



7450 Ethernet Service Switch  
7750 Service Router  
7950 Extensible Routing System  
Virtualized Service Router

## MD-CLI Quick Reference Guide

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# 1 Getting started

This guide provides a comparison of the Nokia SR OS Model-Driven Command Line Interface (MD-CLI) to those used by Junos OS and IOS XR.

For more information about the MD-CLI, see the following resources:

- *SR OS Release Notes* for your current release
- *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide*
- *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI Command Reference Guide*
- MD-CLI introductory videos: <https://www.youtube.com/playlist?list=PLgKNvI454BxcgfUQGMAEGE4yiV8c-ZDLu>

The following table describes command syntax symbols used in this guide.

Table 1: Command syntax symbols

Symbol	Description
	A vertical bar represents an "or" condition, indicating that only one of the parameters in the brackets or parentheses can be selected.
()	Parentheses indicate that one of the parameters must be selected.
[]	Brackets indicate optional parameters.
<b>Bold</b>	Commands in <b>bold</b> indicate commands and keywords.
<i>Italic</i>	Commands in <i>italics</i> indicate that you must enter text based on the parameter.

In the following examples, **location** and **graceful-shutdown** are command names. For the **location** command, *keyword* must be one of the keywords **cf1**, **cf2**, or **cf3**. For the **graceful-shutdown** command, *boolean* must be one of the keywords **true** or **false**, although explicitly using the keyword **true** is optional.

**location** *keyword*

*keyword* - (**cf1** | **cf2** | **cf3**)

**graceful-shutdown** *boolean*  
*boolean* - ([**true**] | **false**)

## 1.1 Conventions

This section describes the general conventions used in this guide.

### 1.1.1 Precautionary and information messages

The following information symbols are used in the documentation.



**DANGER:** Danger warns that the described activity or situation may result in serious personal injury or death. An electric shock hazard could exist. Before you begin work on this equipment, be aware of hazards involving electrical circuitry, be familiar with networking environments, and implement accident prevention procedures.



**WARNING:** Warning indicates that the described activity or situation may, or will, cause equipment damage, serious performance problems, or loss of data.



**Caution:** Caution indicates that the described activity or situation may reduce your component or system performance.



**Note:** Note provides additional operational information.



**Tip:** Tip provides suggestions for use or best practices.

### 1.1.2 Options or substeps in procedures and sequential workflows

Options in a procedure or a sequential workflow are indicated by a bulleted list. In the following example, at step 1, the user must perform the described action. At step 2, the user must perform one of the listed options to complete the step.

**Example: Options in a procedure**

1. User must perform this step.
2. This step offers three options. User must perform one option to complete this step.
  - This is one option.
  - This is another option.
  - This is yet another option.

Substeps in a procedure or a sequential workflow are indicated by letters. In the following example, at step 1, the user must perform the described action. At step 2, the user must perform two substeps (a. and b.) to complete the step.

**Example: Substeps in a procedure**

1. User must perform this step.
2. User must perform all substeps to complete this action.
  - a. This is one substep.
  - b. This is another substep.

## 2 Navigational and operational commands

The following table compares the basic navigational and operational commands of the Nokia SR OS MD-CLI to those used by Junos OS and IOS XR.

The `//` command can be used to switch CLI engines to access classic CLI commands that are not yet available in the MD-CLI. Enter `//command` to run a single command in the other CLI engine. Command completion and `? help` are not available when using `//command`.

Switching CLI engines is described in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide*.

Table 2: Navigational and operational commands

	SR OS	Junos OS	IOS XR
Move back one or more levels	<code>back [number]</code>	<code>up [number]</code>	—
Return to the previous working context or to the operational root	<code>exit [all]</code>	<code>exit</code> <code>quit</code>	<code>end</code> <code>exit</code>
Move to the top level of the context	<code>top</code>	<code>top</code>	<code>root</code>
Access the per-session environment	<code>environment</code>	<code>set cli</code>	<code>terminal</code>
Switch CLI engines	<code>//</code>	—	—
Run a command in the other CLI engine	<code>//command</code>	—	—
Show the command tree under the present working context	<code>tree [flat] [detail]</code>	—	—
Exit the CLI session	<code>logout</code>	<code>exit</code> <code>quit</code>	<code>exit</code> <code>quit</code>

### 3 Entering and leaving the configuration workflow

The following table compares the commands for entering and leaving the configuration workflow of the Nokia SR OS MD-CLI to those used by Junos OS and IOS XR.

For more information about the implicit and explicit configuration workflows and the candidate configuration mode, see the *7450 ESS*, *7750 SR*, *7950 XRS*, and *VSR MD-CLI User Guide*.

Table 3: Entering and leaving the configuration workflow

	SR OS	Junos OS	IOS XR
Candidate configuration modes	global exclusive private read-only	global (not a keyword) exclusive private	private (not a keyword) exclusive
Enter the implicit configuration workflow	configure <i>mode</i>	configure [ <i>mode</i> ] Default: global	configure [ <i>mode</i> ] Default: private
Leave the implicit configuration workflow	^Z exit [all]	exit quit	^C ^Z exit
Enter the explicit configuration workflow	edit-config <i>mode</i>	—	—
Leave the explicit configuration workflow	quit-config (at operational root)	—	—



## 4 Configuration workflow commands

The following table compares the configuration workflow commands of the Nokia SR OS MD-CLI to those used by Junos OS and IOS XR.

