

CLI Reference

FortiPolicy 7.2.2



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FortiPolicy 7.2.2 CLI Reference

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TABLE OF CONTENTS

Change log	4
Overview	5
Typographical conventions	5
Related documentation	6
Obtaining more information	6
Introduction	7
Accessing the CLI	7
Accessing the support shell	7
CLI help and keyboard shortcuts	8
CLI modes	9
System commands	10
Basic mode commands	10
Basic commands	10
delete	10
enable	11
exit	11
help	11
history	12
ping	13
reboot	13
resize	13
restart services	13
set	15
shell	16
show	16
ssh	18
top	18
test	19
traceroute	19

Change log

Date	Change description
February 10, 2023	Initial release.

Overview

The FortiPolicy CLI Reference guide describes the commands that make up the command-line interface (CLI) for the FortiPolicy product.

This guide is intended for system administrators responsible for deploying, operating, and maintaining FortiPolicy deployments.

This guide contains the following sections:

- [Overview on page 5](#)
- [Typographical conventions on page 5](#)
- [Related documentation on page 6](#)
- [Obtaining more information on page 6](#)

Typographical conventions

Convention	Meaning	Example
<i>italics</i>	Names of parameters, variables, files, directories or URLs.	The <i>ip</i> parameter specifies an IP Address in a configuration command.
<code>courier font</code>	Coding examples and text to be entered at the command prompt	Enter the following command: <code>show dns server</code>
Click	A left-mouse button click.	Click <i>Task Panel</i> in the FortiPolicy console to display data plane deployment progress after issuing a manual deployment CLI command.
Double-click	A double-click of the left mouse button.	Double-click the log name to open in the FortiPolicy log.
Right-click	A right mouse button click.	Right-click on the FortiPolicy pencil icon on the Edit Data Plane page of the Web UI to view and modify DP properties.
< > (text in angle brackets; items separated by the pipe symbols)	Option for selection of required parameter and/or value.	<code>set support <enabled disabled></code>
[] (text in square brackets) or	Optional parameters and values, with selection options separated by the pipe symbol.	<code>set [option1 option2]</code>

Convention	Meaning	Example
[] (text in square brackets, items separated by pipe symbols)		

Related documentation

The following is a list of additional FortiPolicy documentation to supplement this FortiPolicy CLI Reference Guide:

- FortiPolicy 7.2.2 Administration Guide
- FortiPolicy 7.2.2 Automated Policy Generation Guide
- FortiPolicy 7.2.2 Getting Started Guide
- FortiPolicy 7.2.2 Release Notes

Obtaining more information

To obtain more information about FortiPolicy and products, refer to the following sources:

- Fortinet website — <http://www.fortinet.com>
- FortiPolicy Web UI Online help
 - Click the light bulb in the FortiPolicy Web UI to access the online help system referred to as the “Guide.” The FortiPolicy Web UI becomes available after initial FortiPolicy OVF installation.
 - Type `help` or `-h` to access the FortiPolicy CLI help display.

Introduction

This chapter explains how to use the FortiPolicy command line interface (CLI) to configure, administer and troubleshoot FortiPolicy deployments.

This chapter contains the following sections:

- [Accessing the CLI on page 7](#)
- [CLI help and keyboard shortcuts on page 8](#)
- [CLI modes on page 9](#)

Accessing the CLI

Use SSH to access the FortiPolicy CLI.



Always use the latest version of PuTTY for SSH operations, if using PuTTY as an SSH client.

To access the FortiPolicy CLI over the management network:

1. Start a terminal window session and use the `ssh` command to access the *basic mode* system.
For example, if the IP address of the appliance is 10.1.1.1, enter the following command:
`ssh admin@10.1.1.1`
2. When prompted, enter the initial password provided at the time of licensing.
3. Immediately enter a new password after your initial login and then retype when prompted.

