

Chapter 10

Summary of CLI Configuration Mode Commands

The following sections explain each of the command-line interface (CLI) configuration mode commands. The commands are organized alphabetically.

activate

Syntax	activate (<i>statement</i> <i>identifier</i>)
Description	Remove the inactive: tag from a statement, effectively adding the statement or identifier back to the configuration. Statements or identifiers that have been activated take effect when you next issue the commit command.
Options	<i>identifier</i> —Identifier from which you are removing the inactive tag. It must be an identifier at the current hierarchy level. <i>statement</i> —Statement from which you are removing the inactive tag. It must be a statement at the current hierarchy level.
Usage Guidelines	See “Deactivating and Reactivating Statements and Identifiers in a Configuration” on page 250.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	deactivate on page 275

annotate

Syntax	<code>annotate statement "comment-string"</code>
Description	<p>Add comments to a configuration. You can add comments only at the current hierarchy level.</p> <p>Any comments you add appear only when you view the configuration by entering the <code>show</code> command in configuration mode or the <code>show configuration</code> command in operational mode.</p>
Options	<p><i>comment-string</i>—Text of the comment. You must enclose it in quotation marks. In the comment string, you can include the comment delimiters <code>/* */</code> or <code>#</code>. If you do not specify any, the comment string is enclosed with the <code>/* */</code> comment delimiters. If a comment for the specified <i>statement</i> already exists, it is deleted and replaced with the new comment.</p> <p><i>statement</i>—Statement to which you are attaching the comment.</p>
Usage Guidelines	See “Adding Comments in a Configuration” on page 251.
Required Privilege Level	<code>configure</code> —To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	See the description statement in the <i>JUNOS Network Interfaces and Class of Service Configuration Guide</i> .

commit

Syntax	commit <<at <string>> <and-quit> <check> <comment <comment-string>> <confirmed> <display detail> <minutes> <synchronize>
Description	Commit the set of changes to the database and cause the changes to take operational effect.
Options	at <string>—(Optional) Save software configuration changes and activate the configuration at a future time, or upon reboot.



NOTE: If the JUNOS software fails before the configuration changes become active, all configuration changes are lost.

You cannot issue the commit at configuration command when there is a pending reboot.

You cannot issue the request system reboot command once you schedule a commit operation for a specific time in the future.

You cannot commit a configuration when a scheduled commit is pending. For information about how to use the clear command to cancel a scheduled configuration, see the *JUNOS Protocols, Class of Service, and System Basics Command Reference*.

and-quit—(Optional) Commit the configuration and, if the configuration contains no errors and the commit succeeds, exit from configuration mode.

check—(Optional) Verify the syntax of the configuration, but do not activate it.

comment < comment-string> —(Optional) Add a comment that describes the committed configuration.

confirmed <minutes>—(Optional) Require that the commit be confirmed within the specified amount of time. To confirm a commit, enter either a commit or commit check command. If the commit is not confirmed within the time limit, the configuration rolls back automatically to the precommit configuration.

Range: 1 through 65,535 minutes

Default: 10 minutes

display detail—(Optional) Monitors the commit process.

synchronize—(Optional) If your router has two Routing Engines, you can manually direct one Routing Engine to synchronize its configuration with the other by issuing the commit synchronize command. The Routing Engine on which you execute this command (request Routing Engine) copies and loads its candidate configuration to the other (responding Routing Engine). Both Routing Engines then perform a syntax check on the candidate configuration file being committed. If no errors are found, the configuration is activated and becomes the current operational configuration on both Routing Engines.



NOTE: When you issue the commit synchronize command, you must use the apply-groups re0 and re1 commands. For information about how to use groups, see “Applying a Configuration Group” on page 539.

The responding Routing Engine must use JUNOS release 5.0 or later.

Usage Guidelines See the sections “Verifying a Configuration” on page 235, “Committing a Configuration” on page 235, “Scheduling a Commit” on page 238, “Synchronizing Routing Engines” on page 241, “Monitoring the Commit Process” on page 239, and “Adding a Comment to Describe the Committed Configuration” on page 240.