Table 4: Configuration workflow commands

	SR OS	Junos OS	IOS XR
Navigate into a context	Enter the context by typing <i>context</i> For example: router bgp	<code>edit context</code> For example: edit protocols bgp	Enter the context by typing <i>context</i> For example: router bgp 65551
Set an element in the candidate datastore	Enter the context with a value by typing <i>context value</i>	<code>set context value</code>	Enter the context with a value by typing <i>context value</i>
Delete an element from the candidate datastore	<code>delete context</code>	<code>delete context</code>	no <i>context</i>
Annotate an element in the candidate datastore with a comment	<code>annotate "string" context</code>	<code>annotate context "string"</code>	Enter ! followed by a string. The comment is associated with the next configuration element entered.
Match and replace values in the candidate configuration	<code>replace "string" with "string"<sup>1</sup></code>	<code>replace pattern "string" with "string"</code>	<code>replace pattern 'string' with 'string'</code>
Show the candidate configuration from the present working context	<code>info</code>	<code>show</code>	<code>show configuration merge</code>
Show the candidate configuration with default and unconfigured values	<code>info detail</code>	<code>show   display detail</code>	—

<sup>1</sup> Enclose the string in apostrophes for regular expressions

	SR OS	Junos OS	IOS XR
Show the candidate configuration with inherited values from configuration groups	info inheritance	show   display inheritance	show configuration running inheritance
Show the intended running configuration with configuration groups expanded without <b>groups</b> and <b>apply-groups</b> statements	info intended	—	—
Show the candidate configuration in a flat format	info flat info full-context	show   display set relative show   display set	show configuration merge formal
Show the candidate configuration in JSON format	info json	show   display json	show running-config   json
Show the candidate configuration in XML format	info xml	show   display xml	show running-config   xml
Show the running configuration	admin show configuration	show configuration	show running-config
Show changes between datastores	compare	show   compare	show commit changes diff
Discard changes in the candidate datastore	discard	rollback or rollback 0	abort
Update the candidate baseline	update	update	—
Validate changes in the candidate datastore	validate	commit check	—
Commit changes to the running datastore	commit (also runs validate)	commit (also runs commit check)	commit

	SR OS	Junos OS	IOS XR
Commit changes to the running datastore with a comment	<code>commit comment "string"</code>	<code>commit comment "string"</code>	<code>commit comment "string"</code>
Roll back to a previous configuration	<code>rollback number   startup</code> <code>rollback commit-id number</code>	<code>rollback number</code>	<code>rollback configuration to</code> <code>commit-id</code>
Run an operational command	<code>command</code>	<code>run command</code>	<code>do command</code>

## 4.1 Commit confirmed commands

The following table compares the commit commands of the Nokia SR OS MD-CLI to those used by Junos OS and IOS XR.

Table 5: Commit confirmed commands

	SR OS	Junos OS	IOS XR
Start the commit confirmed	<code>commit confirmed [number]</code> Default timeout: 10 minutes	<code>commit confirmed [number]</code> Default timeout: 10 minutes	<code>commit confirmed [number]</code> <code>  [minutes number]</code> Note: timeout is in seconds unless specified with minutes parameter
Accept a commit confirmed	<code>commit confirmed accept</code>	<code>commit</code>	<code>commit</code>
Cancel a commit confirmed	<code>commit confirmed cancel</code>	<code>rollback 1 and</code> <code>commit</code>	Exit configuration mode or clear the CLI session

## 4.2 Configuration management commands

The following table compares the configuration management commands of the Nokia SR OS MD-CLI to those used by Junos OS and IOS XR.

Table 6: Configuration management commands

	SR OS	Junos OS	IOS XR
Paste configuration	Input is accepted in hierarchical, flat, full-context or compare format, opening ({} and closing {}) braces navigate	Input is accepted in display set format or using load merge terminal relative for hierarchical format	Input is accepted in hierarchical or formal format
Load and merge a configuration file	load merge <i>url</i> commit	load merge <i>url</i> commit	load <i>url</i> commit
Load and replace a configuration file	load full-replace <i>url</i> commit	load override <i>url</i> commit	load <i>url</i> commit replace
Save configuration to a file	info > <i>url</i>	save <i>url</i>	copy running-config <i>url</i>
Show the commit history	show system management-interface commit-history	show system commit	show configuration commit list

## 5 Output modifiers

The following table compares the output modifiers of the Nokia SR OS MD-CLI to those used by Junos OS and IOS XR.

*Table 7: Output modifiers*

	SR OS	Junos OS	IOS XR
Count occurrences	count	count	show   utility wc
Match a pattern	match " <i>string</i> " <sup>2</sup>	match " <i>string</i> "	include " <i>string</i> "
Disable output pagination	no-more	no-more	—
Redirect output to a file	>	save	file

<sup>2</sup> Enclose the string in apostrophes for regular expression matches

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