA Client(20002) seq=4
00:00:09 client added: WCM_MOBILITY(24105) seq=10
00:00:09 client added: WCM_NETFLOW(24111) seq=16
00:00:09 client added: WCM_APFRogue(24107) seq=12
00:00:09 client added: WCM_RRM HA(24101) seq=6
00:00:09 client added: WCM_MCAST(24112) seq=17
00:00:09 client added: WCM_CIDS(24110) seq=15
00:00:09 client added: wcm_comet(24120) seq=18
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) First Slave(0) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Slave(6107) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Slave(6109) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Slave(6128) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Slave(8897) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Slave(8898) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Slave(8901) op=0 rc=0
00:00:22 RF_EVENT_SLAVE_STATUS_DONE(523) First Slave(0) op=405 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) Redundancy Mode RF(29) op=0 rc=0
00:00:22 RF_STATUS_REDUNDANCY_MODE_CHANGE(405) IfIndex(139) op=0 rc=0

<output truncated>
```

This example shows how to display information about the redundancy facility slaves:

```
Controller# show redundancy slaves
Group ID = 1
Slave/Process ID = 6107 Slave Name = [installer]
```

show redundancy

```
Slave/Process ID = 6109 Slave Name = [eicored]
Slave/Process ID = 6128 Slave Name = [snmp_subagent]
Slave/Process ID = 8897 Slave Name = [wcm]
Slave/Process ID = 8898 Slave Name = [table_mgr]
Slave/Process ID = 8901 Slave Name = [iosd]
```

Controller#

This example shows how to display information about the redundancy facility state:

```
Controller# show redundancy states
    my state = 13 -ACTIVE
    peer state = 1 -DISABLED
        Mode = Simplex
        Unit ID = 1

    Redundancy Mode (Operational) = SSO
    Redundancy Mode (Configured) = SSO
        Redundancy State = Non Redundant
            Manual Swact = disabled (system is simplex (no peer unit))

    Communications = Down      Reason: Simplex mode

    client count = 75
    client_notification_TMR = 360000 milliseconds
        keep_alive TMR = 9000 milliseconds
        keep_alive count = 0
        keep_alive threshold = 18
        RF debug mask = 0

Controller#
```

# show redundancy config-sync

To display a configuration synchronization failure or the ignored mismatched command list (MCL), if any, use the **show redundancy config-sync** command in EXEC mode.

**show redundancy config-sync {failures {bem|mcl|prc}} | ignored failures mcl}**

Syntax Description	
<b>failures</b>	Displays MCL entries or best effort method (BEM)/Parser Return Code (PRC) failures.
<b>bem</b>	Displays a BEM failed command list, and forces the standby switch to reboot.
<b>mcl</b>	Displays commands that exist in the switch's running configuration but are not supported by the image on the standby switch, and forces the standby switch to reboot.
<b>prc</b>	Displays a PRC failed command list and forces the standby switch to reboot.
<b>ignored failures mcl</b>	Displays the ignored MCL failures.

<b>Command Default</b>	None
------------------------	------

<b>Command Modes</b>	User EXEC
	Privileged EXEC

Command History	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

<b>Usage Guidelines</b>	When two versions of Cisco IOS images are involved, the command sets supported by two images might differ. If any of those mismatched commands are executed on the active switch, the standby switch might not recognize those commands, which causes a configuration mismatch condition. If the syntax check for the command fails on the standby switch during a bulk synchronization, the command is moved into the MCL and the standby switch is reset. To display all the mismatched commands, use the <b>show redundancy config-sync failures mcl</b> command.
-------------------------	--

To clean the MCL, follow these steps:

- 1 Remove all mismatched commands from the active switch's running configuration.
- 2 Revalidate the MCL with a modified running configuration by using the **redundancy config-sync validate mismatched-commands** command.

**show redundancy config-sync**

- 3 Reload the standby switch.

Alternatively, you could ignore the MCL by following these steps:

- 1 Enter the **redundancy config-sync ignore mismatched-commands** command.
- 2 Reload the standby switch; the system transitions to SSO mode.



**Note**

---

If you ignore the mismatched commands, the out-of-synchronization configuration on the active switch and the standby switch still exists.

---

- 3 You can verify the ignored MCL with the **show redundancy config-sync ignored mcl** command.

Each command sets a return code in the action function that implements the command. This return code indicates whether or not the command successfully executes. The active switch maintains the PRC after executing a command. The standby switch executes the command and sends the PRC back to the active switch. A PRC failure occurs if these two PRCs do not match. If a PRC error occurs at the standby switch either during bulk synchronization or line-by-line (LBL) synchronization, the standby switch is reset. To display all PRC failures, use the **show redundancy config-sync failures prc** command.

To display best effort method (BEM) errors, use the **show redundancy config-sync failures bem** command.

## Examples

This example shows how to display the BEM failures:

```
Controller> show redundancy config-sync failures bem
BEM Failed Command List
-----
The list is Empty
```

This example shows how to display the MCL failures:

```
Controller> show redundancy config-sync failures mcl
Mismatched Command List
-----
The list is Empty
```

This example shows how to display the PRC failures:

```
Controller# show redundancy config-sync failures prc
PRC Failed Command List
-----
The list is Empty
```

# show switch

To display information that is related to the stack member or the switch stack, use the **show switch** command in EXEC mode.

**Command Default** None

**Command Modes** User EXEC  
Privileged EXEC

Command History	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

**Examples** This example shows how to display summary stack information:

This example shows how to display detailed stack information:

This example shows how to display the member 6 summary information:

```
Controller# show switch 6
Switch#  Role      Mac Address      Priority      State
-----  -----
 6       Member    0003.e31a.1e00     1           Ready
```

This example shows how to display the neighbor information for a stack:

```
Controller# show switch neighbors
Switch #  Port A      Port B
-----  -----
 6        None          8
 8        6            None
```

This example shows how to display stack-port information:

```
Controller# show switch stack-ports
Switch #  Port A      Port B
-----  -----
 6        Down         Ok
 8        Ok           Down
```

# stack-mac persistent timer

To enable the persistent MAC address feature, use the **stack-mac persistent timer** command in global configuration mode on the switch stack or on a standalone switch. To disable the persistent MAC address feature, use the **no** form of this command.

**stack-mac persistent timer [0] *time-value***

**no stack-mac persistent timer**

---

## Syntax Description

**0**

<i>time-value</i>	(Optional) Time period in minutes before the stack MAC address changes to that of the new . The range is 1 to 60 minutes.
-------------------	---

---

**Command Default** Persistent MAC address is disabled. The MAC address of the stack is always that of the first .

**Command Modes** Global configuration

---

## Command History

	<b>Release</b>	<b>Modification</b>
Cisco IOS XE 3.2SE		This command was introduced.

---

# stack-mac update force

To update the stack MAC address to the MAC address of the active switch, use the **stack-mac update force** command in EXEC mode on the active switch.

## stack-mac update force

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Command Modes** User EXEC  
Privileged EXEC

Command History	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

**Usage Guidelines** By default, the stack MAC address is not changed to the MAC address of the new active switch during a high availability (HA) failover. Use the **stack-mac update force** command to force the stack MAC address to change to the MAC address of the new active switch.

If the switch with the same MAC address as the stack MAC address is currently a member of the stack, the **stack-mac update force** command has no effect. (It does not change the stack MAC address to the MAC address of the active switch.)



**Note** If you do not change the stack MAC address, Layer 3 interface flapping does not occur. It also means that a foreign MAC address (a MAC address that does not belong to any of the switches in the stack) could be the stack MAC address. If the switch with this foreign MAC address joins another stack as the active switch, two stacks will have the same stack MAC address. You must use the **stack-mac update force** command to resolve the conflict.

## Examples

This example shows how to update the stack MAC address to the MAC address of the active switch:

```
Controller> stack-mac update force  
Controller>
```

You can verify your settings by entering the **show switch** privileged EXEC command. The stack MAC address includes whether the MAC address is local or foreign.

**standby console enable**

# standby console enable

To enable access to the standby console switch, use the **standby console enable** command in redundancy main configuration submode. To disable access to the standby console switch, use the **no** form of this command.

**standby console enable**

**no standby console enable**

**Syntax Description** This command has no arguments or keywords.

**Command Default** Access to the standby console switch is disabled.

**Command Modes** Redundancy main configuration submode

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

This command is used to collect and review specific data about the standby console. The command is useful primarily for Cisco technical support representatives troubleshooting the switch.

## Examples

This example shows how to enter the redundancy main configuration submode and enable access to the standby console switch:

```
Controller(config)# redundancy
Controller(config-red)# main-cpu
Controller(config-r-mc)# standby console enable
Controller(config-r-mc)#

```

# switch stack port

To disable or enable the specified stack port on the member, use the **switch** command in privileged EXEC mode on a stack member.

**switch stack-member-number stack port port-number {disable|enable}**

## Syntax Description

---

*stack-member-number*

<b>stack port</b> <i>port-number</i>	Specifies the stack port on the member. The range is 1 to 2.
<b>disable</b>	Disables the specified port.
<b>enable</b>	Enables the specified port.

---

**Command Default** The stack port is enabled.

**Command Modes** Privileged EXEC

## Command History

<b>Release</b>	<b>Modification</b>
Cisco IOS XE 3.2SE	This command was introduced.

---

## Usage Guidelines

A stack is in the full-ring state when all members are connected through the stack ports and are in the ready state.

The stack is in the partial-ring state when the following occurs:

- All members are connected through their stack ports but some are not in the ready state.
- Some members are not connected through the stack ports.



### Note

Be careful when using the **switch stack-member-number stack port port-number disable** command. When you disable the stack port, the stack operates at half bandwidth.

If you enter the **switch stack-member-number stack port port-number disable** privileged EXEC command and the stack is in the full-ring state, you can disable only one stack port. This message appears:

Enabling/disabling a stack port may cause undesired stack changes. Continue?[confirm]

**switch stack port**

If you enter the **switch stack-member-number stack port port-number disable** privileged EXEC command and the stack is in the partial-ring state, you cannot disable the port. This message appears:

Disabling stack port not allowed with current stack configuration.

**Examples**

This example shows how to disable stack port 2 on member 4:

```
Controller# switch 4 stack port 2 disable
```

# switch priority

To change the stack member priority value, use the **switch priority** command in mode on the .

**switch *stack-member-number* priority *new-priority-value***

## Syntax Description

<i>stack-member-number</i>	Current stack member number. The range is 1 to 2.
<i>new-priority-value</i>	New stack member priority value. The range is 1 to 15. The stack member with higher priority value receives high priority in the stack.

## Command Default

The default priority value is 1.

## Command Modes

## Command History

Release	Modification
Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

The new priority value is a factor when a new is elected. When you change the priority value the is not changed immediately.

## Examples

This example shows how to change the priority value of stack member 6 to 8:

```
Controller switch 6 priority 8
Changing the Switch Priority of Switch Number 6 to 8
Do you want to continue?[confirm]
```

# switch provision

To supply a configuration to a new switch before it joins the switch stack, use the **switch provision** command in global configuration mode on the . To delete all configuration information that is associated with the removed switch (a stack member that has left the stack), use the **no** form of this command.