Required Privilege Level configure—To enter configuration mode.

copy

Syntax *copy existing-statement to new-statement*

Description Make a copy of an existing statement in the configuration.

Options *existing-statement*—Statement to copy.
new-statement—Copy of the statement.

Usage Guidelines See “Copying a Statement in the Configuration” on page 229.

Required Privilege Level configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.

deactivate

Syntax	deactivate (<i>statement</i> <i>identifier</i>)
Description	Add the inactive: tag to a statement, effectively commenting out the statement or identifier from the configuration. Statements or identifiers marked as inactive do not take effect when you issue the commit command.
Options	<i>identifier</i> —Identifier to which you are adding the inactive: tag. It must be an identifier at the current hierarchy level. <i>statement</i> —Statement to which you are adding the inactive: tag. It must be a statement at the current hierarchy level.
Usage Guidelines	See “Deactivating and Reactivating Statements and Identifiers in a Configuration” on page 250.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	activate on page 271, delete on page 275

delete

Syntax	delete < <i>statement-path</i> > < <i>identifier</i> >
Description	Delete a statement or identifier. All subordinate statements and identifiers contained within the specified statement path are deleted with it. Deleting a statement or an identifier effectively “unconfigures” or disables the functionality associated with that statement or identifier. If you do not specify <i>statement-path</i> or <i>identifier</i> , the entire hierarchy starting at the current hierarchy level is removed.
Options	<i>statement-path</i> —(Optional) Path to an existing statement or identifier. Include this if the statement or identifier to be deleted is not at the current hierarchy level. <i>identifier</i> —(Optional) Name of the statement or identifier to delete.
Usage Guidelines	See “Removing a Statement from the Configuration” on page 226.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	deactivate on page 275

edit

Syntax	<code>edit statement-path</code>
Description	Move inside the specified statement hierarchy. If the statement does not exist, it is created. You cannot use the edit command to change the value of identifiers. You must use the set command.
Options	<code>statement-path</code> —Path to the statement.
Usage Guidelines	See “Creating and Modifying the Configuration” on page 215.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	set on page 281

exit

Syntax	<code>exit <configuration-mode></code>
Description	Exit the current level of the statement hierarchy, returning to the level prior to the last edit command, or exit from configuration mode. The quit and exit commands are synonyms.
Options	none—Return to the previous edit level. If you are at the top of the statement hierarchy, exit configuration mode. <code>configuration-mode</code> —(Optional) Exit from configuration mode.
Usage Guidelines	See “Moving Among Levels of the Hierarchy” on page 218.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	top on page 285, up on page 285

help

Syntax	help < (apropos topic reference) < <i>string</i> > >
Description	Display help about available configuration statements.
Options	<p>apropos—Display all hierarchy levels containing the statement.</p> <p>reference—Display summary information for the statement.</p> <p><i>string</i>—String or regular expression matching configuration statements for which you need help.</p> <p>topic—(Optional) Display usage guidelines for the statement.</p> <p>Entering the help command without an option provides introductory information on how to use the help command.</p>
Usage Guidelines	See “Getting Help Based on a String in a Statement Name” on page 213.
Required Privilege Level	configure—To enter configuration mode.

insert

Syntax	insert < <i>statement-path</i> > <i>identifier1</i> (before after) <i>identifier2</i>
Description	Insert an identifier in to an existing hierarchy.
Options	<p>after—Place <i>identifier1</i> after <i>identifier2</i>.</p> <p>before—Place <i>identifier1</i> before <i>identifier2</i>.</p> <p><i>identifier1</i>—Existing identifier.</p> <p><i>identifier2</i>—New identifier to insert.</p> <p><i>statement-path</i>—(Optional) Path to the existing identifier.</p>
Usage Guidelines	See “Inserting a New Identifier” on page 231.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.