Accessing the support shell

To escalate and gain support access, you will require a One Time Password (OTP) login. First, enable support access through the CLI. Once enabled, access a support session via a customer-controlled OTP key and secret key.

To access the Restricted Shell support mode for troubleshooting issues in conjunction with your FortiPolicy Technical Support representative, use the following command sequence:

```
fortipolicy_um> set support enabled maxdays 14 remote
WARNING: *****
WARNING: Remote ssh access to the support account will be enabled,
WARNING: which may conflict with your local security policies.
WARNING: If that is not what you wanted, please re-run the command
WARNING: without the option 'remote'
WARNING: *****
Version                : 3
```

```
Shared Secret      : 001RJGURYT9H5RC0BXJPU7GMOLZDC
One-Time Password(s) : 00199673877 00102869729 00128354530 0016243754400137353324
```

To obtain access keys, use the following command:

```
fortipolicy-um> show support keys

Version           : 3
Shared Secret     : 001RJGURYT9H5RC0BXJPU7GMOLZDC
One-Time Password(s) : 00199673877 00102869729 00128354530 00162437544 00137353324
```

Be sure to provide the 'Shared Secret' or one of the 'One-Time Passwords' to your FortiPolicy support contact.

When the troubleshooting session is finished, quit the restricted support shell session:

```
fortipolicy-um> set support enabled [maxdays [1-14]] [remote]
```

- `maxdays [1-14]` defines how many "end-of-days" the account is enabled for.
- `[remote]` opens up the support account for remote ssh access.

CLI help and keyboard shortcuts

To display FortiPolicyCLI help, type the command `help` to display CLI keys and auto-completion usage.

For context-sensitive help, alternatively, enter a “?” to display either a list of possible command completions with summaries, or the full syntax of the current command. A subsequent repeat of this key, when a command has been resolved, will display a detailed reference, as described below.

- Enter “?” at the prompt to display a list of the available commands in the current mode.
- Enter “?” after you type a command to display its available options and parameters.
- Enter “?” after a partially typed keyword to display command matches for auto-completions.

You can enter commands in abbreviated form if you enter enough characters to uniquely identify each keyword. For example, the **history** command can be abbreviated as:

```
hist
```

To identify a command’s minimum abbreviation, type a few characters then press **Tab**. When you have entered enough characters, the keyword is completed.

The following table outlines the available CLI shortcuts.

Action	Shortcut	Description
Auto-Completion	Enter, Tab, or Space Key	Completes a partial command during typing if enough characters are typed to uniquely identify it.
Recall	Ctrl+P or ↑	Retrieve previous command from CLI history.
	Ctrl+N or ↓	Retrieve next command from CLI history.
	Ctrl+L or Ctrl+R	Clear the screen or Redisplay the current command line.

Action	Shortcut	Description
Delete	Ctrl+D	Delete character.
	Ctrl+H	Delete character before cursor (Backspace).
	Ctrl+K	Delete all characters from cursor to end of line.
	Ctrl+U or Ctrl+W	Delete all characters or words on line.
Cursor move	Ctrl+A	Move cursor to start of line.
	Ctrl+B	Move cursor back a single character.
	Ctrl+E	Move cursor to end of line.
	Ctrl+F	Move cursor forward a single character.
Character Transpose	Ctrl+T	Transpose character at the cursor with preceding character.
Interrupt output	Ctrl+C	Interrupt presentation of the CLI output.
Replace	!!	Substitute the last command line
	!N	Substitute the Nth command line (absolute as per 'history' command)
Exit mode or logout	exit	Exit current mode or exit the CLI session.

SPECIAL CHARACTER REQUIREMENT

You must enclose non-alphabet characters in double quotes in CLI commands; for example:

```
fortipolicy-um> set passphrase "kfe$nd#$^S"
```

CLI modes

The CLI commands that you can enter depend on your user privileges and the CLI command mode. User roles are “admin” and “debugging.” The following table describes the CLI command mode.

Note that the prompt in each mode includes the host name of the FortiPolicy appliance.

