



7450 ETHERNET SERVICE SWITCH
7750 SERVICE ROUTER
7950 EXTENSIBLE ROUTING SYSTEM
VIRTUALIZED SERVICE ROUTER

MD-CLI QUICK REFERENCE GUIDE

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1 MD-CLI Overview

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>

[Table 1: Command Syntax Symbols](#) describes command syntax symbols used in this guide.

Table 1: Command Syntax Symbols

Symbol	Description
	A vertical bar represents an OR, 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.
Bold	Commands in bold indicate commands and keywords.
<i>Italic</i>	Commands in <i>italics</i> indicate that you must enter text based on the parameter. interface <i>interface-name</i>

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 Enabling the SR OS MD-CLI

Perform the following procedure to enable the MD-CLI from the classic CLI.

1. Back up your configuration. Any existing configuration will be converted to the MD-CLI format.
2. Enable the MD-CLI and model-driven mode, using these commands in this order:

```
configure system management-interface cli md-cli auto-config-save  
configure system management-interface configuration-mode model-driven
```

3. Log out of the CLI.
4. Log back in to the CLI. The MD-CLI engine is now active.

1.2 Disabling the SR OS MD-CLI

Perform the following procedure to return to classic CLI mode while preserving the current router configuration.

1. Disable the MD-CLI and model-driven mode in the MD-CLI, using these commands in this order:

```
configure exclusive  
system management-interface configuration-mode classic  
commit
```

2. Log out of the CLI.
3. Log back in to the CLI. The classic CLI engine is now active.

2 Navigational and Operational Commands

Table 2: Navigational and Operational Commands 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 *MD-CLI User Guide*.

Table 2: Navigational and Operational Commands

	SR OS MD-CLI	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]</code> <code>[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

Table 3: Entering and Leaving the Configuration Workflow 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 *MD-CLI User Guide*.

Table 3: Entering and Leaving the Configuration Workflow

	SR OS MD-CLI	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

Table 4: Configuration Workflow Commands 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 MD-CLI	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>	<code>no context</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>	—
Show the candidate configuration with inherited values from configuration groups	<code>info inheritance</code>	<code>show display inheritance</code>	<code>show configuration running inheritance</code>
Show the intended configuration with configuration groups expanded without groups and apply-groups statements	<code>info intended</code>	—	—

	SR OS MD-CLI	Junos OS	IOS XR
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 the candidate configuration in XML format	info xml	show display xml	—
Show changes between datastores	compare	show compare	show commit changes diff
Discard changes in the candidate datastore	discard	rollback 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 check)	commit
Roll back to a previous configuration	rollback <i>checkpoint</i> startup	rollback <i>checkpoint</i>	rollback configuration to <i>checkpoint</i>
Run an operational command	/command	run command	do command

4.1 Commit Confirmed Commands

Table 5: Commit Confirmed Commands 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 MD-CLI	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] [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 commit</code>	Exit configuration mode or clear the CLI session

4.2 Configuration Management Commands

[Table 6: Configuration Management Commands](#) 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 MD-CLI	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 configuration	Input is accepted in formal format for hierarchical configuration
Load and merge a configuration file	<code>load merge url</code> <code>commit</code>	<code>load merge url</code> <code>commit</code>	<code>load url</code> <code>commit</code>
Load and replace a configuration file	<code>load full-replace url</code> <code>commit</code>	<code>load override url</code> <code>commit</code>	<code>load url</code> <code>commit replace</code>

	SR OS MD-CLI	Junos OS	IOS XR
Save configuration to a file	<code>info > url</code>	<code>save url</code>	<code>copy running-config url</code>
Show the startup configuration	<code>admin show configuration</code>	<code>show configuration</code>	<code>show configuration persistent</code>

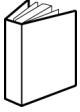
5 Output Modifiers

[Table 7: Output Modifiers](#) 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 MD-CLI	Junos OS	IOS XR
Count occurrences	count	count	show utility wc
Match a pattern	match <i>string</i> Note: enclose the pattern in apostrophes for regular expression matches	match <i>regexp</i>	include <i>regexp</i>
Disable output pagination	no-more	no-more	—
Redirect output to a file	>	save	file

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