load

Syntax	load (patch merge override replace update) (<i>filename</i> terminal) relative
Description	Load a configuration from an ASCII configuration file or from terminal input. Your current location in the configuration hierarchy is ignored when the load operation occurs.
Options	<p><i>filename</i>—Name of the file to load. For information about specifying the filename, see “Specifying Filenames and URLs” on page 336.</p> <p>merge—Combine the configuration that is currently shown in the CLI and the configuration in <i>filename</i>.</p> <p>override—Discard the entire configuration that is currently shown in the CLI and load the entire configuration in <i>filename</i>.</p> <p>patch—Change part of the configuration and mark only those parts as changed.</p> <p>replace—Look for a replace: tag in <i>filename</i>, delete the existing statement of the same name, and replace it with the configuration in <i>filename</i>.</p> <p>relative—Use the merge or replace option without specifying the full hierarchy level.</p> <p>terminal—Use the text you type at the terminal as input to the configuration. Type Ctrl-D to end terminal input.</p> <p>update—Replace only the configuration that has changed in the <i>filename</i>.</p>
Usage Guidelines	See “Loading a Configuration” on page 243.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.

quit

Syntax	quit <configuration-mode>
Description	Exit the current level of the statement hierarchy, returning to the level prior to the last edit command, or exit from configuration mode. The quit and exit commands are synonyms.
Options	<p>none—Return to the previous edit level. If you are at the top of the statement hierarchy, exit configuration mode.</p> <p>configuration-mode—(Optional) Exit from configuration mode.</p>
Usage Guidelines	See “Moving Among Levels of the Hierarchy” on page 218.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.
See Also	top on page 285, up on page 285

rename

Syntax	<code>rename <statement-path> identifier1 to identifier2</code>
Description	Rename an existing configuration statement or identifier.
Options	<p><i>identifier1</i>—Existing identifier to rename.</p> <p><i>identifier2</i>—New name of identifier.</p> <p><i>statement-path</i>—(Optional) Path to an existing statement or identifier.</p>
Usage Guidelines	See “Renaming an Identifier” on page 231.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.

rollback

Syntax	<code>rollback <number></code>
Description	<p>Return to a previously committed configuration. The software saves the last 50 committed configurations, including the rollback number, date, time, and name of the user who issued the commit configuration command.</p> <p>The currently operational JUNOS software configuration is stored in the file <code>juniper.conf</code>, and the last three committed configurations are stored in the files <code>juniper.conf.1</code>, <code>juniper.conf.2</code>, and <code>juniper.conf.3</code>. These four files are located in the directory <code>/config</code>, which is on the router’s flash drive. The remaining 46 previous committed configurations, the files <code>juniper.conf.4</code> through <code>juniper.conf.49</code>, are stored in the directory <code>/var/db/config</code>, which is on the router’s hard disk.</p>
Options	<p><code>none</code>—Return to the most recently saved configuration.</p> <p><i>number</i>—Configuration to return to. Range: 0 through 49. The most recently saved configuration is number 0, and the oldest saved configuration is number 49. Default: 0</p> <p><code>rescue</code>—Return to the rescue configuration.</p>
Usage Guidelines	See “Returning to a Previously Committed Configuration” on page 247 and “Returning to the Rescue Configuration” on page 248
Required Privilege Level	<code>rollback</code> —To roll back to configurations other than the one most recently committed.

run

Syntax	<code>run command</code>
Description	Run a top-level CLI command without exiting from configuration mode.
Options	<i>command</i> —CLI top-level command.
Usage Guidelines	See “Running an Operational Mode CLI Command from Configuration Mode” on page 234.
Required Privilege Level	configure—To enter configuration mode.

save

Syntax	<code>save filename</code>
Description	<p>Save the configuration to an ASCII file. The contents of the current level of the statement hierarchy (and below) are saved, along with the statement hierarchy containing it. This allows a section of the configuration to be saved, while fully specifying the statement hierarchy.</p> <p>When saving a file to a remote system, the software uses the scp/ssh protocol.</p>
Options	<p><i>filename</i>—Name of the saved file. You can specify a filename in one of the following ways:</p> <p><i>filename</i>—File in the user’s home directory (the current directory) on the local flash drive.</p> <p><i>path/filename</i>—File on the local flash drive.</p> <p><i>/var/filename</i> or <i>/var/path/filename</i>—File on the local hard disk.</p> <p><i>a:filename</i> or <i>a:path/filename</i>—File on the local drive. The default path is / (the root-level directory). The removable media can be in MS-DOS or UNIX (UFS) format.</p> <p><i>hostname:/path/filename</i>, <i>hostname:filename</i>, <i>hostname:path/filename</i>, or <i>scp://hostname/path/filename</i>—File on an scp/ssh client. This form is not available in the worldwide version of the JUNOS software. The default path is the user’s home directory on the remote system. You can also specify <i>hostname</i> as <i>username@hostname</i>.</p>