Mode	Description	How to Exit
Basic Mode	Monitor system operation and issue basic system commands. This is the default login mode. The following prompt is displayed: fortipolicy-um>	Enter <code>exit</code> to log out of the CLI.
Support Mode	Troubleshoot issues with FortiPolicy Technical Support via the support restricted shell mode. fortipolicy-um> set support enable	Enter <code>exit</code> to leave support mode.

System commands

This chapter describes the administration commands for a FortiPolicy system.

These commands are used to configure and view FortiPolicy settings and deployments.



You must enclose non-alphabet characters in double quotes in CLI commands.

Basic mode commands

Use general system commands to configure settings, view history, enter other CLI modes, obtain help with CLI syntax, and to exit the CLI session.

The general commands are:

- [delete on page 10](#)
- [enable on page 11](#)
- [exit on page 11](#)
- [help on page 11](#)
- [history on page 12](#)
- [ping on page 13](#)
- [reboot on page 13](#)
- [resize on page 13](#)
- [restart services on page 13](#)
- [set on page 15](#)
- [shell on page 16](#)
- [show on page 16](#)
- [ssh on page 18](#)
- [test on page 19](#)
- [traceroute on page 19](#)

Basic commands

delete

Description	Delete system configuration.
Mode(s)	Basic Support

Syntax	delete <param> ?
Parameters	ntp webproxy
Example	The following example deletes NTP information. fortipolicy-um> delete ntp

enable

Description	Enable the FortiPolicy CLI to display another command view.
Mode(s)	Basic Support
Syntax	enable <param> ?
Parameters	console maintenance
Example	The following example enables the CLI console view: fortipolicy-um> enable console hostname (console)# show versions

exit

Description	Exits the current CLI session mode.
Mode(s)	Basic Support
Syntax	exit
Parameters	None
Example	The following example ends a command mode or CLI session. fortipolicy-um> exit

help

Description	Displays information about the CLI help system.
Mode(s)	Basic Support
Syntax	help
Parameters	None

Example

The following example shows some of the output of the help command.

```
CONTEXT SENSITIVE HELP
```

```
[?] - Display context sensitive help. This is either a list of possible command completions with summaries, or the full syntax of the current command. A subsequent repeat of this key, when a command has been resolved, will display a detailed reference.
```

```
AUTO-COMPLETION
```

```
The following keys both perform auto-completion for the current command line. If the command prefix is not unique then the bell will ring and a subsequent repeat of the key will display possible completions.
```

```
[enter] - Auto-completes, syntax-checks then executes a command.
```

```
If there is a syntax error then offending part of the command line will be highlighted and explained.
```

```
[tab] - Auto-completes
```

```
[space] - Auto-completes, or if the command is already resolved inserts a space.
```

```
If "<cr>" is shown, that means that what you have entered so far is a complete command, and you may press Enter (carriage return) to execute it.
```

```
Use ? to learn command parameters and option:
```

```
fortipolicy-um> show n?
```

```
Show ntp peering configurations
```

history

Description	Display the current session's command line history
Mode(s)	Basic Support
Syntax	history
Parameters	None
Example	The following example displays the command line history. fortipolicy-um> history

ping

Description	Send messages to network hosts.
Mode(s)	Basic Support
Syntax	ping
Parameters	<p>ip Send ICMP IPv4 messages to network hosts (default)</p> <p>ipv6 Send ICMP IPv6 messages to network hosts</p> <p>arp Send ARP requests to a neighbour host</p> <p>String Hostname or IP-address to ping</p>
Example	<p>The following example sends a ICMP IPv4 message to the network hose.</p> <pre>fortipolicy-um> ping ip</pre>

reboot

Description	Reboot the system.
Mode(s)	Basic Support
Syntax	reboot
Parameters	forcefsck
Example	<p>The following example runs a force file system check on reboot.</p> <pre>fortipolicy-um> forcefsck reboot</pre>

resize

Description	Resize console to terminal size.
Mode(s)	Basic Support
Syntax	resize
Parameters	[integer] Number of lines
Example	<p>The following example returns command line history for the current CLI session.</p> <pre>fortipolicy-um> resize 80 25</pre>

restart services

Description	Restarts FortiPolicy services.
-------------	--------------------------------