```
switch stack-member-number provision type
no switch stack-member-number provision
```

<b>Syntax Description</b>	<i>stack-member-number</i>	Stack member number. The range is 1 to 2.
	<i>type</i>	Switch type of the new switch before it joins the stack.

**Command Default** The switch is not provisioned.

**Command Modes** Global configuration

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Cisco IOS XE 3.2SE	This command was introduced.

**Usage Guidelines** For *type*, enter the model number of a supported switch that is listed in the command-line help strings.

To avoid receiving an error message, you must remove the specified switch from the switch stack before using the **no** form of this command to delete a provisioned configuration.

To change the switch type, you must also remove the specified switch from the switch stack. You can change the stack member number of a provisioned switch that is physically present in the switch stack if you do not also change the switch type.

If the switch type of the provisioned switch does not match the switch type in the provisioned configuration on the stack, the switch stack applies the default configuration to the provisioned switch and adds it to the stack. The switch stack displays a message when it applies the default configuration.

Provisioned information appears in the running configuration of the switch stack. When you enter the **copy running-config startup-config** privileged EXEC command, the provisioned configuration is saved in the startup configuration file of the switch stack.

**Caution**

When you use the **switch provision** command, memory is allocated for the provisioned configuration. When a new switch type is configured, the previously allocated memory is not fully released. Therefore, do not use this command more than approximately 200 times, or the switch will run out of memory and unexpected behavior will result.

**Examples**

This example shows how to provision a switch with a stack member number of 2 for the switch stack. The **show running-config** command output shows the interfaces associated with the provisioned switch.

```
Controller(config)# switch 2 provision WS-xxxx
Controller(config)# end
Controller# show running-config | include switch 2
!
interface GigabitEthernet2/0/1
!
interface GigabitEthernet2/0/2
!
interface GigabitEthernet2/0/3
<output truncated>
```

You also can enter the **show switch** user EXEC command to display the provisioning status of the switch stack.

This example shows how to delete all configuration information about stack member 5 when the switch is removed from the stack:

```
Controller(config)# no switch 5 provision
```

You can verify that the provisioned switch is added to or removed from the running configuration by entering the **show running-config** privileged EXEC command.

switch renumber

# switch renumber

To change the stack member number, use the **switch renumber** command in mode on the .

**switch *current-stack-member-number* renumber *new-stack-member-number***

## Syntax Description

---

*current-stack-member-number*

---

*new-stack-member-number*

---

## Command Default

The default stack member number is 1.

## Command Modes

## Command History

	Release	Modification
	Cisco IOS XE 3.2SE	This command was introduced.

## Usage Guidelines

If another stack member is already using the member number that you just specified, the assigns the lowest available number when you reload the stack member.



### Note

If you change the number of a stack member, and no configuration is associated with the new stack member number, that stack member loses its current configuration and resets to its default configuration.

Do not use the **switch *current-stack-member-number* renumber *new-stack-member-number*** command on a provisioned switch. If you do, the command is rejected.

Use the **reload slot *current stack member number*** privileged EXEC command to reload the stack member and to apply this configuration change.

## Examples

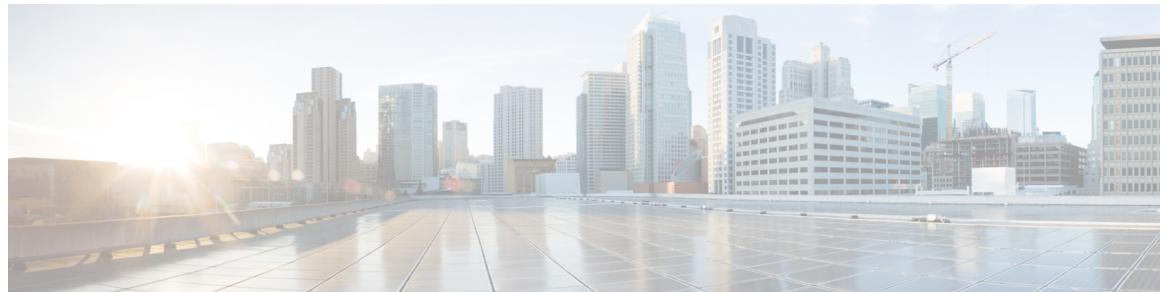
This example shows how to change the member number of stack member 6 to 7:



## **Reference wrapper Appendix topic here**

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