`ftp://hostname/path/filename`—File on an FTP server. You can also specify `hostname` as `username@hostname` or `username:password@hostname`. The default path is the user's home directory. To specify an absolute path, the path must start with the string `%2F`; for example, `ftp://hostname/%2Fpath/filename`. To have the system prompt you for the password, specify `prompt` in place of the password. If a password is required, and you do not specify the password or `prompt`, an error message is displayed:

```
user@host> file copy ftp://username@ftp.hostname.net//filename
file copy ftp.hostname.net: Not logged in.
```

```
user@host> file copy ftp://username:prompt@ftp.hostname.net//filename
Password for username@ftp.hostname.net:
```

`http://hostname/path/filename`—File on a Hypertext Transfer Protocol (HTTP) server. You can also specify `hostname` as `username@hostname` or `username:password@hostname`. If a password is required and you omit it, you are prompted for it.

`re0:/path/filename` or `re1:/path/filename`—File on a local Routing Engine.

Usage Guidelines See “Saving a Configuration to a File” on page 243.

Required Privilege Level `configure`—To enter configuration mode.

set

Syntax `set <statement-path> identifier`

Description Create a statement hierarchy and set identifier values. This is similar to `edit` except that your current level in the hierarchy does not change.

Options `identifier`—Name of the statement or identifier to set.

`statement-path`—(Optional) Path to an existing statement hierarchy level. If that hierarchy level does not exist, it is created.

Usage Guidelines See “Creating and Modifying the Configuration” on page 215.

Required Privilege Level `configure`—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.

See Also `edit` on page 276

show

Syntax	show <statement-path> <identifier>
Description	Display the current configuration.
Options	<p>none—Display the entire configuration at the current hierarchy level.</p> <p><i>identifier</i>—(Optional) Display the configuration for the specified identifier.</p> <p><i>statement-path</i>—(Optional) Display the configuration for the specified statement hierarchy path.</p>
Usage Guidelines	See “Displaying the Current Configuration” on page 221.
Required Privilege Level	<p>configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.</p> <p>See the following sections:</p> <ul style="list-style-type: none"> show display inheritance defaults on page 282 show display set on page 283 show display set relative on page 283 show groups junos-defaults on page 284

show | display inheritance defaults

Syntax	show display inheritance defaults < grep compress>
Description	Display the JUNOS software defaults that have been applied to the configuration.
Usage Guidelines	See “Using JUNOS Default Groups” on page 559 and “Compressing the Current Configuration File” on page 357.
Options	grep compress—Display information about the compression of the current operational configuration.
Required Privilege Level	view
Sample Output	<pre>user@host# show system ports display inheritance defaults ## ## 'console' was inherited from group 'junos-defaults' ## 'vt100' was inherited from group 'junos-defaults' ## console type vt100;</pre>

show | display set

Syntax	show display set
Description	Display the configuration as a series of configuration mode commands required to recreate the configuration from the top level of the hierarchy as set commands
Usage Guidelines	See “Displaying set Commands from the Configuration” on page 223.
Required Privilege Level	view

Sample Output user@host# **show | display set**
 set interfaces fe-0/0/0 unit 0 family inet address 192.168.1.230/24
 set interfaces fe-0/0/0 unit 0 family iso
 set interfaces fe-0/0/0 unit 0 family mpls
 set interfaces fe-0/0/0 unit 1 family inet address 10.0.0.1/8
 deactivate interfaces fe-0/0/0 unit 1

show | display set relative

Syntax	show display set relative
Description	Display the configuration as a series of configuration mode commands required to recreate the configuration from the current hierarchy level.
Usage Guidelines	See “Displaying set Commands from the Configuration” on page 223.
Required Privilege Level	view