Mode(s)	Basic Support	
Syntax	restart services <param> ?	
Parameters	all	restart services all
	MPStore	restart services MPStore []
	Factory	restart services Factory []
	LogForwarder	restart services LogForwarder []
	uServiceCoordinator	restart services uServiceCoordinator []
	TLS	restart services TLS []
	EnvInit	restart services EnvInit []
	LocalAccess	restart services LocalAccess []
	CertificateAuthority	restart services CertificateAuthority []
	PlatformKeyManager	restart services PlatformKeyManager
	VirtualComm	restart services VirtualComm
	Compiler	restart services Compiler
	FaultArchiver	restart services FaultArchiver
	FaultLogger	restart services FaultLogger
	KeyMgr	restart services KeyMgr
	Inspect	restart services Inspect
	ContainerEngine	restart services ContainerEngine
	ServiceInit	restart services ServiceInit
	Platform	restart services Platform
	ConfigMgr	restart services ConfigMgr
	SystemReady	restart services SystemReady
	AnalyticsVisualizer	restart services AnalyticsVisualizer
	PlatformStore	restart services PlatformStore
	RemoteAccess	restart services RemoteAccess
	ConfigUpdate	restart services ConfigUpdate
	GraphMiner	restart services GraphMiner
	Passage	restart services Passage
	OX	restart services OX
	ContainerUpdater	restart services ContainerUpdater
	LocalLogger	restart services LocalLogger
	Cron	restart services Cron

```
HealthMgr          restart services HealthMgr
PolicyMgr          restart services PolicyMgr
TimeSync          restart services TimeSync
DPInit            restart services DPInit
KernelLogger      restart services KernelLogger
AnalyticsStore    restart services AnalyticsStore
Cerebrum          restart services Cerebrum
ContainerStore    restart services ContainerStore
Flow              restart services Flow
HostInit          restart services HostInit
StatusScreen      restart services StatusScreen
EventMgr          restart services EventMgr
IoP               restart services IoP
ContainerSync     restart services ContainerSync
MDTX              restart services MDTX
NetworkMgr        restart services NetworkMgr
MessageBus        restart services MessageBus
CC                restart services CC
TC                restart services TC
SI                restart services SI
```

Example

The following example restarts all FortiPolicy services.

```
fortipolicy-um> restart services all
```

set

Description	Sets several FortiPolicy system configurations.	
Mode(s)	Basic Support	
Syntax	set <param> ?	
Parameters	default	Sets configuration to default parameters
		Sets user login password
		You are required to wait 1 day in between each password change.
		At the prompts, enter the current and new passwords.
	login <password>	Current password:
		ex:
		# set login password
		# current: *****
		# new: *****

	<p>support [enabled disabled]</p>	<p>Enable or disable restricted shell access. ex: set support {enabled [maxdays n]} disabled}</p>
Example	<p>The following example sets default logging for all FortiPolicy components.</p> <pre>fortipolicy-um> set login</pre> <p>The following example enables a FortiPolicy restricted shell support session access; you will be prompted to enter a Verification Code, One Time Password (OTP) and Shared Secret:</p> <pre>fortipolicy-um> set support enabled</pre> <p>The following example sets the support account expiration date from the default (1 day) to the maximum allowed 14 days.</p> <pre>fortipolicy-um> set support enable maxdays 14</pre> <p>The following example disables support account access:</p> <pre>fortipolicy-um> set support disabled</pre>	

shell

Description	Displays the FortiPolicy restricted shell provided you have set up support account access with a Verification Code, OTP and Shared Secret.
Mode(s)	Basic Support
Syntax	shell
Parameters	None
Example	<p>The following example drops the session to the restricted shell.</p> <pre>fortipolicy-um> shell</pre> <pre>*****</pre> <pre>Accessing FortiPolicy Support Shell - Unauthorized access prohibited.</pre> <pre>*****</pre> <pre>Support Verification Code (v3): *****</pre>

show

Description	Displays FortiPolicy system configuration information.
-------------	--