Sample Output [edit interfaces fe-0/0/0]
 user@host# **show**
 unit 0 {
 family inet {
 address 192.107.1.230/24;
 }
 family iso;
 family mpls;
 }
 inactive: unit 1 {
 family inet {
 address 10.0.0.1/8;
 }
 }
 user@host# **show | display set relative**
 set unit 0 family inet address 192.107.1.230/24
 set unit 0 family iso
 set unit 0 family mpls
 set unit 1 family inet address 10.0.0.1/8
 deactivate unit 1

show groups junos-defaults

Syntax show groups junos-defaults

Description Display the full set of available preset statements from the JUNOS software default group.

Usage Guidelines See “Using JUNOS Default Groups” on page 559.

Required Privilege Level view

Sample Output

```

user@host# show groups junos-defaults
groups {
  junos-defaults {
    applications {
      #
      # File Transfer Protocol
      #
      application junos-ftp {
        application-protocol ftp;
        protocol tcp;
        destination-port 21;
      }
      #
      # Trivial File Transfer Protocol
      #
      application junos-tftp {
        application-protocol tftp;
        protocol udp;
        destination-port 69;
      }
      #
      # RPC port mapper on TCP
      #
      application junos-rpc-portmap-tcp {
        application-protocol rpc-portmap;
        protocol tcp;
        destination-port 111;
      }
      #
      # RPC port mapper on UDP
      #
    }
  }
}

```

status

Syntax	status
Description	Display the users currently editing the configuration.
Usage Guidelines	See “Displaying Users Currently Editing the Configuration” on page 225.
Required Privilege Level	configure—To enter configuration mode.

top

Syntax	top < <i>configuration-command</i> >
Description	Return to the top level of configuration command mode, which is indicated by the [edit] banner.
Option	<i>configuration-command</i> —Issue configuration mode commands from the top of the hierarchy.
Usage Guidelines	See “Moving Among Levels of the Hierarchy” on page 218 and “Issuing Relative Configuration Commands” on page 220.
Required Privilege Level	configure—To enter configuration mode.
See Also	exit on page 276, up on page 285

up

Syntax	up < <i>number</i> > < <i>configuration-command</i> >
Description	Move up one level in the statement hierarchy.
Options	<p>none—Move up one level in the configuration hierarchy.</p> <p><i>number</i>—(Optional) Move up the specified number of levels in the configuration hierarchy.</p> <p><i>configuration-command</i>—Issue configuration mode commands from a location higher in the hierarchy.</p>
Usage Guidelines	See “Moving Among Levels of the Hierarchy” on page 218 and “Issuing Relative Configuration Commands” on page 220.
Required Privilege Level	configure—To enter configuration mode.
See Also	exit on page 276, top on page 285

wildcard

Syntax	wildcard delete < <i>statement-path</i> > < <i>identifier</i> > < <i>regular-expression</i> >
Description	<p>Delete a statement or identifier. All subordinate statements and identifiers contained within the specified statement path are deleted with it.</p> <p>Deleting a statement or an identifier effectively “unconfigures” or disables the functionality associated with that statement or identifier.</p> <p>If you do not specify <i>statement-path</i> or <i>identifier</i>, the entire hierarchy starting at the current hierarchy level is removed.</p>
Options	<p>delete—Delete several related configuration items simultaneously, such as channelized interfaces or static routes, by using a single command and regular expressions.</p> <p><i>statement-path</i>—(Optional) Path to an existing statement or identifier. Include this if the statement or identifier to be deleted is not at the current hierarchy level.</p> <p><i>identifier</i>—(Optional) Name of the statement or identifier to delete.</p>
Usage Guidelines	See “Using Regular Expressions to Remove Related Configuration Items” on page 228.
Required Privilege Level	configure—To enter configuration mode; other required privilege levels depend on where the statement is located in the configuration hierarchy.