Mode(s)	Basic Support	
Syntax	show	
Subcommands and Parameters	<p>arp</p> <p>cluster members</p> <p>dns [primary secondary tertiary domain search]</p> <p>log file [last n]</p> <p>log user [last failed successful]</p> <p>ntp [peers]</p> <p>services [serviceName]</p> <p>support [keys status]</p> <p>system [boot-messages connections interfaces processes resources routes storage time uptime users virtual-memory] <last n></p>	<p>Displays ARP cache entries</p> <p>Displays cluster member information</p> <p>Displays DNS server information</p> <p>Displays {last number of saved} log files</p> <p>Displays last, failed or successful user(s)</p> <p>Displays NTP associations</p> <p>Displays all services states or a specified service state; see also restart services on page 13</p> <p>Displays support account Shared Secret and OTP keys status</p> <p>Displays system settings.</p> <p>Ex:</p> <pre>show system users show system resources</pre>
Example	<p>The following example displays the support account status:</p> <pre>fortipolicy-um> show support status</pre> <p>Locked: no</p> <p>Expired: no (expires 2018-6-13)</p> <p>Shell: enabled</p> <p>OTP: configured</p> <p>Status: enabled</p> <p>The following example displays the last log file for error messages.</p> <pre>fortipolicy-um> show log file /var/log/messages last 1</pre> <p>2018-06-12 00:59:17, 358 (none) syslog.err rsyslogd: cannot connect to 10.1.1.1:10514: Connection refused</p>	

[v8.33.1 try http://www.rsyslog.com/e/2027

The following example displays services that are DOWN or UP and running.

```
fortipolicy-um> show services
CertificateAuthority [DOWN]
ConfigUpdate -----[UP]
ContainerEngine-----[UP]
...
```

The following example requests display of the last 10 system boot messages.

```
fortipolicy-um> show system boot-messages last 10
```

ssh

Description	Specifies the IP address to which an SSH connection should be made. Note: After an SSH session to the FortiPolicy-UM, you can use the CLI to jump to the backend servers. For cloud deployments (or where you use SSH keys), you will need to setup ssh-agent on your originating SSH client machine.
Mode(s)	Basic Support
Syntax	ssh {reset-host-key} <IP Address>
Sub-commands & Parameters	ssh <IP Address> ssh reset-host-key <IP Address>
Example	The following example sets the IP address for an SSH connection. fortipolicy-um> ssh 10.2.2.3 The following example resets the IP address for an SSH connection. fortipolicy-um> ssh reset-host-key 10.2.2.4 NOTE: Do not to use this command by default; best to use only when your DNS resource pool has rotated.

top

Description	Returns to the default Basic Mode CLI session from the restricted shell or other view modes.
Mode(s)	Support

Syntax	top
Parameters	None
Example	The following example returns the FortiPolicy CLI session to the default CLI view. fortipolicy-um> top

test

Description	Test commands.
Mode(s)	Basic Support
Syntax	test
Parameters	None
Example	The following example tests the commands. fortipolicy-um> test

traceroute

Description	Tracks and prints the route packet path to a network host.	
Mode(s)	Basic Support	
Syntax	traceroute	
Parameters	ip	Send ICMP IPv4 messages to network hosts (default)
	ipv6	Send ICMP IPv6 messages to network hosts
	arp	Send ARP requests to a neighbor host
	String	Hostname or IP-address to ping
Example	The following example traces and displays the packet path to network host 10.1.1.4. fortipolicy-um> traceroute ip 10.1.1.4	

